



# GREEN OPPORTUNITIES

Supporting Wales' COVID-19 *Green Recovery* by identifying opportunities to support population health through sustainable means

WINTER 2021/2022

## GUEST FOREWORD

When the National Assembly for Wales sat for the first time in 1999, less than 5% of municipal waste was recycled. Today Wales is third in the world when it comes to recycling! Recycling is part of our modern culture. Materials are regularly collected from our kerbsides and recycling centres are no longer just 'tips' but are evolving into modern eco-parks where businesses and enterprises cluster to reclaim materials and keep resources in use. Food waste is used to generate renewable energy. Most schools in Wales are eco-schools inspiring new generations. Repair cafes, zero waste shops and Benthgy – libraries of things are growing at a rapid rate.

We know that recycling on its own is not the solution. Unsustainable consumption is at the root of our nature and climate crises. The Ellen MacArthur Foundation reported that almost half of all carbon emissions come from making the products that we use every day. We need a new approach to resources to support our shift to a low carbon economy. Earlier this year, Welsh Government published Beyond Recycling – a strategy to make the circular economy in Wales a reality, where resources are kept in use and waste is avoided. The strategy commits to actions across every part of government and includes phasing out single use items, eradicating food waste, procuring more sustainably and ensuring that businesses and communities get support to take action.

There is already lots underway. The Circular Economy Fund has supported over 180 projects in every part of Wales. Some businesses have been supported to use more recycled material in manufacturing like Capital Valley Plastics in Torfaen who turn difficult to recycle plastic films into damp proof course membrane for use in homes. Cardiff University has been supported to create a RemakerSpace where communities, businesses and academics can work together and look at product lifecycles. Communities too have been supported including the Naked Takeaway Scheme in Mold which has supplied local take away restaurants with reusable containers, and a primary school in Newport which worked with partners to create playground equipment from waste wood from a local farm.

How we manage resources has never been more important. Using resources more efficiently, reducing pollution and creating more sustainable communities will help to improve public health. The pandemic has shown us what we need and use cannot be taken for granted. But it has also shown us how communities and businesses across Wales can come together to take action to care for their surroundings and each other. Collectively we can make a big difference to the lives of people around us and our wider environment.

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## GREEN RECOVERY

As we live through the pandemic many have noticed a huge rise in litter. Litter causes danger to people, pets and wildlife, pollution of ground, water and air, and releases toxic chemicals and high amounts of CO<sub>2</sub> and methane. It costs local authorities £1 billion a year to clean up litter dropped by people instead of taking it home. But what if we didn't make any waste?

The current economic model of consumption is take-make-consume-throw away which relies on large quantities of cheap materials and energy. Many manufacturers deliberately make things with planned obsolescence to encourage

people to buy a replacement. A circular economy reduces waste to zero by keeping everything in use - products that will last longer, can be repaired or ultimately can be dismantled and the components reused.

Reducing waste and moving towards a circular economy would mean a significant reduction in use of resources and emissions and lower our impact on biodiversity and on human health.

The COVID-19 pandemic has led to an increase in single-use plastic, generating more than eight million tons of plastic waste globally by August 2021, most of which is from medical waste. Around the world an estimated 3 million face masks are thrown away every minute.

## DECARBONISATION

Many inhalers to treat a range of respiratory conditions, such as asthma have, a high carbon footprint and therefore have an impact on the environment. Some metered-dose inhalers (MDI's) have a higher carbon footprint than other inhaler devices which will have the same therapeutic effect. MDI's contribute an estimated 3.9% of the carbon footprint of the National Health Service in the UK. Replacing just 10% of them with the equivalent dry powder inhaler could reduce carbon emissions by 58,000 tonnes a year.

A recent study revealed the Personal Protective Equipment (PPE) provided to health and social care staff in England between February and August 2020 generated 591 tonnes of carbon dioxide equivalents a day, the same as flying from London to New York 244 times. The study also looks at how the environmental impact could be reduced, including reusing gowns and face shields where possible, recycling PPE waste and manufacturing PPE in the UK. The Revolution Zero project is working with partners across the NHS to introduce reusable PPE.

## SUPPORTING BIODIVERSITY

Litter and plastic waste pose a significant hazard to wildlife. Litter washed into our waterways can also cause serious harm releasing polluting chemicals into the ecosystem. The increase of Personal Protective Equipment (PPE) during the pandemic has resulted in a significant increase in single-use plastic items littering our environment and causing harm.

Scientists recently found that 100% of animals washed up on British shores had plastics in their stomachs, while three-million of Britain's tiniest mammals, including mice and voles are dying every year because they get trapped in bottles and cans thrown on the ground.

Reducing, re-using or recycling waste items helps protect wildlife, reduce emissions and pollution and conserve natural resources. The Nature Positive 2030 report lists many important key actions for helping wildlife and wild places to recover including stronger legislation to reduce plastic waste in the oceans.

Biodiversity is also vitally important for waste management. Organisms, microbes and plants break down organic matter and release nutrients back into the environment so that new plants can grow. Nature lets nothing go to waste, everything is recycled.

## DID YOU KNOW?

An estimated 13 billion plastic bottles and over 600 million batteries are disposed of each year in the UK. It takes 50 times more energy to make a battery than it gives during its life.

Over 500 million electrical items are thrown away every year in the UK and it is estimated that over half of them are still working or could easily be repaired.

The UK disposes of around 3 billion disposable nappies each year. One baby will use 4,000 to 6,000 disposable nappies by the time they're potty trained. Research predicts nappies that go to landfill could take hundreds of years to break down.



## WHAT CAN WE DO?

We can think differently, reduce our consumption and our waste. In previous decades people bought furniture and household goods designed to last a lifetime and expected things to be repairable. Advertising has made people believe they need the latest trend which has led to an increase in cheap, mass produced goods which are not made to last.

Repair Cafés are spreading across the UK as pop-up events, allowing people to take items to be repaired by volunteers for free. In many Repair Cafés volunteers also work with you to show you how it can be repaired. Benthyg Cymru is Wales' Library of Things, which provides a network of places where people can borrow or share things they don't use very often, such as ladders, lawnmowers or camping equipment. There are several across Wales with new ones opening soon and they also provide an opportunity for volunteering. Also don't forget to use your local library – an incredible resource of books and knowledge.

A growing group of determined people are living no waste lifestyles. In this interesting article people show their total waste for one year fits inside one small glass jar.



## HEALTH AND WELL-BEING

The COVID-19 pandemic is having a huge impact on health and well-being across the world, causing millions of deaths and challenging our health systems and economies. The pandemic and responses to it have resulted in a significant increase in the number of single use products, such as gloves, masks, packaging and testing equipment discarded daily. This has resulted in a surge in plastic waste littering our land and watercourses, potentially causing long-term harm to humans, animals and ecosystems.

Microplastics are now abundant in oceans and in the air. They can also be inhaled, eaten or absorbed by other organisms and can build up through the food chain, and end up in our food. Scientists are also investigating the ways in which these particles link to other toxins.

Cigarette butts contain substances which leach out in rain, and in fresh and salt water which are toxic to aquatic micro-organisms and some fish.

Being outdoors and amongst nature can have a positive and calming effect on our mental health. But litter is distressing to see and has a negative impact as well as posing a variety of risks to physical health.

Around the world a lot of rubbish is burned in the open as there are no resources for waste collection. Burning plastic releases toxic gases into the atmosphere, which are extremely harmful to human, animal and plant health and could end up being carried around the world in air currents affecting us all.

The World Health Organisation has analysed the possible health impacts of waste minimisation and moving towards a circular economy. Benefits include a reduction in respiratory problems from reducing air pollution, reduction of soil and ground contamination, removing the need to process hazardous waste and waste-water.



## GREEN AND FAIR ECONOMY / EMPLOYMENT

The COVID-19 lockdown significantly changed the way people live and work, changing food consumption habits all over the world and highlighting food waste as a multisectoral issue. As national lockdowns closed restaurants, consumers turned to takeaways, resulting in an increase in the number of polystyrene and plastic delivery containers ending up in the waste stream. Online shopping surged, resulting in an increase in need for recycling across Wales.

A report by Green Alliance shows how expanding the circular economy could create over 450,000 jobs across the UK in reuse, repair and re-manufacturing, engineering, electronics and more, while making huge strides to a greener, cleaner and more sustainable economy. Using funding to provide training and skill enhancement would also give people better paid employment opportunities.

The CREST Co-operative in North Wales provides training opportunities for volunteers who may have struggled to find employment opportunities in the past. The Co-operative reconditions appliances and furniture to sell at a fraction of the price of new items.

A sustainable food packaging hub is being established in Broughton, Wales, with financial investment from the Welsh Government and the Business, Innovation and Tourism Escalator Scheme. The hub will accelerate the adoption of waste-reducing eco-innovations in the food and drink industry and tackle single-use plastic and recycling.

## SUPPORTING VULNERABLE GROUPS

The relationship between recycling rates and social deprivation is well established but there are many causes including lack of space, lack of clear and tailored communication, a more mobile population and the inability to prioritise recycling as a result of poverty.

Type Office repair and remanufacture items while bringing jobs to local areas. They work with charities including Twining Enterprise, who specialise in providing support to people with mental health conditions to gain and maintain paid employment. Each piece of furniture needs different repairs, so the jobs are diverse and interesting while encouraging skill development.

Recycling or waste prevention campaigns are sometimes not accessible to people with learning disabilities. A project in Dumfries and Galloway worked with adults with learning difficulties and support staff to identify barriers and introduce behaviour change and involvement in recycling projects.

## MENTAL WELL-BEING

The pandemic has dramatically increased mental health problems and made people think about the many issues of modern society including isolation, loneliness, pollution, lack of green space and the increase in litter. Zero Waste Scotland identified evidence that a littered environment can contribute to poor mental health. Unfortunately, as lockdown restrictions eased and more people spent time outside, the amount of litter seen on the streets and in the countryside escalated.

The benefits of a circular economy, including cleaner air and water, clean open spaces and space for wildlife create a more pleasant place to live and work. Spending more time in your local area can increase the likelihood of getting to know people and reduce isolation.

Growing your own food and eating a healthy balanced diet can have a positive effect on mental health and well-being, as well as reducing waste from packaged food. A circular economy supports the production of high quality food and the improvement of the surrounding ecosystem which bring mental health and well-being, environmental and economic benefits and helps combat climate change by reducing emissions from the food sector.



## YOUNG PEOPLE

The young people's advisory panel of TEC Cymru captured the impacts of the pandemic on young people. Impacts on the environment and mental health are big concerns. They were also concerned about the increase in plastic use and waste from PPE and the reversal of plastic waste laws.

A recent survey revealed most young people are worried, and feel deeply anxious about climate change. The majority of respondents felt the future was frightening.

Research has revealed that 570 tonnes of plastic waste is generated each year by children losing over two-million school jumpers, which often contain up to 65 percent polyester, a type of plastic. This is equivalent to 35.5 million plastic bottles ending up in landfill. Many schools now organise uniform recycling schemes and take back schemes for the items that haven't been lost and encourage parents to repair or reuse items where possible.

Schools across Wales have joined the global Eco Schools programme which empowers and inspires young people to create and implement positive environmental changes in their school and wider community. Examples of inspirational work include Stepside County Primary School in Pembrokeshire, who have saved £500 on their waste bill and Fairfield Primary School in the Vale of Glamorgan who have investigated lunch food packaging and organised a lost and found uniform sale.

As part of Keep Scotland Beautiful's Litter Less campaign teachers and youth leaders are encouraging young people to get involved in litter picking, reducing waste and learning about the issues. They take part in a Zero Waste Day where they produce no rubbish at all.

With the average cost of wasting food estimated at about £60 a month for families, and the negative impact on the environment, the Rutland Youth Council decided to focus their 2021 Community Campaign on food waste. The young people ran an awareness campaign with five families to show them how to reduce their food waste and save money.

Founded by Circular Economy Wales, the Zero Waste Schools project, which is being piloted in Cardiff and Pembrokeshire schools, gives pupils control of decisions about recycling. They are identifying waste as resources to be sold or passed on and reused.



## DEVELOPMENTS FROM THE FUTURE GENERATIONS COMMISSIONER FOR WALES

The Commissioner's office Simple Changes #20 encourages people to take action to remove single use plastic from their daily lives. More than 8 million tons of plastic are dumped in our oceans every year, half of which are single use 'for convenience'. These items are a huge waste of resources and harm wildlife, as well as causing pollution on land, in the oceans and in our food chain and water supply.

### REMEMBER...

Research highlights the environmental impacts of packaged meals is three times higher than home made meals. Instead of buying ready meals or pre-packaged lunch, why not make your own using local, seasonal produce. It's a great way to reduce your impact on the environment as well as the impact on your budget.

### 'BE THE CHANGE' FOR WALES' WELL-BEING GOALS

'Be the Change' aims to encourage and support staff to take sustainable steps in everything they do to contribute towards the seven well-being goals in the Well-being of Future Generations (Wales) Act. Be the Change: Reducing our Waste Measurements and Be the Change: Well-being Goals Challenge provide information on what you can do to reduce waste, re-use, recycle and contribute to a circular economy.



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