asos FASHION WITH INTEGRITY

ASOS
GREENHOUSE GAS REPORT
2016/17

Produced by

carbon smart

FOREWORD BY CEO NICK BEIGHTON

"We are ever more conscious that in order to grow sustainably in the future, we need to recognise the importance of developing the circular economy and look at how this applies to ASOS."

Nick Beighton, Chief Executive Officer

At ASOS we believe in growing our company in a sustainable way. Our 'Fashion with Integrity' programme epitomises our approach to business and has become a non-negotiable element of ASOS business strategy. Our aim is to enable our customers to enjoy fashion in the knowledge that they are buying from a responsible company that consistently works to minimise negative effects of the fashion industry on people, animals and the environment.

I am pleased to say that in the last year we have made substantial investment to grow our Corporate Responsibility, Ethical Trade, Sustainable Fabrics and Sourcing teams who work together to deliver Fashion with Integrity strategy across our products, business, customer and community programmes. This increase of skills and resource is supported by the engagement of senior colleagues across the business, ensuring that Fashion with Integrity is embedded in operational plans and woven into the fabric of ASOS.

We are ever more conscious that in order to grow sustainably in the future, we need to recognise the importance of developing the circular economy and look at how this applies to ASOS. By making a commitment to 'closing the loop', we are acknowledging the importance of decoupling carbon emissions from business growth and also reducing waste by reusing materials instead of relying on virgin materials. In 2017, we made a public commitment to this principle, which has become a focus for driving change.

This report also takes a further step towards greater business transparency in relation to ASOS' impact on climate change. We demonstrate our progress, our challenges and give examples of where we have successfully delivered positive change. The case studies in this report are testament to the dedication and ambition of our colleagues and suppliers to create a more sustainable industry.

As we look to the future, we hope to bring our customers on the journey with us, creating dialogue about how we can minimise the impact of fashion on the environment, and making it as easy as possible for consumers to make positive decisions. I know that our 20-something customers globally share our commitment to this next stage.

Nick Beighton
Chief Executive Officer, ASOS

INTRODUCTION BY DIRECTOR OF CORPORATE RESPONSIBILITY LOUISE McCABE

"The Sustainable Business group meets monthly to enable cross-business stakeholders to discuss and eliminate barriers to swifter progress on reducing carbon emissions and waste resulting from ASOS packaging, buildings or transportation of goods."

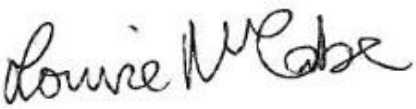
Louise McCabe, Director of Corporate Responsibility

As signatories to the UN Global Compact, we continue to support important global initiatives such as the 2030 Sustainable Development Goals. In order to deliver these we have taken steps to integrate the four pillars of our Fashion with Integrity strategy into our core business. Last year we established a series of governance groups involving stakeholders across the business selected for their expertise or influence. The Sustainable Business group meets monthly to enable cross-business stakeholders to discuss and eliminate barriers to swifter progress on reducing carbon emissions and waste resulting from ASOS packaging, buildings or transportation of goods. A central leadership committee oversees the governance structure and an Executive Director sponsors each group.

We have introduced a number of new initiatives across the business that are designed to target some of the hotspot areas identified in last year's carbon emissions report. To counter our single greatest source of carbon emissions – the transportation of goods, we have recognised the benefit of locating distribution hubs closer to customers to reduce freight movements. Our new Eurohub distribution centre in Germany now fulfils 85% of European orders (excluding the UK) and we have confirmed a new logistics hub in Atlanta, which will significantly reduce emissions associated with US orders. On transport, our goal is to be able to collaborate with our carrier partners to achieve our joint goal of reducing emissions from the transportation of goods.

ASOS is committed to increasing transparency in reporting, and in this report, we have further increased the scope and accuracy of our data, aiming to minimise the use of assumptions in our carbon emissions calculation. We have carried out a number of 'deep dive' studies including detailed work on mailing packaging and the carbon impact of our plastic bags and cardboard boxes. By updating our methodology for calculating emissions from packaging and completing life cycle analyses, we have identified opportunities for closing the loop on plastic packaging so that we can incorporate post-consumer waste directly into our supply chain. This aligns with a public commitment to the circular economy made in May 2017.

We believe that by increasing the scope, accuracy and transparency of our carbon reporting, we will continue to identify opportunities for reducing our overall impact and enable stakeholders to review our progress. We remain committed to pursuing ambitious projects for carbon reduction and engaging every area of the business in striving to decouple business growth from greenhouse gas emissions.



Louise McCabe
Director of Corporate Responsibility, ASOS

INTRODUCTION BY MANAGING DIRECTOR OF CARBON SMART BEN MURRAY

"ASOS continues to demonstrate their dedication to growing in a sustainable and ethical manner through the breadth of commitments made and projects undertaken in 2016/17."

Ben Murray, Managing Director of Carbon Smart

The publication of this, the second annual ASOS Greenhouse Gas (GHG) report, marks an excellent opportunity to reflect on the strides ASOS have made to both increase the transparency and accuracy of GHG reporting, and to ensure that the business grows in an ethical and sustainable manner. In the past 12 months, Carbon Smart have worked with teams from across ASOS to help them better understand the business's main impact areas and which interventions can be made to reduce that impact.

For example, when we identified last year that the transportation of goods accounted for over 92% of ASOS' GHG emissions, it was clear that this would need to be a primary focus for the business moving forward. That's why we undertook a study to understand and rank the performance of key carriers so that ASOS could identify and share best practice, and begin to drive change across its delivery network through supporting innovative partners. Already we are seeing these efforts bear fruit, as the average carbon intensity per delivery has fallen on 2015/16 levels.

One of the key findings of our previous analysis was that localised distributions hubs could significantly reduce GHG emissions. The hubs themselves however have a significant impact – for example, the new Eurohub is nearly 15 times larger than the previous Eurohub and inevitably uses more energy and other resources. Consequently, Carbon Smart worked with ASOS to develop a strategy to ensure that all distribution hubs were examples of best sustainability practice. The investment in renewables, such as solar at Eurohub, and the installation of energy efficiency technology, such as the LED lighting retrofit at Barnsley, demonstrate that ASOS is committed to this strategy. Again, these efforts are evident in the numbers – the relative intensity of ASOS' building emissions has fallen 30% on 2015/16 – a remarkable achievement.

The cradle-to-gate carbon footprint assessments we performed on key packaging materials highlighted the steps ASOS can take to reduce packaging-related emissions, and also demonstrated that the work already done by ASOS, such as increasing the proportion of plastic mail bags used vs cardboard boxes, has been effective. For example, packaging emissions per delivery fell 11% on 2015/16.

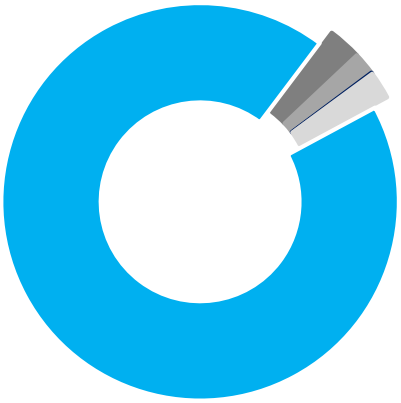
Moving into 2017/18, achieving the ambitious commitments made through the 'Fashion with Integrity' programme will require ASOS to continuing push the boundaries through innovation and collaboration. With a number of projects in the pipeline, Carbon Smart are excited to help ASOS on their journey.

Ben Murray
Managing Director, Carbon Smart

CARBON FOOTPRINT 2016/17

264,895 tCO_2e – location based

+28% on 2015/16



141.1 tCO_2e/£m — **-2%** on 2015/16

5.2 $kgCO_2e$/delivery — **-1%** on 2015/16

66.3 tCO_2e/employee — **+21%** on 2015/16

ASOS' absolute 'location based' greenhouse gas (GHG) emissions rose 28% in 2016/17. Whilst scope 1 (direct GHG from on-site fuel usage i.e. natural gas) and scope 2 emissions (indirect energy GHG used on-site i.e. electricity) both grew, the overall increase was driven primarily by a 28% increase in scope 3 emissions (other indirect GHG i.e. business travel).

The breakdown of emissions remains broadly similar to 2015/16, with nearly 98% of ASOS' emissions fall into scope 3. The remaining 2% (scope 1 and 2) is associated with energy used in ASOS' sites.

With 95% of all scope 3 emissions related to the transportation of goods (see pages 6 and 7), ASOS' absolute emissions historically tend to increase or decrease proportionally with turnover and consequently deliveries. Relative metrics therefore, such as emissions per £1 million turnover and per delivery made, offer a good indication of whether ASOS has improved the efficiency of its operations. Encouragingly both metrics have decreased, by 2% and 1% respectively, on 2015/16 levels reflecting the strides made by both ASOS and partners, such as carriers, to measure and manage the impact of business operations.

ASOS' 'market based' GHG emissions, which account for the renewable energy purchases made at key sites by ASOS, rose by 26% on 2015/16 but were 1,887 tCO_2e smaller than 'location based' GHG emissions. All figures referred to within this report are 'location based', unless otherwise stated. Please see page 7 for further information on 'market based' GHG emissions or refer to the World Resource Institute's (WRI) 'Scope 2 Guidance'.

Scope 1 – 1,189 tCO_2e	**+53%**
Scope 2 – 5,204 tCO_2e	**+7%**
Scope 3 – 258,501 tCO_2e	**+28%**

TRANSPORTATION OF GOODS

246,717 tCO_2e

93.1% of total carbon footprint

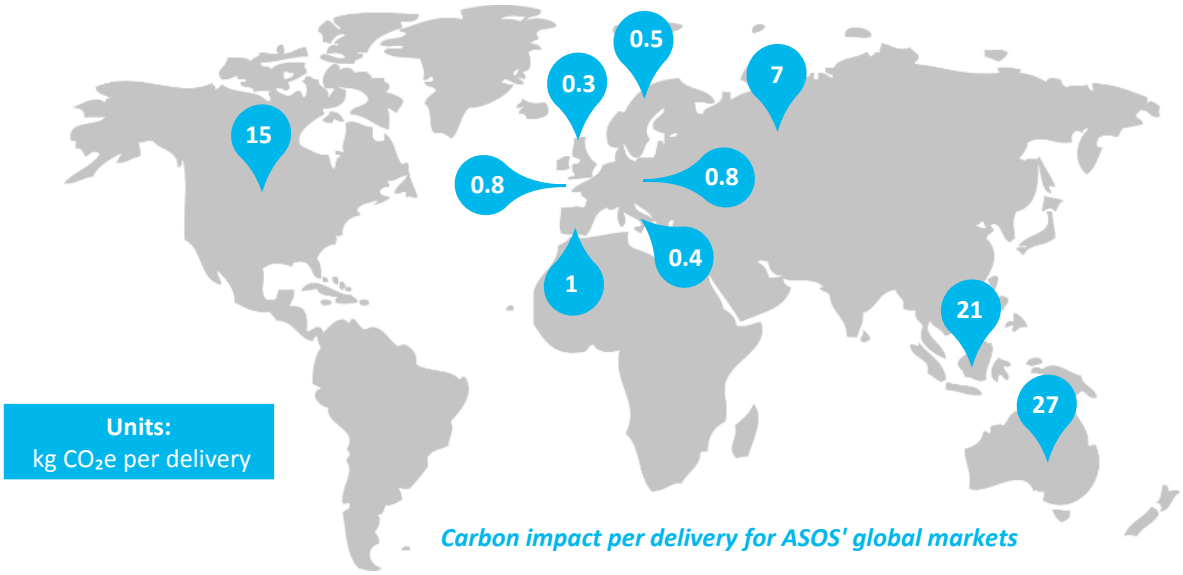
Inbound	Inter-site	Deliveries/returns
36,225 tCO_2e	**27,216** tCO_2e	**183,276** tCO_2e

2016/17 marks the second year of ASOS reporting on its total transportation of goods, with emissions rising 29% on the 2015/16 baseline for a variety of reasons.

Most significantly, the volume of goods transported increased, which inevitably led to increased transportation needs. For example, total deliveries increased by 29%, up from 39 million to 51 million.

The average parcel weight also increased by 23% on 2015/16, indicating an increase in the number of items ordered per delivery. Additionally, for several territories, there was an increase in the proportion of next day/express deliveries made, which dictates a shift from road to air transport. Invariably these changes led to increases in the carbon intensity per delivery.

Finally, changes made by carriers to delivery routes led to alterations in the transportation mode used for select territories. In some instances, for example moving from large lorries to smaller vans, the shift led to increases in the carbon intensity per delivery. Understanding where ASOS' impacts originate in this way, and how decisions influence that impact, continues to inform and underpin decision making as evidenced by a 1% reduction in ASOS' carbon intensity per delivery made.



Carbon impact per delivery for ASOS' global markets

TRANSPORTATION OF GOODS CASE STUDY

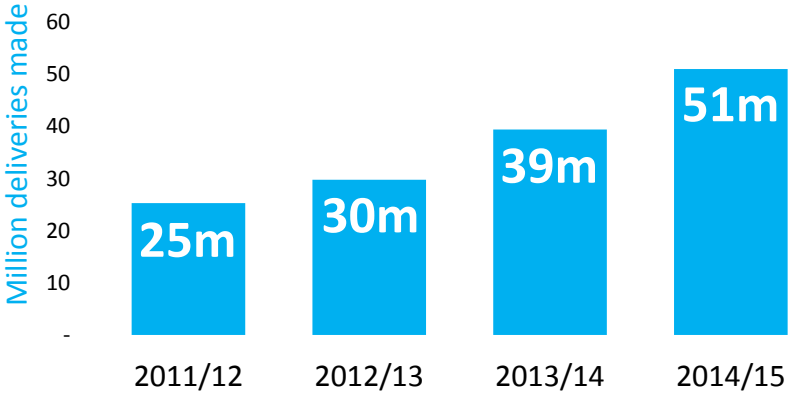
"We want to influence and help shape the future of our transport network by championing carriers who are making efforts to recognise and improve their environmental impact, whilst helping and encouraging those who are at the beginning of their greener journey."

Chloe Cane, Delivery Solutions Analyst

As the transportation of goods makes up such a large proportion of ASOS' carbon footprint, it is a priority area for the business to focus on. As these emissions are scope 3, and so are not directly in the control of ASOS, the only way of achieving a reduction in impact of this area is to engage carrier partners and work together in order to drive positive change to reduce the carbon impact of ASOS delivery emissions. In the last year, ASOS has launched a project that will fulfil this aim by engaging directly with the 30+ delivery and returns carriers that make up the global network.

ASOS wanted to understand how carriers are managing their environmental sustainability and reducing carbon impact. Based on these findings, ASOS can establish best practices, which can be shared with each of the carriers. The first step of the project therefore is to identify which carriers are already more sustainable than others. The challenge is how to determine which carriers are doing well and what information can be requested from carriers to determine their performance. ASOS is looking to collect and manage data from carriers on a regular basis so that environmental impact and progress can be measured over time. Collecting environmental data from carriers and being able to make sense of it is difficult. This is because firstly, carrier operations and business models vary and therefore cannot be compared like for like. For example, some carriers own their own fleet whereas others do not. Secondly, carriers will cover geographies and delivery modes that are by nature more carbon intensive, such as UK road freight delivery compared with US air freight delivery.

The second step is to promote good practice across the ASOS carrier network by introducing environmental considerations into the carrier selection and management process. Since starting the project, four of ASOS' carrier partners have started to set up their own carbon reduction initiative.



Total deliveries made by ASOS year on year

3.68

kgCO2e per parcel in 2016/17

3.87

kgCO2e per parcel in 2015/16

-5%

decrease on 2015/16

BUILDINGS

7,149

tCO_2e – location based

2.7%

of total carbon footprint

1.8

tCO_2e per employee

52

$kgCO_2e$ per m^2

5,254

tCO_2e – ASOS' market based building emissions

-47%

on 2015/16

-30%

on 2015/16

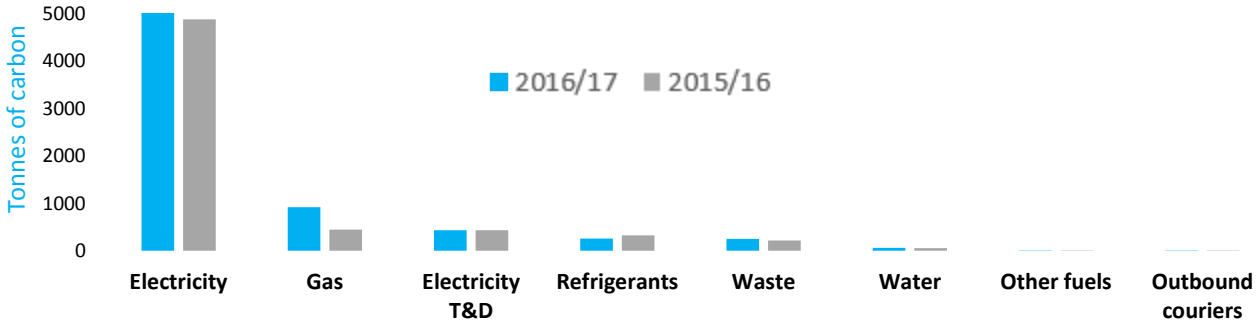
-26%

on location based building emissions

2016/17 was a significant year for ASOS' building related GHG emissions, as several new sites opened. ASOS' distribution hub in Germany, Eurohub, closed at the end of December 2016 having been replaced by a new, state of the art facility which became operational in January 2017. Whilst the new site, Eurohub 2, is nearly 15 times larger and thus consumes significantly more energy than the original, ASOS have plans to invest in on-site renewable energy systems which will go a long way to mitigating the increases in energy consumption. In August 2017, ASOS moved its customer care team from Hemel Hempstead to a new, larger facility, in Leavesden. These changes mean the total floor area occupied by ASOS has increased 59%.

Absolute GHG emissions associated with ASOS' buildings have therefore increased by 12% on 2015/16 and now represent just under 3% of ASOS' total GHG emissions. The investments made by ASOS in new, efficient buildings however is evident in the significant fall in both metrics used to track building efficiency. Emissions per employee and emissions per square metre of floor space have fallen by 47% and 30% respectively.

One further area for investment for ASOS has been the purchasing of renewable electricity at key sites. This is demonstrated by a 42% drop in 'market based' building emissions, which reflect the electricity ASOS actually purchase, on 2015/16. 'Location based' emissions, on the other hand, reflect the average emissions from electricity that is generated across the whole country.



Contribution of different emissions sources to total building emissions: 2015/16 vs 2016/17

BUILDINGS CASE STUDY

"Installing a Voltage Power Optimisation unit can significantly reduce energy use and power demand at a site; vital for reducing carbon emissions from the building. Once the full benefits of installing a unit at Barnsley are identified, ASOS hope to maximise the full energy and carbon saving potential by investing in more units."

Sam Ricketts, Senior Project Manager, XPO Logistics

ASOS has two main distribution hubs, one in the UK and one in Germany, which fulfil orders to customers all over the world. Due to the size of these premises (they have a floor plan of 48,000 sq. m2 and 63,174 sq. m2 respectively), it is important that their environmental impact is assessed and opportunities to reduce impact are identified.

One of the key areas identified for improvement at both sites is energy (the energy source and the energy efficiency). In order to tackle this, ASOS have completed an assessment of energy saving and onsite energy generation opportunities appropriate for use in a distribution centre. Following on from this assessment, ASOS is looking to introduce a Sustainable Distribution Centre Strategy so that by 2020 all new ASOS distribution centres incorporate best and next practice.

ASOS' first distribution hub in Barnsley, UK, already displays a number of the features that would make up the Sustainable Distribution Centre Strategy. For example, the site holds a third party standard called ISO 14001; an internally recognised system for environmental management which considers all environmental issues relevant to its operations, such as air pollution, water and sewage issues, waste management, soil contamination, climate change mitigation and adaption, and resource use and efficiency. In order to maintain the standard, ongoing monitoring and improvements to performance are required.

A Voltage Power Optimisation (VPO) unit was recently installed at the Barnsley site. A VPO unit is a piece of equipment that acts as a transformer to allow for a controlled reduction in the voltages received by an energy consumer to reduce energy use and power demand. The VPO means 17.5 volts of unrequired voltage supplied by the grid is not used. Based on forecasted usage, this will result in 226,402 kWh per annum energy reduction with a carbon saving of approximately 100 tonnes.

The VPO unit installed at Barnsley

BUSINESS TRAVEL

4,833

tCO_2e

1.8%

of total carbon footprint

The breakdown of ASOS' business travel, which now accounts for nearly 2% of total global GHG emissions has remained relatively similar to 2015/16, with flights making up 87% of total emissions, down from 91%, and hotels remaining the second largest contributor.

The most significant change this year is emissions from hotel stays, which rose by 101% and now account for 10% of total business travel emissions, up from 6% in 2015/16. There are two reasons underpinning this increase. Firstly, in line with business growth, the number of hotels stays in 2016/17 increased by 48% on last year. Secondly, the UK government released country-specific hotel emissions factors for the first time in 2016/17 thus increasing the accuracy with which ASOS is able to report on hotel stays. The average emission factor across all available countries used in 2016/17 is 81% larger than the global average factor used historically. This shift will provide ASOS with further information on where its greatest impacts lie and thus inform future decision making.

1.2

tCO_2e per employee

-42%

on 2015/16

18.5m

km flown

+19%

on 2015/16

The global breakdown of flights emissions has remained very similar to 2015/16, evidenced by the carbon intensity per km flown remaining static at 0.23 $kgCO_2e$ per km. The overall increase in flights emissions, which rose 18%, has been in line with an increase in the total distance flown, up 19% to 18.5 million km. This increase has been primarily driven by business growth.

CARS	FLIGHTS	TRAINS	HOTELS	TAXIS
31	4,195	91	496	20
tCO_2e	tCO_2e	tCO_2e	tCO_2e	tCO_2e

BUSINESS TRAVEL CASE STUDY

"Thanks to the Kasigau Corridor REDD+ project, we have benefited from many projects, such as classroom renovation and water tanks. It has also increased the students' enrolment tremendously and safeguarded the future of needy students by ensuring they get to continue with their education."

Colins Mwafuga, Deputy Head Teacher, Marasi Primary School

ASOS has implemented a travel policy for employees in order to reduce the emissions relating to business travel. The refurbishment of the Head Office also has a strong focus on ensuring that all of the Technology required for video conferencing is readily available and easy to use so that the need for employees to travel is limited.

In order to counteract the carbon emitted from business travel, ASOS has invested over £84,000 in carbon-offset projects in developing countries. Carbon credits are purchased relating to the removal of one tonne of existing carbon emissions from the atmosphere or the reduction of one tonne of future emissions.

This investment covers the carbon emissions produced from 3 years' worth (2015-2018) of ASOS business travel. Below are two examples of the benefit these carbon offsetting projects have on the environment but also on local people.

Kasigau corridor REDD+ in Kenya

The Kasigau Corridor is an area of tropic forest situated in the Taita Taveta District, Kenya. The project in Kasigau Corridor aims to prevent unplanned deforestation and degradation of tropical forests. The project reduces carbon dioxide emissions by protecting the tropical forest (which acts as a natural carbon sink) that would most likely be deforested to make way for agricultural land if they were not protected.

A tree in the Kasigau corridor in Kenya

Danjiang River Solar Cookers in China

Low-income households in rural China are provided with new cookers that use solar energy to produce heat. The solar cookers replace traditional cooking stoves which are inefficient and use coal. Consequently indoor air quality and living conditions of are improved and the cookers do not require fuel so the families can reduce their expenditure.

A solar cooker in rural China

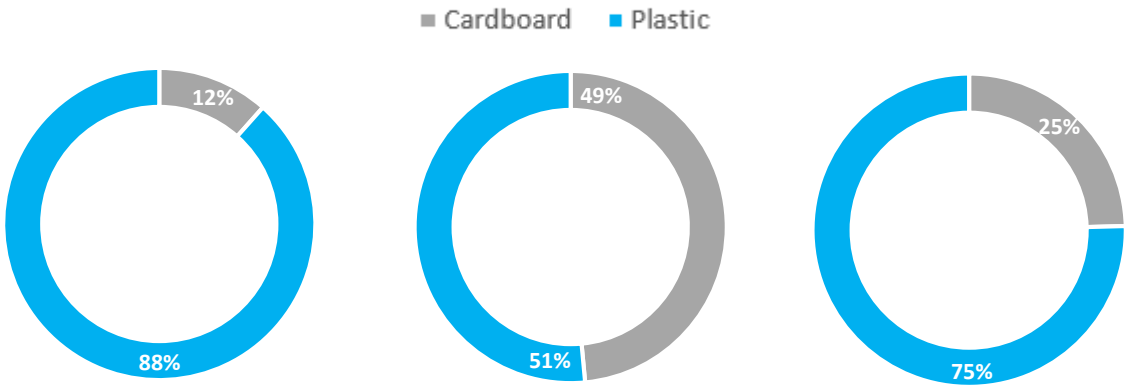
PACKAGING

5,920

tCO_2e

2.2%

of total carbon footprint



Total volume of packaging *Total weight of packaging* *Total GHG emissions from packaging*

ASOS' total deliveries continued to increase in 2016/17, exceeding 50 million for the first time. ASOS have therefore been working to understand where the major impacts associated with packaging arise. This has allowed ASOS to establish how the growth in deliveries made can be decoupled from the amount of packaging required, for example by reducing the GHG emissions associated with the packaging types selected.

Consequently, whilst deliveries increased in 2016/17, the total weight of packaging used actually decreased by 18%. This was largely due to a major reduction in the use of cardboard boxes where possible. The total weight of cardboard used fell by 39% in 2016/17. Using an increased proportion of plastic mail bags, the production of which produces 60% less GHG emissions, has therefore meant that the average packaging emissions per delivery has decreased by 11% on 2015/16. Through work done with Carbon Smart in 2016/17, ASOS now have a deeper understanding of how emissions can be reduced through simple decisions, such as using smaller bags where possible, which on average reduces emissions by 27%.

277

gCO_2e per cardboard mail bag

112

gCO_2e per plastic mail bag

PACKAGING CASE STUDY

"In 2017 ASOS introduced a Wood and Wood Pulp Sourcing Policy to ensure the sustainable use of forest commodities. Where recycled materials are not used, ASOS will request that all wood pulp materials are sourced from responsibly managed forests and give preference to fibre originating from FSC certified operations."

Jess Blincow, Corporate Responsibility Advisor

With nearly 51 million deliveries worldwide a year, packaging is a key concern for ASOS. A number of features to reduce waste have already been developed, for example; customers can use self-sealing strips on mailing bags so they can be reused to return unwanted orders.

However, ASOS identified that it was necessary to have a better understanding of the carbon impact of the key packaging materials for mailing bags, mailing boxes and garment bags. By completing cradle-to-gate carbon footprint assessments for each type of packaging, ASOS has been able to establish carbon hotpots and opportunities for improvement. With this new knowledge, ASOS is actively exploring the possibility of closing the loop on plastic packaging collected at the UK and Poland reprocessing sites by returning waste packaging to the plastics supplier that manufactures the ASOS mailing and garment bags. ASOS is also exploring whether smaller mailing bags or boxes can be used for customer deliveries, as switching to the next smallest mailing packaging can reduce the average carbon footprint (mailing bags: -27% and mailing box: -33%).

As ASOS transports stock between warehouses, transit packaging is frequently used so this is another area that ASOS is looking to make improvements. Traditionally, stock is packed onto a pallet or cage using plastic shrink-wrap before being loaded onto a lorry trailer. In one year, ASOS uses up to 9 tonnes of plastic shrink-wrap to transport stock from the UK returns reprocessing site in Selby to the UK distribution centre in Barnsley. In order to counter this, ASOS invested £26,000 in Loadhog (a reusable transit packaging solution) which in one year eliminated use of shrink-wrap and resulted in significant cost and waste savings. Each Loadhog is reusable daily for more than five years, is 100% recyclable and can increase vehicle fill as the lid facilitates secure double stacking of pallets.

ASOS invested £26,000 in Loadhog, pictured above, in 2016/17

This report has been produced for ASOS by Carbon Smart, a global sustainability consultancy working with private and public organisations on environmental and social issues.

Carbon Smart calculated ASOS' GHG emissions in accordance with the requirements of the World Resources Institute 'Greenhous Gas Protocol (revised version)', 'Environmental Reporting Guidelines: including mandatory greenhouse gas emissions reporting guidance' (Defra, 2013) and ISO 14064 – part 1.

This work is partially based on the country-specific CO_2 emission factors developed by the International Energy Agency, ©OECD/IEA 2017 but the resulting work has been prepared by Carbon Smart and does not necessarily reflect the views of the International Energy Agency.

For further information, please visit www.carbonsmart.co.uk
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If you have any questions about the report, please email cr@asos.com

Published November 2017