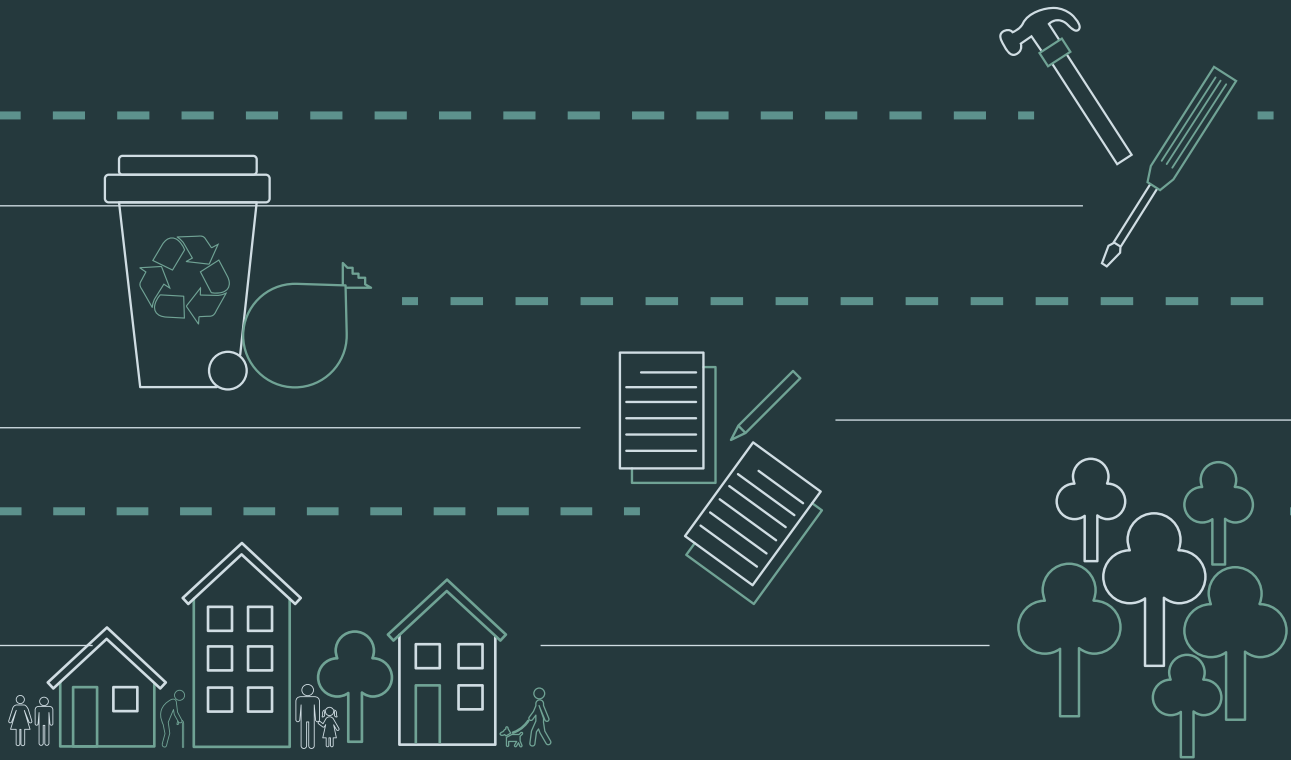




Llywodraeth Cymru
Welsh Government



Beyond Recycling

A strategy to make the circular economy in Wales a reality

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Beyond Recycling

Making the circular economy a reality in Wales

Circular

Economy: Our aim is to keep resources in use for as long as possible and avoid waste.

Our goals

- **One planet resource use**
- **Become zero waste by 2050**
- **Net zero emissions**
- **Maximise our economic potential**
- **Make resource efficiency part of Welsh culture**

Core Themes



HEADLINE ACTIONS



1

We will support businesses in Wales to reduce their carbon footprint and become more resource efficient.



2

We will provide the tools to enable community action.



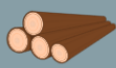
3

We will phase out unnecessary single use items, especially plastic.



4

We will eradicate avoidable food waste.



5

We will procure on a basis which prioritises goods and products which are made from remanufactured, refurbished and recycled materials or come from low carbon and sustainable materials like wood.



6

We will strive to achieve the highest rates of recycling in the world.



7

We will reduce the environmental impact of the waste collection from our homes and businesses.



8

We will take full responsibility for our waste.

Ministerial Foreword

We are living in an unprecedented time. The coronavirus pandemic has had a major impact on how we live our lives, Brexit has changed how we trade with neighbouring countries and climate change is bringing record global temperatures and extreme weather events. Despite these challenges, there are however important signs of positive change. The pandemic has seen communities and businesses across Wales coming together to take action to care for their surroundings and each other. We know collectively we can make a big difference to the lives of people around us and our wider environment.

Our national recycling rate has now reached over 65%, exceeding our latest target and cementing Wales' place as one of the highest recycling nations in the World. Our targets, investment and partnership working have all been key ingredients of this success, but achieving it has ultimately been down to people recycling at home in every part of Wales which has collectively made a huge national difference.

How we manage resources has never been more important. The pandemic has shown us what we need and use cannot be taken for granted. As we look to develop a strong recovery from the pandemic, the Welsh Government is committed to making sure it is a green and just recovery.

To truly be green, we must take steps to tackle climate change and reverse the decline in biodiversity, working towards a Wales which consumes a fair share of the Earth's resources. The UK Climate Change Committee recently reported that the measures proposed in this Strategy will reduce emissions. We recognise that we must take action on unsustainable consumption which is impacting on our climate and biodiversity. A circular economy where we value resources by keeping them in use is a critical element of a green and just recovery because it will work to reduce our consumption and prevent waste.

The transition to this approach has already started and we need to accelerate this to improve both our economic and social outcomes by increasing Wales' resilience. Shorter supply chains, and realising the value in our resources, are as key to our recovery from the pandemic and mitigating the negative impacts of Brexit as are actions to decarbonise and reduce waste.

In publishing this Strategy, we are setting out our commitment to action as a Government to use the powers and levers that we have to the fullest extent to accelerate our transition to a circular, low carbon economy. This includes areas like tackling single-use plastics that were strongly emphasised by the response to our consultations. However, the recent passing of the Internal Market Act may hamper our ability to take some of the actions we have already committed to take as its impact on Wales' devolved competence is uncertain. This is why we have commenced legal proceedings to challenge the Act and the potential ability for the UK Government to fetter Wales' ability to take action.

Our aim in bringing forward this Strategy has not just been to set out our ambition over the course of the next decade but to accelerate action. That is why after publishing the

Strategy for consultation, we committed to taking action from the outset, recognising the urgent response needed to the climate emergency and related biodiversity crisis.

Over the last year, we have made funding of over £43 million available through the Circular Economy Fund, to businesses and publicly funded bodies like Local Authorities and universities to develop a range of innovative projects. This has ranged from the cutting edge Remakerspace at Cardiff University working with business to improve product design to a repair shed supporting the local community in Llangollen. Projects such as these provide us with evidence to consider further and wider support. More businesses and enterprises are being set up in Wales to innovate and grow the circular economy, like Frugalpac in North Wales developing paper alternatives to plastic drink containers, Riversimple in Mid Wales designing a new hydrogen powered car using a circular business model and Smile Plastics in South Wales developing work surfaces from difficult to recycle plastics.

Taking the next steps on our pathway towards a zero waste, low carbon economy has never been more important; but as a country our progress to date has already shown our ability to deliver.

Lesley Griffiths MS
Minister for Environment, Energy and Rural Affairs

March 2021

How we will move to a more circular economy

A circular economy keeps resources and materials in use for as long as possible and avoids all waste. This will mean moving away from a 'linear economy' which assumes a constant supply of natural resources or the take-make-use-dispose culture based on the extraction of resources, the production of goods and services, and the disposal of post-consumer waste. Moving to a circular economy is key to the delivery of key environmental outcomes – because it can significantly reduce our carbon emissions and our over-exploitation of natural resources, and help to reverse the decline in biodiversity. But crucially it can also improve economic and social outcomes. Economically, through taking a circular approach which shortens supply chains, it can improve efficiency, create employment and increase competitiveness. In terms of social benefits, shortening supply chains and reducing emissions will reduce the health impacts caused by pollution and help to more fairly distribute resources. This will also provide more opportunities for communities to come together to share resources and revitalise where we live.

To accelerate our journey towards a circular economy we will prioritise eight ambitious headline actions:

1. **We will support businesses in Wales to reduce their carbon footprint by becoming more resource efficient.** This will enable our businesses to be more productive and competitive, particularly in a decarbonising global economy whilst increasing their resilience.
2. **We will provide the tools to enable community action.** This means supporting the local actions which collectively make a big difference. We will engage with our schools and communities working with citizens to support local initiatives and resource efficient actions.
3. **We will phase out unnecessary single-use items, especially plastic.** We will send zero plastic to landfill and progressively reduce the amount sent to energy recovery. We will achieve this with game-changing reforms such as an Extended Producer Responsibility Scheme for packaging, a Deposit Return Scheme for drinks containers and by applying bans or restrictions on unnecessary single-use items.
4. **We will eradicate avoidable food waste.** We will do this by working with businesses across the whole supply chain, from farm to fork, to minimise waste, maximise resource efficiency and working to limit food waste in all settings.
5. **We will procure on a basis which prioritises goods and products which are made from remanufactured, refurbished and recycled materials or come from low carbon and sustainable materials like wood.** In doing so we will drive a step change across the public sector in Wales so that the procurement of sustainable goods and products becomes the norm, whilst phasing out the procurement of non-sustainable alternatives. This is a key part of our delivery of a net zero public sector in Wales and how we use the purchasing power of the

public sector to improve our economic and social outcomes as well as the improvement of our environmental ones.

6. **We will strive to achieve the highest rates of recycling in the world.** This includes working with local government, businesses, social enterprises and communities to take the next steps in becoming a truly advanced recycling nation. A key step will be to transform the recycling of commercial, industrial, construction and demolition waste.
7. **We will reduce the environmental impact of the waste collection from our homes and businesses.** We will introduce ultra-low emission vehicles and invest in the infrastructure to power them with renewable energy, thereby reducing emissions and improving air quality. We will improve how materials are collected and processed, including by embracing digital and smart technologies.
8. **We will take full responsibility for our waste.** We will reduce the amount of waste that we produce and effectively manage what we create by having the infrastructure we need. We will also ensure we do not export problem waste elsewhere. We will work with international partners to help them to tackle their waste issues and reduce the adverse impact of our consumption on other countries as well as learn from practice elsewhere.

A Foundation for Future Success – Our context

There is much to be proud of with what we have achieved to date. Our commitment to lead the way on tackling waste over the last two decades has seen Wales go from recycling less than 5% of our municipal waste at the start of devolution to around two-thirds today. Put simply, we are pretty mighty at recycling.

We have created a strong foundation in waste and recycling in Wales - it is embedded in our culture and it is this foundation which provides the platform to take the next steps and move to a more circular economy.

Government has played a key role in setting a clear long-term pathway, minimum statutory targets and providing funding for improved infrastructure. Successful delivery has however been down to a truly collective effort, with everyone playing their part and in particular Local Authorities, communities and households across Wales.

When it comes to our waste services, Wales looks a very different place today than it did twenty years ago. The collection of a range of recycling materials from our kerbside is frequent and universal. We are not only collecting and separating the materials, but increasingly using them to make the new products we need. Recycling centres are no longer just 'tips' and are further evolving into modern eco-parks where businesses and enterprises cluster to reclaim the materials, capture added value and keep resources in use.

We have reduced our food waste at home and are one of the few nations in the world to have universal weekly separate collections of food waste, fuelling anaerobic digestion plants which generate renewable energy around the country. We are also in the process of introducing new and improved collections for other hard to recycle materials, such as nappies and plastic film. These innovations are keeping Wales at the forefront of recycling.

The consistency of our approach across Wales has yielded many benefits. The majority of Local Authorities in Wales now collect materials for recycling in the same way, having adopted the Welsh Government's best practice 'Collections Blueprint'. This has helped to increase investment in reprocessing in Wales and improved our resilience to global market impacts because of the high quality of materials collected from Welsh homes. This has been supported by a billion pounds of investment from the Welsh Government, which has reduced carbon emissions for every Local Authority in Wales according to the Eunomia Recycling Carbon Index. Many Local Authorities have also seen significant financial savings as a result of improved collection regimes and supporting infrastructure.

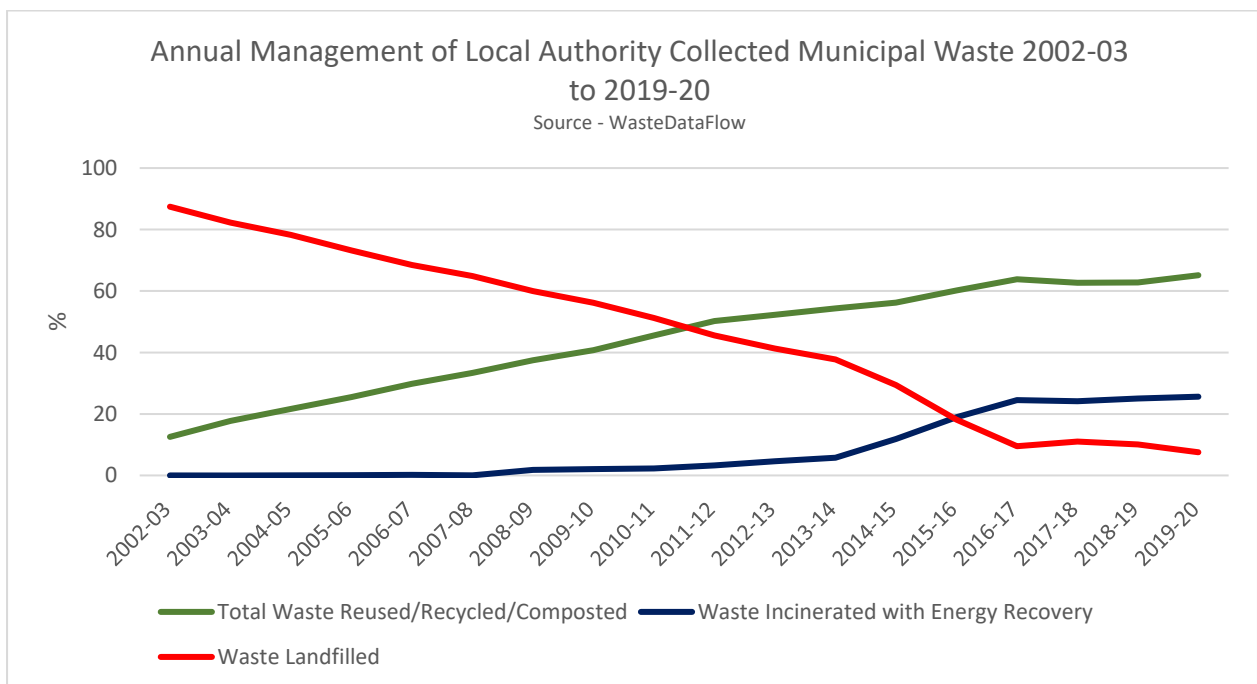
Our communities have been fundamental to the successful approach here in Wales, with, for example, social enterprises across the country promoting re-use and upcycling, which support sustainable living and provide opportunities for volunteering and skills development – often targeted at those struggling to gain employment. The pandemic has shown many in our communities have been impacted, particularly the most vulnerable. In October 2020, we published the Covid-19 Reconstruction; Challenges and Priorities document. This sets out a number of areas of action and announced £320 million funding to support our people and places. We have provided

support to initiatives which have not only reduced waste, but assisted the most vulnerable in Wales. One example of this is FareShare Cymru, who have expanded their operations redistributing surplus food to those who most need it across the country, and to whom we are proud to be able to lend our support.

Currently Eco-Schools and Size of Wales are the main platforms Welsh Government has to engage directly with children and young people on sustainable behaviours, climate change and natural resource priorities. The programmes have developed an eco-aware generation who are not simply focussed on waste reduction and recycling but on how schools and communities can contribute towards improving wider outcomes within their communities whilst reducing emissions. Many schools are already engaging in this work by taking action to reduce their waste, creating local partnerships with businesses and other organisations to improve their local communities and find further uses for the materials.

Our businesses are innovating too. We recycle 67% of our industrial and commercial waste and 87% of our construction and demolition waste. From the circular business model and innovative hydrogen powered cars at Riversimple, to office furnishings made from difficult to recycle plastics at Smile Plastics, and damp-proof membrane made from recycled material at Capital Valley Plastics, we are a country finding new ways to innovate and keep resources in use.

The figure below shows how we are landfilling less and less materials and recycling more and more.



A Challenging Time – The Covid-19 Pandemic, Brexit and Climate Change

The ongoing pandemic has rapidly transformed life as we know it and this is set to continue to impact upon us for the foreseeable future. At the same time, we are adjusting to life outside the European Union, the impacts of which are not yet fully understood.

In the meantime, the long-term environmental challenges we face have not disappeared. We are still in the midst of a climate emergency: globally, we are experiencing unprecedented climate events; we are on track for temperature rises above 2°C; one million species are threatened with extinction due to climate change and the overexploitation of natural resources; and there is increasing evidence of the adverse impacts that plastic is having on the environment and living organisms. Here in Wales, we are already feeling the effects with flooding and other extremes of weather becoming more commonplace.

These challenges bring important opportunities to positively shape our future. As a Government, we have committed to a green and just recovery from Covid-19. This Strategy is a core part of our commitment to take accelerated action on the climate emergency and related global biodiversity crisis, both of which are driven by unsustainable consumption. The circular economy offers an approach which can work to reduce consumption. Taking a circular economy approach is therefore a key pillar of a green and just recovery, helping not only to address the climate crisis, but also to tackle current levels of inequality, whilst driving better economic outcomes for Wales. By re-evaluating what we need and how we use it, we can boost the long-term competitiveness of Wales in a global economy. We are therefore as committed, if not more, to decarbonisation, resource efficiency and nature recovery as before the pandemic. This is a cornerstone of a prosperous and resilient Wales, for the wellbeing of current and future generations.

We already have a strong foundation for a circular economy here in Wales. This was demonstrated by how our communities responded to the pandemic, coming together to collaborate, act and share resources. We reconnected with our local areas, walking and appreciating our green spaces and nature as many of us worked from home. We shopped and used local businesses and sourced local products. We made more of the resources we had, and we shared and swapped locally the things we no longer needed. We used our vehicles a lot less.

What does 'zero waste' mean?

Zero Waste is where all waste that is produced is re-used or recycled as a resource, without the need for any landfill or energy recovery.

We have long had an objective to reach zero waste by 2050 and this goes hand in hand with our goal of a net zero carbon Wales. On the way to 2050, we already have important milestones of a quarter less waste being produced, zero waste being sent to landfill and avoidable food waste halved by 2025. Given the urgency of the

challenges facing us and the imperative to act, this Strategy has been updated since the consultation to further define our pathway. By 2050, Wales will be a country which instinctively thinks and plans to use as few resources as possible, keeps those resources in use for as long as possible and then finds new uses for these resources at the end of their first useful life. Consumption will increasingly happen within biological cycles, where food and products using biologically-based materials, like wood, are designed and used to feed back into the system and where technical cycles involving manufactured materials such as metal, glass and plastic will recover and restore products through re-use, repair and re-manufacture.

Key targets:

By 2025

- **26% reduction in waste**
- **Zero waste to landfill**
- **50% reduction in avoidable food waste**
- **70% recycling**

By 2030

- **33% reduction in waste**
- **60% reduction in avoidable food waste**

By 2050

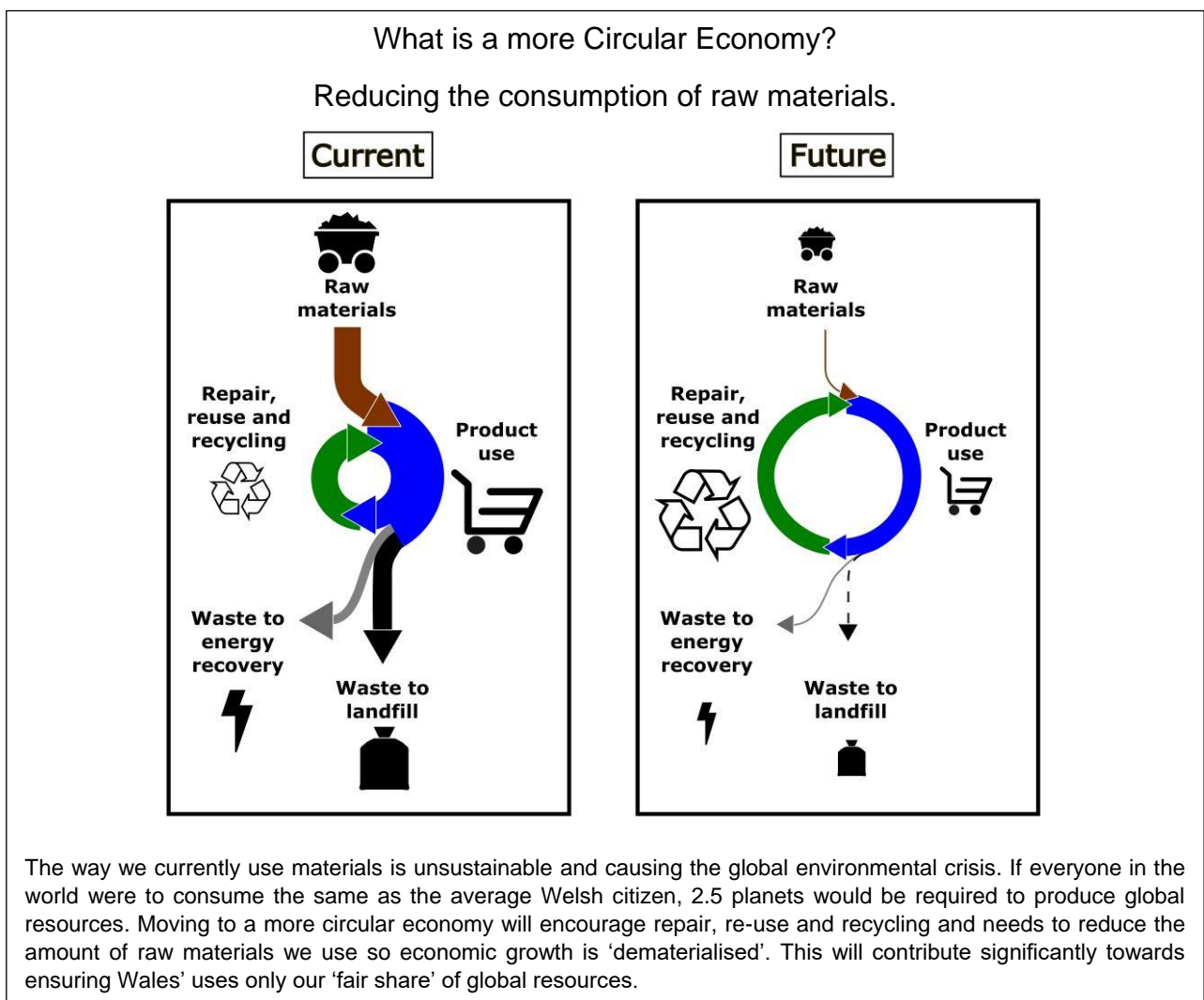
- **One planet resource use**
- **62% reduction in the waste**
- **Zero waste**
- **Net zero carbon**

(Note: All waste reduction targets are set against a 2006-07 baseline)

Crucially, our waste and recycling services remain resilient throughout the pandemic with the vast majority of collections being maintained throughout. This was vital in helping people to stay at home, but also the continuation of recycling services in particular bolstered our overall resilience. With Wales' success in recycling, the materials collected are also increasingly critical for our economy as these materials are then used to make new products we need.

This Strategy builds on what we have learned from the pandemic experience, the planning for Brexit and the steps needed to combat climate change, to take ambitious action to support our future resilience.

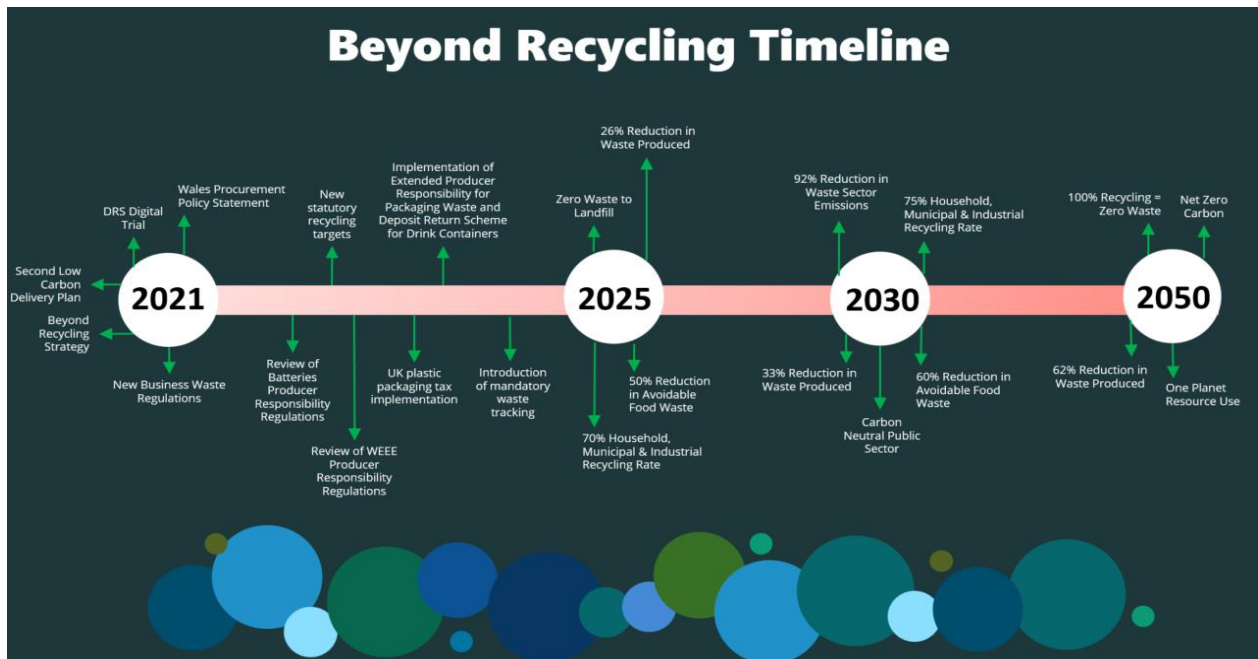
The diagram below sets out our aspirations for the circular economy we want to achieve.



How we want to get there

This Strategy lays out the steps we will take over the next ten years on our pathway towards a circular economy.

The timeline below illustrates our planned actions towards our 2050 targets. Some of these actions will be subject to further consultation, with some actions being jointly undertaken with other governments.



We have structured the Strategy around six core themes and eight headline actions to deliver the next steps along the path to achieving our goals. They have been developed from the evidence we have gathered, the learning from the previous strategy, the valuable feedback we received from our extensive consultations, and the analysis and evidence underpinning our work.



The Well-being of Future Generations Act has been at the heart of the development of this document. We have produced a strategy which looks to maximise our contributions to the goals and have produced a separate assessment setting this out which has been published alongside the Strategy.

This Strategy has been developed following the Five Ways of Working. It is a long-term plan setting a pathway towards 2050. It contains actions which are designed to improve economic, social and environmental outcomes. It has been developed in partnership and through meaningful engagement and genuine collaboration and this will continue throughout its implementation. The official consultation period saw over 40 events held across Wales with many sessions taking place in communities and schools. Those who attended were not only asked what they thought about the consultation as drafted, but what their ideas were for a Wales to achieve zero waste, net zero carbon and a more circular economy.

This is an integrated plan. The themes and actions support the delivery of commitments under *Prosperity for All: our national strategy*. In particular, “*for a more resource efficient economy building on our success in recycling and reducing the environmental impacts of production and consumption*”. It is also key to the delivery of our obligations under the Well-being of Future Generations Act and the United Nations Sustainable Development Goals. It is integrated with our key strategies and plans, including the Low Carbon Delivery Plan, the Wales Transport Strategy and the recently published Economic Resilience and Reconstruction Mission. It is designed to deliver against key areas of the Environment (Wales) Act and in particular the priorities set out in our statutory Natural Resources Policy. The circular economy is also an important element of the *Covid-19 Reconstruction: Challenges and Priorities* Strategy, making a major contribution to a green recovery.

Driving innovation in materials use

Currently we are consuming materials at a far higher rate than is sustainable, which has negative environmental, social and economic impacts.

By looking at the long-term need for key materials in Wales, reducing the carbon footprint of supply chains and purchasing lower carbon products we will take a whole life cycle approach and incentivise better product design to allow for materials to be in use for as long as possible.

In addition, we will promote innovation in business systems. Our Circular Economy Fund is already doing this, promoting business models that avoid waste and value resources such as leasing goods rather than selling them and finding worth in materials considered waste. Taking a more circular approach has been shown to reduce the environmental impact of key sectors and incentivises companies to prioritise making products which last.

Innovation is key to better resource use and we will look to support digital solutions and better data use as opportunities for Welsh businesses to bolster resilience, shorten supply chains, and compete in a decarbonising global economy.

What do we mean by low carbon products?

Embedded carbon is the carbon footprint of a material. The carbon footprint is the sum of all the carbon dioxide equivalent emissions associated with the energy used to process the raw materials and then manufacture and transport the product. Using low-carbon products reduces the strain on our natural resources, and can save money relative to mainstream equivalents. Low embedded carbon products include Welsh timber or seasonal food products sourced locally.

Where we are now:

The production of everyday products – including cars, clothes and food – accounts for 45% of global carbon emissions¹. In addition, our level of consumption uses far more than our fair share of the earth's resources and is at the core of the climate and biodiversity crisis that we face.

Much of our economy is reliant on what are known as 'critical raw materials' like lithium and tantalum which can be found in mobile phones. Many of these materials are in short supply, and can be 'high risk' causing significant social and environmental damage when mined and processed. We want to ensure that we capture and retain the value of the products that we already have and find alternatives rather than have increasing reliance on these raw materials.

¹ Ellen MacArthur Foundation (2019), Completing the picture: How the circular economy tackles climate change;
https://www.ellenmacarthurfoundation.org/assets/downloads/Completing_The_Picture_How_The_Circular_Economy-_Tackles_Climate_Change_V3_26_September.pdf

What do we mean by critical raw materials?

Critical Raw Materials (CRMs) are those raw materials which are economically and strategically important for our economy but have a high-risk associated with their supply. They can be found in many products from smart phones, to renewable energy technology to health technology. In recent years, there has been a focus on how we look to keep these materials in use through re-use and recycling.

The full environmental and social impact of the products we consume are largely hidden from us, often because the raw materials in them are extracted in other parts of the world. There are however serious impacts of the extraction of those resources, such as deforestation and destruction of important habitats. In addition, the amount of energy and associated greenhouse gas emissions used to extract, process and transport these materials contribute to the climate crisis.

Evidence shows litter is having a significant impact on the environment, especially our seas. We have been working with the other governments of the UK to take measures to address the issues caused by plastic pollution and marine litter including bringing forward bans on single-use plastic items.

We introduced legislation in 2018 banning the manufacture, sale or offer to supply any rinse-off cosmetic or personal care products which contain plastic microbeads. We are also looking at restrictions on products made from oxo-degradable plastics, which contain additives that hasten their breakdown to micro-plastics. We are committed to taking further action within the scope of our competence to reduce the environmental impacts of unnecessary single-use plastic to help meet our ambition of a litter and fly-tipping free Wales. We have therefore been gathering evidence about the potential impacts of introducing bans or restrictions on several single-use items and considering how we can use these to encourage a switch to re-usable alternatives.

Where we want to be:

To achieve our aims, the amount and the types of material we use will need to change. We need to reduce the overall quantity of materials we use in products by applying lean thinking, miniaturisation, multi-functionality, and applying circular economy business models such as hiring, lending and leasing. We also need to think carefully about the materials from which our goods are made and where they come from. This will mean sourcing more sustainable, local and low carbon materials such as timber, and those with a high recycled content whilst moving away from those materials with the highest carbon footprint.

We want to ensure hazardous chemicals are reduced in the products consumed in Wales, and any wastes containing hazardous chemicals are appropriately managed. Managing plastic waste from electrical equipment and other products like carpets, which contain persistent organic pollutants is a particular challenge.

We also want to increase the use of recycled and remanufactured content and encourage more repair and re-use in the products we need and use. This will build on the action we are already taking through our Circular Economy Fund, which is providing support to businesses to increase the recycled content in their products and we will take forward the recommendation from the UK Committee on Climate Change to increase resource efficiency in industry. We will also prevent plastic from becoming litter or ending up in landfill by limiting its unnecessary use and supporting innovation in areas like bioplastics, where this provides a positive environmental solution. Whilst we recognise some uses of disposable plastic are essential – such as those in medical settings – we want to see more produced from recycled content and a Wales free from unnecessary single-use items.

What do we need to do?

In addition to our headline actions, we will also:

- Prioritise the use of sustainable and low carbon materials in construction in Wales to support progress towards whole life net zero carbon for construction projects. We will apply this first to public sector construction including the Innovative Housing and 21st Century Schools Programmes, the refurbishment of the social housing stock in Wales, and the construction of new schools. We will also explore the introduction of embedded carbon footprint technical standards.
- Build on the experience of the foundational economy focus on local and regional procurement, ask all public sector bodies funded by the Welsh Government to follow a sustainable materials procurement hierarchy, including achieving a minimum level of recycled content by value and to report the level of recycled content in the buildings they procure.
- Adopt a whole-life approach to financial, carbon and overall environmental costs in public sector procurement. We will aim to reduce the material and consumption carbon footprints of core services such as health and social care, and education. This will include publishing the NHS Wales Decarbonisation Strategic Delivery Plan which will set clear targets to lower emissions, reduce the amount of waste produced and increase recycling.
- Support businesses to find high quality uses and markets for secondary materials derived from waste and provide investment for this through our Circular Economy Fund. This will include innovative uses for wastes from food manufacturing and the forestry industry – known as ‘valorisation’ or ‘bio-refining’ to derive value from these wastes as part of a more resource efficient bio-economy.
- Commission analysis to better understand the long-term need for key materials in Wales. We will investigate how to decarbonise these materials and use this information to produce road maps for key resources, starting with plastic, fibre and wood.

- Restrict the sale of the most commonly littered single-use plastic items on our way to phasing out unnecessary items completely.
- Encourage the use of more bioplastic from renewable sources where the use of plastic is still needed, and where this represents the best overall environmental option. We will also communicate the impacts of new forms of packaging such as compostable plastic to citizens and stakeholders.
- Support innovation in developing new, alternative materials with a lower environmental footprint and products that use fewer materials, and switch to lower carbon alternatives for the materials we use. We will strive to eliminate the use of chemical additives which can cause harm or prevent recycling at end of life including through improved labelling.
- Invest in green skills such as eco-design, re-use, repair, remanufacture and reprocessing to support the development of Wales' workforce. We will work with relevant professional bodies to secure their accreditation of circular economy related training and qualifications offered by training providers in Wales, especially our universities and colleges. We will seek to address any gaps in circular economy training, skills development and qualifications. Aligning apprenticeships with the needs of the Welsh economy is at the centre of our skills policy, and we will continue to look at the role apprenticeships have in closing any of those gaps. In doing so, we recognise that safety is a key consideration, especially for the re-use and repair of electronic equipment.
- Incentivise digital disruption in the sector by investigating digital and 'smart' technological solutions to improve resource efficiency. For example, we are exploring a digital solution to how the introduction of a Deposit Return Scheme can work with our existing successful household collection arrangements.
- Build on current innovation in Wales by launching a national competition for innovation to tackle the challenge of hard to recycle materials.

Upscaling prevention and re-use

In order to move to a circular, low carbon economy we will need to reduce the amount of waste produced by households, businesses and the public sector. We are setting ambitious targets to deliver a circular economy and prevention will be at its core. Our aim is to build on the cultural change that has already happened in Wales so that unnecessary waste is prevented, products are re-used and repair and remanufacturing are a core part of our society.

Where we are now:

Wales is already a country where re-using materials and preventing waste is widespread. It is a place where people use apps to prevent surplus food from going to waste, swap and sell clothes and where re-use and refill shops are increasingly common. We are already working to halve avoidable food waste by 2025, going faster and beyond the recent recommendations in the UK Climate Change Committee on *The Path to a Net Zero Wales*. We have an expanding network of refill drinking water points in place across Wales - decreasing the single-use of plastic bottles. We also have a rapidly growing community of Repair Cafes reducing waste, bringing communities together and supporting skills development.

We were the first country in the UK to place a charge on single-use carrier bags and as result a 71% reduction in their use was recorded between 2011 and 2014.

Businesses are also getting more involved with reducing and preventing waste. The amount of waste produced by Welsh industrial and commercial sectors in 2018 reduced by 22% (800,000 tonnes) compared to the previous 2012 survey. We provide support for businesses to prevent their wastes through dedicated programmes such as the Business Wales 'Green Growth Pledge', Food and Drink Wales and Farming Connect. These support the wider resources and information available via WRAP Cymru and the Food Innovation Centres in Wales.

Many of our Local Authorities now provide re-use shops in their household waste recycling centres. Despite the progress we have made, our latest analysis identified 180,000 tonnes of Local Authority collected municipal waste was potentially re-usable². Of this only 10,000 tonnes were actually prepared for re-use - so we have a long way to go, but the opportunities are there.

Where we want to be:

We want to be a nation in which communities and businesses see value in resources and avoid waste. More also needs to be done to reduce waste in the first instance and we want to support the many waste prevention initiatives across Wales to come together, share practice and hear from them about what support they need. We want to develop a universal culture of re-use, repair and remanufacture within our communities and town centres. This is not just in order to prevent waste, but to realise

² WRAP Cymru, 2018, Cardiff, Preparation for re-use: a roadmap for a paradigm shift in Wales, prepared by Resource Futures, <http://www.wrapcymru.org.uk/sites/files/wrap/CCP104-014%20-%20PfR%20Technical%20Report%20final%20-%20English%20-%20July%202018.pdf>

the potential economic gains and social benefits. We want to help good practice examples which already exist across Wales to become the norm.

CASE STUDY: The Sharing Economy; Repair Café, Benthg, Nappy Collective.

Benthg, based in Cardiff, is a project where you can borrow what's needed, donate what's not, and meet to share knowledge and skills. After securing £50,000 of Landfill Disposals Tax Communities Scheme Funding in 2019, they can now offer more than 350 items for a modest fee, from fancy dress items, to hedge trimmers to mobility walkers. These items are provided at low cost, allowing vulnerable communities to access tools and materials which can otherwise be beyond their means whilst reducing the need for seldom-used carbon heavy items.

At the other end of the country, the North Wales Nappy Collective, with bases in Wrexham, Denbighshire and Flintshire, reduce waste through providing demonstrations, question and answer sessions, advice, trials, and long term loan kits of nappies for people experiencing financial hardship. Since 2015 they estimate to have prevented over 3 million nappies and 26 million single-use sanitary products from entering landfill, while also combating period poverty through their Given To Shine project.

Repair Café Wales, part of a movement including more than 1,800 cafes globally, was founded in 2017 to address the unsustainable waste-to-landfill of items whose lifetime could be extended with repair. Funded via a £50,000 Landfill Disposals Tax Community grant scheme, Repair Cafes have three main values: waste reduction, skill sharing, and community cohesion. There are now around 30 cafes located across Wales where all kinds of items are fixed, preventing waste going to landfill, saving money, and reducing material-carbon footprints.

All three are representative of a broader movement across Wales focused on bringing communities together to collectively reduce consumption, costs and emissions, via sharing skills, and essential items to the benefit of the environment and community.

What do we need to do?

In addition to our headline actions, we will also:

- Ensure every business in Wales can access advice on improving their resource efficiency by, for example, reducing their waste or improving the design of their products and associated packaging through support provided by Business Wales, Food and Drink Wales and Farming Connect and available from WRAP Cymru and the Food Innovation Centres.

- Work with the other UK nations to improve the legislation for waste electrical and electronic equipment (WEEE) and ensure a right to repair, encouraging durability and increasing access to modular parts in products is promoted.
- Provide access to advice to citizens on what they can do to reduce waste in their homes, including cutting down on food waste, home composting, using re-usable nappies and sanitary products, using more refillable products and passing on unwanted items for a second life.
- Develop a new minimum preparation for re-use target for Local Authorities to follow the 1% target (excluding WEEE) set for 2024-25 in Towards Zero Waste providing a clearer pathway to zero waste by 2050.
- Promote sharing, waste prevention and re-use and support the re-use, repair and remanufacturing sectors to grow in our communities and town centres building on the learning from our dedicated Circular Economy Fund for repair and re-use.
- Pilot a re-use platform which will allow those in re-use markets to connect with the public and third sectors to access refurbished, recycled and remanufactured goods rather than buying new products. We will support the development of community sharing and re-use schemes.
- Halve avoidable food waste by 2025 and reduce it by 60% by 2030. We will set out a plan to achieve this which engages with retailers to ensure they encourage their customers to reduce their food waste, and consider whether additional mandatory 'Consumer Information Obligations' for food waste reduction are necessary.
- Set up a working group with representatives of the food sector supply chain in Wales in order to share best practice and identify collaborative opportunities to meet the food waste reduction target. This will also look at ways to reduce unnecessary packaging and secure a more resilient food system.
- Consult on the need for a requirement for businesses to report food waste quantities, and on introducing a requirement for major retailers to redistribute surplus edible food.
- Give practical support to businesses on reducing food and packaging waste and seizing the economic opportunities this presents via Business Wales, Food and Drink Wales, Farming Connect, WRAP Cymru and the Food Innovation Centres.
- Increase the public sector's donation of surplus equipment, including to other countries who cannot readily access such equipment and who can benefit from its use.
- Produce less waste during the construction, refurbishment and at the end of the life of public sector buildings.
- Invest in the training and skills necessary for re-use, repair and remanufacturing through the establishment of courses and diplomas (e.g. green apprenticeships).

Building on our recycling record

Our aim is to build on our success to date by continuing to drive improvements in recycling of household, commercial, industrial, construction and demolition waste and to make Wales the world leader.

Where we are now:

We have increased Wales' municipal waste recycling rate from 4.8% (1998-99) to 65.14% (2019-20)³, exceeding the 64% statutory target. According to Eunomia, Wales had already achieved the third highest household recycling rate in the world behind Germany and Taiwan⁴ in 2015. The recycling rate for industrial and commercial waste increased by 9 percentage points from 58% to 67% between 2012 and 2018.

This progress has been supported by robust recycling collection regimes around Wales with a consistent set of core items collected from every household like food, plastics, metals and paper. Our households have a universal weekly separate food waste collection. Currently, fifteen of our twenty-two Local Authorities are following – or are in the process of implementing - the same best practice kerbside collection service approach - the Welsh Government's Collections Blueprint.

We have also seen innovation around Wales in tackling hard to recycle products including mattresses and nappies. But we know half of the household residual waste remaining in our black bags can still be recycled, with half of this being food waste⁵. Three quarters of our residual commercial and industrial waste is also easily recyclable material. We therefore need to capture this material and stop sending recyclable waste to landfill or energy from waste plants and recycle it instead.

What is My Recycling Wales?

My Recycling Wales is a website which allows anyone to see what happens to their recycling after it is collected by their Local Authority. It is funded by the Welsh Government and run by WRAP Cymru. The data comes from Waste Data Flow, an online reporting system which is validated by Natural Resources Wales. This is a key part of our commitment to transparency.

<https://myrecyclingwales.org.uk/>

³ Welsh Government (2020) Local Authority municipal waste management: April 2019 to March 2020, <https://gov.wales/local-authority-municipal-waste-management-april-2019-march-2020>

⁴ Eunomia and European Environmental Bureau (2017), Recycling – who really leads the world? <https://www.eunomia.co.uk/reports-tools/recycling-who-really-leads-the-world-issue-2/>

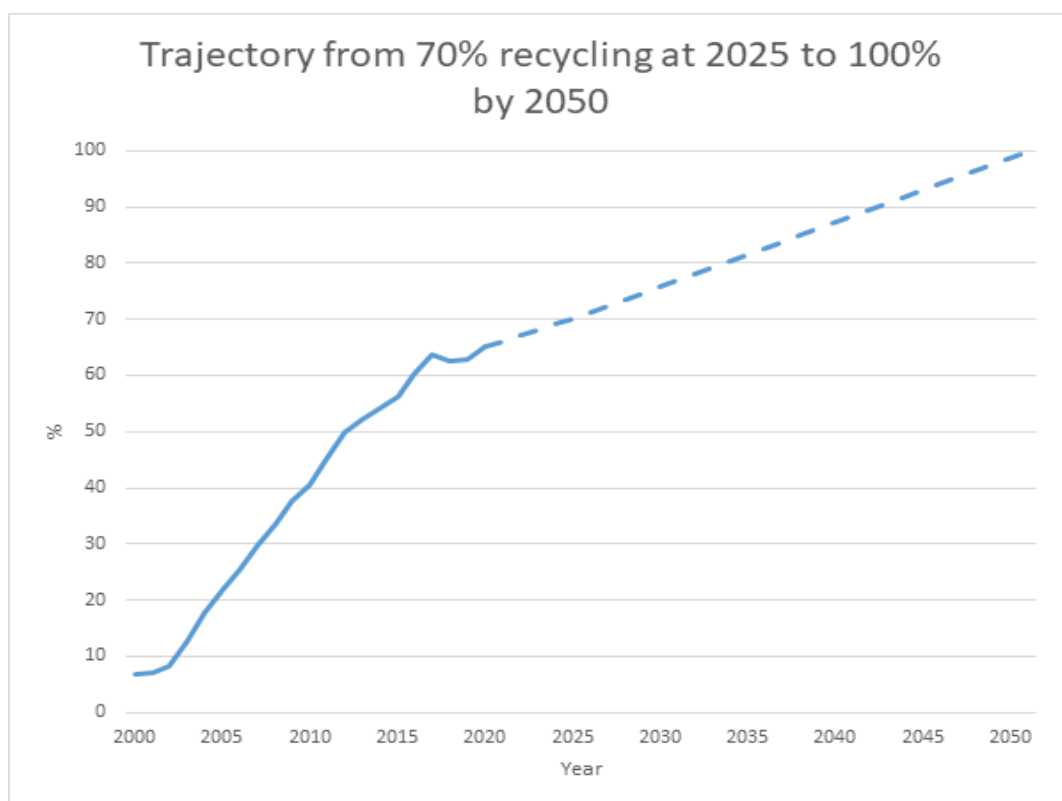
⁵ WRAP (2016), National municipal waste compositional analysis in Wales; <http://www.wrapcymru.org.uk/sites/files/wrap/Wales%20Municipal%20Waste%20Composition%202015-16%20FINAL.pdf>

Where we want to be:

We want to make Wales a zero waste nation by 2050. This means any discarded materials are recycled and re-circulated within the Welsh economy with virtually no loss of materials from the system – effectively a 100% recycling, composting or preparation for re-use rate from all sectors.

Our next minimum target for the recycling of waste is 70% by 2025 for waste from households and commercial and industrial businesses. To maintain our trajectory towards zero waste by 2050, we will commit to setting out interim targets on a trajectory towards zero waste.

We need to extend the range of high quality materials separately collected everywhere for recycling. For food waste, we want to further increase the use of the anaerobic digestion infrastructure we already have in place in order to achieve increases in recycling. To promote higher recycling of business and public sector waste, we will require high quality recycling in all non-domestic settings, so businesses separate their waste in the way households already do.



What do we need to do?

In addition to our headline actions, we will also:

- Develop additional infrastructure to collect and recycle household materials not currently widely recycled such as absorbent hygiene products, wood, plastic film, rigid non-packaging plastic, cartons, textiles, mattresses, carpets and waste electrical and electronic equipment.

- Work with Local Authorities and other key partners to develop recycling targets in line with our pathway to zero waste and reaching 100% by 2050.
- Bring forward regulations to require all non-domestic premises to separate key recyclable materials as households already do. This will include working with the waste industry in Wales to further improve consistency in the range of waste materials collected for recycling.
- Review and update our Collections Blueprint and in doing so we will ensure an expanded set of materials are collected with a focus on capturing high quality recyclable material which will also support Wales' resilience to further changes in the global market place.
- Radically improve the recycling of packaging, by introducing an Extended Producer Responsibility (EPR) scheme for packaging to ensure producers bear the full end of life costs for their packaging and that they report on and meet packaging recycling targets set for Wales. This will include mandatory universal labelling to ensure it is easy for people to understand what can and cannot be recycled.
- Improve the re-use and recycling of drinks containers by introducing a Deposit Return Scheme (DRS).
- Work with Local Authorities and others to build on the success of awareness campaigns such as 'Be Mighty, Recycle' to further support citizens to recycle at home, on-the-go and through local recycling centres.
- Raise increased awareness of our transparent approach by working to promote and improve the My Recycling Wales⁶ website which allows people to track their local recycling and see the end destinations of our materials.
- Make sure that our support to businesses encourages high levels of recycling as a norm. We will also work to support improved resource efficiency in our businesses, from highlighting the value that can come from materials considered waste through to encouraging better design for re-use and recyclability.

⁶ <https://myrecyclingwales.org.uk/>

Investing in infrastructure

Investment in our infrastructure is crucial if we are to transition to a zero-waste, resource efficient, and low-carbon nation. This means continuing to develop the infrastructure necessary to reduce, re-use, repair, re-purpose, remanufacture, re-engineer and recycle products and materials. Having the processing capacity alongside the continued improvement in collection services will improve our ability to derive greater added value from what is a valuable resource and improve resilience within the Welsh economy.

Where we are now:

Wales is already a recycling society, with high quality collection infrastructure, and a worldwide reputation for our achievements in this field.

We have already invested a billion pounds in household recycling across the country to transform how we deal with our materials. This investment has supported the rapid increase in our municipal waste recycling. It also means that we have universal household food waste collection, with the infrastructure in place to ensure waste food is used to generate renewable energy.

As a responsible nation, we are committed to dealing effectively with our non-recyclable waste in a way which prevents it from either polluting the environment or becoming a problem elsewhere. For this reason we have invested in infrastructure which generates electricity and heat from this material and disposes of it safely, to the highest environmental standards.

With lending, hiring, leasing, re-use, repair, re-engineering and remanufacturing increasing, so our infrastructure has to support it, run by social enterprises, community initiatives and the private sector. We have seen the expansion of re-use and repair cafes, zero waste and plastic free shops, scrap stores, a 'library of things' (to borrow), community fridges and community compost initiatives across the country. We have also seen a network of free water refill points appear across Wales in our communities, along our coastal path and at our iconic historic sites – providing an important alternative to single-use drinks containers.

Our town centres and communities are going to be an area of important focus as we recover from the pandemic. We have already made £13 million available to support communities and town centre repair and re-use hubs which is supporting projects across Wales. We will observe these as having the potential to share and build on good practice.

We have also begun the roll out of Ultra-Low Emission Vehicles for recycling and waste collection along with the infrastructure to support them.

Where we want to be:

As we continue to improve our recycling, we will need to put in place the infrastructure to process it and support Wales' manufacturing sector to increase its use of the recycled material collected. Waste and recycling is a key part of our foundational economy and is responsible for jobs and activity in every part of Wales. Having the right infrastructure for our communities will mean that we can maximise the benefit to our economy from our world class recycling. Investment in infrastructure must also help to tackle the more difficult to manage material streams, improve efficiency and lower costs.

In order to go beyond recycling, we want to develop the infrastructure to accelerate the growth in re-use, repair and remanufacturing and support an expansion in hiring, leasing and lending. We will also need to ensure the infrastructure we have is decarbonised and future investment supports the wider transition to a low carbon economy. We will work with key partners as part of our Team Wales approach to achieving a net zero public sector by 2030.

As repair, re-use and recycling continue to expand, we want to ensure the capacity we have for generating energy from waste is in line with the capacity needed during our transition to a circular economy, with the long-term solution being to move away from incineration. We also want to see our towns across Wales demonstrate circular approaches by having repair and re-use hubs as well as other important infrastructure including refill points, zero waste shops and resilient green infrastructure.

CASE STUDY: Capital Valley Plastics

Established in 1987, Capital Valley Plastics in Cwmavon produce essential construction materials such as anti-damp membranes, damp proof courses, and gas barriers from one of the most difficult materials to recycle, polythene film. Thanks to a £117,000 Welsh Government funded investment managed by WRAP, they are increasing their capacity by purchasing an additional blown plastic film line. Capital Valley is an excellent example of a company creating value by using materials that would otherwise be wasted to produce ethical, necessary products and create employment locally.

What do we need to do?

In addition to our headline actions, we will also:

- Work in partnership with Local Authorities to develop regional 'eco-park' hubs where collected materials are recycled, reprocessed, and remanufactured into new products, thereby deriving greater added value and capitalising on the economic opportunities from a more circular economy.

- Invest in handling, sorting and reprocessing infrastructure in order to address priority materials – including absorbent hygiene products, small electronic equipment, wood, plastics, textiles, mattresses, carpets and cartons.
- Work with the private sector to improve the processing capacity within Wales to be able to unlock the full potential of our world class recycling.
- Promote the development of community infrastructure which helps citizens to reduce waste. This includes zero waste and zero plastic shops, surplus food redistribution, community fridges, refill points, community hire shops, material-lending libraries and related initiatives.
- Put town centres at the heart of our approach through the development of town centre hubs which will develop repair and re-use activity in communities across Wales to support our Transforming Towns Programme and increase footfall.
- Support regional economic development through the transition to a circular economy which encourages shorter supply chains and a more local and regional focus on sourcing materials. We will work with the Valleys Taskforce and City Deal Regions to encourage the development of resource efficient, circular economy infrastructure.
- Review the infrastructure we need against the likely future trends in the quantities and types of waste generated, and by strategically reviewing the necessary flows and supply chains of key materials such as wood needed to support the transition to a circular and low carbon economy.
- Through case studies and the innovations taking place across Wales such as those supported by our Circular Economy Fund, we will promote examples of businesses which are keeping resources in use and realising the economic benefits of this. We will share these with the public sector to encourage new ways of procuring goods such as leasing and buying remanufactured products.
- Work to decarbonise the waste collection and recycling service, including through the continued roll out of Ultra-Low Emission Vehicles across Wales. We will also strategically improve the charging infrastructure and in doing so look for opportunities to support the wider decarbonisation of fleet vehicles.

Enabling community and business action

Government cannot bring about the transition to a circular economy alone. This is why we want to do all that we can to support individuals, communities, businesses and the public sector to drive change. Together we can make a huge collective difference by harnessing the energy of businesses who are already making great strides to provide resource efficient products and reduce waste; supporting the many community initiatives across Wales; and those taking actions as individual citizens, role models, champions and resource efficiency entrepreneurs.

Where we are now:

Our communities are leading from the front in effecting local change and developing more sustainable enterprises. Initiatives such as plastic free and zero waste localities are inspiring everyone to take action to reduce waste, from young people to old, community groups to local businesses. Several Local Authorities have also committed to a one planet or net zero waste future. Wales has a proud track record of community-led initiatives in this area and we have provided support to encourage these to flourish.

In helping to tackle food waste, we have supported initiatives such as FareShare Cymru, who since 2011 have provided over eight million meals to vulnerable people through the redistribution of surplus food. Over the last year, we supported the expansion of FareShare Cymru into other parts of Wales providing food to those in need during the pandemic.

The Landfill Disposals Tax Communities Scheme (LDTCS) has funded a number of projects, including a number addressing re-use and recycling. We have also supported Repair Café Wales to continue their work to bring communities across the country together to share the skills of repair and re-use; and through the Circular Economy Fund we are supporting over 30 repair and re-use projects across Wales. We have also committed to becoming the World's first Refill Nation and facilitated the widespread roll-out of refill water points to date across Wales collaborating with businesses and creating refill points at strategic locations.

Our universities and colleges are also sharing expertise and sparking innovation and we would like to see this expanded. The new 'Remakerspace Centre' initiative in the PARC Institute at Cardiff University has been set up to support and promote remanufacturing and the circular economy in Wales by providing businesses with the skills, equipment and awareness to rethink the design of products.

We have a well-established partnership with the universities across Wales with CERIG (the Circular Economy Research and Innovation Group) which brings together our academic institutions and creates opportunities for collaboration and supports Welsh businesses with innovation in a circular economy approach.

We have also supported the EU funded 'Circular Economy Innovation Communities' project led by Swansea University and Cardiff Metropolitan University which is bringing public sector and social enterprise leaders together to find circular economy solutions to organisational challenges. This builds on the lessons we have learnt through Wales'

involvement as a partner in the EU Interreg Europe funded Circular Economy for SMEs (CESME) project which involved six European regions.

We are providing support to businesses in terms of advice through a range of sources including Business Wales who have dedicated sustainability advisers and WRAP Cymru who provide information and support on resource efficiency. We have also established a Circular Economy Fund for businesses which supports investment in supporting the use of recycled materials in products.

Where we want to be:

We want to build on the tremendous momentum that exists across Wales, and encourage and facilitate more communities and businesses to take positive action to prevent waste and encourage more re-use, recycling and resource efficiency. We also want to harness the passion and enthusiasm of our young people utilising the levers at our disposal such as our environmental education programmes, to ensure we involve children and young people early in our future thinking and influence positive behaviour change and creative thinking amongst our next generation.

We will aim to bring communities together to develop initiatives relevant to their area and particular needs. We want every community to have ready access to re-use and repair facilities alongside an expanded recycling offer. We also want to support new local initiatives such as remote working hubs which help reduce the time, cost and carbon emissions associated with commuting and equip them as resource efficiently as possible, for example by using re-used and remanufactured office furniture and floor coverings.

We want our businesses and enterprises to be at the vanguard of change and support them to save and make money from the growing circular economy while becoming more resilient by shortening supply chains. This will also help to unlock new economic opportunities brought about through the disruption to existing sectors and the development of new and emerging markets and help our businesses to compete more effectively in a decarbonising global economy

Achieving our goals will require a step change in the way we use resources throughout our economy and in our everyday lives. We are a high consuming society and the products we consume are often single-use and draw directly from raw natural resources.

CASE STUDY: Riversimple

Riversimple is a company which is working to eliminate the environmental impact of personal transport. With the support of a £2million Welsh Government Grant for R&D in 2015, they have designed and built a hydrogen cell car half the weight of a conventional vehicle. More remarkably and in supporting the transition to the circular economy their business plan is not to actually sell any cars, but rather provide a transport service. All maintenance, fuel and insurance will be included in the monthly fixed fee. This is a complete shift in perspective for the car industry which would reduce our reliance on finite resources. Riversimple aims to create 180-220 skilled jobs in the next few years.

What do we need to do?

In addition to our headline actions, we will also:

- Support town centres to become more 'circular' as part of the cross-government action on Transforming Towns through the development of local repair and re-use hubs and other initiatives such as refill points and zero waste retail offers.
- Provide advice and support to businesses through Business Wales and support action through our Economic Contract so that companies in Wales are able to take the opportunities from a more circular economy and improve their resilience. We will work with relevant trade, sector and professional bodies active in Wales, to support their members to become more resource efficient. We will also expand our innovation support on resource efficiency and increase the number of businesses signed up to the Business Wales' Green Growth pledge.
- Improve the information available to consumers, through, for example, improved labelling, to enable people to make clear choices to support more recycled and sustainable products.
- We need children and young people to play a prominent role in driving our circular economy forward. Young people have been and will continue to be central to the action and solutions needed. We will continue to support our current and future generations through education, training and our environmental programmes, this is crucial to grow awareness and understanding of climate change, emissions, energy use and waste generation.
- Support manufacturers, particularly in the food and drink sector, to be ready for a new future by planning for the forthcoming reforms to, for example, packaging. This support will emphasise the opportunities from realising the benefits of more resource efficient and sustainable alternatives.
- Support businesses to be ready for the introduction of the Plastic Packaging Tax and continue to support businesses to use more recycled materials in products.
- Support the development of green skills in our workforce, including in the digital economy, resource efficiency, circular economy business models, forestry and timber, repair, remanufacture and in the use of composite materials.
- Use our Circular Economy Fund to invest in and support community initiatives which encourage sharing, redistribution, repair, re-use and remanufacture.
- Work with the key stakeholders including the Centre for Climate Change and Social Transformations (CAST) to research and develop the social transformations needed to produce a low-carbon, resource efficient and sustainable society.

Aligning Government levers

By aligning Government levers such as funding, legislation, taxation and procurement to maximum effect, we are working to align our actions to achieve maximum benefit. In doing so, we recognise achieving our aims requires action from all parts of Government and across the wider public sector in Wales to support the move to a more circular economy.

Where we are now:

Since the publication of *Towards Zero Waste* in 2010, Wales has gained further responsibility for more areas of policy relevant to the circular economy and we are able to draw from a wider set of levers to effect change. As a result, there have been some notable achievements in recent years which reflect our own determination to take action. These include using our legal powers to introduce a charge on single-use carrier bags and to ban microbeads. We are also the only country in the UK to place statutory minimum recycling targets on Local Authorities.

To date, we have invested over a billion pounds in waste and recycling infrastructure and collections regimes to back our zero waste vision and we have used our Circular Economy Fund to stimulate innovation in every part of Wales. The fund is supporting businesses to use more recycled materials, supporting public bodies to transition to a more circular economy and assisting communities to take action to keep resources in use.

We have also gained further fiscal responsibilities since the publication of the last strategy including control of some taxes including the Landfill Disposals Tax. We have used some of the income raised from this tax to fund environmental projects like repair cafes.

We have also worked to align our policy approaches across the Welsh Government ensuring that the circular economy features as a key component of major strategies and plans. Resource efficiency and the circular economy are core components of the *Covid-19 Reconstruction: Challenges and Priorities* Strategy reflecting the importance to our recovery. It features strongly in a range of policy approaches and programmes from our Natural Resources Policy to our economic approaches including the foundational economy. This recognises the ability of a more circular economy to harness local resources for the benefit of the local economy and re-using, remanufacturing, re-engineering and recycling as important elements. The Better Jobs Closer to Home projects in paper recycling and re-engineered paint are key examples of supporting local jobs and keeping resources in use.

A number of public sector organisations in Wales have exemplified circular behaviours and achieved widespread recognition. Refurbishing office space provides a useful example here as shown in the international award winning Public Health Wales' procurement of re-used and remanufactured office furniture and carpet flooring for its new office in Cardiff. Similar initiatives have been undertaken by Swansea Council and North Wales Police, and more recently Transport for Wales, and Rhondda Cynon Taf Council.

Where we want to be:

We want to optimise the use of government levers to support and drive progress along our pathway to a circular economy. In doing so we want to derive the maximum benefit to Wales, not just environmentally but economically and socially so that it is not only helping to address the climate emergency and the decline in biodiversity but is also at the heart of a green recovery.

To support the delivery of the Strategy we will work to align our levers and make the best use of our powers. In terms of legislation, this will mean bringing forward legislation to deliver key schemes. In relation to funding, we want to invest in the infrastructure that will support our transition to a circular economy whilst continuing to support the delivery of innovative, scalable projects which prevent waste and recognise surplus materials as a resource. We also want to further use our fiscal powers to spend in a way that supports a more resilient circular economy.

In essence, this means that we want to make sure the resources we use as a Government and as a public sector support our move towards a circular economy. In doing so, we want to not just drive good practice, but for that good practice to become the norm so that in considering value for money it reflects whole lifetime costs and the benefits derived, the materials used, their carbon impact and the supply chains involved. We want the procurement of re-used, remanufactured and high recycled content and sustainably sourced items to be the default, 'business as usual' approach.

What do we need to do?

In addition to our headline actions, we will also:

- Place a moratorium on any future large scale energy from waste developments, as the increase in recycling and reduction in waste already seen means that we will not need any new large scale energy from waste infrastructure to deal with the residual waste generated in Wales. We will also work with the UK Government to explore whether the introduction of an incineration tax would be desirable as a means to support progress along the transition to a circular economy.
- Legislate to ensure separated key recyclables are banned from energy recovery or landfill.
- Prioritise the purchasing of resource efficient products with a low carbon footprint. We will use less virgin material and prioritise the use of, for example, wood and high recycled content as well as prioritising re-used and remanufactured items in the goods the public sector purchases.
- Work to provide support for educational and skills development that embed core circular skills such as resource efficiency and design at all levels including schools, training, qualifications and apprenticeships.

- Set an example with how the Welsh Government procures goods and products.
- Support the public sector and encourage business to prioritise sustainable trade and the traceability of products to work to ensure that we avoid procuring materials which adversely affect the human rights or the environment in other countries.
- Build on our success in recycling to focus on tackling hard to recycle materials. We will work with the other governments of the UK to develop an Extended Producer Responsibility (EPR) Scheme for plastics and bring forward the legislation to support its implementation. We will also look at the potential to apply EPR to additional products which are difficult to recycle such as tyres, textiles and bulky wastes (for example furniture, mattresses and carpets) and products used in construction.
- Introduce a mandatory electronic waste tracking system to track where wastes end up and to provide annual information on industrial, commercial, construction and demolition waste produced in Wales, thereby also helping to more effectively tackle waste crime.
- Ensure the reduction and safe management of hazardous waste produced in Wales through our business support programmes and the regulatory work of Natural Resources Wales, working in conjunction with Defra and the other devolved administrations.
- Tackle litter and fly-tipping by producing and implementing a Litter Prevention Plan for Wales, and continue to deliver our Fly-tipping Strategy 'A Fly-tipping Free Wales'.
- Introduce bans and restrict the sale of commonly littered single-use plastic items such as cutlery, straws, cotton buds and balloon sticks.
- Review our ground-breaking charge on carrier bags in Wales and evaluate whether further action can be taken on these items.
- Develop options for a tax or charge on disposable plastic cups and food containers in Wales.
- Take action to remove unnecessary single-use items from events and other showcase activities in Wales. In the first instance, we will do so by engaging on banning single-use disposable cups from many stadia in Wales.
- Work with key structures to look to embed circular economy approaches in local and regional areas across Wales. This means engaging with Public Services Boards, regional economic structures and Corporate Joint Committees to identify and act on opportunities.

How you can get involved

This Strategy has been developed with citizens and stakeholders at its heart. Before the first lockdown we held numerous events in communities and subsequently held online webinars throughout 2020. In total these events have meant that we have directly engaged with around 2,000 people from across Wales and beyond, who have shared their ideas and views on future action.

We want to continue this engagement and continue to engage both through existing fora and information channels and also through digital and other means which allow us to connect with you at convenient times and places.

We will also monitor and assess our progress and share this with you.

This will be a living strategy. Our goals are clear and long standing – to move to a more circular economy to achieve zero waste and net zero carbon emissions and use only our fair share of the Earth's resources. Our actions will however need to be updated as circumstances change and further progress is made. For example, some of our actions are designed to trial activities and pilot approaches and we will share our learning and provide opportunities for you to tell us your views.

Engagement and collaboration have been central to the development of this document. We will commit to continuing to involve citizens and stakeholders in its delivery.

Indicators

A suite of indicators are being developed to track the journey towards zero waste, net zero carbon, one planet living and the move towards a more circular economy. The indicator suite is designed to demonstrate a genuine connection between policy, indicator and outcomes and will guide a narrative towards progress.

The key indicators are summarised in the graphic below. A full set of the current indicators and their connection to the policy is in the Beyond Recycling Indicators report.

Indicators: Shifting Wales to a Circular Economy

The Beyond Recycling strategy has the Government agenda for a fairer, greener and more prosperous country at its core. These indicators are a tool using data and statistics as evidence to inform, guide policy making and to measure key performances.

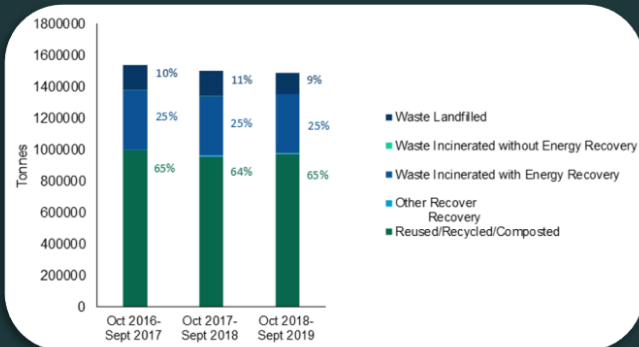


Chart 1. Local Authority Municipal Waste Management (tonnes) and proportion of waste sent to landfill, incineration with energy recovery and reused/recycled/composted (%)
Source - WasteDataFlow

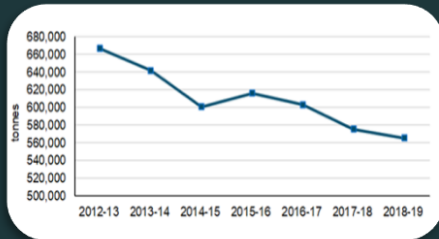


Chart 2. Annual Waste by Household
Source - WasteDataFlow

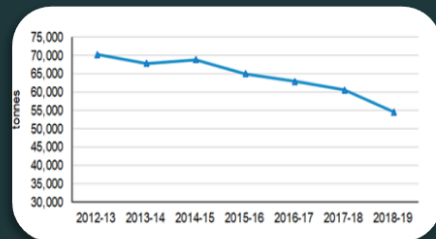


Chart 3. Annual Waste by Industrial & Commercial Sector
Source - NRW

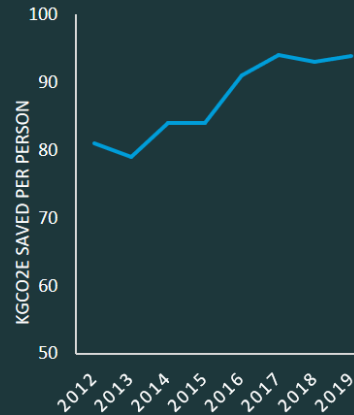


Chart 4. Recycling Carbon Index (including Local Authorities)
Source - Eunomia

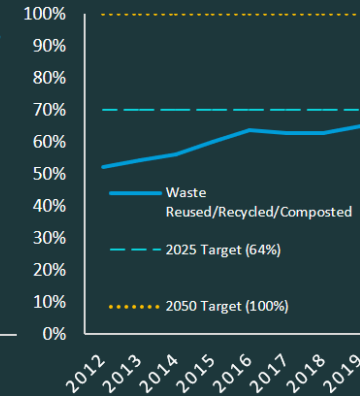


Chart 5. Recycling Rate
Source - WasteDataFlow

Key Points

- We will work to achieve the highest rates of household recycling in the World, working with local government, and transform the recycling of commercial, and industrial and construction waste.
- Summary of data/trends are shown.
- Our interim targets for the recycling of waste are 70% recycling by 2025 for waste from households, commercial & industrial businesses, and 90% recycling of construction and demolition waste by 2020.