



Is Green Business a Contradiction in Terms?

Carolyn Roberts

Frank Jackson Professor of Environment,

Gresham College

And

Environmental Consultant





**ECO
FRIENDLY
PACKAGING**
REDUCE, REUSE, RECYCLE



**STARBUCKS™
SHARED PLANET™**
You and Starbucks. It's bigger than coffee.

**It's not just
our green dyes
that won't
harm the
environment.**

Our policy on dyeing clothes is black and white. We've banned all our suppliers from using 56 chemicals in the production process that put either their employees or the environment at risk. We also insist that all remaining dyes are removed from effluents before releasing them back into the environment. To ensure they meet our stringent standards regular factory audits are conducted. So, it doesn't matter whether our dyes are blue, red or yellow, they're as kind to the planet as the green ones.
www.marksandspencer.com

YOUR **M&S**
look behind the label



**We believe
in sustainable
fishing.
Hook, line
and sinker.**

We don't have to feed you a line about our fishing policy. All M&S products, including our sandwiches and ready meals, only contain fish from well managed stocks. This ensures the species we catch, like mackerel, will be around for generations to come. And we also support restocking schemes with local fisheries. It's these and many more initiatives that have led Greenpeace and the Marine Conservation Society to rank us top UK retailer for responsible fishing. So rest assured, there really is nothing fishy about our fish.
www.marksandspencer.com

YOUR **M&S**
look behind the label





compressed

Dove



Original

compressed



Women's
Sure

LONG-LASTING PROTECTION

cotton
ULTRA DRY

compressed

Vaseline

active fresh
48h protection

ProDerm™

100% alcohol
with skin caring ingredients

love

ARUP

Sustainability Report 2016/17

UK, Middle East & Africa Offices



WSP TO BECOME CARBON NEUTRAL BY 2025

28 June – WSP has set a target for its entire UK business to become carbon neutral by 2025.



The announcement forms part of the company's 2016 Annual Sustainability Report, published today and **available to read here**. In the report WSP sets out a series of goals for the future of the business, including:

- ☒ Become carbon neutral by 2025



ENVIRONMENT

We transform the UK's built environment and protect the natural environment, helping our clients find sustainable solutions and overcome environmental risks.

VISIT SITE



'Production that protects our world



Whose?

We make protection of our environment an integral part of our whole process from product planning and development to the recovery of end-of-life vehicles. So when we develop a new car we not only look at the whole life of the vehicle, but also at improving its final recovery.'



Volkswagen





Shell, 2017



- Anglo-Dutch company Shell created a "new energies" division and has said it intends to establish a portfolio to build on its "established strengths in low-carbon biofuels, hydrogen and smart customer solutions; as well as in solar and wind"
- In 2017, it bought a Dutch car-charging network, First Utility, a major UK energy supplier, and partnered with electric car charging firm Ionity
- Shell spent about \$200m a year on research and development compared with total capital expenditure of about \$29bn. About 0.7%
- Shell told the Daily Telegraph that they could not be expected to act against its economic interest. "I cannot invest \$15-20bn in solar and wind, which is quite often what people somehow hope us to do, and also still at same time pay a dividend," a spokesman said

BP, February 2018



- Invested \$8bn in renewables as part of its 2005-2010 "beyond petroleum" strategy, although it has since scaled back
- Biofuels business in Brazil and owns a series of large wind farms in the US (after unsuccessfully trying to sell them)
- BP now focuses on clean energy, and will invest around \$0.5bn
- 5000 staff are employed in biofuels and wind energy (2016)
- Carbon targets, including one for methane, will be announced by April 2018
- BP enjoyed its most successful year for exploration since 2004, starting six new oil and gas projects, up from five previously, in a plan to return to growth into the next decade
- Investment in renewables amount to only 3% of its \$15bn-\$16bn capital expenditure programme
- Some of the investment is in energy efficient ways of extracting more oil from the ground

BP's 'Sustainability Report (2016)

'Our goal of achieving no damage to the environment guides our actions. We consider local conditions when determining which issues would benefit from the greatest focus.'

'The energy we produce serves to power economic growth and lift people out of poverty'

'..to be a good corporate citizen and part of the solution to climate change..'

'BP provides billions in tax revenues to support public services, jobs....'

Case studies on Water, Air quality,
Biodiversity



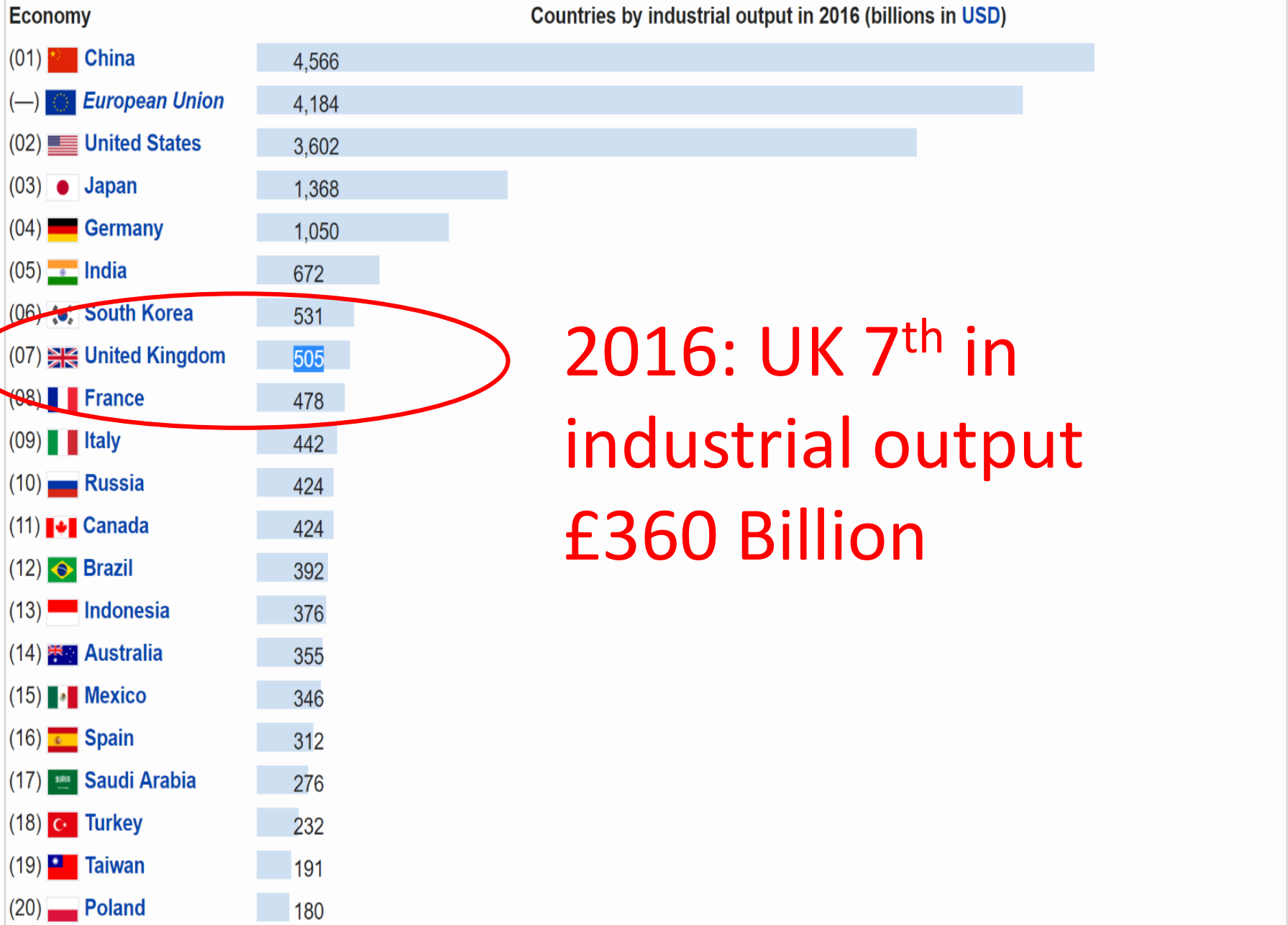




WORLDS MOST ECO- FRIENDLY OUTDOOR HEATERS

The element from MENSA HEATING is based on infrared quartz short wave, which is the most environmentally friendly solution for outdoor heating. The result is a reduction in CO2 emission between 85-89%, compared with conventional gas heaters. Furthermore the model Vireoo - Professional is equipped with motion sensors, which ensures that the tables are only turned on, when occupied.

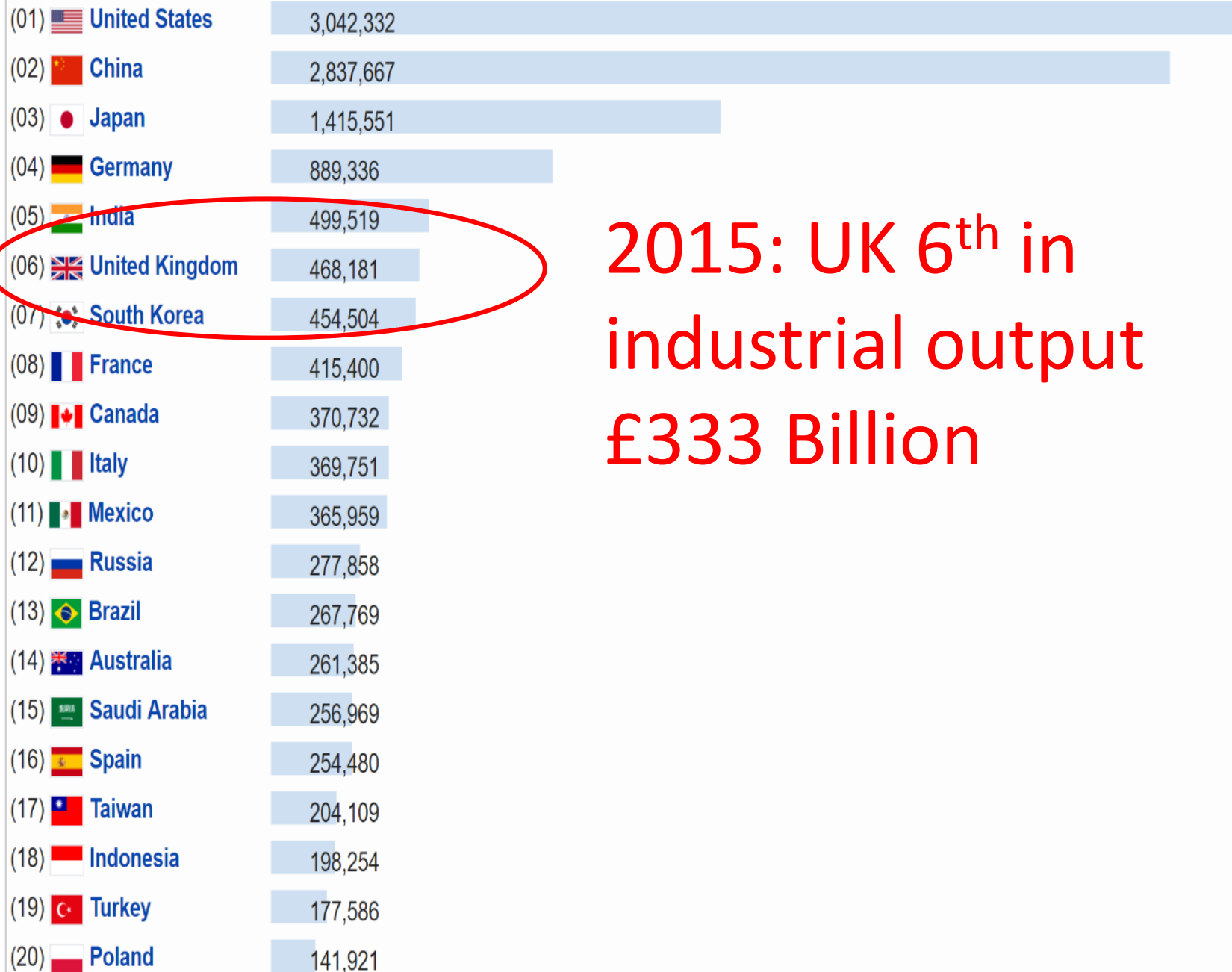
20 largest countries by industrial output according to IMF and CIA World 200book, 2016



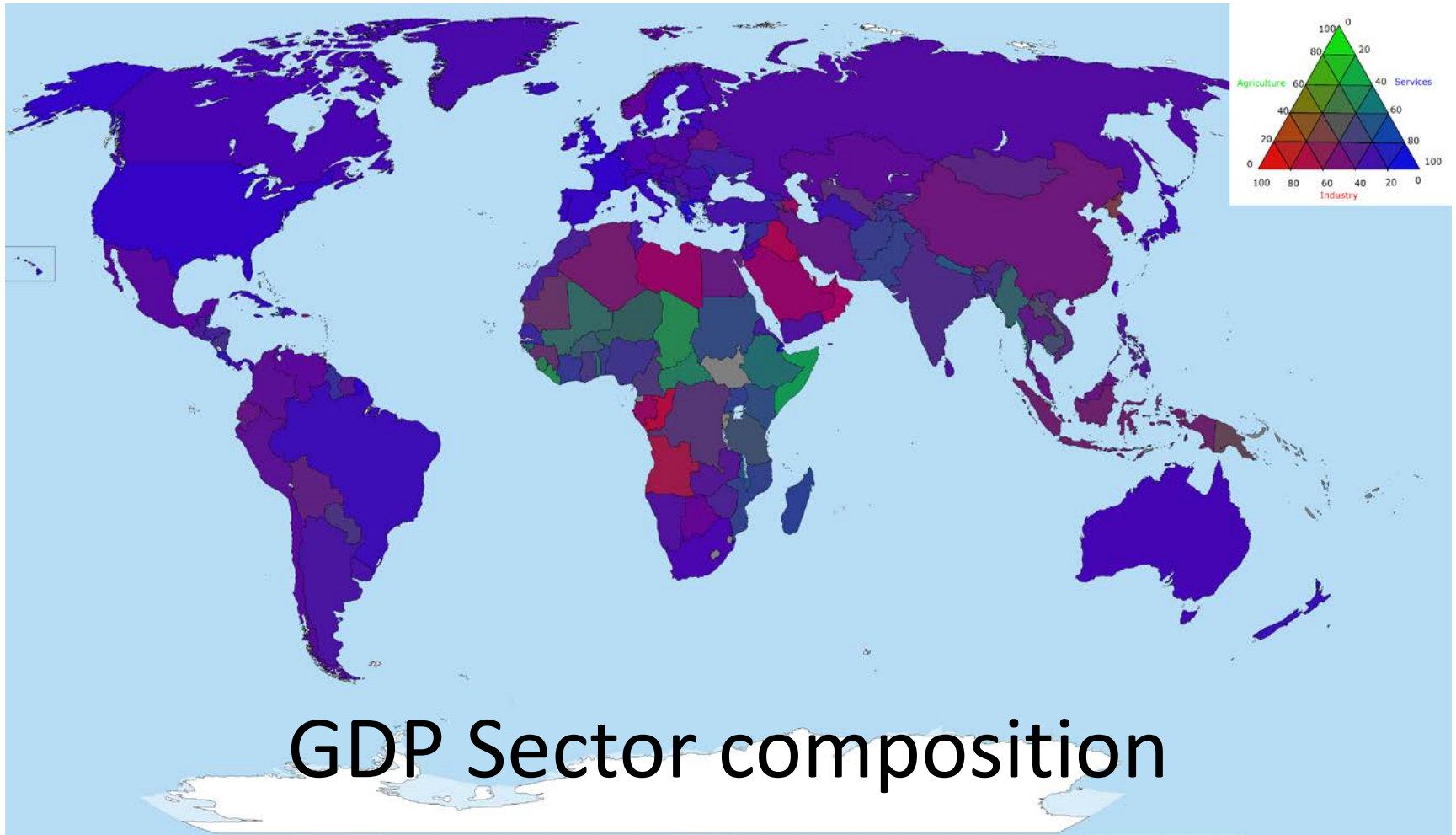
2016: UK 7th in
industrial output
£360 Billion

Economy

Top 20 countries by industrial output in 2015 (millions in 2005 constant USD and exchange rates)



2015: UK 6th in
industrial output
£333 Billion

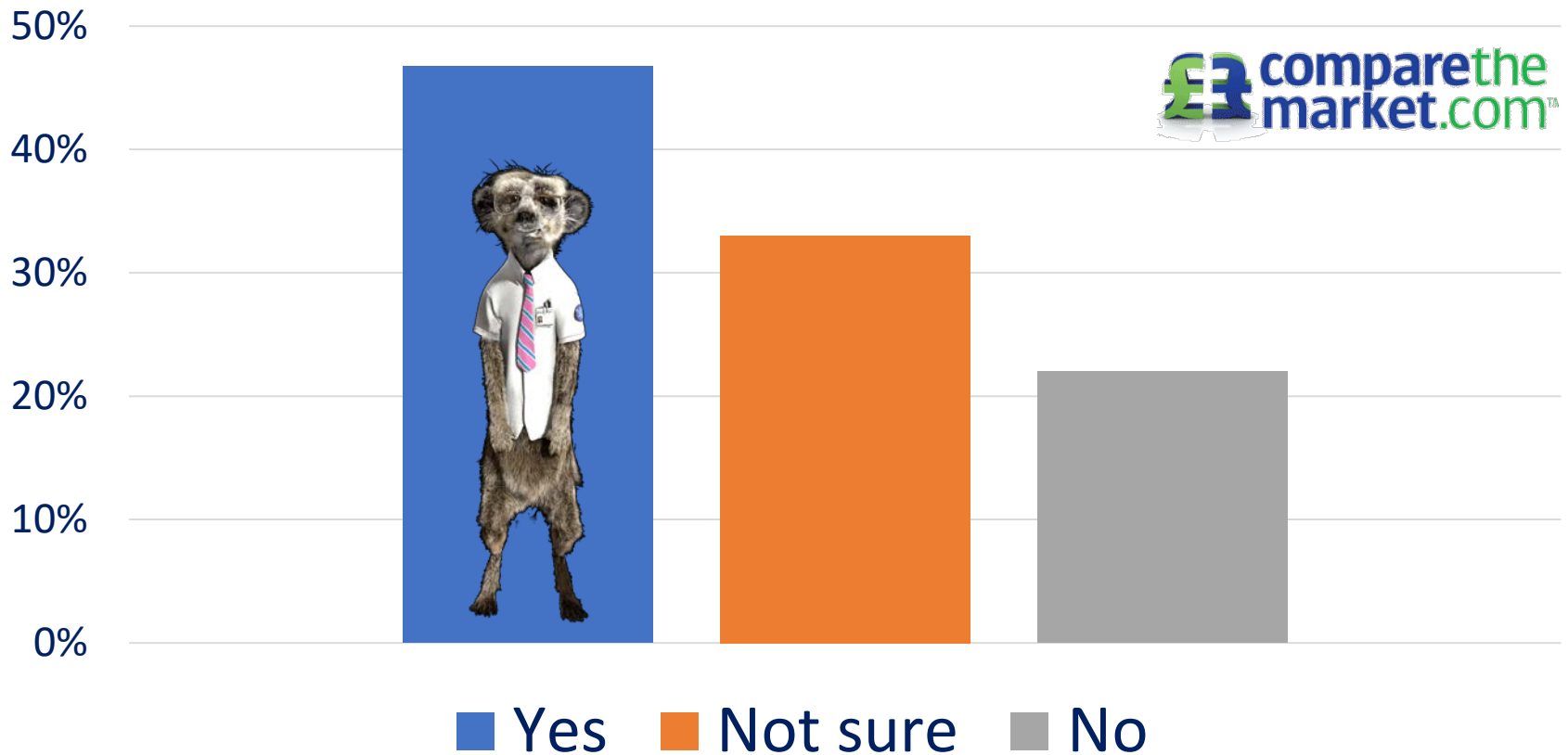


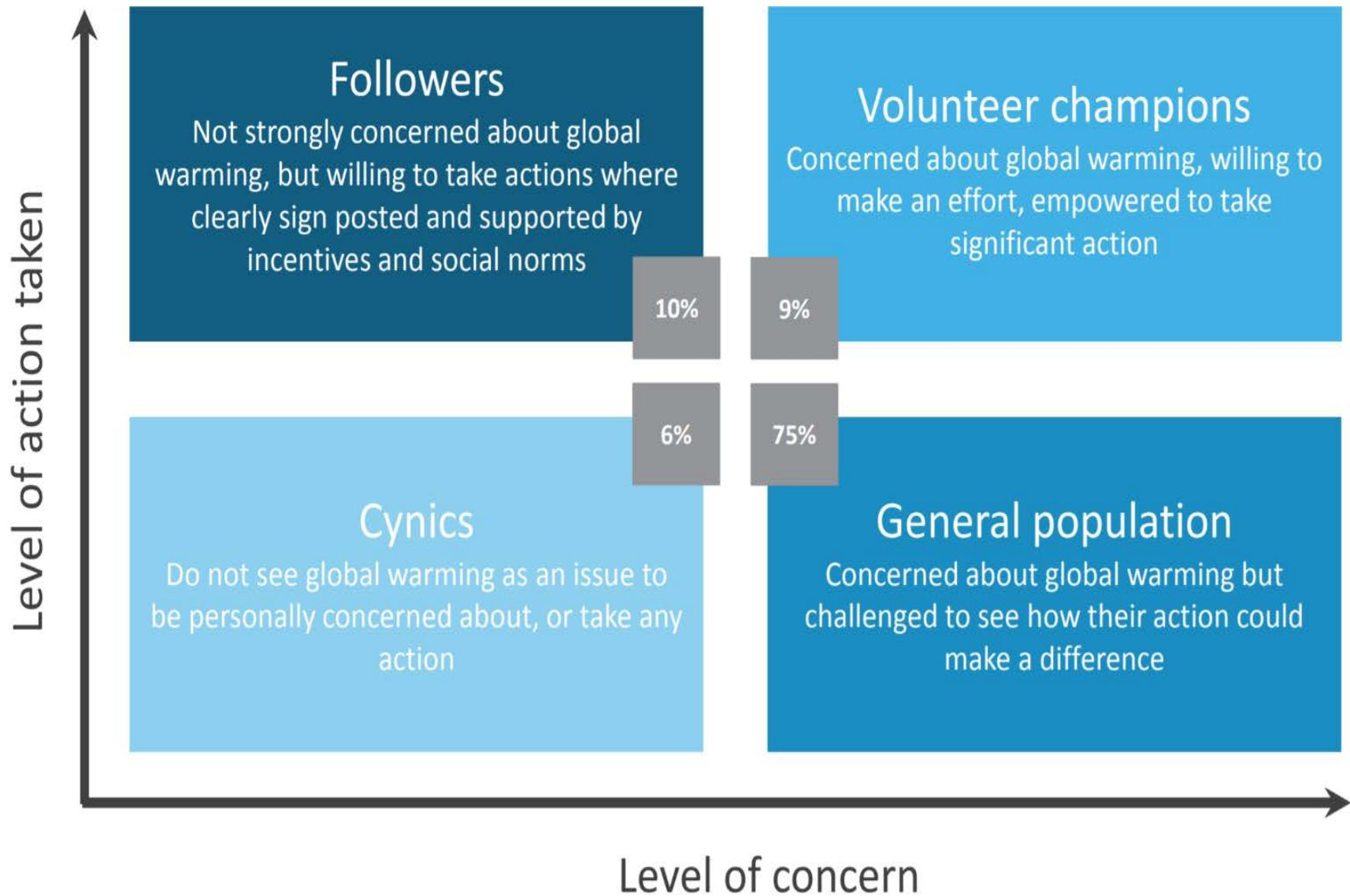
(Green – agriculture; blue – services; red – industry)

I want to make a positive difference to the environment by making changes to my own lifestyle



Do you think you could do more to help the state of the environment, and specifically to reduce your carbon footprint?

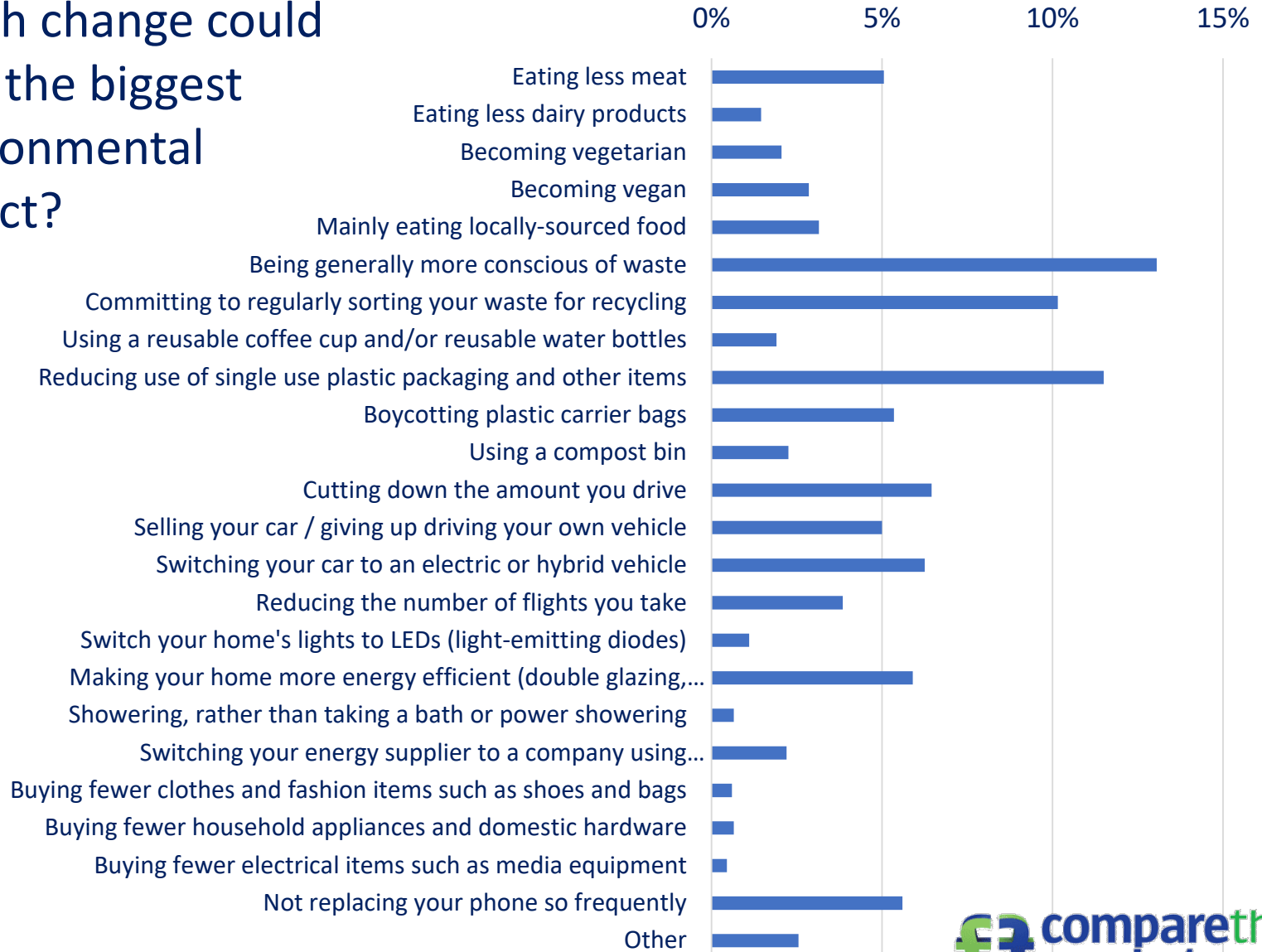




Taken from Accountability and Consumers International report 'Switching on Citizen Power'

2007

Which change could have the biggest environmental impact?



Greenwash characteristics

- Lying: environmental claims that are false
- No Proof: claims that cannot be substantiated from easily accessible supporting information or by reliable certification
- Vagueness: claims so poorly defined or broad that real meaning is likely to be misunderstood
- Irrelevance: truth that is unimportant or unhelpful for consumers seeking environmentally-preferable products

More greenwash characteristics

- False Labels: words or images giving the impression of a non-existent third-party endorsement
- Hidden Trade-off: suggesting a product is "green" based on a narrow set of attributes without considering other important environmental issues
- Lesser of Two Evils: truth within the product category, but distracting from the greater environmental impact of the whole category

In 2008, Gillespie identified three additional indicators

- Just not credible: Touting the environmentally-friendly attributes of a dangerous product, such as organic cigarettes
- Gobbledygook: Using information that average people cannot understand or confirm
- Evocative pictures: Images that imply an unjustified green impact, such as flowers issuing from the exhaust pipe of a car



Greenwash stories?

Environmental damage from business

A photograph of a complex industrial facility, likely a refinery or chemical plant. The scene is dominated by large, dark, metallic pipes that run horizontally and vertically across the frame. Various valves, gauges, and smaller pipes are visible, creating a dense network of industrial infrastructure. The lighting is dramatic, with strong highlights and deep shadows, suggesting an interior or semi-enclosed space. The overall color palette is dark, with metallic greys and blacks, accented by some warmer tones from the lighting.

Aral Sea shrinking, 1989 to 2009



July – September, 1989



August 12, 2003



August 16, 2009

Aral Sea, August 2017



First Russian boats on
the Aral Sea, sketch by
Taras Shevchenko,
1848

Photo shown on 'Real Self Sufficiency' website, possibly of impact of cotton waste in Uzbekistan river but unattributed



Decreasing environmental impact
↓

Energy use	Water use	Greenhouse gases	Waste water	Direct land use
Acrylic	Cotton	Nylon	Wool	Wool
Nylon	Silk	Synthetic	Regen. cellulose	Ramie
Polyester/PTT	Nylon	Polyester	Natural bast fibres	Cotton
Regen. cellulose (viscose, Modal)	Regen. cellulose	Lyocell	Nylon	Flax
PLA/Cotton/Lyocel	Acrylic	PLA	Polyester	Hemp
Wool	Hemp	Viscose		Viscose and Modal
Natural bast fibres ¹ (nettle, hemp, flax)	Wool	Modal		Jute
	Natural bast fibres	Cotton		PLA
	Polyester	Natural bast fibres		Lyocell (Synthetic)
		Wool		

Defra, 2010

LIFE CYCLE INVENTORY (LCI)

Input

WATER

ENERGY

LAND

CHEMICALS

LABOR

PRODUCTION PHASE

- Cultivation
- Fertilization
- Pesticides

INDUSTRIAL PHASE

- Processing
- Manufacturing
- Packaging
- Transportation
- Distribution

CONSUMER PHASE

- Washing
- Ironing

RECYCLING PHASE

- Collection
- Land-filling
- Incineration

Output

Soil Erosion, Land acquisition, Biodiversity loss (both flora & fauna), NH_3 , DDT contamination, Ground-water pollution

Na_2SO_4 , Na_2CO_3 , NaOH , Reactive black 5, NaCl contaminated wastewater and effluents, CO_2 , CO , SO_2 , CFC emissions

PO_4^{3-} , Detergent, CO_2 emissions

CH_4 , CO_2 , Dioxin, Furan, SO_2 , HCl , Hg , Cd , Pb , Flying ash, Fine particles

LIFE CYCLE ASSESSMENT (LCA)

Potential Impacts

Abiotic Depletion

Eutrophication

Acidification

Ozone Depletion

Ecotoxicity

Human Ecotoxicity

Clogging by Waste

Global Warming

Photochemical Smog Formation

Soil & Ground water pollution

Atmospheric Contamination

Damage

NATURAL ECOSYSTEM

AQUATIC ENVIRONMENT

SOIL ENVIRONMENT

HUMAN ENVIRONMENT





PLANET

As an international retailer with a complex supply chain we make a real effort to reduce our impact on the planet wherever we can. The work of Primark's Environmental Sustainability team covers many things; how raw materials such as cotton are sourced, the environmental impact of manufacturing processes in factories, the efficiency of Primark stores and our commitment to recycle wherever possible. It all makes a difference.

Some things we've been doing for longer than others. For example, our customers have been showing off our brown paper bags for years. We also have a longstanding partnership with the children's charity Newlife in which we donate unsold items from our European stores, and our buying samples. In doing so, we're able to reduce the number of unsold items that could end up in landfill, whilst helping Newlife to raise money.

Our work with partners is an important part of how we make progress in tackling big sustainability challenges. For example, we are reviewing the type of chemicals used to dye materials that our clothes are made from through the Zero Discharge of Hazardous Chemicals programme. We're also a member of industry-wide initiatives such as the Sustainable Apparel Coalition (SAC) to work together to improve supply chain sustainability.



Our approach to Corporate Responsibility

OUR SUPPLIERS

The challenge of trading ethically and acting responsibly towards the workers within our suppliers' factories is a key priority for NEXT.

OUR CUSTOMERS AND PRODUCTS

Our aim is to meet our customers' expectations by providing exciting, beautifully designed, excellent quality clothing, footwear, accessories and homeware.

CORPORATE RESPONSIBILITY REPORT 2017

[Download PDF](#)

MODERN SLAVERY TRANSPARENCY STATEMENT

[Download PDF](#)

HUMAN RIGHTS AND MODERN SLAVERY

Any instance of forced labour is unacceptable. Respect for human rights is inherent in how NEXT operates as a responsible business.

OUR PEOPLE

It is important we are able to create an environment that enables us to attract, inspire and retain the right people to work at every level throughout NEXT.

ENVIRONMENT

NEXT recognises it has a responsibility and an obligation to work to reduce the direct impact of its business operations on the natural environment, both now and in the future.

COMMUNITY

We offer support to a wide range of charities and organisations of all sizes, by working with them to provide donations that are of most benefit to them.

CARRIER BAG CHARGING



‘Next recognises it has a responsibility and an obligation to work to reduce the direct impact of its business operations on the natural environment, both now and in the future’

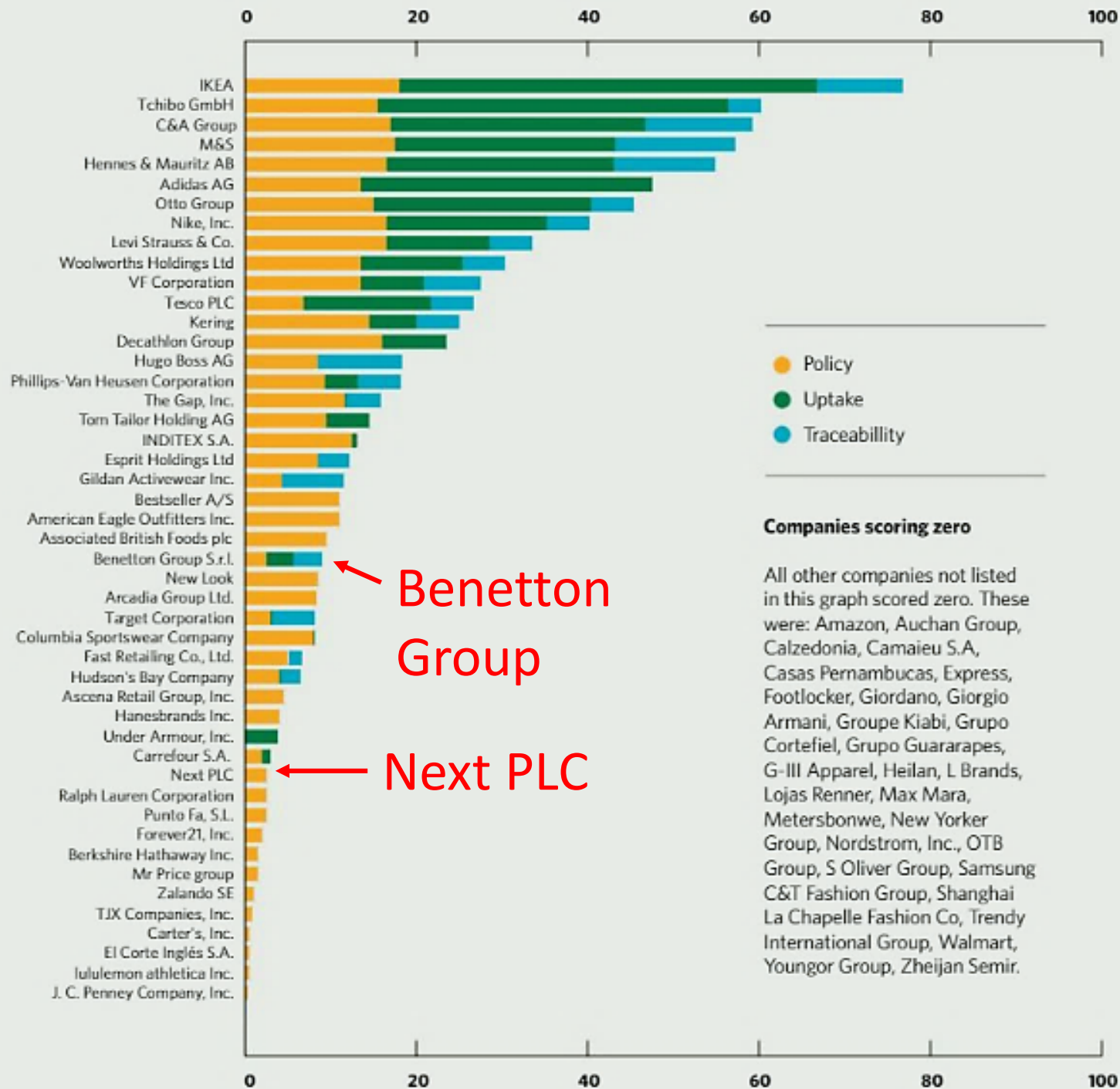
‘Reducing emissions is the right thing for a responsible business to do and we are working to create more sustainable ways of doing business whilst continuing to reduce our operational carbon footprint and help deliver better resource efficiency’

- Signatory to Sustainable Clothing Action Plan (WRAP initiative)
- Aim to ensure that raw materials are responsibly sourced
- Segregation of packaging for recycling
- Coat hangar recycling
- Energy meters in shops allow monitoring
- Maximise distribution efficiency
- Some solar and LEDS, but large arrays are too difficult at present
- Water saving features in new shops (spray taps etc); water meters

Pesticide Action Network, for Solidaridad and WWF, 2017



http://issuu.com/pan-uk/docs/sustainable_cotton_ranking_2017?e=28041656/53880311

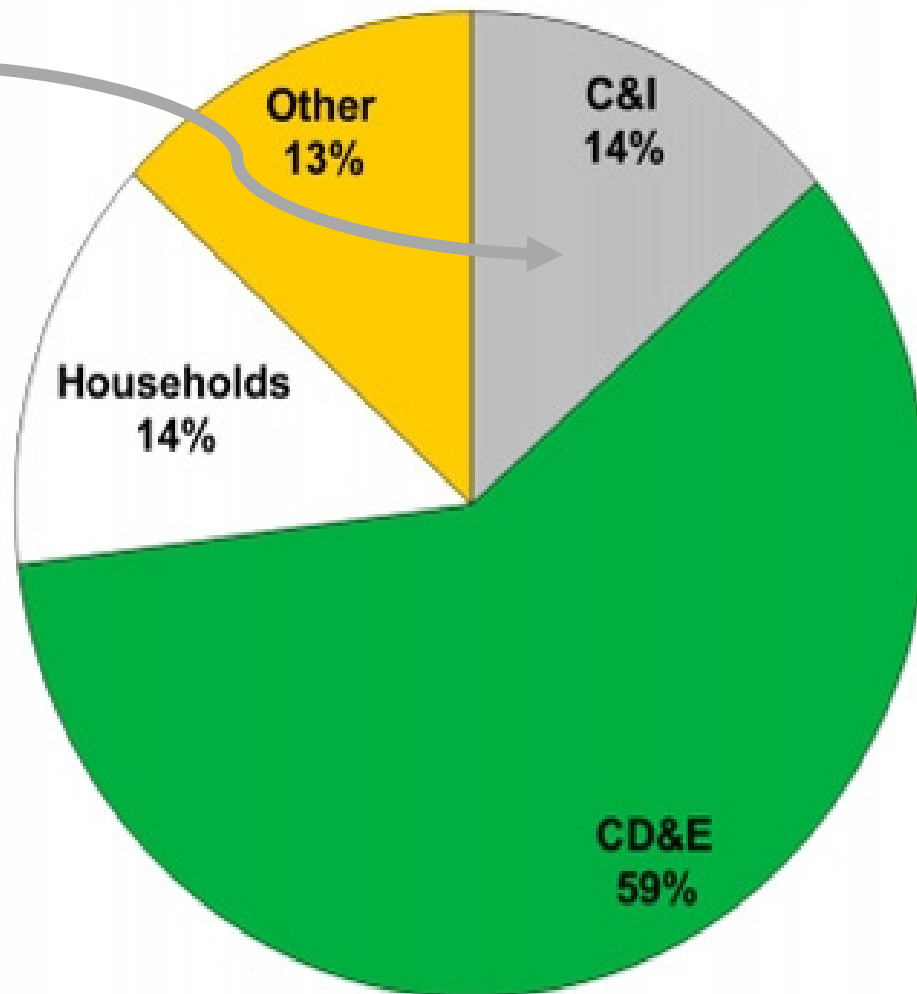


Ranking of cotton-using companies, in relation to sustainability (policy, uptake and traceability).

Pesticide Action Network, on behalf of Solidaridad and WWF, 2017



Commercial
and Industrial



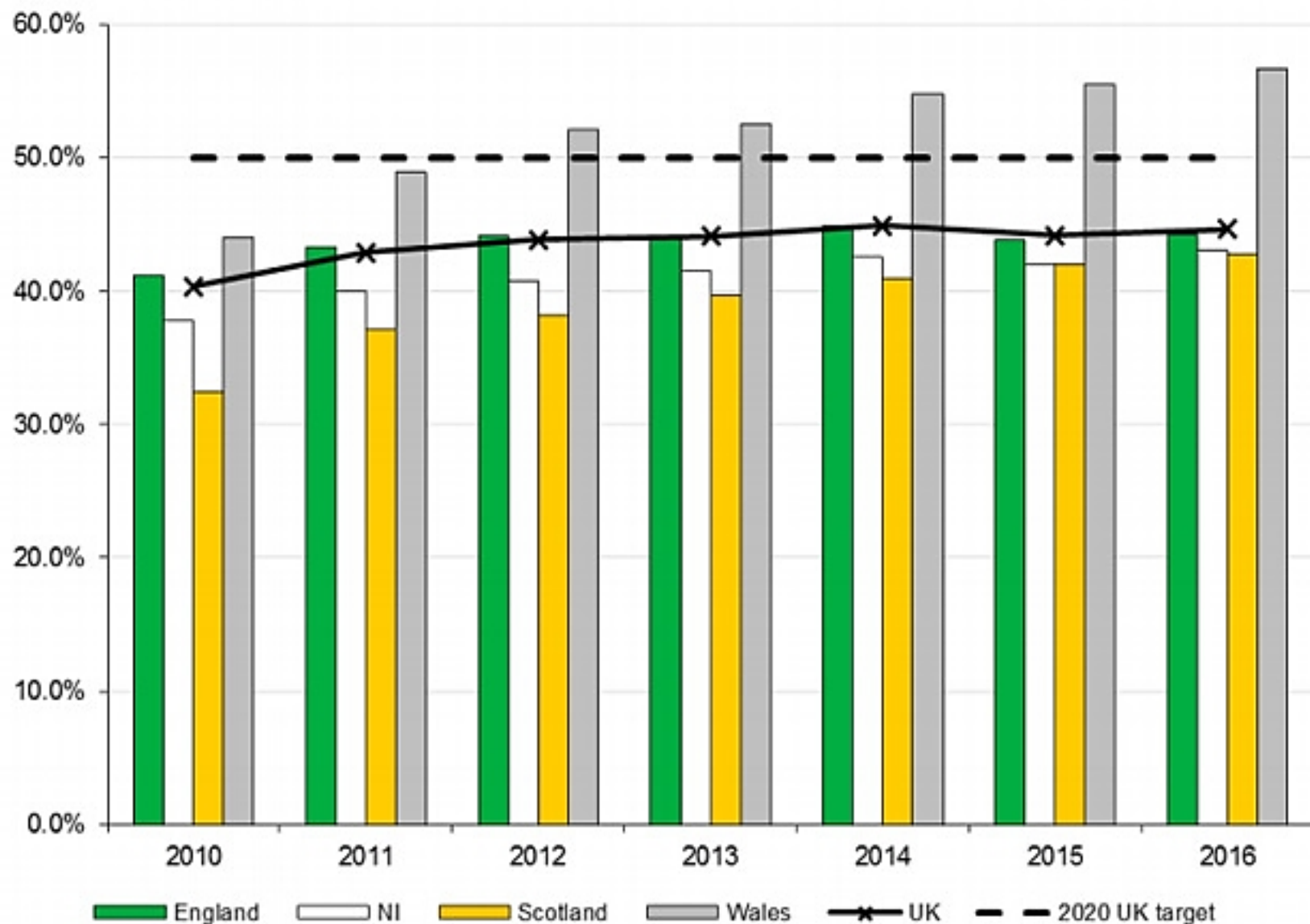
Source: Defra Statistics

Percentages may not sum to exactly 100% due to rounding

C,D&E figures include excavation waste and dredging

Household figures are based on the WfH measure, but also include End of Life Vehicles

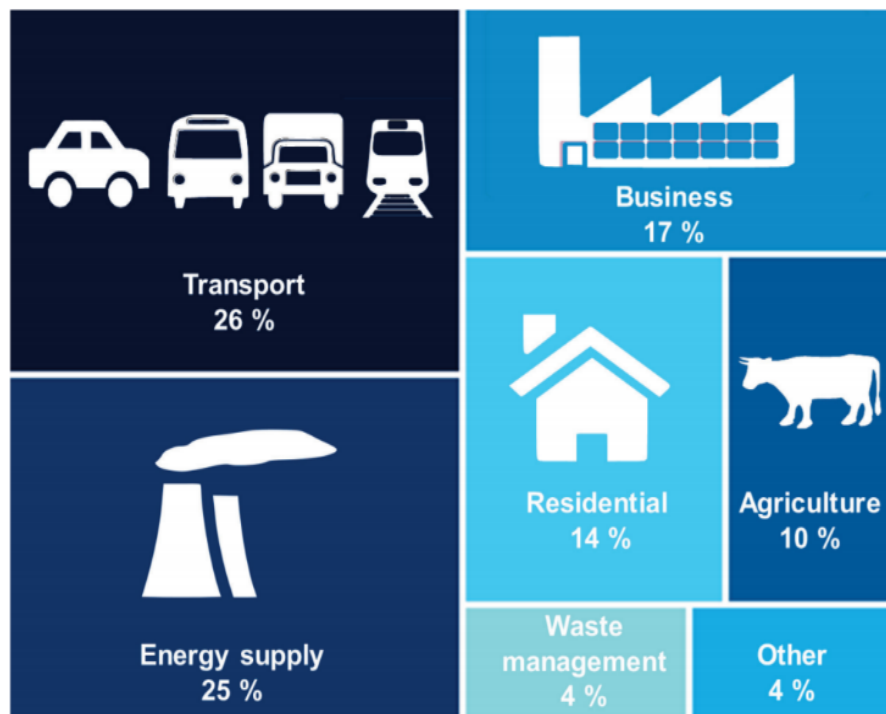
Recycling as % of arisings



Source : WasteDataFlow, Defra Statistics

The second Carbon Budget figures will not be finalised until 2019.

Transport becomes the largest emitting sector of UK 2016 greenhouse gas emissions



Other includes Public and Industrial Process sectors (the Land Use, Land Use Change and Forestry (LULUCF) sector is excluded from the sector statistics above as it acted as a net sink of emissions). Please note the percentages above do not sum to 100% due to rounding.

Energy supply and business sectors delivered the largest reductions in emissions from 2015 to 2016

	2015-2016 % change	1990-2016 % change
Energy supply	↓ 17%	↓ 57%
Waste management	↑ 5%	↓ 70%
Business	↓ 5%	↓ 29%
Other	↓ 10%	↓ 75%
Agriculture	↔ 0%	↓ 16%
LULUCF	↑ 4%	↓ 590%
Transport	↑ 2%	↓ 2%
Residential	↑ 4%	↓ 13%


LULUCF has a large decrease from 1990-2016 as emissions have gone from being a small net sink in 1990 (-2.1 MtCO₂e) to a much larger net sink of emissions in 2016 (-14.6 MtCO₂e).

Further information: <https://www.gov.uk/government/collections/final-uk-greenhouse-gas-emissions-national-statistics>

Enquiries: ClimateChange.Statistics@beis.gov.uk

Responsible statistician: Amanda Penistone Tel: 0300 068 8090





5-13m tonnes of plastic leaks
into the oceans per year (Ellen
MacArthur Foundation)

FRONT PAGE

BRANDS

OUR WAY FORWARD

SUSTAINABILITY

INNOVATION

HISTORY

UNBOTTLED

2018 FIFA World Cup Russia • #CocaColaRenew • EKOCENTER • Annual Meeting • 2016 Sustainability Report • Commitment to Transparency

FRONT PAGE > SUSTAINABILITY

Sustainability

Overview

Our Way Forward

Agriculture

Climate

Giving Back

Human Rights

Packaging

Water

Women

2016 Sustainability Report

LEARN MORE



‘To reduce CO2 emissions of ‘the drink in your hand’ by 25%, Coca-Cola will work to reduce the greenhouse gas emissions across its value chain, making comprehensive carbon footprint reductions across its manufacturing processes, packaging formats, delivery fleet, refrigeration equipment and ingredient sourcing.’



Coca Cola, October 2017

- All bottles and cans in the UK have been recyclable since 2012
- We will commit to increasing the amount of recycled plastic in each bottle from 25% to 50% by 2020
- Global PET bottle usage for 2016 is 58%, an increase of 1% from 2015
- Supporting development of a deposit scheme for all plastic bottles produced in the UK
- Figures on plastic packaging use are commercially sensitive
- CC make 110 billion plastic bottles per year, 3400 per second (Greenpeace figures)
- Increased 2015 to 2016
- Plastic bottles are 59% of CC global packaging in 2016 (58% the year before)
- Bottles could be made of wholly recycled plastic Rpet now
- Plastic bottle recycling rates nationally are less than 50% and only 7% of those collected are turned into new bottles

ExxonMobil document analysis, 1977-2014

Climate change is human-induced and solvable by action

- 80% ExxonMobil Internal company documents
- 83% academic peer-referred papers
- 12% ExxonMobil paid 'advertorial' in magazines

Climate change science is uncertain, little can be done

- 81% ExxonMobil paid 'advertorial' in magazines

ExxonMobil
Energy lives here™

Thames Water



‘Our Environmental Policy outlines our high-level environmental objectives. It guides our overall approach to good environmental management which is fundamental to our business, and important to our customers and stakeholders.

Our policy recognises that natural resources and the environment are vital to us. We rely on these to run our business and we have the potential to impact upon the environment in many ways.’

Environment Agency reveals £860,000 water company sanctions

- *By Jamie Carpenter, 1 March 2018 12:32 GMT*
- Thames Water, Northumbrian Water, Anglian Water and United Utilities agreed to pay £862,000 for flouting environmental rules in five months to 31 January 2018

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Alternative facts: Representing 'reality' in different ways

- Lying or denying for personal or corporate gain
- Making a genuine error of judgement, misunderstanding, or accident
- Telling only part of the truth
- 'Lying' because of (deliberate?) misunderstanding, because it suits our mindset better than an alternative
- Lying to ourselves because we are afraid/frightened to confront reality

Alternative facts: Representing 'reality' in different ways

- Being in denial - Lying because the reality is too difficult or complex to understand
- Individual leaders holding two concurrent but opposing views (cognitive dissonance)
- Telling 'white lies' to avoid ourselves being upset by others being upset
- Paying false compliments, to enhance a view held by someone else that we support
- Being 'economical with the truth', ie lying about lying

Positive business actions





Or greenwash?

‘Visa joins the likes of Nike, Telefonica, Kellogg’s and Schneider Electric in targeting a transition to 100% renewables’



A collection of various green LEGO botanical elements, including several different styles of trees, bushes, and leaves, arranged on a white surface. The elements are made of plastic and have a matte finish.

Lego, March 2018

Some LEGO® elements now made from plant-based plastic sourced from sugarcane. The new sustainable LEGO ‘botanical’ elements include leaves, bushes and trees.

“This is a great first step in our ambitious commitment of making all LEGO bricks using sustainable materials,” Tim Brooks, Vice President, Environmental Responsibility, LEGO Group.

The background of the slide features a collection of LEGO plants. In the center, there is a tall, conical tree made of green plastic bricks, standing on a circular base. To its left, there is a bushy plant with many thin, pointed leaves. In the foreground, there are several smaller plants with broad, rounded leaves. The plants are arranged on a light-colored surface, and the overall scene is brightly lit.

Lego, March 2018

The sugarcane used is sourced sustainably in accordance with guidance from the Bioplastic Feedstock Alliance (BFA) and is certified by the Bonsucro Chain of Custody standard

Polyethylene elements are 1-2% of the total amount of plastic elements produced by the LEGO Group.



The Unilever Sustainable Living Plan

We believe business growth should not be at the expense of people and the planet. That's why we've changed the way we do business, and why we want to change the way business is done. Our business model drives growth that is consistent, profitable, competitive – and responsible.

The Unilever Sustainable Living Plan (USLP) is our blueprint for achieving our vision to grow our business, whilst decoupling our environmental footprint from our growth and increasing our positive social impact. It is driving growth through brands with purpose, taking out costs from our business, reducing risks and helping us to build trust – creating long-term value for the multiple stakeholders we serve.

Each year we publish online a comprehensive account of progress towards these goals in our Sustainable Living Report. You can find a summary of our progress in this section. For more detailed information, please visit the [reporting hub](#) on Unilever.com

We have three big goals



IMPROVING HEALTH AND WELL-BEING FOR MORE THAN 1 BILLION

By 2020 we will help more than a billion people take action to improve their health and well-being.

Health & hygiene >

Improving nutrition >



REDUCING ENVIRONMENTAL IMPACT BY 1/2

By 2030 our goal is to halve the environmental footprint of the making and use of our products as we grow our business.*

Greenhouse gases >

Water >

Waste & packaging >

Sustainable sourcing >



ENHANCING LIVELIHOODS FOR MILLIONS

By 2020 we will enhance the livelihoods of millions of people as we grow our business.

Fairness in the workplace >

Opportunities for women >

Inclusive business >

Arup continues to take its commitment to the Paris Pledge very seriously, working to enable a world in which climate change is limited to a maximum of 2°C. Our recently relaunched Global Strategy confirms environmental issues as central to our approach. Each of our four key markets – cities, transport, energy and water – have clear links with the UN Sustainable Development Goals which we are now using as reference points within our projects.



ARUP

Arup

‘I think one reason for this is that manufacturing companies usually consider sustainability in three dimensions: environmental, social and economic. But this only incorporates half of what sustainability means for industrial companies. For manufacturers, sustainability is also about ensuring future success through competitiveness, with value-added operations leading to good profitability and reduced risk exposure’.



United Nations Sustainable Development Goals



Goal 8: Promote inclusive and sustainable economic growth, employment and decent work for all

Sustainable economic growth will require societies to create the conditions that allow people to have quality jobs that stimulate the economy while not harming the environment.



Goal 9: Build resilient infrastructure, promote sustainable industrialization and foster innovation

Technological progress is the foundation of efforts to achieve environmental objectives, such as increased resource and energy-efficiency. Without technology and innovation, industrialization will not happen, and without industrialization, development will not happen.



Goal 12: Ensure sustainable consumption and production patterns

Sustainable consumption and production aims at “doing more and better with less,” increasing net welfare gains from economic activities by reducing resource use, degradation and pollution along the whole lifecycle, while increasing quality of life. It involves different stakeholders, including business.....





A group of major UK retailers, including Ikea, Debenhams and Sainsbury's, have committed to collaboratively tackle pressing societal issues by using the United Nations Sustainable Development Goals (SDGs) as a framework

March 14th 2018

‘It is thus completely ridiculous to stop at making decrees [on the use of forests by large scale industry] that enjoin civilisation to be no longer itself, to change its devastating nature, to stifle its rapacious spirit...One might as well decree that tigers should become docile and turn away from blood’.

Charles Fourier (1821) De la Détérioration Matérielle de la Planète.

‘Nullius in
verba’
(Take nobody’s
word for it)

The Royal Society, 1660

THE
ROYAL
SOCIETY