



The Food Waste
Reduction Roadmap

Progress Report 2019

September 2019

A thick yellow line originates from the right side of the word 'Progress', extends horizontally to the right, curves downwards and to the left, then extends horizontally again to the right, ending with an arrowhead pointing towards the 'Act' text.

Target
Measure
Act

Target. Measure. Act.

The Food Waste Reduction Roadmap Progress Report 2019

Globally, around a third of food is wasted, and a recent Intergovernmental Panel on Climate Change (IPCC) [report](#) stated that during 2010-2016, food waste contributed 8-10% of total man-made greenhouse gas (GHG) emissions.

[UN Sustainable Development Goal \(SDG\) 12.3](#) aims to halve per capita global food waste at the retail and consumer levels and reduce food waste along production and supply chains by 2030.



**Interactive
PDF**

Use the top
navigation to jump
to each section



On 25th September 2018, WRAP and IGD launched the ground-breaking Food Waste Reduction Roadmap, aimed at helping the UK achieve the Courtauld Commitment 2025 food waste reduction target and SDG 12.3, through the adoption of a consistent approach by food businesses.

156

The number of businesses committed to the Roadmap has more than doubled since launch

The Roadmap encompasses the entire supply chain from field to fork, and asks businesses to commit to implementing a strategy of **Target, Measure, Act**. This means in practice:

- setting a food waste reduction target for their UK operations;
- measuring and reporting food surplus and waste according to the Roadmap guidelines;
- taking action to reduce food waste in their own businesses; and
- through engagement and innovation helping to reduce food waste from their suppliers and consumers.

Embedding **Target, Measure, Act** into business culture and operations is critical to achieving UK and global targets.

Since launch the number of organisations committed to the Roadmap has more than doubled (from 90 to 185), and the number of food businesses committed has risen from just over 70 to 156. By mid-September 2019, 121 large businesses had provided evidence to WRAP of having implemented **Target, Measure Act** (all large grocery retailers and 106 other large food businesses; around 80% of those committed to the Roadmap). Others have begun implementation, for example by undertaking measurement and acquiring data before setting a target.

WRAP and IGD have provided expertise, guidance and resources to these food businesses, and the Roadmap has given a framework for these companies to align their work with global and industry best practice.

Whilst it is true that the number of businesses implementing **Target, Measure, Act** has not quite reached all the ambitious aim of 125 set for the Roadmap, **the combined turnover of these 121 businesses is almost £220bn, representing 50% of the overall turnover for UK food manufacture, retail and hospitality and food service**. It is a considerable achievement that all of the UK's large grocery retailers and 106 other businesses are implementing **Target, Measure, Act** during a challenging period for the sector.

WRAP estimates that these businesses are likely to generate around 1.1 million tonnes of food waste in their own operations each year, a third of the total UK post-farm gate supply chain food waste. These businesses can also influence food waste arising outside of their own operations, by their suppliers and consumers.

The ambitious aim for the Roadmap is to have 50% of the UK's largest 250 food businesses implementing **Target, Measure, Act** by September 2019, and all large food businesses doing so by 2026.

Consistent with Roadmap best practice, over 40 businesses have publicly reported food surplus and food waste in 2019, the majority of which as part of the [call for action](#) by Champions 12.3 Chair and Tesco CEO Dave Lewis. This compares to 30 businesses in 2018, and only a handful prior to that. Another 80 shared data in confidence via WRAP or a trade body.



Businesses implementing **Target, Measure, Act** are already reporting the benefits. For example, 25 businesses publicly reported 2018 and historical data, and collectively reported a 7% reduction in food waste, saving over £85m of food (53,000 tonnes).

In addition, since launching the Roadmap:

- More than 40 new case studies have been published, showing how different businesses are implementing **Target, Measure, Act**, their learnings and the benefits realised.
- Extensive engagement and training sessions have been held with more than 150 businesses, hosted by major retailers, brands and other organisations.
- A dedicated [Hospitality and Food Service \(HaFS\) Action Plan](#) has been published, detailing actions the sector will take to help deliver the Roadmap.
- WRAP's [Guardians of Grub](#) campaign has been launched, aimed at empowering professionals from across the HaFS sector to reduce the amount of food thrown away in their establishments.

150

Extensive engagement and training sessions have been held with more than 150 businesses, hosted by major retailers, brands and other organisations

There is much more to do, with another 500 major food businesses needing to implement **Target, Measure, Act** to enable the UK to achieve SDG 12.3¹. Those businesses already measuring are working hard to embed a culture of continuous improvement.

Champions 12.3 and WRAP are calling for more businesses to implement **Target, Measure, Act**, and publicly report food waste data to help track progress and inform action. It is also important that greater numbers of larger food businesses engage with their suppliers, to encourage and support them in taking action on food waste.

WRAP's engagement team is available to support businesses on how to set targets, measure food waste, report in a consistent way and create practical action plans. [Contact us](#) to find out more about the support available.

¹ Based on an estimate of 615 large (i.e. non-SME) food businesses operating in the UK, from WRAP analysis of data from [Fame](#) (accessed by Defra, June 2019).

Roadmap highlights to 2019

The Food Waste Reduction Roadmap aims to help achieve SDG 12.3 and Courtauld 2025 targets through UK food and drink businesses implementing **Target, Measure, Act**.

Achieving SDG12.3 would deliver an annual reduction in UK farm to fork food waste of **3.5 million tonnes** in 2030, saving food worth **£10 billion** a year

Since Sept 2018

Number of organisations committed to Roadmap: more than doubled from **90** to **185**

15 retailers

117 producers/manufacturers

24 hospitality and food service (HaFS) businesses

29 trade bodies and other supporting organisations

Businesses committed to the Roadmap have combined turnover of £230bn

Sept 2019

121 large businesses provided evidence of implementing **Target, Measure, Act** (against an ambitious aim of 125)

80% of businesses committed to the Roadmap are implementing **Target, Measure, Act** (156 committed; 121 implementing), representing **50%** of overall turnover in retail, manufacturing and hospitality and food service.

Businesses committed

Estimated to generate **1.1 Mt food waste**, 1/3 of all UK post-farm gate supply chain food waste. These businesses can also influence food waste from their suppliers and consumers.

25 businesses implementing **Target, Measure, Act** publicly reported 2018 and historical data, and collectively reported a **7%** reduction in food waste, saving more than **£85m** of food.

By 2030

All (**615** currently) major food businesses need to have implemented **Target, Measure, Act** for the UK to achieve SDG12.3

Highlights 2018-19



More than **40** new case studies published



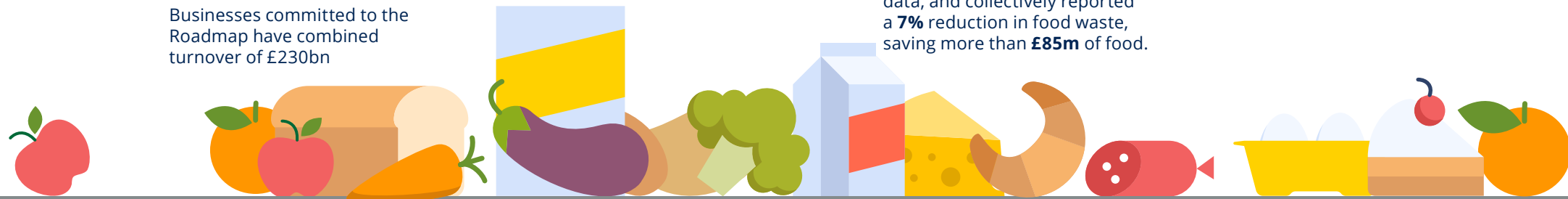
Engagement and training sessions with **>150** businesses



Dedicated **Hospitality and Food Service Action Plan** published



WRAP's **Guardians of Grub** campaign launched, aimed at empowering professionals from across the HaFS sector to reduce food thrown away in their businesses



Introduction

Globally, around a third of food is wasted, and a recent [IPCC report](#) stated that during 2010-2016, food waste contributed 8-10% of total man-made GHG emissions.

WRAP estimates that around 10 million tonnes of food waste is generated every year in the UK, post-farm gate, 70% of which was intended to be consumed by people. This has a value of over £20 billion and is associated with more than 25 million tonnes of GHG emissions. In addition, WRAP has estimated food waste in primary production in the UK at around 1.6 million tonnes².

Whilst UK food waste reduced by over a million tonnes between 2007 and 2015, WRAP and UK governments have acknowledged a stalling of progress in recent years, and the need for much more action.

² [Food surplus and waste in the UK – key facts](#); WRAP 2019

³ In this report 'food' is used as shorthand for 'food and drink', both in the context of waste and businesses/sectors referred to

⁴ See Defra [Resources and Waste Strategy](#)

On 25th September 2018, WRAP and IGD launched the ground-breaking [Food Waste Reduction Roadmap](#), aimed at helping the UK achieve the [Courtauld 2025](#) targets and UN [SDG 12.3](#), through the adoption of a consistent approach by food businesses. The Roadmap is hugely ambitious, and the UK is the first country in the world to set a nationwide plan towards delivering SDG 12.3 and halve food waste³ by 2030. This would deliver an annual reduction in food going to waste (from farm to fork) of around 3.5 million tonnes compared to 2007, saving food worth £10 billion a year.

The Roadmap encompasses the entire supply chain from field to fork. It shows the actions large businesses will take to address food waste in their own operations, and by working with their suppliers, through implementing a strategy of **Target, Measure, Act**. It also sets out how these businesses can engage with consumers to help reduce their food waste.

The Roadmap has the support of the UK's largest food businesses and trade bodies from across the supply chain, as well as a wide range of other organisations and UK governments. The Defra [Resources and Waste Strategy](#) reiterated support for the Roadmap and for cross-sector collaboration through Courtauld 2025. One of the first actions of the Food Surplus and Waste Champion, Ben Elliot, was to ask organisations to pledge to '[Step up to the Plate](#)' to help halve UK food waste, and for businesses to commit to the Roadmap and **Target, Measure, Act**.

The Scottish Government's [Food Waste Reduction Action Plan](#) also stresses the importance of the Roadmap and **Target, Measure, Act** in achieving its target to reduce food waste in Scotland by a third by 2025.

Defra will consult in 2019 on introducing regulations to make reporting mandatory for businesses of an appropriate size⁴, and has confirmed that proposals for regulation will be completely aligned and informed by the Roadmap and its resources. This will help drive further adoption of **Target, Measure, Act**.

Achieving SDG 12.3 would deliver an annual reduction in farm to fork food going to waste of 3.5 million tonnes, worth £10 billion a year.

The Roadmap recognises that the various sectors of the food industry and individual businesses face different challenges, and that there needs to be an ambitious but realistic timetable to enable all (large) businesses to implement **Target, Measure, Act**. Getting businesses to recognise the need to tackle food waste (and the benefits that result from this) and to commit to the Roadmap is the first critical step. The aim is then to enable a transition to implementing **Target, Measure, Act** as soon as possible.

This report outlines progress made in the first year of the Roadmap.

The Food Waste Reduction Roadmap covers all main sectors (production, manufacture, retail and hospitality and food service), with ambitious and measurable milestones, supported by a range of resources that will enable all large businesses to take action to help halve UK food waste by 2030 – in their own operations, with their suppliers and consumers.



Large businesses are asked to commit to:

Target – Set a food waste reduction target for their own UK operations

Adopting the SDG 12.3 target to reduce food waste across their own UK operations by 50% by 2030 or setting a target for reducing food waste that contributes to SDG12.3.

Measure – Measure in a consistent way and share what they've learnt

Use the UK and to measure food surplus and waste in accordance with the international Food Loss and Waste Standard. Report using the UK template, and provide a narrative on progress.

Act – Take action to reduce their own food waste, work in partnership with suppliers and help consumers reduce their food waste

Use data to plan and deliver food waste reduction actions across their own UK business operations, and work in partnership with suppliers and engage consumers, to reduce food waste from farm to fork.

Publicly report their own UK company results, or work towards this best practice, and share successes and lessons learned.

Share data with those responsible for tracking and facilitating progress, and publishing aggregate data as appropriate (e.g. WRAP, trade bodies). Be as robust and transparent as possible.

Other organisations, such as trade bodies, redistribution organisations, consultancies) are asked to influence businesses to commit and support them in taking action.

Overall progress

From launch the number of organisations (which includes trade bodies, redistribution organisations and others in addition to food businesses) committed to the Roadmap has more than doubled, from 90 to 185.

Within this, the number of food businesses committed has increased from just over 70 to 156 (Table 1). Whilst the majority are larger businesses, a small number of SMEs (6) have also committed to the Roadmap.

Table 1: Businesses and other organisations committed to the Roadmap

	September 2018 Number of organisations	September 2019 Number of organisations	September 2019 Turnover of committed businesses (£bn)	September 2019 Percentage of sector turnover represented by committed businesses ⁵
Retailers	13	15	163	78%
Producers and manufacturers	47	117	47	45%
HaFS businesses	11	24	20	20%
Total businesses	71	156	230	56%
Other organisations	19	29		
Total	90	185		

All of the largest grocery retailers have supported the Roadmap from launch, and those committed now represent almost 80% of their sector (by turnover). There has been a significant increase in the numbers of producers and manufacturers, and HaFS businesses, and those committed now represent around 45% and 20% respectively of their sectors. Overall, businesses committed to the Roadmap from these three sectors have turnovers of £230bn, representing 56% of the overall turnover for UK food manufacture, retail and hospitality and food service.

The '**Committed organisations**' section of the report provides a complete list of organisations committed to the Roadmap⁶. This highlights the diversity of businesses and other organisations, from SMEs to the largest retailers, brands and HaFS businesses in the UK.

It also shows excellent progress given the many challenges faced by the food sector over the last year, with an intensely competitive trading environment, uncertainty around Brexit and a range of other challenging 'asks' on businesses (for example to reduce single-use plastics).

⁵ Sector turnover values used for Retail are £210bn (£190bn plus £20bn for wholesale retail) production/manufacture £104bn and HaFS £99bn (£89bn plus £10bn for direct to HaFS wholesale), £413bn in total.

⁶ Correct as of 1.00pm 19th September 2019.

Different sectors and individual businesses face their own challenges in implementing **Target, Measure, Act**, particularly around embedding robust processes for measuring food waste, and having sufficient data upon which to set meaningful targets.

Persuading organisations to recognise the need to reduce food waste, (and the benefits that result from this) and commit to the Roadmap are the first critical steps on the journey.



The milestone for the first year of the Roadmap is to have fifty per cent of the UK's largest 250 food businesses measuring, reporting and acting on food waste by 2019, including all of the major retailers. The aim for the first year was therefore that 125 of the UK's largest food businesses were implementing **Target, Measure, Act**.

By mid-September 2019, 121 large businesses had provided evidence to WRAP of implementing Target, Measure Act (all large grocery retailers and 106 other large food businesses). Others have begun implementation, for example by undertaking measurement and acquiring data before setting a target, with more than half of the remaining businesses expected to be implementing **Target, Measure, Act** by the end of March 2020.

121

By mid-September 2019, 121 large businesses had provided evidence to WRAP of implementing **Target, Measure, Act**.



Consistent with Roadmap best practice, over 40 businesses have publicly reported food surplus and food waste in 2019, the majority of which as part of an initiative announced by Champions 12.3 Chair and Tesco CEO Dave Lewis (27 Tesco own-brand suppliers and 11 global brands reported in 2019). This compares to 30 in 2018, and only a handful prior to that. Another 80 shared data in confidence via WRAP. Champions 12.3 and WRAP are calling for more businesses to publicly report, to help track progress and inform action.

Progress against the more detailed aspects of the 2019 milestones is summarised in Table 2.

Table 2: Progress against Food Waste Reduction Roadmap Year 1 milestones

2019 milestones	Progress made
All large retailers and 50% of other large food businesses have a target and are measuring, reporting and taking action on food waste (125 businesses in total).	121 large businesses provided evidence to WRAP of implementing Target, Measure Act , (all large grocery retailers and 106 other large food businesses). Others have begun implementation, for example are undertaking measurement and acquiring data before setting a target, with more than half of the remaining businesses expected to be implementing within the next 6 months.
More businesses are measuring food surplus and waste in their own operations in accordance with adopted guidelines.	In addition to the 121 businesses providing evidence that they are implementing Target, Measure, Act , and therefore are measuring their food surplus and waste as per the FWRR guidelines, others are implementing measurement compliant with the Roadmap, but are not (yet) in a position to provide robust data.
More businesses are publicly reporting food surplus and waste in their own operations – as individual companies or via other channels.	More than 40 businesses publicly reported food surplus and waste data in 2019, compared to 30 in 2018, and only a handful prior to that. For 2018, another 80 shared data in confidence via WRAP.
More businesses have an action plan to reduce food waste in their own operations.	In addition to the 121 businesses that have provided evidence that they are implementing Target, Measure, Act , and therefore have an action plan, others are undertaking measurement, and action, but have not (yet) set a target or formulated a full action plan.
Retailers and large food businesses have engaged their suppliers to 'Target, Measure and Act' on food surplus and waste.	WRAP and IGD have worked with the major retailers to engage with their suppliers through supplier conferences, Target, Measure, Act roadshows, on-line supplier networks and direct one to one engagement, reaching around 150 businesses face-to-face and many more through other channels. In addition 20 trade bodies attended a WRAP workshop explaining how they could effectively engage with and support their members.
Whole Chain Food Waste Reduction plans are agreed with key suppliers.	Retailers and larger brands are increasingly developing sustainability strategies or shared ambitions with key suppliers, hosting 'waste walk throughs' and exploring how collaborative action can prevent food waste. Selective examples are given in Progress in Retail, Progress in Production and Manufacture, and Progress in HaFS.
Retailers and other businesses are engaging consumers to influence their behaviours and reduce their food waste.	An increasing number of retailers and other food businesses / organisations are actively supporting Love Food Hate Waste and planning to support the Food Conversation, and week of activity in January 2020. WRAP will also shortly be publishing the latest Retail Survey to assess progress made in implementing WRAP/ Defra/FSA recommendations for pack design and labelling to help consumers buy the right amount and waste less of what they buy.
WRAP is reporting on progress under Courtauld 2025.	WRAP plans to publish a report detailing progress towards the Courtauld 2025 and SDG 12.3 food waste reduction targets in late 2019.

The combined turnover of all 121 businesses that are implementing **Target, Measure, Act** is almost £220bn, representing 50% of the overall turnover for the three main sectors – **Retail, Production/Manufacturing, Hospitality & Food Service**. In total, around 80% of the businesses now committed to the Roadmap are implementing **Target, Measure, Act** (156 committed; 121 implementing).

In total, around 80% of the businesses now committed to the Roadmap have implemented **Target, Measure, Act**

Whilst it is true that the ambitious aim of 125 businesses are implementing **Target, Measure, Act** has not been met, this reflects the range of challenges faced by certain sectors and businesses.

Based on the percentage of businesses that have implemented **Target, Measure, Act**, WRAP estimates that these businesses are likely to generate around 1.1 million tonnes of food waste in their own operations, a third of the total UK post-farm gate supply chain food waste (see Table 3). These businesses will also have the ability to greatly influence food waste arising outside of their own operations, by their suppliers and consumers.

1.1m tonnes

Based on the percentage of businesses that have implemented **Target, Measure, Act**, WRAP estimates that these businesses are likely to generate around 1.1 million tonnes of food waste each year in their own operations.



Table 3: Potential food waste under the direct control of businesses implementing **Target, Measure, Act**

	Total sector food waste (t)	Food waste under direct control of businesses implementing Target, Measure, Act (t)
Retail	261,000	250,000
Production/Manufacture	1,850,000	765,000
HaFS	1,020,000	97,000
Total	3,131,000	1,110,000

Progress in Retail

All large grocery retailers have committed to the Roadmap and are implementing **Target, Measure, Act**. These 15 businesses have a collective turnover of more than £160bn, representing almost 80% of the grocery retail and wholesale sector.

Most of the major grocery retailers have been measuring food waste for at least 3 years and reporting this to WRAP under Courtauld 2025. They are also taking action to reduce food waste in their own operations as well as from their suppliers and customers.

WRAP and IGD have worked with the leading retailers to engage with their suppliers through conferences, **Target, Measure, Act** roadshows, on-line networks and direct one-to-one engagement, reaching around 150 businesses face-to-face and many more through other channels. Retailers have also helped promote the WRAP technical support available to suppliers to help them **Target, Measure, Act**.

A case study detailing how the Co-op is implementing **Target, Measure, Act** and reduced food waste by 29% can be found [here](#). Further examples of how retailers are implementing **Target, Measure, Act** are given in the following section:

£160bn

These 15 businesses have a collective turnover of more than £160bn

Aldi

"In 2019, Aldi's partnership with Neighbourly was rolled out to all stores, and donated 1 million meals. Our partnership with Company Shop has saved 936 tonnes of products (equivalent to 2 million meals). With suppliers, we can flex to accommodate crop failures or flushes. In summer 2019 we ranged purple sprouting broccoli six weeks early, saving 30 tonnes of food going to waste."



Asda

"Smart technology, training & collaboration help Asda to maximise crop yields. In store, our 'Date Team' enables us to manage stock effectively. We calculate the right stock for the right place at the right time. 'Sustain & Save Exchange' aims for suppliers to save and invest £50m by 2020. And partnership with FareShare and The Trussell Trust provides 24 million meals every year to people facing food insecurity."

Co-op

"Co-op has recently announced a 29% drop in food waste 2015-18. New stock control systems allow us to target waste more effectively, and new pricing systems enable food close to its date to still be sold. New packaging to extend shelf life of steaks has reduced waste by 8%. And our Food Share initiative partners 1,300 stores with 1,000 community groups to donate surplus food."

Iceland

"At Iceland, we do not send any unsold food to landfill. Instead, it is put to good use in the community, converted to animal feed or beer; or used to produce electricity or compost through anaerobic digestion. While only 0.7% of our food is currently unsold, we are working hard to reduce this amount even further."

Boots

"In June 2019 Boots signed up to the Food Waste Reduction Roadmap to contribute to the ambitious target to reach a 50% reduction in food waste by 2030. Despite the particular challenge that our short shelf life, food-to-go offer presents, we have reduced our food waste by over 18%, between 2015 and 2018."

Co-op Central England

"Having driven down surpluses to an optimum level to minimise waste and maximise customer satisfaction, Co-op Central England has now introduced store level food redistribution through our partner FareShare East Midlands. It is predicted this will drive down store waste by 40% and generate the equivalent of over one million meals, meaning our contribution to the UK redistribution market is over three times our retail market share."

Lidl

"In 2018 Lidl launched 'Too Good to Waste' to target our highest waste category, fruit & veg. Each £1.50 box contains 5kg items not at 'perfect best', but still fine to eat. Unsold boxes are donated. Our 'Feed It Back' scheme, in partnership with Neighbourly, has supported 1,696 community groups and donated 3.9 million meals. Food waste data is published on our website."

M&S

"We're focused on reducing food waste across our value chain. The launch of the Roadmap has helped amplify existing initiatives and supported with best practice guidance. We've made good progress on cutting food waste through improved forecasting, connecting every store with a redistribution charity and work with strategic suppliers to reduce food waste as part of our joint business planning process. The Roadmap has helped us go further and faster."

Musgrave

"At Musgrave we focus on food waste prevention at source through staff training and adopting new procedures – both in store and at our warehouses. To tackle food surplus we've developed new barcode scanning technology. And we encourage all our suppliers to adopt SDG 12.3."

Sainsbury's

"As a responsible retailer, Sainsbury's contribute towards the UN Sustainable Development Goals, and constantly seek out opportunities to cut down on food waste through preventing surplus stock in the supply chain. Our Surplus Stock programme identifies where surplus stock is created in the supply chain, which allows us to mitigate against this. Additionally, our collaborative agreements with suppliers including Premier Foods are successfully reducing volumes of surplus stock per year."

Morrisons

"Morrisons support over 250 farmers through our 'Naturally Wonky' range, and in 2018 we sold over 40 million packs, the equivalent of 1,200 tonnes per week. We've also launched a 'Too Good to Waste' box, selling discounted fresh fruit and veg that's just past the date but still perfectly edible."

Ocado

"Ocado's business model is built around efficiency and low waste. By continually improving our technology, processes, and our relationships with suppliers over the past year our food waste is practically zero, just 1 in 6,000 products go to waste and we're working hard to reduce that further."

Tesco

"At Tesco we are clear that individual companies publicly measuring and reporting on food waste and loss is critical if the world is to deliver SDG 12.3 and halve global food waste by 2030. Last year 27 of our largest suppliers – representing over half of our own label fresh food sales – published their data for the first time. Since then 11 of the world's largest food brands including Mars, Unilever and General Mills have also committed to halve their food waste by 2030, publish food waste data for their operations and take concrete steps to reduce food losses and waste. We are calling on every food company to Target, Measure and Act on food waste and publicly report their data."

Waitrose & Partners

“Working with trusted suppliers we want to continue to come up with solutions to tackle food waste in our supply chain and be more transparent. Waitrose & Partners’ adoption of the Food Waste Reduction Roadmap is a pivotal step towards working with the UK food industry in delivering SDG 12.3, and we have actively encouraged our suppliers to follow suit.”



More case studies of retailers from across the food supply chain implementing **Target, Measure, Act** can be found [here](#).

⁷ Not all retailers report overall tonnages, or the tonnage as a percentage of food sold, making it difficult to compare datasets and obtain insights that might help reduce retail food waste further.

⁸ Data can be found here for [Tesco](#), [Morrisons](#) (p37), [Lidl](#) and [Co-op](#) (p17).

Retailers are increasingly publishing their own food surplus and waste data, and work is underway to ensure this is reported in a consistent manner and fully compliant with the Roadmap guidelines⁷. Four retailers have now published time-series data, revealing that between them they have prevented 12,500 tonnes of food waste a year, compared to their baselines, an average 10% reduction worth almost £40 million⁸.

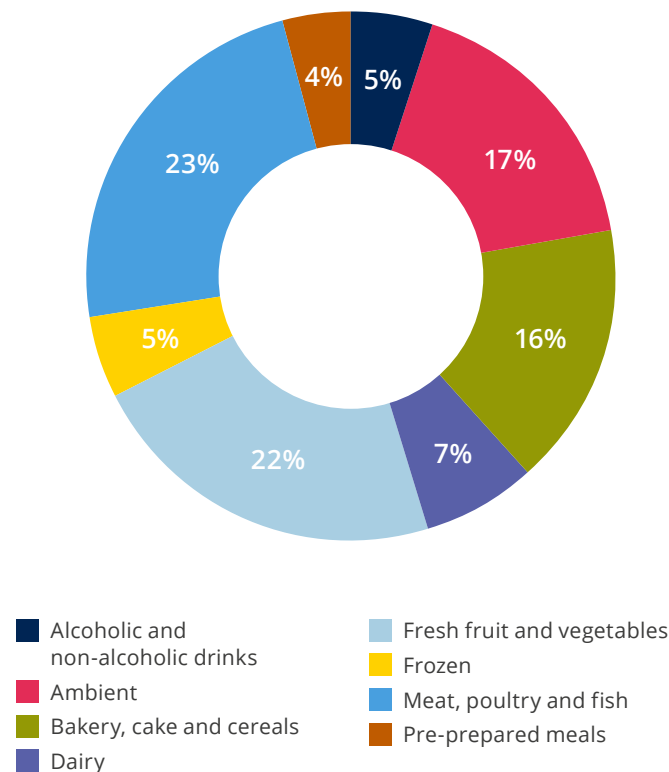
£40m

Four retailers have now published time-series data, revealing that between them they have prevented 12,500 tonnes of food waste a year, compared to their baselines, worth almost £40 million⁸.

Progress in Production and Manufacture

The number of producers and manufacturers committing to the Roadmap has more than doubled since launch, from 47 to 117. Collectively these businesses represent around 45% of the entire sector, by turnover⁹. They cover all of the major categories of food (see Figure 1) and the different nations of the UK.

Figure 1: Breakdown by category of number of producers and manufacturers committed to the Food Waste Reduction Roadmap



Around 80% of the producers and manufacturers committed to the Roadmap have provided evidence of implementing **Target, Measure, Act**, representing a third of the entire sector. Others are implementing measurement compliant with the Roadmap, and progressing towards adopting **Target, Measure, Act**.

Almost 40 producers and manufacturers have publicly reported food surplus and food waste, the majority of which as part of the call for action by Champions 12.3 chair and Tesco CEO Dave Lewis. 21 businesses reported data comparable to previous years, and between them delivered a 6% reduction in food waste, saving over £45m of food from becoming waste.

Those businesses that haven't yet publicly reported their food surplus and waste data are sharing this directly with WRAP. Dairy UK for example has supported members in acquiring data, which will be aggregated and shared with WRAP.

As a result of making the commitment to SDG 12.3 and the Roadmap, and acquiring data on food surplus and waste, producers and manufacturers have been able to identify a range of initiatives to prevent food being wasted. These included finding new markets for materials that may otherwise have ended up as waste, developing new products from materials that previously had no market, improving processes and staff training, and working with customers to optimise ordering and specifications.

⁹ It is worth noting that SMEs make up around 25% of this sector by turnover, and these have not been a target for the Roadmap (although a small number have committed).

A series of individual business case studies from producers and manufacturers can be found [here](#). These are some examples:

Bakkavor

“Reductions in food waste at Bakkavor are being driven through a focus on a variety of factors including raw material utilisation – maximising what we can produce out of the raw material we purchase, reducing over production – closer monitoring of production, continuous improvement of spillage points, reassessing raw material – to increase useful life of raw material and process efficiency – processing innovation to improve raw material yield and reduce waste.”

dps

“Food waste during 2018 represented 0.5% of all food produced by dps, a 50% reduction in the percentage of food wasted compared to the previous year. This has largely been driven by an increase in food surplus being sent to local charities and animal feed. We now facilitate a weekly food surplus donation programme partnering with four local Kent based charities and community groups; to provide fresh fruit and salads fit for consumption to those in need. Working with our waste management partner and local Kent farmers, a total of 1,107 tonnes of surplus was sent to animal feed rather than anaerobic digestion.”

G's Fresh

Each season G's Fresh expand our capabilities for drip tape irrigation. This produces a more consistent product, which reduces waste and water consumption. Re-usable crop protection netting and biodegradable mulches have greatly reduced the number of spoiled heads due to plants being grown with less pest and weed pressure. Our latest improvement is precision farming, which allows us to identify individual plants from aerial imagery and plan our growing and harvest more efficiently.



Greencore

Greencore have an improvement team in place across the UK to deliver specific tools for their sites to reduce food waste, including regular reporting and collaborative sessions and new techniques to drive waste reduction and yield improvement. A 3% reduction was achieved, with 1,300 tonnes less food waste in 2018 compared to 2017.

Hilton Foods

Hilton Foods' strategy is based on minimising factory waste through improving the production process and finding innovative solutions to reduce potential waste drivers. Examples include increasing shelf life at every stage of the supply chain, finding new solutions for the re-use of our food waste and increasing the amount of surplus that they create that is fit for human consumption and can be donated to partners like FareShare. As a result, in 2018 Hilton avoided a potential 3,500 tonnes of food waste by redirecting this material to human and animal consumption.

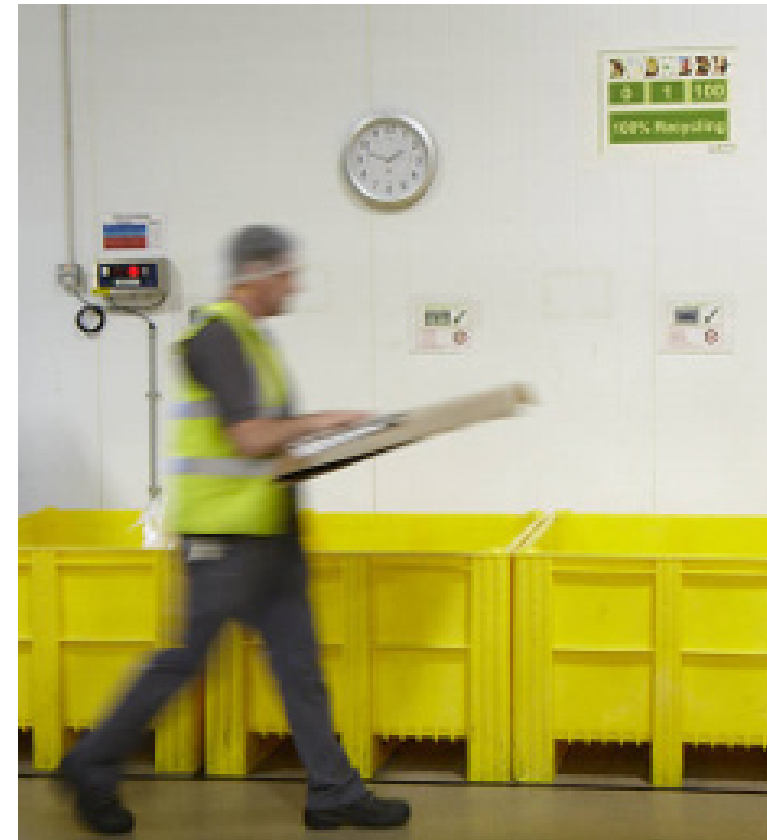
Kellogg's

"In the UK, Kelloggs have piloted an innovative use for imperfect Kellogg's Corn Flakes® from our Manchester facility. The flakes that are too big, too small or overcooked go to Seven Bro7hers Brewery for their "Throw Away IPA." The cereal flakes replace some of the wheat grain in the beer mix. Whilst this uses a fraction of our Organic waste – it is helping us to "re-think" organic waste."

Larger brands are also engaging with key suppliers to investigate how food waste can be reduced through their supply chains, and an example is given here, from Nestlé¹⁰:

Nestlé

“Nestlé have made a long-term commitment to reduce waste throughout its operations and across the supply chain. This includes providing technical assistance on practices that help reduce wastage of resources at the farm level and improve yields. Nestlé, together with Lely, have published a handbook applying the experiences from lean manufacturing systems to dairy farming. This handbook emphasizes reducing “waste” in all areas on the farm. We support the reduction of waste along the supply chain by ensuring efficient delivery of raw materials to our factories and a precise capturing of volumes and possible losses at different stages in the supply chain. We have applied different measures to reduce milk waste, including (a) decreasing spillage, (b) improving discipline in milk handling, weighing, and digitally recording waste, and (c) applying a very strict cut-off time between milking, chilling, and processing in order to reduce the likelihood of milk spoilage.”



¹⁰ Based on ‘[Nestlé’s milk losses from farm gate to factory in 30 countries – an FLW case study](#)’

Trade bodies such as the Food and Drink Federation (FDF) and redistribution organisations such as FareShare and Company Shop have also been actively promoting the Roadmap, and engaging with businesses on the implementation of **Target, Measure, Act**. Both Company Shop and FareShare will be expanding their work with WRAP and businesses using additional resources secured through Defra funding.



Food and Drink Federation

"Tackling food waste wherever it occurs is a key priority for Food and Drink Federation (FDF) members, with particular emphasis on preventing surplus and waste from occurring in the first place. This is illustrated by the commitments FDF has made in its Ambition 2025. FDF welcomed the launch of the WRAP-IGD Food Waste Reduction Roadmap in 2018, and as a supporting organisation, has been working with member companies to help achieve its goals. FDF has collaborated with WRAP to deliver webinars on the Roadmap to our members, tailored to the interests of food and drink manufacturers. These allow members to gain a further understanding of the **Target, Measure Act** approach and learn how it can work for them, with the opportunity to ask questions specific to their individual operations.

"FDF continues to highlight the value of the Roadmap and the **Target, Measure, Act** approach through a variety of communication channels, including a letter emphasising the importance of the Roadmap and inviting members to commit to it."



Progress in Hospitality and Food Service (HaFS)

The number of Hospitality and Food Service (HaFS) businesses committing to the Roadmap has increased by 13 since launch, to 24. Whilst a relatively small number, collectively this represents around 20% of the entire sector, by turnover¹¹. The businesses include some of the UK's largest restaurant chains, other food outlets, hotel groups, contract caterers and food service providers.

50%

Almost 50% of these businesses have provided evidence of implementing **Target, Measure, Act**, representing around 10% of the entire sector (by turnover).

Almost 50% of these businesses have provided evidence of implementing **Target, Measure, Act**, representing around 10% of the entire sector (by turnover). HaFS organisations have responded to the specific challenges of food waste measurement within a complex and fragmented sector by developing, with WRAP, a detailed collaborative Action Plan, published in March 2019. This defines the actions the sector will take to help deliver the Roadmap.

The Action Plan contains ambitious milestones to increase the number of businesses implementing **Target, Measure, Act**. Influencers (such as trade associations and membership organisations), are key to reaching the sector and have engaged on interpreting **Target, Measure, Act** within their own initiatives. These include the Sustainable Restaurant Association's Food Waste Bad Taste. The milestones recognise the complexity of the sector, and focus on government procurement as well as waste management contract data and WRAP's Guardians of Grub campaign as routes to increase the number of businesses measuring and reducing food waste.

¹¹ It is worth noting that SMEs make up a large proportion of this sector (around 50% based on turnover; WRAP's analysis), and these have not been a target for the Roadmap (although a small number have committed)



WRAP's Guardians of Grub campaign was launched in May 2019, to empower professionals from across the sector to reduce the amount of food thrown away in their operations. Resources are designed around the practical task of measuring wasted food; a critical prerequisite for full implementation of **Target, Measure, Act**.

September 2019 saw the Guardians of Grub Stand Up For Food month of action, with partners (influencers and operators) encouraging the sector to measure the food they throw away in order to reduce it.

Examples of HaFS businesses measuring and monitoring food waste include:

apetito

Health and care sector food service company apetito work with their customers to implement Target, Measure, Act. By working with teams in hospitals and care homes to increase understanding of portion sizes, to measure food waste clearly and consistently, and to take ownership of reviewing and acting on the data collected, they have seen food waste reduction of as much as 50%.

The Balloon Bar

During a seven-day pilot, using the tracking sheet and calculator tools, The Balloon Bar, a café/restaurant located in the University of Bristol's Students Union, produced 60kg of food waste, a projected annual cost to the business of £4,160. Changes to the salad buffet, menu design and portion control have already been implemented.

BaxterStorey

Foodservice provider BaxterStorey has delivered a food waste reduction of over 41%, since it launched 'Food Waste Costing the Earth' in 2014, equating to 6,600 tonnes, saving clients over £3m in disposal costs and £300k in energy costs. The initiative empowers teams to collect and measure food waste in the way they felt most appropriate for their location, which means it fits seamlessly into the everyday running of their kitchens without impacting cost or resources. To date over 900 accounts report plate, spoilage and production waste, and the percentage of food waste against purchases has fallen from an estimated 10% to less than 3% in 2018.

Pizza Hut Restaurants

Since 2015 Pizza Hut Restaurants has seen a reduction in kitchen operational food waste as a percentage of food purchased, of ~50%. This is against a target of 20% in alignment with the Courtauld 2025 target. Achievement of this target in such a short timeframe was as a result of the exceptional rigour and discipline displayed by the operations teams. The company continues to maintain this level of performance through periodic measurement and process improvement. Current efforts are focused on the challenge of consumer plate waste reduction.

There are also examples of where larger HaFS businesses are engaging with their suppliers to help reduce food waste in their supply chains:

Brakes

“Foodservice wholesaler, Brakes already has a number of measures in place to reduce or redistribute food products to minimise food waste within the business. These include a redistribution programme providing food for their Meals & More charity. “Working with WRAP and being part of the Roadmap has helped us to refocus our waste strategy, looking across the business to identify exactly where and how waste is being generated. Armed with this greater understanding we are now able to look well beyond the solutions we currently have in place.”

Castell Howell

“At Castell Howell, we recognise the challenges that the foodservice supply chain faces in terms of reducing and managing food waste, and it is critical that all businesses engage both internally and externally to target, measure and action interventions that can negate food waste. As influencers in the supply chain, Castell Howell are working in partnership with customers and suppliers to build up case studies on how they can all achieve these goals. Activities range from improving transit packaging and handling during transit, selling prepared vegetables and pre-made sandwiches, rethinking the delivery and management complimentary staff food through to measuring food waste with customers including SA Brain & Co and Castle Leisure.”

Sustainable Restaurant Association

“With a longstanding and close working relationship with WRAP, as well as a shared belief in the ‘what’s measured gets managed’ approach, aligning with Target Measure Act and the new Guardians of Grub campaign were simple choices for the Sustainable Restaurant Association (SRA). Both campaigns are helping to raise awareness of the need for the industry to act on food waste. They also provide a sharp focus on which operators and organisations like the SRA can concentrate their impact programmes for the industry like Food Waste: Bad Taste.”

Further examples from the HaFS sector can be found [here](#).

Conclusions and forward look

It is vital to have the right level of support and incentives for more businesses to take action on food waste. WRAP and IGD have worked closely with the major retailers and brands to engage their suppliers through supplier conferences, **Target, Measure, Act** roadshows, on-line supplier networks and direct one to one engagement, reaching around 150 businesses face-to-face and many more through other channels.

The introduction of mandatory food waste reporting in the UK, subject to consultation later in 2019, will support the ambitions of the Roadmap.

In addition 20 trade bodies attended a WRAP workshop explaining how they could effectively engage with and support their members.

The introduction of mandatory food waste reporting in the UK, subject to consultation later in 2019, will support the ambitions of the Roadmap. WRAP is working closely with policy makers to help ensure the new regulations will be aligned and informed by the Roadmap and its resources. The mandatory separation of food waste will also make it easier for many businesses to acquire data on how much food waste they are generating. Both will drive further engagement with and adoption of the broader **Target, Measure, Act** strategy.

There are also technical and logistical challenges in implementing **Target, Measure, Act** for certain businesses and sectors, for example around the measurement of food waste. This is a particular issue for those that dispose of significant amounts of food waste to effluent streams and for HaFS businesses operating across many smaller sites. WRAP, IGD and partners have significantly increased support for the Roadmap, to accelerate the rate of progress and enable businesses to be prepared for the new reporting regulations. Additional funding has also been made available to WRAP by Defra to increase the 'on the ground' support for businesses implementing **Target, Measure, Act**.

WRAP will review the Roadmap milestones and reporting timetable once the details of mandatory reporting are finalised, and is planning to report on progress against Courtauld 2025 and SDG 12.3 targets later in 2019.

There is much more to do, with another 500 major food businesses needing to implement **Target, Measure, Act** to enable the UK to achieve SDG 12.3, and those businesses already measuring have work to do to embed a culture of continuous improvement. Champions 12.3 and WRAP are calling for more businesses to implement **Target, Measure, Act**, and publicly report, to help track progress and inform action. It is also important that greater numbers of larger food businesses engage with their suppliers, to encourage and support them in taking action on food waste.

WRAP's engagement team is available to support committed businesses on how to set targets, measure food waste, report in a consistent way and create action plans. **Contact us** to find out more and what type of support businesses would qualify for.

Committed organisations

✓ Businesses that are implementing Target, Measure, Act and have provided evidence to WRAP.

Organisations committed to the Food Waste Reduction Roadmap, and those who have provided evidence of Target, Measure, Act implementation.*

Retail (15)		Production/manufacture (117)		Bahlsen LLP	
Abel and Cole	✓	2 Sisters Food Group	✓	Bakkavor Group	✓
Aldi	✓	A Gomez Ltd	✓	Barfoots	✓
Asda	✓	A. Espersen A/S	✓	Belazu Ingredient Co	✓
Boots	✓	AB World Foods	✓	Berry Gardens Ltd	
Co-op Central England	✓	ABP Foods	✓	Berryworld Ltd	
Iceland Foods Ltd	✓	Addo Food Group	✓	Blue Skies Holdings Ltd	✓
Sainsbury's	✓	Adelie Foods	✓	Bowman Ingredients Ltd	✓
Lidl	✓	Adkins Bakery Ltd		Branston Ltd	✓
M&S	✓	Albert Bartlett	✓	Bute Island Foods	
Morrisons	✓	Allied Bakeries	✓	Cleone Foods	
Musgrave	✓	AMT Fruit Ltd	✓	Coca-Cola European Partners	✓
Ocado	✓	apetito Ltd	✓	COOK Trading Ltd	✓
Tesco	✓	Aquascot	✓	Country Style Foods	✓
The Co-op	✓	Arla Foods	✓	Cranswick PLC	✓
Waitrose and Partners	✓	Avara Foods	✓	Delicious Alchemy	

* As of 1.00pm 19th September 2019.

dps Ltd	✓	Iceland Seafood Barraclough Ltd	✓	Manor Fresh Ltd	✓
Dunbia UK	✓	Innocent Ltd	✓	Mars UK	✓
Ella's Kitchen Brands Ltd		Jackson's Bakery	✓	Meadow Foods Ltd	✓
Farne Salmon & Trout Ltd	✓	Jordans Ryvita	✓	Morrisons Manufacturing	
Flamingo Horticulture	✓	Joseph Robertson (Aberdeen) Ltd		Moulton Bulb Company Ltd	
Flawsome Drinks Ltd		Just Love Food Company		Moy Park Ltd	✓
Frank Roberts & Sons		Kanes Foods	✓	Muller Milk & Ingredients	✓
Froneri	✓	Karro Food Group	✓	Natures Way Foods Ltd	✓
Fullers Foods International		Keelings Fresh International Ltd	✓	Nestlé UK & Ireland	✓
Fyffes Group	✓	Kellogg Company	✓	Noble Foods	✓
G's Fresh Ltd	✓	Kepak Group	✓	One Stop Halal Food	
General Mills	✓	Kerry Foods	✓	Ornua Foods	✓
Glinwell PLC	✓	Kettle Foods	✓	Oscar Mayer Ltd	✓
Greencore Group	✓	Kettle Produce Ltd	✓	PepsiCo UK & Ireland	✓
Greenvale AP		KP Snacks Ltd	✓	Premier Foods	✓
Greenyard Frozen UK Ltd	✓	Kraft Heinz	✓	Princes	✓
Hilton Foods UK	✓	Lactalis Nestlé Chilled Dairy	✓	Procter and Gamble UK	
Hobsons Brewery		Lucozade Ribena Suntory	✓	Puffin Produce	✓
Hovis	✓	Lyons Seafood	✓		
Iceland Manufacturing Ltd	✓				

Quorn Foods	✓	Warburtons	✓	Castell Howell Foods Ltd	✓
Randall Parker Foods	✓	Wealmoor Ltd		Casual Dining Group	
Richard Hochfeld Ltd	✓	Weetabix	✓	CH & Co	
Samworth Brothers	✓	Wessanen UK (Kallo Foods Ltd)	✓	Compass Group UK & Ireland	✓
Saputo Dairy UK	✓	Westmill Foods	✓	Costa Ltd	✓
Seachill UK Ltd	✓	Whitby Seafoods Ltd	✓	Daniel Thwaites PLC	
Signature Flatbreads UK Ltd	✓	Whitworths Ltd	✓	Greene King	
SK Chilled Foods Ltd	✓	Winterbotham Darby & Co Ltd	✓	Greggs	
Speedibake	✓	Worldwide Fruit Ltd	✓	Holroyd Howe	
Staveleys Eggs		Yeo Valley Farms (Production) Ltd	✓	Intercontinental Hotel Group PLC	
Stockans Oatcakes		Young's Seafood	✓	ISS Group	✓
Stonegate Farmers Ltd	✓	Hospitality and Food Service (24)		Nando's	
Tereos Sugar UK & Ireland	✓	Accor		OCS Group	✓
The Protein Ice Cream Company		BaxterStorey	✓	Pizza Hut Restaurants	✓
The Silver Spoon Company	✓	Bidfood	✓	Sodexo UK & Ireland	✓
Tulip Ltd	✓	Booker	✓	Starbucks	
Unilever UK	✓	Brakes	✓	St Austell Brewery	✓
Vitacress Ltd		Caffè Nero	✓	The Restaurant Group	

Other supporting organisations (29)

AHDB

Anthesis

British Beer & Pub Association

British Frozen Food Federation

British Retail Consortium

Business in the Community

Catering Equipment Suppliers
AssociationChartered Institute of Environmental
Health

Chilled Food Association

Company Shop

Craft Guild of Chefs

Environmental Association for
Universities and Colleges

FareShare

Federation of Bakers

Federation of Wholesale Distributors

Food & Drink Federation

Fourth

Institute of Hospitality

Leanpath

NFU

Provision Trade Federation

Royal Academy of Culinary Arts

Soil Association Food for Life

Sustainable Restaurant Association

The University Caterers Organisation

Too Good to Go

UKHospitality

Unilever Food Solutions

Winnow

Organisation Type

Committed Implementing

Retail

15

15

Production/manufacture

117

93

Hospitality and Food Service

24

13

Total Committed Businesses**156****121**Other supporting
organisations

29

0

Total Committed**185****121**

WRAP's vision is a world in which resources are used sustainably.

Our mission is to accelerate the move to a sustainable resource-efficient economy through re-inventing how we design, produce and sell products; re-thinking how we use and consume products; and re-defining what is possible through re-use and recycling.

Find out more at www.wrap.org.uk

IGD and WRAP have led an industry-wide programme of work developing the [Food Waste Reduction Roadmap](#), showing how the UK food industry will help achieve the UK's Courtauld 2025 targets, and the UN's Sustainable Development Goal 12.3 to halve food waste by 2030.

To find out more and get involved, contact our experts FoodWasteRoadmap@wrap.org.uk

www.wrap.org.uk/food-waste-reduction-roadmap

While we have taken reasonable steps to ensure this report is accurate, WRAP does not accept liability for any loss, damage, cost or expense incurred or arising from reliance on this report. Readers are responsible for assessing the accuracy and conclusions of the content of this report. Quotations and case studies have been drawn from the public domain, with permissions sought where practicable. This report does not represent endorsement of the examples used and has not been endorsed by the organisations and individuals featured within it. This material is subject to copyright. You can copy it free of charge and may use excerpts from it provided they are not used in a misleading context and you must identify the source of the material and acknowledge WRAP's copyright. You must not use this report or material from it to endorse or suggest WRAP has endorsed a commercial product or service. For more details please see WRAP's terms and conditions on our website at www.wrap.org.uk

Project Code: BCP001

The graphic features the words 'Target Measure Act' in a white, sans-serif font. To the left of the text is a yellow curved line that starts below 'Target', goes up and around 'Measure', and then points right as an arrow towards 'Act'.