100% CIRCULAR & RENEWABLE
100% Circular & Renewable

### Overview

#### 100% Circular & Renewable

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#### STAGE A

**CIRCULAR DESIGN**

- To build circularity into the design process
  - To become circular* on 80% of the store concepts by 2025.
  * As defined in the Circular Assessment Tool developed together with the Ellen MacArthur Foundation.
- Co-developed a tool to assess the circularity of our non-commercial goods in collaboration with the Ellen MacArthur Foundation.
- Ran regular training for design and buying office on sustainable material use.
- Our design and buying departments created Conscious Exclusive, C/O Cheap Monday Capsule Collection, Closed Loop 2016 collections
- Launched Conscious Beauty line.

#### STAGE B

**OUR CHOICE OF MATERIALS**

- To use 100% recycled or other sustainably sourced materials* by 2030.
  * Additional.
- Collaborated with the Cradle to Cradle Production Innovation Institute: Fashion+ and the circular innovation working group.
- Kicked off research project with the Ellen MacArthur Foundation and Stockholm Resilience Centre focusing on creating vision and a pathway a circular textile fibre industry within planetary boundaries.
- Worked with the canopy style initiative, our man-made cellulose supply chain and internally to ensure fibre producer and brand compliance with our policy.

- 26% of our total materials were either recycled or sustainably sourced.
- Second largest user of recycled polyester equivalent to 180 million PET bottles.
- Second largest user of Tencel® Lyocell.

**COTTON**

- To use 100% cotton from sustainable sources* by 2020.
  * Including certified organic, recycled and Better Cotton (BCI).
- Commissioned a life cycle assessment study to understand the impact of closing the loop recycling on cotton.
- The largest user of Better Cotton.
- Second largest user of organic cotton.
- 43% of our cotton comes from sustainable sources.*
  * Certified organic cotton, Better Cotton (BCI), or recycled cotton.

**ANIMAL-BASED MATERIALS**

- To achieve full traceability of animal-derived materials and only source from responsible farms with good animal husbandry.
  - To use 100% Responsible Wool Standard (RWS) certified wool in our products by 2022.
  - To use 100% Responsible Down Standard (RDS) certified down by 2016.
- Supported the development and launch of the Responsible Wool Standard in a project led by the Textile Exchange.
- Introduced the standard to our supply chain and established links down to the farm level.
- Began integrating tanneries into sustainability assessments, covering social and environmental requirements.
- We are the largest user of Responsible Down Standards (RDS) certified down.
- We source 100% RDS certified down as of January 2016.
- 100% of our key wool tier suppliers (or 70% of our product volume in wool) have been briefed on the new responsible wool standard.
- Approx. 25% of our second tier suppliers have completed the Content Claim Standard (CCS) for RWS.
  * The CCS is the claim of sustainability certification used for all Textile Exchange standards. It is used to verify wool through the entire supply chain.
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### STAGE C
#### SUSTAINABLE PRODUCTION PROCESSES

**CHEMICALS**
- To achieve zero discharge of hazardous chemicals, in any of the H&M group's production procedures by 2020.
  - Received Green Screen hazard assessment training.
  - Engaged in the EU public consultation on the restriction of certain hazardous substances in textiles and clothing.
  - Hazardous Substance Control (HSC) training launched at suppliers.
  - Launched the environmental emission evaluator (E cube/BVE3) a measurement and monitoring tool from Bureau Veritas in 2016.
  - The H&M group became part of the ChemSec business group.
  - Ran a hazardous substances training pilot for 93 business partners in China, Bangladesh, Indonesia, India, and Turkey.
  - 29 business partners have joined the environmental emission evaluator (E cube/BVE3).
  - Awarded avant-garde grading in Greenpeace detox assessment.

**WATER**
- To manage water responsibly across our value chain.
  - To complete installation of water-efficient equipment in our own operations by 2020.
  - Renewed partnership with the WWF for five more years. It now includes climate action in addition to water stewardship.
  - Continued updating our roadmap for water risk mitigation.
  - Worked with fabric mills involved in making about 56% of our products in our business partner assessment systems to improve their environmental footprint.
  - Moved the Taihu basin water stewardship programme in China from a pilot to a project.
  - Continued to work with the Sustainable Textile Water Initiative to improve water management in factories.
  - All of our denim products are scored using Jeanologia’s Environmental Impact Measurement tool.
  - 82% of business partner factories are in full compliance with wastewater quality requirements as defined by the BSR.
  - Together with business partners we used 2.3 million m³ less water due to our water saving programmes.
  - 8,234 workers were trained in four regions (Bangladesh, China, India and Turkey) on water, energy and resource efficiency.
  - 75 factories participated in cleaner production programme i.e. STWI/PaCT in four regions.
  - Half of our denim products were ranked at highest level (green) using Jeanologia’s tool.
  - 51% of H&M group stores, offices and warehouses have water-efficient equipment.
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  - 51% of H&M group stores, offices and warehouses have water-efficient equipment.

### STAGE D
#### PROLONGING THE LIFE-SPAN OF OUR PRODUCTS

**CARE AND REPAIR**
- To encourage customers to prolong the life-span of products.
  - Launched extended garment care information online.
  - Clever care labels are now included on all of our textile products.

**REUSE AND RECYCLING**
- To use materials from collected garments in our products.
  - Continued to launch products and collections made in closed loop recycled and upcycled materials from collected garments. Both at H&M brand and Cheap Monday.
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**GARMENT COLLECTING**
- To increase the volume of collected garments to 25,000 tonnes per year by 2020.
  - Beat our target to collect 1,000 tonnes of garments globally during the World Recycle Week campaign.
  - Donated surplus income from our H&M garment collection programme to the H&M Foundation, which invests in the HKRita and social projects.
  - Collected more than 15,888 tonnes of garments (29% increase from 2015).
  - Between 2013 and November 2016, we collected almost 39,000 tonnes of garments.
  - 71% of our stores have recycling systems, up from 61% last year.
# 100% Circular & Renewable

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| **CLIMATE POSITIVE** | To become climate positive throughout our value chain by 2040. | - Initiated goal and strategy implementation throughout the organisation. | ENERGY EFFICIENCY  
- Updated our ambition to a new, more ambitious goal. This new goal means stores constructed in 2030 will be 40% less energy intensive compared to stores constructed with the 2016 framework. |

### WITHIN THE H&M GROUP
- To reduce energy use in our own operations by 25%* by 2030, with 2016 as a baseline.  
- To use 100% renewable electricity in our own operations.

### ACROSS OUR VALUE CHAIN
- To achieve a climate neutral supply chain (first and second tier) by 2030. Milestones on the way:  
  - 20% of factories enrolled in an energy efficiency programme by 2018.  
  - 30% greenhouse gas reduction per product by 2025 compared to 2017 baseline.  
  - 100% of factories enrolled in an energy efficiency programme by 2025.

### RENEWABLE ENERGY
- Added purchase of I-REC certificates.  
- Supported the construction of a wind park in Sweden through our GO2 engagement. (To be up and running in mid-2017).  
- Installed solar panels on some of our own buildings. This includes several distribution warehouses and one of our IT parks. We are looking at ways to expand this initiative.  
- Started collaboration with a Power Purchase Agreement (PPA) broker in US to initiate a long-term PPA.

### ENERGY EFFICIENCY
- Electricity intensity (using less electricity per square meter sales area) has been reduced by 8% compared with 2007 baseline.

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| - We source 96% of our electricity from renewable sources. This includes methods such as purchase of certificates recognised by GHG Protocol (GO, REC and I-REC) and our own generation of renewable electricity.  
- We have reduced our CO₂ emissions by 47% compared to previous year. | | ENERGY EFFICIENCY  
- Reduced GHG emissions through supplier energy efficiency programmes in Bangladesh, China, India and Turkey. (See results in the next text box). |

### RENEWABLE ENERGY
- Initiated renewable energy workshops in Bangladesh and India to support suppliers’ investments in renewable energy.

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| - Resource savings made on supplier level:  
  - nearly 30 million kWh  
  - nearly 8 million tonnes natural gas  
  - nearly 1.5 kilo tonnes coal  
  This is a total combined reduction of over 200 kilo tonnes greenhouse gases.** | | |

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* Calculated as kWh/m² and opening hours  ** All data has been verified and endorsed by our project partners STWI and International Finance Corporation (IFC). Independent consultants appointed by our project partners assessed, verified and reported the savings of every factory at the end of the project.
100% Circular & Renewable

Introduction

Our planet sustains us, but our global demand for resources is outstripping supply. Today, it would take 1.5 planets to support our lifestyles. If we continue along the same track, we will need the equivalent of 2.3 planets by 2050.* In part, this is because the global middle class is expected to increase by over three billion people in the next two decades, which will inevitably lead to an increase in consumer demand. And, like today, everyone will want clothes that keep them warm and dry as well as help them express who they are and what they stand for.

This is the job that fashion performs. Today, fashion is a huge, complex industry but at its core, it’s still about turning raw materials (such cotton grown on a farm) into products. Our customers buy the products they like, use them, and then dispose of them when the time is right.

This system is known as a linear model and it is the norm for nearly every other industry. But, looking ahead, this model is placing increasingly unsustainable demands on our world. It uses up too many natural resources, and does it in a way that disrupts our environment. If we want our industry (not to mention our planet) to survive and for people to consume in a sustainable way, we must rethink how our products are made and enjoyed.

The solution is to bring about a global shift from a linear to a circular system. In a circular model, resources stay in use for as long as possible, before being recovered and regenerated into new products and materials. This is the only way our industry will be able to operate to its fullest potential, while staying within our planet’s boundaries. See box on p. 37.

There is also a strong business case for the H&M group to make this shift. For example, the price of raw materials is

*footprintnetwork.org
## Planetary boundaries explained

A group of scientists* has developed a concept to help us understand the complex and interlinked ecological systems that sustain life on earth. Using this concept, the group has proposed a framework of nine ‘planetary boundaries’ that define a safe operating space for humanity. Each boundary is set at a ‘safe’ distance from a dangerous level or potential ‘tipping point’ and include, for example, fresh water use, biodiversity loss and species extinction, and climate change.

The scientist report that if we stay within these boundaries, life on earth has a good chance of continuing as usual. But if we cross them, we risk abrupt and irreversible environmental changes that could be very damaging or even catastrophic for society. Because of human activity, we have already crossed four out of nine boundaries, and we are in imminent danger of crossing others.

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* This study was conducted by a group of earth system and environmental scientists led by Johan Rockström from the Stockholm Resilience Centre and Will Steffen from the Australian National University. For information see stockholmresilience.org

* mckinsey.com

> predicted to rise as global shortages lead to greater competition.* Securing our own supply channels will help keep us profitable in the long-term. A circular approach will also help us build more efficiency into our current system and it will increase the value of our products, both because it removes the increasingly unpredictable cost of extracting resources and because it means we can reuse and upcycle products. While at the same time contribute to responsible consumption and production (SDG12), see more on p. 117. This will help keep us profitable in the long-term.
At the H&M group, part of our sustainability strategy is to become 100% circular and renewable. By decoupling the growth of our business from our resource use, we can continue to provide good, fair jobs and sustainable products for millions of people for years to come. And we can help bring about a similar shift across the rest of our industry.

To achieve this, we are taking a holistic approach to becoming circular and renewable. This means rethinking how we design and make our products (including our water, chemical and energy use), what materials we choose, and how our customers use and dispose of them. This holistic approach also means finding ways to significantly reduce our climate impact. Our goal is to achieve a Climate Positive Value Chain – an entire value chain that creates a net positive impact on the climate by 2040. See more on p. 57.

We also need to create new and stronger partnerships, and continue collaborating with stakeholders along our value chain – including our suppliers and our customers. Together, we will need to find innovative solutions to key challenges including how to fully recycle blended fabrics and how to help our suppliers access renewable energy and minimise their environmental footprint. Many of our key partnerships will help us address complex issues that connect to multiple focus areas. For example, our strategic collaboration with the WWF addresses both climate and water issues.

GOALS
As explained in our Vision & Strategy chapter, we are working with experts – both internally and externally – to set goals that keep pushing us towards 100% circularity and, wherever possible, we are following a science-based approach to define our targets and actions.

Goal-setting is an ongoing process. These goals represent the initial key milestones along the way to achieving our vision of 100% Circular & Renewable on a global group level.
100% Circular & Renewable

100% Circular

CIRCULAR DESIGN
- To become circular* on 80% of our store concepts by 2025.

OUR CHOICE OF MATERIALS
- To use 100% recycled or other sustainably sourced materials** by 2030.
- To use 100% cotton from sustainable sources by 2020, including certified organic, recycled and Better Cotton (BCI).
- To use 100% Responsible Wool Standard (RWS) certified wool in our products by 2022.
- To use 100% Responsible Down Standard (RDS) certified down by 2016.

SUSTAINABLE PRODUCTION PROCESSES
- To achieve zero discharge, of hazardous chemicals in any of the H&M group's production procedures by 2020.
- To complete installation of water-efficient equipment in our own operations by 2020.

PROLONGING THE LIFE-SPAN OF OUR PRODUCTS
- To increase the collected volume of garments to reach 25,000 tonnes annually by 2020.
- To have store waste and recycling systems at 100% of our stores.

* As defined in the Circular Assessment Tool which has been developed together with the Ellen MacArthur Foundation
** H&M brand, materials include certified organic, recycled and Better Cotton (BCI)
***Calculated as kWh/m² and opening hours with 2016 as a baseline.

100% Renewable

CLIMATE POSITIVE
- To become climate positive throughout our value chain by 2040.

CLIMATE POSITIVE: WITHIN THE H&M GROUP
- To reduce electricity use in our stores by 25%*** by 2030.
- To use 100% renewable energy in our own operations.

CLIMATE POSITIVE: ACROSS OUR VALUE CHAIN
Climate neutral supply chain (first and second tier) by 2030, with the following key milestones:
- 20% of factories enrolled in an energy efficiency programme by 2018.
- 100% of factories enrolled in an energy efficiency programme by 2025.
- 30% greenhouse gases reduction per product by 2025 compared to 2017 baseline.
100% Circular & Renewable

100% Circular

The vast majority of today’s production models are linear and rely on a finite supply of natural resources. This is unsustainable for the long-term future of our planet – and for the future of our business.

To become 100% circular, we are taking a circular approach to how our products are made and used, and finding ways to use only recycled or sustainably sourced materials. This means building circularity into every stage of our value chain, including the products we make (both commercial and non-commercial), and the materials we use in our operations.

“A circular economy is restorative and regenerative by design and aims to keep products, components and materials at their highest utility and value at all times.”

ELLEN MACARTHUR FOUNDATION

Becoming 100% circular

STAGE A
Design

STAGE B
Materials

STAGE C
Production processes

STAGE D
Use

This is our circular approach to how our products are made and used. We have identified four stages to address: Stage A – Circular design, Stage B – Our choice of material, Stage C – Sustainable production processes and Stage D – Prolonging the lifespan of our products.
Great design is core to our business. We want to make sustainable, good-quality fashion accessible to as many people as possible. Design is an essential tool that allows us to do this. We have our own teams of designers, who create unique products that our customers love. To fulfill our vision, we need to build more circularity into the design process for our products, as well as for our stores and offices. This means we will look at how design can be used to expand product lifespan, for example, through greater durability and quality, as well as designs that allow for reuse and recyclability to decrease our environmental footprint.

Within our stores and offices, we want to increase circularity. To be able to achieve our goal, we will focus on material choices and design to make our non-commercial goods more efficient to use, reuse and recycle. Our focus will be on decreasing the overall landfill rate created by store rebuild and closed. We offer sustainable fashion in all of our brands. For the H&M brand, these products are labelled with our Conscious label. This includes fashion basics as well as collections with high fashion content. These products are made using approved conscious materials and/or processes that are better from an environmental perspective (i.e. materials that are produced with less water, fewer chemicals, and with care for the soil and natural habitats, such as organic cotton), and verified as sustainable by a third party.

- In 2016, we have set an overall goal that at least 80% of our store concepts should be circular* by 2025. This goal is developed for non-commercial goods and includes a roadmap with selected priorities leading to a circular approach. Together with the Ellen MacArthur Foundation, we have developed a tool to assess the circularity of our non-commercial goods, such as our store interiors. The tool will be used from 2017 onwards and aims to increase the sustainability of the non-commercial goods we buy. The tool will also support our dialogue with suppliers, helping us increase awareness of circularity in their products and processes.

- We regularly train our design and buying office on sustainable material use. We have a specific Conscious Material Course that covers the why and the how of our work with materials approved as ‘conscious’, as well as a company strategy for sustainable material use.

- Our design and buying departments created Conscious Exclusive, C/O Cheap Monday Capsule Collection, Closed Loop 2016 collections. These collections are an example of how our design can be used to expand a product’s lifespan or allow for reuse and recyclability.

- The H&M brand launched its new Conscious Beauty range of organically produced products for skin, hair and body in March 2016.

*As defined in the Circular Assessment Tool which has been developed together with the Ellen MacArthur Foundation.
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Stakeholder interview with Cradle to Cradle Products Innovation Institute

Name: Lewis Perkins  
Title: President  
Organisation: Cradle to Cradle Products Innovation Institute

What does Cradle to Cradle mean, and how does it connect to a circular economy?

The circular economy is based on the concept of keeping products – and their constituent materials – within a continuous, regenerative cycle of use and reuse. Cradle to Cradle design, and, in turn, the Cradle to Cradle certified product standard, offer a continuous improvement process for product design and manufacturing to help companies innovate and make materials and products for the circular economy.

What is Fashion+?

Fashion+ is a collective of brands, designers and suppliers who are working together to identify, optimise and innovate materials for use in the fashion industry, verify those materials according to the Cradle to Cradle Certified product standard, then make those materials available for fashion industry use.

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What else can the H&M group do to fulfill our vision to become 100% circular and renewable?

Continue to collaborate with our institute! And work with other brands to help drive material innovation and Cradle to Cradle standards more deeply across the entire supply chain.

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What else can the H&M group do to fulfill our vision to become 100% circular and renewable?

Continue to collaborate with our institute! And work with other brands to help drive material innovation and Cradle to Cradle standards more deeply across the entire supply chain.
Choosing more recycled or sustainably sourced materials for our products is another vital step to become 100% circular and close the loop on fashion. We have been working with recycled and sustainably sourced materials for many years. In the 90s, H&M sold one-off collections using organically grown cotton and in 2004, we began selling garments made from certified organic cotton in certain baby and children’s garments. Today, we are one of the biggest users of recycled and sustainably sourced materials*, all of which are third-party certified.** According to the Textile Exchange Preferred Fiber Market Report, the H&M group is the second biggest user of organic cotton, recycled polyester, wool, cashmere and plastic. In the long term, we want to turn all products that can no longer be used into new materials and products. Today, this is not possible because the technology for recycling is limited. For this reason, the share of recycled materials in our products is still relatively small.

SUSTAINABLY SOURCED MATERIALS
Sustainably sourced textile materials can either be grown naturally or cultivated, but must also be renewable through natural processes within a reasonable amount of time. Sustainably sourced materials should also have the potential to be recycled. The sustainability profile of sustainably sourced materials must be verified as better by a third party (e.g. through a Life Cycle Assessment report, Higg MSI Tool, or MADE-BY fibre benchmark).

To accelerate our journey towards recycled or other sustainably sourced materials we are creating demand for solutions and working with innovators and scientists, including Worn Again, HKRITA and the Circular Innovation Working Group that aim to close the loop and enable recycling of all types of textile fibres. See more on p. 43.

We use a wide range of sustainably sourced materials, including organic materials such as cotton, linen, hemp, jute and silk, Tencel®Lyocell and third-party certified down, rubber, wood, Better Cotton and wool.

Case study: The HK Research Institute of Textiles and Apparel (HKRITA)
In addition to the H&M group initiatives, the non-profit H&M Foundation and The Hong Kong Research Institute of Textiles and Apparel (HKRITA) have entered a four-year partnership to develop the required technologies to recycle blended textiles into new fabrics and yarns.

The technology will be licensed widely to ensure broad market access and maximum impact. Apparel and textile products made from blended materials account for a high proportion of all textiles and apparel in the market today. And yet no commercially viable separation, sorting or recycling technologies are available for many of the most popular materials, such as cotton and polyester blends.

This work is being financed through the surplus income from our garment collecting initiative.
Choosing only recycled or other sustainably sourced materials

Our goal is to use 100% recycled or other sustainably sourced materials by 2030*.

In 2016, 26% of our total materials fit this description. As we move towards our goal, we will focus on prioritising the use of recycled materials and complementing them with materials that have been sustainably sourced.

- We need to understand how to make better choices about the materials we use and understand their impact – from farm and factory to customer use. To get this insight, we used LCA** data when evaluating materials, together with third party verified data (such as the MadeBy fibre benchmark or the Higg Materials Sustainability Index***).

- We are collaborating with the Cradle to Cradle Products Innovation Institute on a project called Fashion+. This brings together brands, designers and suppliers to identify, optimise and innovate sustainable materials for use in the fashion industry, and then work to make them widely available. See more in the interview with the Institute on p. 42.

- In 2016, we also initiated a research project with the Ellen MacArthur Foundation and Stockholm Resilience Centre that looks at how a circular textile fibre industry can operate within planetary boundaries. This collaboration also supports our ambition to use a science-based approach in all our sustainability work.

- We are the second largest user of recycled polyester. In 2016, we used recycled polyester equivalent to more than 180 million PET bottles. Recycled polyester is made from PET – the same material as in clear plastic water bottles – and requires significantly fewer chemicals and less energy and water to make. Recycling these bottles also prevents them from going to landfill.

- We are the second largest user of Tencel®Lyocell (also known as Lyocell****). Lyocell is produced in a closed-loop system and has a lower environmental impact than other man-made cellulosic fibres. We use Tencel®Lyocell with a range of other recycled and sustainably sourced materials.

* H&M brand. **LCA assesses the impact of a product at every stage of its life from raw material extraction to materials processing, manufacturing, distribution, use, repair and disposal. ***These benchmarking tools compare the environmental impact of different fibres used in the fashion industry and help brands make more sustainable choices. See for more information made-by.org and apparelcolution.org. ****Tencel® is a brand owned by fibre manufacturer, Lenzing. The generic name for the material is Lyocell. The H&M group considers only Tencel® manufactured by Lenzing as a conscious material.

* Included are all materials classified as conscious materials, such as certified organic or recycled fabrics, as well as Better Cotton (BCI).
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sustainably sourced materials in our products.

Viscose is a man-made fibre typically made from tree pulp. We teamed up with the NGO Canopy and several other leading brands to ensure any viscose we buy (or similar fibres) does not contribute to the deforestation of ancient or endangered forests. During 2016 we have continued to work with the canopy style initiative, our man-made cellulose supply chain and internally to ensure fibre producer and brand compliance with our policy to source all of our manmade cellulose fibre and fabrics from forests that are neither ancient or endangered by the end of 2017.

COTTON

Our goal is to use 100% cotton from sustainable sources by 2020, including certified organic cotton, Better Cotton (BCI) or recycled cotton.

In 2016, we commissioned a Life Cycle Assessment study to understand the impact of closing the loop by recycling cotton. The study showed that by using recycled cotton fibre instead of virgin cotton fibre, we can reduce climate and water impacts by 80–90% for the stages up to when the fibre is ready for spinning. Unfortunately, it is not currently possible to use more than 20% recycled cotton from collected garments in a product (because of quality issues), but we are investing in technology to overcome this challenge.

The H&M group was one of the founding partners of the Organic Cotton Accelerator (OCA) which was launched in 2016. The OCA is a foundation created to accelerate the organic cotton market and find solutions to issues that the industry is facing. Organic cotton is grown without synthetic pesticides, fertilizers or genetically modified organisms (GMOs). By working together and by growing supply and demand, the OCA aims to create a prosperous organic cotton sector for all, from farmer to consumer.

In terms of volume, we are the largest user of Better Cotton according to the BCI in 2016. Better Cotton is grown in a more sustainable way. This means using fewer chemicals, less water and working with farmers to provide education in ‘smarter farming’. Better Cotton provides a positive business case both for the farmer and for business. The BCI exists to improve global production of Better Cotton for the people who produce it, for the environment it grows in and for the future of the sector. The H&M group was one of the founding members of the BCI in 2005. Today the BCI has 1.5 million licensed farmers and Better Cotton accounts for 11.9% of global cotton production.

Please note: Material data has been restated due to the fact that historical data has been updated using a new, more detailed system. We are continuously working to improve our data systems and accuracy. An independent assurance statement related to GRI 301-1 is provided on page 119. Deviations are due to rounding effects.

*In partnership with external experts, we recently conducted a Life Cycle Assessment to compare the overall environmental impact of recycled cotton (gathered from garment collecting) and conventionally sourced cotton. The most relevant comparisons were between water footprint and climate impacts. [See Better Cotton's Life Cycle Assessment report.]*

**BCI Annual Report 2015, see: bciannualreport.org**
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> ANIMAL-BASED MATERIALS

Because we use some animal-based materials in our products, animal welfare is an important part of our sustainable sourcing strategy. We are committed to having a positive impact on animal welfare, both in our value chain and across the entire textile industry. Our long-term ambition is to achieve full traceability for all of our animal-derived materials and only source from responsible farms with good animal husbandry. For example, through our work with the Responsible Down Standard and the Responsible Wool Standard, we can ensure that we source these materials in a sustainable way. We are also actively looking for new, innovative non-animal alternatives.

Besides using animal-based materials in our products, we also believe that no animals should be used for testing of cosmetics, and we do not accept animal testing on any cosmetic products, either during production or on finished products.

**Down**

- According to the Textile Exchange's Preferred Fiber Market Report 2016, the H&M group is the world’s largest user of down certified by the Responsible Down Standard (RDS).
- From January 2016, 100% of the down in our products has been RDS-certified.

**Wool**

- In 2016, we helped develop the Responsible Wool Standard in a project led by the Textile Exchange. We are now working to get RWS-certified wool into our supply chain. See case study p. 46.
- 100% of our key second tier suppliers (which covers 70% of our product volume in wool) have been briefed on the new responsible wool standard.
- Approximately 25% of our second tier spinners have completed the Content Claim Standard (CCS)* for RWS.

**Leather**

Together with the industry, we want to work towards a more transparent leather supply chain. Our long-term goal is to use only leather from known and well-managed sources that act on environmental, social and animal welfare issues. Looking ahead, our work will now focus both on closer integration of leather tanneries into our supply chain management systems and improved material traceability and to collaborate with others to long-term secure the entire leather supply chain, all the way down to the farm level. In parallel, we will keep exploring innovative non-animal leather materials that have all the benefits of leather, but none of the risks.

- In 2016, we began integrating tanneries into our sustainability assessments, covering social and environmental requirements. All tanneries that supply the H&M group must comply with our chemical requirements.
- In 2016, we began integrating tanneries into our sustainability assessments, covering social and environmental requirements. All tanneries that supply the H&M group must comply with our chemical requirements.

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Case study: Setting the standard for wool

Wool is an amazing fibre. It’s incredibly strong and insulating, and our customers love to wear it. It represents only about 1% of our total fibre use, but it is still important that we source it in a responsible way – and that we encourage other brands to do the same.

In 2014, after failing to find a global animal welfare standard for wool, we contacted the Textile Exchange to see if they were interested in leading the development of a global wool standard in collaboration with us, and other brands and stakeholders. Two years later, the Textile Exchange launched the Responsible Wool Standard (RWS) – the only global animal welfare standard developed specifically for wool.

The RWS aims to improve animal welfare, incentivise best practice and ensure full traceability in wool production. We are now working to get RWS-certified wool into our own supply chain. Our goal is to use 100% RWS-certified wool in all of our products by 2022.

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*The CCS is the chain of custody certification used for all Textile Exchange standards. The CCS is used to verify the wool through the entire supply chain.*
We spoke to Anne Gillespie, Director of Industry Integrity, about the Responsible Wool Standard (RWS) and the H&M group.

What are the most challenging animal welfare issues facing the fashion industry today?
Animal welfare issues exist in relation to all of the Five Freedoms* and the greatest risks vary depending on the type of animal and geographical region. The biggest challenge is to ensure that these Five Freedoms are being thoroughly and consistently met throughout the supply chain. Long, complex supply chains, multiple stakeholders and lack of transparency and traceability, make this challenge even harder.

How can a standard like the RWS help overcome these challenges?
The RWS is a neutral, third-party standard that can be used by the entire industry to ensure that animal welfare needs are being consistently met. It also provides brands with a powerful way to communicate their expectations along their supply chain right back to the farms. Furthermore, it provides a global benchmark for best practice in both animal welfare and land management.

What role did the H&M group play developing the RWS?
The H&M group was the catalyst for the RWS to begin with, and is now the leader in its application. By making a strong and public commitment to use certified wool, the H&M group provides a clear goal for other brands, and sends a strong signal to farmers and the wool industry that this standard is important.

What would you like to see from the H&M group in the future in regards to animal welfare?
The H&M group already has a strong animal welfare policy. I would love to see the H&M group make third-party verification of the Five Freedoms and traceability a goal for all their fibres.

*The Five Freedoms are recommendations on animal welfare set out by the World Organisation for Animal Health (OIE) in their Animal Health Codes and the Farm Animal Welfare Committee (FAWC).
100% Circular & Renewable

STAGE C
Sustainable production processes

To close the loop on fashion, we need all of our production processes to be sustainable. The third part of our journey to a 100% circular and renewable value chain involves looking at how we can further develop our work around sustainable production processes, including chemical management and water use.

Chemical management

Chemicals occur naturally in everything – water, air, soil and our bodies. They are a part of everyday life, and critical to every process on the planet. We use chemicals to make clothes and they are an important part of many garment production processes, such as washing and dyeing textiles. Some chemicals common to the fashion industry are known to be hazardous and risk harming our environment, customers and workers. Our goal is to lead the way towards zero discharge of hazardous chemicals in our own supply chain and across the fashion industry.

One of the ways we are doing this is through our work with the Zero Discharge of Hazardous Chemicals group (ZDHC), which brings brands together to improve chemical management practices. Together with other committed ZDHC brands we are actively involved with a range of stakeholders (including governments, industry associations, NGOs, scientists and representatives from the chemical industry) to raise awareness of industry standards and work collaboratively for progress. For more information, visit:

> sustainability.hm.com

- In 2016, a team of H&M group chemists has undergone training in Green Screen hazard assessment, a robust and transparent scientific method of identifying chemicals of high concern and suggesting safer alternatives.

- The H&M group became part of the ChemSec* business group in 2016 – a collaboration between companies to inspire the industry to use fewer toxic chemicals. The collaboration develops effective corporate practice and, by sharing case studies and success stories from its members, raises awareness across the industry and pushes for better legislation.

- Strong chemical legislation helps strengthen our message to our supply chain and stakeholders. During 2016, we were actively engaged in the EU public consultation** on the restriction of certain hazardous substances in textiles and clothing. We have also endorsed the restriction of the use of CMR (carcinogenic, mutagenic, or toxic for reproduction) substances in consumer products.

- In 2016, we ran a Hazardous Substances Control training pilot for 93 suppliers in China, Bangladesh, Indonesia, India, Pakistan and Turkey. We compared the assessment results before and after the training and saw a significant improvement in areas relating to chemical risk identification and chemical monitoring through technical information.

- We received an “AVANT-GARDE” grading in Greenpeace detox assessment in 2016, which means that we are a detox-committed company that is ahead in the field leading the industry towards a toxic-free future with credible timelines, concrete actions and on-the-ground implementation. For more information, visit:

> greenpeace.org

* chemsec.org ** Article 68(2) of Regulation EC No 1907/2006 (REACH)
Water stewardship

As with other natural resources on this planet, our access to water is limited. Due to our increasingly water-intensive lifestyles and rapidly growing population, water management is crucial to maintain welfare and ecosystems. This is particularly true in areas already facing water risks – including South and subcontinental Asia, where many of our suppliers are based. Our two most significant water sources for our wet-process suppliers are located in areas with high water risk on the deltas of Brahmaputra (Bangladesh) and Yangtze (China).

To fulfil our vision of 100% circularity and renewability, we must take action to manage water responsibly across our value chain. We recognise that the biggest impacts come from outside of our own operations so, to be effective, we must take an integrated approach with local industries and decision makers.

We have been collaborating with the WWF since 2011, and our partnership has played a fundamental role in our work on water stewardship issues along our value chain.

“To fulfil our vision of 100% circularity and renewability, we must take action to manage water responsibly across our value chain.”
100% Circular & Renewable

OUR APPROACH
Most water strategies focus on how much water is used and disposed of. In contrast, our approach is connected to holistic water management on the basins level. This factors in the sources of water that are being drained (which accelerates water scarcity and decreases water quality), as well as the local impacts, such as depletion of fish stocks and threat to livelihoods. In collaboration with the WWF we are exploring the development of context based target settings. Furthermore, we have identified access to water as a salient human rights issue, since water usage affects people and their livelihoods.

Outside of our operations, we are working with our suppliers and governments to create the change needed to manage water responsibly across our value chain. We are proactively engaging with a broad group of stakeholders that goes beyond our traditional areas of influence. One of our key aims is to strengthen water governance. This includes ensuring that regulations are properly monitored and enforced, that water-related government bodies have clear mandates and that businesses, farmers and community members are fully included in decision-making on water. For example, we are already acting on this in China, and, as representatives on the National Steering Board of Bangladesh Water Multi-Stakeholder Partnership and partners of the 2030 Water Resources Group, we are trying to achieve similar action in Bangladesh. We are also supporting a WWF project in Turkey and looking at other areas where this kind of approach would be suitable.

The second largest water footprint in our value chain comes from customer use. We provide our customers with information on climate-friendly ways of caring for clothes, to empower them to use less water and change their habits in the long-term.

While our operational water impact is small compared to the lifecycle impact of our products, it still matters. For example, we are installing water-efficient equipment across our own operations, which will be completed by 2020 (see table on p. 52). We are also harvesting rain water and raising awareness amongst employees, and we are committed to continually improving the compliance rate of our suppliers when it comes to wastewater quality requirements.

* That is human rights at risk of the most severe impact across our operations and supply chain, and where our company therefore has a particular opportunity to leverage progress for related sustainable development goals.
Our partnership with the WWF

We have been collaborating with the WWF since 2011 on water stewardship issues along our value chain. This collaboration has been strengthened over the years. During this time we have developed a strategy for water stewardship that targets the following five key themes:

1. Building water awareness within the company, supplier factories and amongst our customers.

2. Measuring water impact and risk within our stores, warehouses and supplier factories.

3. Improving the use of water within our stores, warehouses and supplier factories.

4. Increased focus on collective action, for example, our river basin engagements in China.

5. Increased focus on government influence. We are currently scaling up the Industrial Park project from our previous partnership, as well as bringing in other brands, to further impact water use amongst suppliers in Industrial Parks in China.

Below are our water actions in 2016 along our value chain and within our own operations:

- At the beginning of 2016, we renewed our WWF partnership for another five years. It now also covers climate action and our influence over our industry’s broader sustainability challenges.

- We are continuously working with partners to help our fabric producers improve their environmental footprint, which also includes water management and impact assessment data. In 2016, we worked with fabric mills involved in making 56% of our products (2015: 50%, 2014: 35%) in our supplier assessment systems.

- In China, we moved the water stewardship programme in the Taihu Basin from a pilot into a project. This is a collaboration that proactively engages stakeholders to improve basin governance. For example, we are engaging with the government on the need to address water challenges with improved legislation.

- We continued to work with the Sustainable Textile Water Initiative (STWI) to...
implement sustainability guidelines that will improve water practices in factories connected to our business. Together with our business partners the combined result of our water saving programmes has saved 2.3 million m³ water.

- A total of 8,234 workers were trained in four regions (Bangladesh, China, India and Turkey) by the STWI on water, energy and resource efficiency.

- A total of 75 factories participated in our cleaner production programme through STWI and PaCT partnerships in four regions. The cleaner production programme aim is to reduce environmental impacts that result from traditional practices in textile wet processing, particularly excessive groundwater extraction and surface water pollution. It also includes energy and chemical use. See more on PaCT and SWTI.

- In 2016, 82% of our supplier factories were in compliance with the BSR requirements (see graph). We apply the Business for Social Responsibility (BSR) Water Group’s quality definitions, which in many locations go well beyond legal requirements. We have included these standards in our Sustainability Commitment with the aim to reach full compliance.

- Since 2015, we have scored all of our denim products using Jeanologia’s Environmental Impact Measurement tool. This third-party tool helps us and our suppliers measure, set targets and reduce water, energy and chemical use in our denim production. About half of all our denim products reached the highest ‘green’ level in 2016, which means that they used a maximum of 35 litres of water per garment during the treatment processes.

- 51% of H&M group stores, offices and warehouses have water-efficient equipment installed. We aim to install water-efficient equipment across all of our operations by 2020.

“Water management is crucial to main welfare and ecosystems.”
A large part of the environmental impact of a product comes from its ‘use phase’. For the H&M group, it is important to ensure our products that are used for as long as possible, and that our customers can care for them in a sustainable way. Our aim is to avoid waste wherever possible and minimise what goes to landfill. In the long term, we are working hard to find a solution for reusing and recycling all textile fibres for new use.

There are a number of ways we can influence our customers to act more sustainably while using and disposing of our products. This includes providing information about long-life care, encouraging customers to use products for longer, and empowering them to reuse and recycle rather than throw away.

CARE AND REPAIR
We help our customers look after their clothes in a way that makes them last longer and that has a lower impact on the environment:

- All of our garments have the Clever Care label included in their washing instructions. This label provides information on how our customers can reduce the environmental impact of our products after the garments leave our stores, for example by washing at lower temperatures and by hang drying instead of using a tumble dryer. For more information, visit: clevercare.info

- In 2016, we have also launched an extended garment care information page online. This information helps customers care for their clothes in a way that makes them last longer, including making simple repairs and washing less.

REUSE AND RECYCLING
We want to use more materials from the garments we collect in our products. We work in several different areas when it comes to the reusing and recycling our products. Through our garment collecting initiative, we collect unwanted clothes from our customers and give them a new life through reuse or recycling.

- We have invested in the Swedish start-up Sellpy, which offers an on-demand service that helps people sell clothes and other items online.

- We make and sell products using post consumer textile waste and we both have regular products and special collections made from collected garments in our assortment. For example, the H&M brands Close the Loop collection launched in September 2016. We also upcycle second hand garments into new ones with the Cheap Monday Capsule collection.

* With the exception of our franchise markets. Other brands within H&M group (Weekday, Cheap Monday, Monki, & Other Stories) offer garment collection to customers now as well.

GARMENT COLLECTING
Garment collection is an easy and accessible solution to decrease textile waste and save precious natural resources that works for customers and for our business. Our garment collecting initiative is made possible through our global partnership with I:CO a solutions provider for clothing and shoes reuse and recycling. The H&M brand started collecting old clothes and home textiles, from any brand and in any conditions, for reuse and recycling on a global scale in 2013 in its stores around the world, from any brand and in any condition.* Our & Other Stories brand also collects product waste in store. See case study on p. 54.

- We have developed and set a new goal for garment collecting in 2016. Our new goal is to increase collected volumes to reach 25,000 tonnes annually by 2020. In 2016, we collected 15,888 tonnes of garments (a 29% increase from 2015 and a 107% increase from 2014). Between the start of the initiative and November 2016, we collected more than 39,000 tonnes of garments.

- In April 2016, we ran a campaign called World Recycle Week, and beat our target to collect 1,000 tonnes of garments globally in a single week. The initiative

* With the exception of our franchise markets. Other brands within H&M group (Weekday, Cheap Monday, Monki, & Other Stories) offer garment collection to customers now as well.
allowed us to speak directly with our customers about how they dispose of their clothes and raise awareness about why avoiding landfill through reuse and recycling is important and necessary. This is just one part of the puzzle to reduce the amount of clothing that end up in landfill.

– We continued to donate all of the surplus income from our garment collection programme to the H&M Foundation, which split it between projects focused on equality and inclusion of marginalised groups, and recycling research with the Hong Kong Research Institute of Textiles and Apparel (HKRITA). Between 2013 and November 2016, we collected almost 39,000 tonnes, which resulted in donations of EUR 780,000. Examples of these include:

  – The social projects, initiated by the H&M Foundation focus on improving equality and inclusion of people in marginalised groups. In addition, for each kg of textiles that the H&M group collects, EUR 0.02 will be donated to a local charity organisation – Charity Star.

  – The H&M Foundation has also partnered with HKRITA to develop technologies for recycling clothes made from textile blends into like-new fibres. See case study on p. 43.

STORE WASTE AND RECYCLING

Being 100% circular also means addressing our own store waste and recycling. While much of the waste generated in our stores is sent to our warehouses and recycled from there, we want to make sure that the remaining waste is handled in the best possible way. We are focusing our efforts on the most common types of waste - cardboard, plastic and paper.

Much depends on existing recycling systems in the country or region where our stores are located. While these can pose challenges locally, over the last year we further increased the share of stores that have recycling systems for these types of waste to 71% (2015: 61%, 2014: 58%, 2013: 47%). Our aim is to further increase this share and ultimately reach 100%.

Case study: Beauty recycling at & Other Stories

We maintain a sustainable approach across our beauty products. For example, customers can recycle & Other Stories beauty packaging by returning any beauty containers to the store and get a 10% thank-you-treat.

We use standard packaging for the H&M group’s beauty products and use of paper to a minimum by printing all necessary information on product boxes instead of on a separate folder.
### 100% Circular & Renewable

#### 100% Renewable

The science is clear: climate change is happening, and it’s happening because of humans. Most climate experts (as well as governments, businesses and NGOs) agree that the release of greenhouse gases is causing global temperatures to rise. Unchecked, this change will lead to disastrous outcomes, including a dramatic rise in sea levels and an increase in the number and severity of extreme weather events.

In December 2015, countries from around the world gathered in Paris for COP21* and agreed that to avoid this threat, we must do whatever it takes to limit global warming to 2 degrees Celsius or preferably well below that. Most governments have now submitted their climate plans but despite unprecedented levels of commitment and mobilisation they are not enough. We have to do more to keep our climate stable. As a large business with a unique scale and reach, we have a responsibility to go beyond simply cutting our emissions. We have to work to meet the needs of the planet. This means setting an example in our own operations, driving change along our value chain, and help leading our entire industry towards its transformation. We can only achieve a 100% circular model if the system is powered by sustainable, renewable energy.

"We can only achieve 100% circular model if the system is powered by sustainable, renewable energy."

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*The 21st Conference of the Parties for the UN’s Convention on Climate Change.*
In 2016, we reduced our emissions further by 47% compared to 2015.

<table>
<thead>
<tr>
<th>Year</th>
<th>Carbon Emissions per Million SEK Sales Turnover Incl VAT (Constant Exchange Rate)</th>
<th>Total CO₂e Emissions* To Previous Year In % (Scope 1+2) vs. Growth in Sales (In Local Currencies)</th>
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<tr>
<td>2012</td>
<td>2.04t</td>
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<td>2013</td>
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<td>2014</td>
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<td>2015</td>
<td>0.69t</td>
<td>2015: 7%</td>
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<tr>
<td>2016</td>
<td>0.36t</td>
<td>2016: 11%</td>
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</table>

* Our GHG emissions accounting and reporting is aligned with the GHG Protocol. Reported CO₂e emissions are based on supplier specific emission factors where available. For further details and data, please see our CDP Climate Change Investor Response 2016. CO₂e emissions include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆). An independent assurance statement related to GRI 305-1 and 305-2 is included here on p. 119.
Becoming Climate Positive

The H&M group is committed to a Climate Positive Value Chain by 2040.

Climate change is a key challenge for any industry, including fashion. To address it, we need to change the way products are produced and enjoyed. We want to support this transformation by making our value chain climate positive – all the way from cotton farms to our customers’ washing machines. This means removing more greenhouse gas emissions from the atmosphere than our value chain is responsible for – making it climate positive.

We have been involved with a number of expert scientific organisations to develop our strategy. With the help of the WWF Climate Savers, we have gained insight and expertise empowering us to design our long-term strategy. Using a science-based approach, we have established short-term milestones that address our own operations and value chain. The strategy contains three key priorities to achieve a climate positive value chain by 2040 at the latest.

PRIORITY 1
Leadership in Energy Efficiency
We are committed to reducing the needs for energy across our value chain. This includes the energy need all the way from when the raw material is produced to our customers when caring for the products.

PRIORITY 2
100% Renewable Energy
We are committed to maximizing the use of renewable and sustainable energy throughout our value chain. We want to support the transition into renewable energy for the whole world by using renewable energy ourselves and helping our suppliers and customers to transition to fossil free energy.

PRIORITY 3
Climate Resilience and Carbon Sinks
We aim to strengthen the planet’s natural systems to support stability in its ecosystems and climate. We need to identify operative measures to reduce existing greenhouse gases in the atmosphere to ensure we are decreasing the pressure on global warming. Our ambition is to reduce more greenhouse gases than our value chain is responsible for.

To achieve this, we need to address many challenges along the way, such as worldwide access to viable renewable energy and innovation that enables the efficient uptake of CO₂. This will require collaboration. We will only succeed if we engage all participants along our value chain, from governments and suppliers to our colleagues and customers. Within our supply chain, our goal is to achieve a climate neutral supply chain for first tier and second tier suppliers by 2030. This will require both energy efficiency and a transition to renewable energy.

We are encouraging and empowering our suppliers to become more energy efficient and use renewable energy. Ultimately, we want to pave the way towards a truly sustainable fashion industry and demonstrate that climate positive fashion is possible.
Stakeholder interview WWF – Global Partner

**Name** Manuel Pulgar-Vidal
**Title** Leader, WWF’s Climate & Energy Practice

Why has the WWF teamed up with the H&M group to address climate change?
Businesses influence the world. The WWF seeks to transform businesses into leaders of the low-carbon economy and ensure they become part of the solution. The H&M group is the second largest fashion retailer in the world, and has great potential to address both its own direct environmental impacts, and to realise positive change within its value chain and the clothing industry. It can lead by example within the sector and the business community.

How has the WWF supported the H&M group in developing its Climate Positive Strategy?
The H&M group wanted to develop a long-term climate positive strategy for their value chain. We helped them create a 2040 strategy and the pathways to achieve it. We also helped define shorter-term milestones under the WWF’s Climate Savers programme. Together, we developed ambitious science-based targets for the H&M group’s emissions until 2020. We are committed to developing their renewable energy portfolio, engagement activities on climate and energy policy, and 2020 milestones on addressing impacts with the value chain.

What are the most challenging aspects of implementing the Climate Positive strategy?
The H&M group has committed to reduce more greenhouse gas emissions than they are responsible for by 2040. This is hugely ambitious, especially considering the scale and complexity of their value chain. The most challenging aspect is therefore also within the value chain. For example, how to ensure that the H&M group’s suppliers adopt similar ambitions, how to influence customer behaviour, how to address impacts related to material needs and recycling of garments. These will all take capacity building, awareness raising, innovative approaches and overall collaboration across the H&M group’s value chain.

How can this partnership create scalable change? What importance does the H&M group’s strategy have in the industry?
Leading by example is precisely what the WWF expects from its business partners. The H&M group has fully met this challenge through its new climate strategy. Because the partnership addresses all the relevant climate aspects and focuses on both long- and short-term, the H&M group can lead the way in showing the industry what can and should be done to address climate impacts. Ambitious action always spurs on the sector.

What is unique about this partnership, and where will it be going in the next five years?
This is a transformational partnership, and aims to bring long-term sustainable change to the H&M group and the fashion industry. Because the partnership’s work spans several sustainability areas (water, climate and strategic decisions), it enables us to take a more holistic approach to address challenges and opportunities. Combining the H&M group’s size with the WWF’s global network of sustainability experts creates a strong platform for bringing that change on.

Looking ahead, I hope our partnership will inspire other brands to address their water and climate challenges – both on their own and in collaboration with others. I expect the partnership will have influenced the fashion sector in other important sustainability areas, such as future business models, landscape approaches for raw material sourcing and collaboration with other industries and customers to create a more sustainable society.
Leadership in energy efficiency

Energy efficiency is a critical yet simple concept, the optimizing of output from the smallest necessary energy input. The principle of energy efficiency must be applied across our entire value chain.

**WITHIN THE H&M GROUP**

We are committed to using less electricity per square metre of sales area, also referred to as ‘electricity intensity’. So far, we have reduced this by 8.3% against a 2007 baseline. Our original goal was to achieve a 20% reduction by 2020, but to strengthen our overall ambition to become Climate Positive throughout our value chain by 2040, we have now raised this to a 25% reduction by 2030 (with 2016 as a new baseline). This means we will reduce a further 25% beyond our current reductions.*

– To meet this goal, we have allocated more resources to improve our ways of working, identify strategic opportunities and take appropriate action. This includes continuing to work with store rebuilds, and investing in new technologies for lighting, heating, ventilation and air-conditioning (HVAC) systems.

By 2030, every store we construct will use 40% less energy per square metre than the stores we construct today.

**ACROSS OUR VALUE CHAIN**

Using less energy for more output is a fundamental part of our strategy and again, something that can be applied across our entire value chain. Within our supply chain we have committed to achieving a climate neutral supply chain for first tier and second tier suppliers by 2030. This includes both energy efficiency and transition into renewable energy. This commitment includes milestones such as:

- 20% of factories enrolled in an energy efficiency programme by 2018.
- 100% of factories enrolled in an energy efficiency programme by 2025.
- 30% GHG reduction per product by 2025 compared to 2017 baseline.
- Through supplier energy efficiency programmes in Bangladesh, China, India and Turkey we have reduced greenhouse gas emissions. During 2016, our suppliers achieved savings of nearly 30 million kWh as a result of our improvement programmes. These programmes have also supported savings of nearly 8 million tonnes of natural gas and 1.5 kilo tonnes of coal. Combined, this adds up to over 200 kilo tonnes fewer greenhouse gases emitted, which is equivalent to almost 30,000 homes’ total electricity use for a year.**

- We are also working to reduce the energy used in our logistics, transport and warehouses. For example, we have a goal to ensure that 100% of our transport service providers (TSPs) are controlled by environmental programmes.

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* Energy intensity in 2007 was 190.39 kWh/m². Please find an independent assurance statement related to GRI 302-3 on p. 119.

** Energy related to electricity based cooling consumption is included. CO₂ emissions include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆). An independent assurance statement related to GRI 302-1 is included here see page 119.

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* This new KPI also includes opening hours to allow for better internal benchmarking. ** See epa.gov. All data has been verified and endorsed by our project partners STWI and International Finance Corporation (IFC). Independent consultants appointed by our project partners assessed, verified and reported the savings of every factory at the end of the project.
100% Circular & Renewable

For land-based transport, we use SmartWay in North America and our own programme* in Europe. For shipping, our TSPs must be part of the Clean Shipping Project. These programmes allow us to measure and monitor the performance of our TSPs, and therefore set targets for improvement.

– We can also help our customers be more energy efficient in how they care for the garments they buy from us. Since 2014, all of our garments have the Clever Care label included in their washing instructions, which encourages decisions that use less energy and water. We also have information on our website to help customers care for their clothes in a less impactful way. Thanks to customers using our garment collecting initiative, we can also increase the share of recycled materials in our products which enables energy savings in our material processes. However, we know we must do more to help our customers use less energy when caring for our products.

* The programme is part of CERES – the Conscious Energy & Resource System, which measures the CO₂ emissions and waste from our operations (office, production, logistics, stores, etc).

Case study: More IT, less impact.

The H&M group’s IT department is part of our operations and it is connected to stores, offices and data centres in more than 70 countries around the world. Our IT demands grow according to our business growth (data storage grows even faster) and historically, the environmental impact of our IT has followed this growth.

Energy savings within IT such as from cash register systems, server centres and PCs, are an example of how growth can be decoupled from resource use. In the past five years, annual IT-related energy use has fallen by more than a third, despite the H&M group’s substantial expansion.
100% Circular & Renewable

Renewable Energy

Renewable energy is an essential component of cutting global carbon emissions.

**WITHIN THE H&M GROUP**

Our goal is to source 100% of our total energy in our own operations (scope 1 and 2) from renewable sources. We currently source 96% of our electricity from renewable sources, compared with 78% in 2015. This sourcing includes methods such as purchasing of certificates recognised by the GHG Protocol and generating our own renewable electricity. We use various certification schemes* to purchase renewable energy, depending on where and how we buy it. We are also exploring ways to build capacity for new sources of renewable energy ourselves.

- We have invested in GO2, an innovative project that builds on the system of Guarantees of Origin, and bundles the cost of our renewable energy usage with a contribution to new renewable energy supply. The H&M group’s engagement with GO2 in 2015 and 2016 has helped make possible the construction of a new wind park in Sweden. The Tägeröd Wind Power Plant is expected to generate 16,000 to 18,000 MWh per year.

- We have installed solar panels on some of our own buildings, including some of our distribution warehouses and one of our IT parks. We are continuing to explore how we can put additional solar panels on more of our buildings.

- We are working with a partner in the US to identify potential Power Purchase Agreement (PPA) opportunities, which would allow us to effectively finance renewable generation projects.

**ACROSS OUR VALUE CHAIN**

We are encouraging and empowering our business partners to use renewable energy. Although some partners already do, many find access to viable renewable energy limited particularly in new markets. We believe the more renewable energy the better, so we are working closely with stakeholders – including government bodies – to push for progress. For example, we have conducted workshops with our suppliers and government representatives in Bangladesh and India to push for renewable energy and identify possible ways forward.

“Renewable energy is an essential component of cutting global carbon emissions.”

*These include Guarantees of Origin (GO), Renewable Energy Certificates (REC) and International Renewable Energy Certificates (I-REC) purchases.
Climate resilience and carbon sinks

We are committed to fully eliminating greenhouse gas emissions from our own operations. However, in our value chain there will still be unavoidable emissions* despite focusing hard on energy efficiency and renewable energy. This is why we will also engage in climate resilience activities to absorb both the emissions that we are responsible for across our value chain and beyond to become Climate Positive.

Our approach is to support mechanisms that reduce existing emissions while strengthening climate resilience.** This is an area that we need to further develop and push forward in collaboration with experts. Currently, we are exploring opportunities in three areas:

1. Natural carbon sinks – nature’s existing mechanisms to absorb greenhouse gases. This could include programmes that protect valuable biomass such as rainforests or investments in more sustainable agriculture.

2. Technological carbon sinks – technological innovations to absorb existing greenhouse gases with the aim of turning them into new products and materials.

3. Reductions outside of our value chain – engagement activities that reduce greenhouse gases coming from sources unrelated to our value chain.

We urge innovators and experts in these fields to collaborate with us and like-minded partners to further develop these opportunities and strengthen climate resilience. Resilience within planetary boundaries is crucial for many reasons, including the need to address global warming and its consequences, and to safeguard global social security. This is an area that science identifies as critical for our chances to stay within the 2°C limitation.

* Unavoidable emissions are the remaining greenhouse gas emissions we create, even after a focused increase in energy efficiency and transition to renewable energy. These can include emissions from fossil-based household electricity when customers wash their clothes. ** Resilience is the planet’s natural long-term system to handle tension in order to keep the climate and ecosystems stable. For an ecosystem, such as a forest it can be the capacity to endure storms, fires or pollution. For a farmer, resilience can be tolerating pest outbreaks or climate change. Resilience is the system capacity to withstand stress and changes as well as the ability to develop essential functionality. In the long term, this means the ability to adapt. More knowledge about for example, how biodiversity and innovation can strengthen climate resilience is increasingly important to mitigate tension and manage the changes already taking place due to climate change.
According to the Greenhouse Gas Protocol, emissions can be categorised into three groups: scopes 1, 2 and 3. Scope 1 covers ‘direct’ emissions, which are defined as emissions that we – the H&M group – either own or have direct control over. Scope 2 covers ‘indirect’ emissions, from the consumption of purchased electricity. Purchased electricity is defined as electricity that is bought or otherwise brought into the organisational boundary of the company. By looking at our value chain, we can see that our own operations as a business represent a small proportion of our total emissions. We can address our scope 1 and 2 emissions through energy efficiency measures and investments in renewable energy.

A typical scope 3 emission comes from anything outside of our operations that we have indirect control over. This includes our suppliers and the producers of raw materials used in our products, as well as emissions from the use of our products, for example when our customers use washing machines.

As with many companies, the majority of the H&M group’s greenhouse gas emissions are scope 3, which means they lie outside of our own operations. To tackle this, we have carried out a thorough materiality analysis to identify the emission ‘hot spots’ along our value chain. Considering the complexity of our value chain, this type of analysis requires some assumptions for example, how many times an average T-shirt is washed in different regions of the world. To this end, we are working intensively to build systems that improve the collection and accuracy of sustainability data from our suppliers.

The main sources of greenhouse gas emissions in our value chain are fabric production, product manufacturing and use of sold products (that is, products that are used and cared for). This insight enables us to work strategically to decrease scope 3 emissions and report on our progress.* We intend to share what we have learned because we want our work to help drive change across the industry.

*Climate impacts are based on a scope 3 assessment done by Ecofys in 2016, based on 2014 data. The categories are based on GHG Protocol. Calculations in the footprint analysis are based on calculations on a combination of good quality H&M group (2014 material usage) data combined with best available public data sources on CO₂ emissions, using conservative assumptions. We are working to further improve the calculations by using primary data from our main suppliers.
100% Circular & Renewable

**TOTAL SCOPE 3 CO\text{2}e EMISSIONS**

- 11% Raw Materials*
- 6% Goods Non-Garment*
- 12% Garment Manufacturing*
- 16% Use of Sold Products
- 2% Upstream Transport
- 1% End-of-Life of Sold Products
- 2% Other Expenditures*
- 48% Fabric Production*
- 1% Other

**TOTAL CO\text{2}e EMISSIONS IN TONNES (SCOPE 1+2) - INCL. RENEWABLES**

<table>
<thead>
<tr>
<th>Year</th>
<th>Scope 1</th>
<th>Scope 2</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>301.269</td>
<td>338.389</td>
<td>639.658</td>
</tr>
<tr>
<td>2013</td>
<td>350.371</td>
<td>341.675</td>
<td>692.046</td>
</tr>
<tr>
<td>2014</td>
<td>316.833</td>
<td>310.269</td>
<td>627.102</td>
</tr>
<tr>
<td>2015</td>
<td>351.753</td>
<td>339.939</td>
<td>691.692</td>
</tr>
<tr>
<td>2016</td>
<td>341.675</td>
<td>341.675</td>
<td>683.350</td>
</tr>
</tbody>
</table>

**SCOPE 3: CO\text{2}e EMISSIONS IN KILO TONNES, INCL. ENERGY USE, TRANSPORT, DISTRIBUTION AND BUSINESS TRAVEL**

- 279kt in 2013
- 325kt in 2014
- 328kt in 2015
- 796kt in 2016

*GHG Protocol Category 1: Purchased products **Climate impacts are based on a Scope 3 assessment done by Ecofys in 2016, based on 2014 data. The categories are based on GHG Protocol. Calculations in the footprint analysis are based on calculations on a combination of high quality H&M group data combined with best available public data sources on CO\text{2} emissions, using conservative assumptions. We are working to further improve the calculations by using primary data from our main suppliers. Deviation from 100% due to rounding effects. ***Including fuel & energy related activities (0.3%), Employee commuting (0.2%), Business travel (0.0%), Waste generated in operations (0.4%), Franchises were not included in the study.

****Our GHG emissions accounting and reporting is aligned with the GHG Protocol. Reported CO\text{2}e emissions are based on supplier specific emission factors where available. For further details and data, please see our CDP Climate Change Investor Response 2016. CO\text{2}e emissions include carbon dioxide (CO\text{2}), methane (CH\text{4}), nitrous oxide (N\text{2}O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF\text{6}). An independent assurance statement related to GRI 305-1 and 305-2 is included here on p. 119.

Please find an independent assurance statement related to GRI 305-3 on p. 119. Reported scope 3 emissions include energy use, goods transport and distribution, and business travel. CO\text{2}e emissions include carbon dioxide (CO\text{2}), methane (CH\text{4}), nitrous oxide (N\text{2}O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF\text{6}). Increase mainly due to more accurate data collection and validation from our transport providers, and a slight increase in air transportation. Emission data from previous years were likely underreported and actual historic emission data is unavailable.
100% Circular & Renewable

**Key collaborations**

**BETTER COTTON INITIATIVE (BCI)**
The BCI is a multi-stakeholder initiative that aims to promote measurable improvements in the environmental and social impacts of cotton production. We are one of the founders of BCI, and one of the biggest user and financial contributors among retailer members.

**CANOPY**
Canopy works with the forest industry’s biggest customers and their suppliers to develop business solutions that protect the world’s ancient and endangered forest.

**CHEMSEC BUSINESS GROUP**
The H&M group is part of the ChemSec business group – a collaboration between companies to inspire progress and push for legislation in the reduction of the use of toxic chemicals.

**CRADLE TO CRADLE PRODUCTS INNOVATION INSTITUTE**
We are partner in the Cradle to Cradle Fashion+ collective, along with several other brands, designers and suppliers. Together, we are working to improve the sustainability and circularity of materials used in the fashion industry, see interview with the Institute on page 42.

**ELLEN MACARTHUR FOUNDATION (EMF)**
As a Global Partner of the Ellen MacArthur Foundation (a key organisation in support of circular economic systems), we are working together to explore further opportunities to apply circular economy principles.

**HUMANE SOCIETY INTERNATIONAL (HSI)**
The HSI is a global animal protection organisation. It is crucial we work together to protect animal welfare across our industry. Through a collective approach – both with Humane Society International and other stakeholders – we can push our industry forward.

**ORGANIC COTTON ACCELERATOR (OCA)**
The H&M group was a founding member of the Organic Cotton Accelerator (OCA) and is actively involved in further strengthening the supply, demand and the integrity of organic cotton. The OCA’s mission is to build a fair, robust organic cotton market that promotes transparency and traceability, and makes it easier for farmers to switch to organic production.

**MISTRA FUTURE FASHION**
The H&M group is a member of the Mistra Future Fashion programme – a research programme that has a ‘system perspective’ on the fashion industry. Its vision is to close the loop on fashion and enable a systemic change in the Swedish fashion industry.

**STOCKHOLM RESILIENCE CENTRE (SRC)**
The Stockholm Resilience Centre researches how to improve social-ecological systems, in particular their ability to deal with change and continue to develop. As part of our research project with the EMF, we are working with the SRC to find a way to create a circular fiber system that works within planetary boundaries.

**I:CO**
I:CO is a global service provider that collaborates with the H&M group to collect the garments from our garment collecting initiative in our stores.
100% Circular & Renewable

**SWEDEN TEXTILE WATER INITIATIVE (STWI)**
In 2010, the H&M group joined other major Swedish textile and leather brands and the Stockholm International Water Institute (SIWI) to launch the Sweden Textile Water Initiative. The aim of the collective was to gain a better understanding of the water challenges facing the industry and to find the right mechanisms to address them.

**TEXTILE EXCHANGE**
Textile Exchange is a global nonprofit organisation that works closely with all sectors of the textile supply chain to find the best ways to minimize the industry’s negative impacts on water, soil, air, animals and people. The H&M group has been a member of Textile Exchange since 2004.

**WORN AGAIN**
We have a partnership with the innovation company Worn Again to develop promising technologies for textile-to-textile recycling.

**WWF**
Our long-term partnership with the WWF enables us to take on a more holistic approach to address broader challenges and opportunities, going beyond water to also include climate and strategic dialogue. Starting from 2017 this partnership is now also including membership in the WWF Climate Savers.

**ZERO DISCHARGE OF HAZARDOUS CHEMICALS (ZDHC)**
The H&M group is detox-committed and an active part of the ZDHC group. This programme takes a holistic approach to tackling the issue of hazardous chemicals in the global textile and footwear value chain. Together with other ZDHC brands, we are engaging with diverse stakeholders to raise the awareness of industry standards and work collaboratively for change.