

Leaner
& Greener

NI's Commitment to Climate Change

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TOURISM
NORTHERN
IRELAND



Course Overview

- 1 Hospitality and Fossil Fuels
- 2 Renewable Energy: Options and Benefits
- 3 Circular Economy: Tourism and Waste
- 4 Pollution

Definition of Sustainable Tourism

“

“Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities”



UN World
Tourism
Organisation

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HOSPITALITY & FOSSIL FUELS

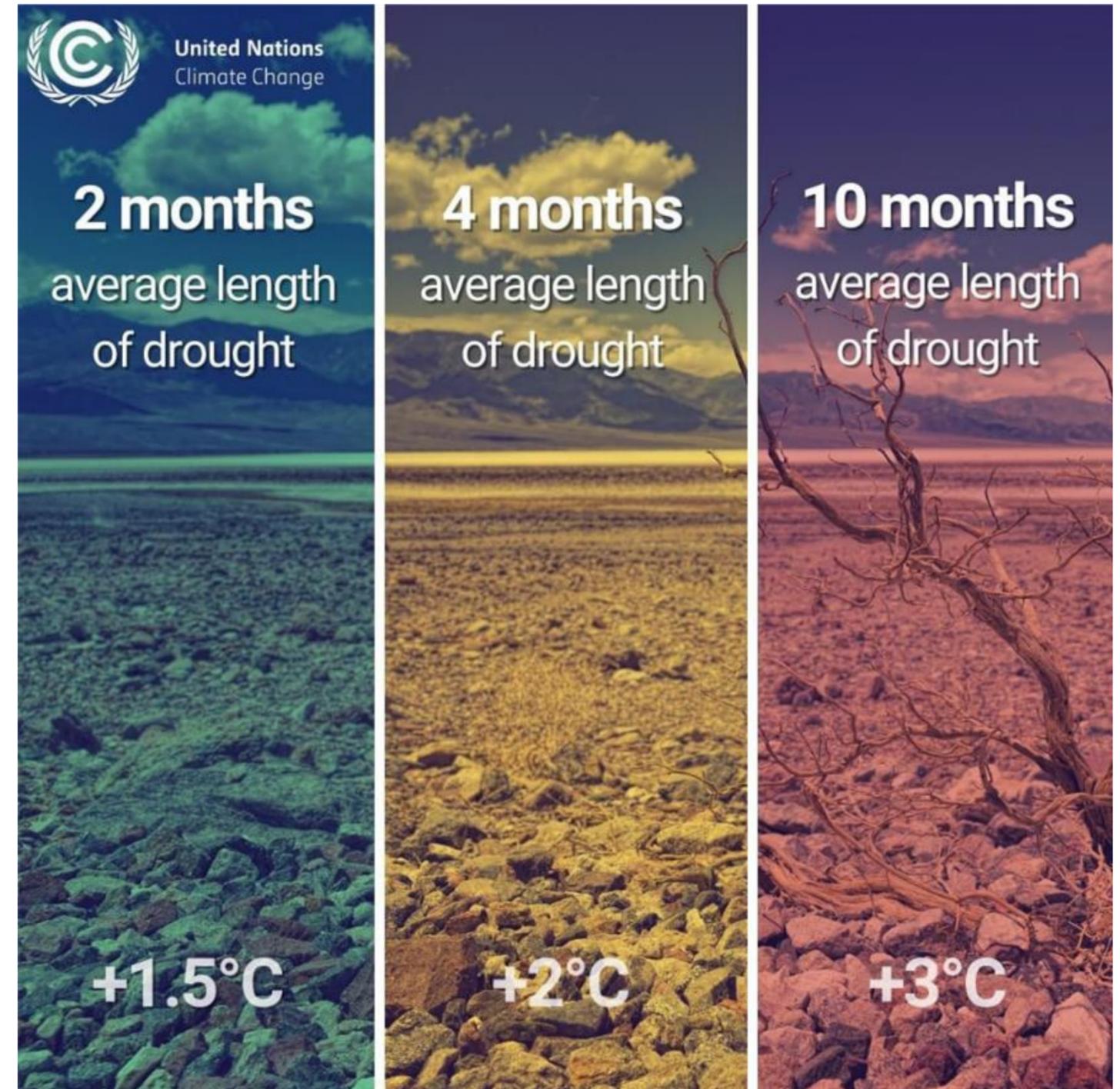
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If everyone in the world were to live like a UK citizen, the planet would already be about three degrees warmer AND we would need three planets of resources



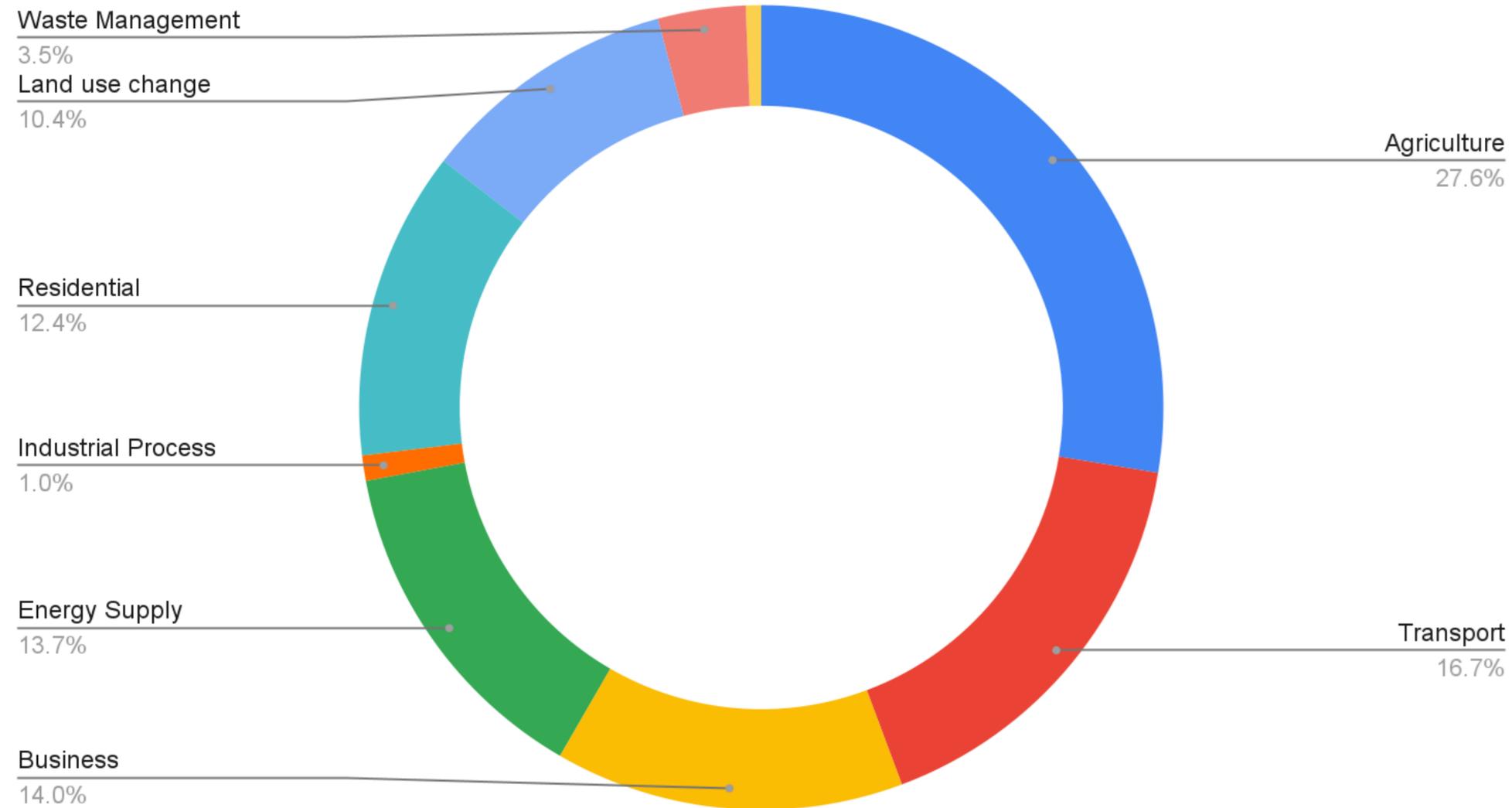
Northern Ireland's Commitment to Climate Change

The Climate Change Act NI (2022) targets:

- Net zero greenhouse gas (GHG) emissions by 2050
- 48% reduction in net emissions by 2030
- 80% renewable energy by 2030
- 70% of waste recycled by 2030
- 10% of transport spend on active travel
- Setting Carbon Budgets
- Ceilings on emissions by sector (e.g. agriculture, transport)
- Just Transition Commission – supports provided, skills to benefit, costs to be shared
- Northern Ireland Climate Commissioner role to be created

Northern Ireland's Emissions

Northern Ireland greenhouse gas inventory - 2021





What are they?

- Coal
- Oil
- Gas

Fossil fuels will eventually run out – we need alternatives.

They also affect the climate through GHG.



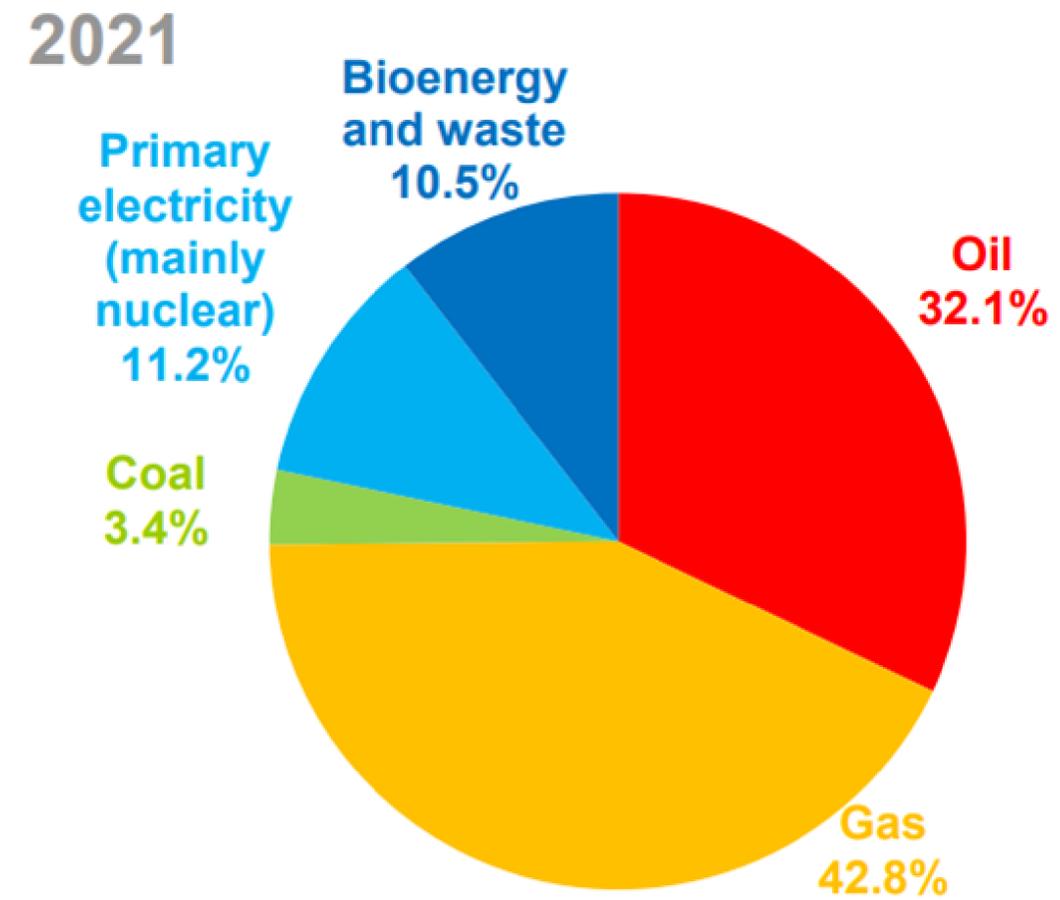
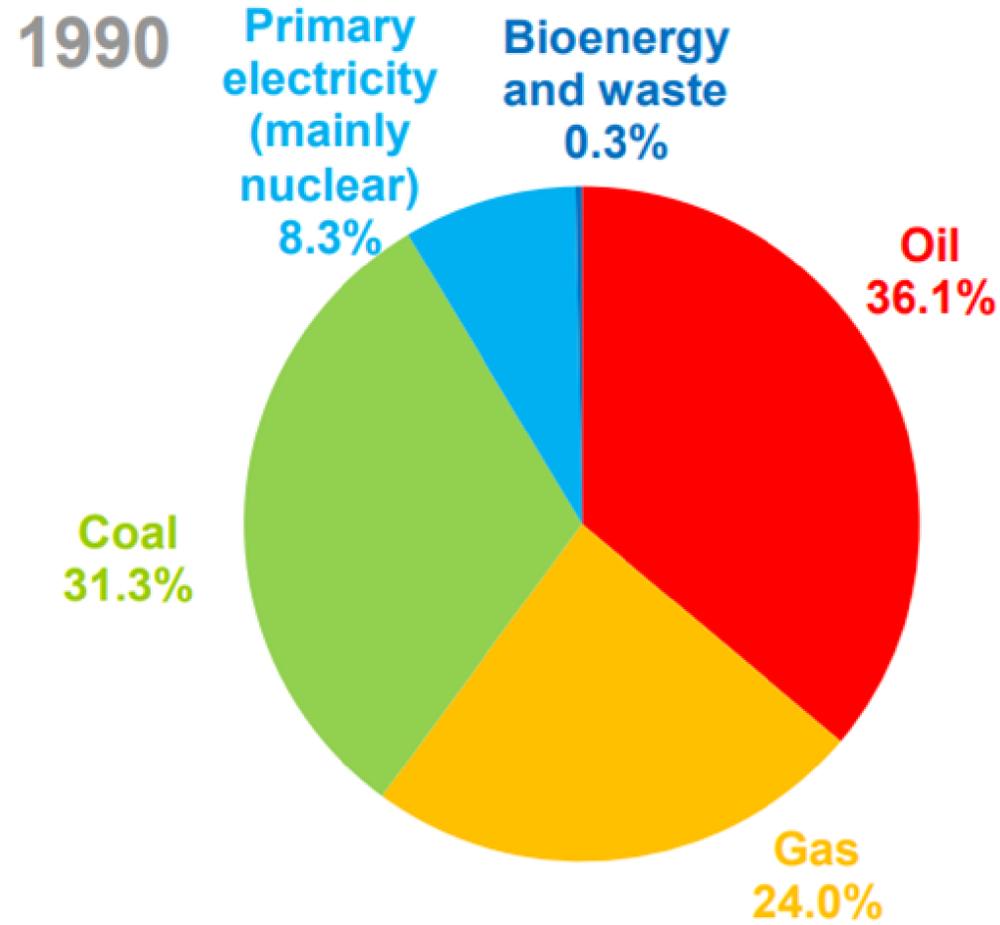
What is the Problem?

- GHG Emissions
- Mining
- Create pollutants
- Global supply shortages
- Fuel poverty
- Not renewable – finite!

Fuel in the UK

OVERALL ENERGY

Inland energy consumption, 1990 and 2021



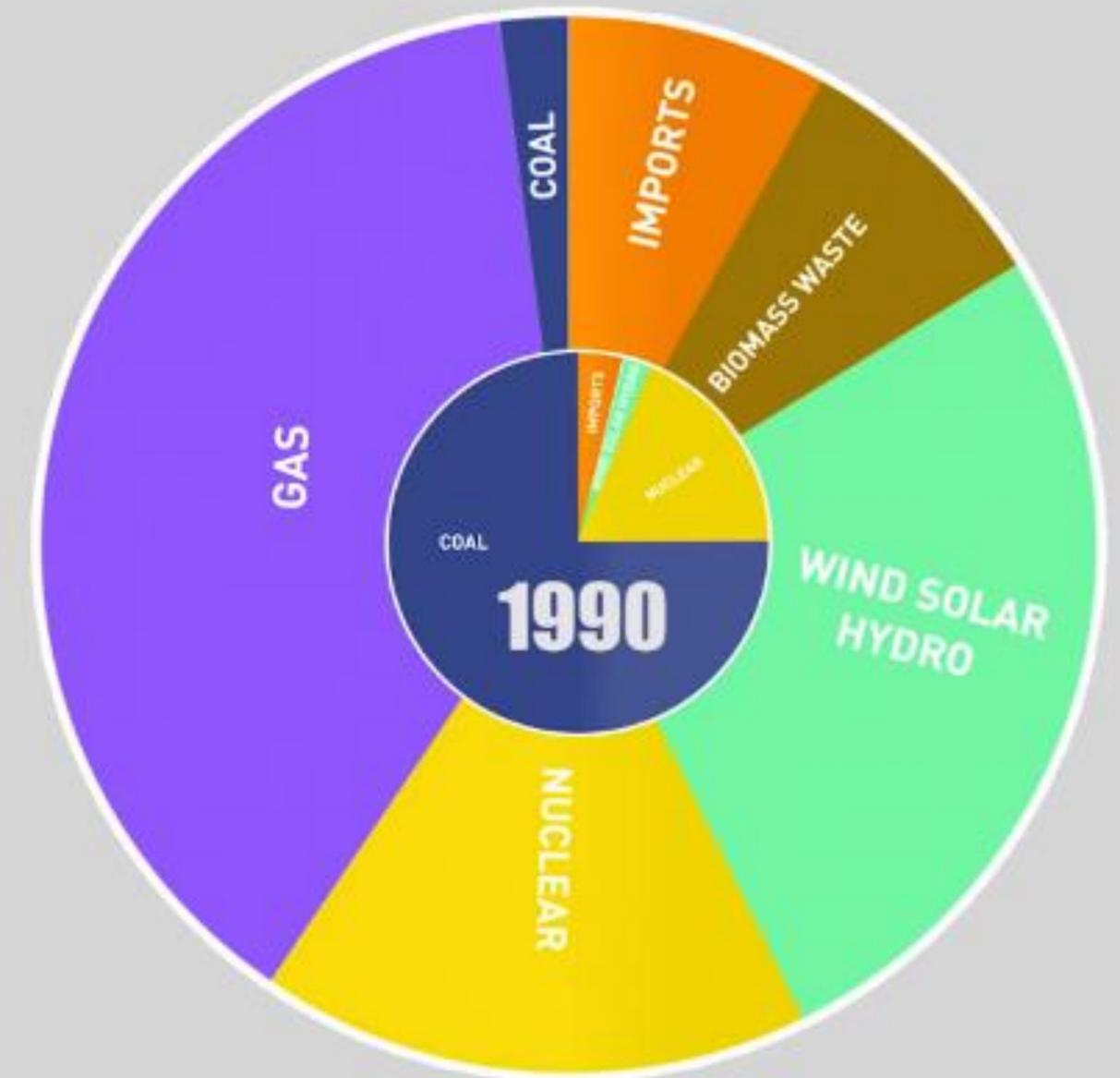
Electricity Energy in the UK

2019 - First time renewable energy surpasses fossil fuels

- 48.5% from renewable sources
- 43% from fossil fuels
- 8.5% from biomass - renewable but produces emissions

Renewable energy takes the lead for the first time in the UK

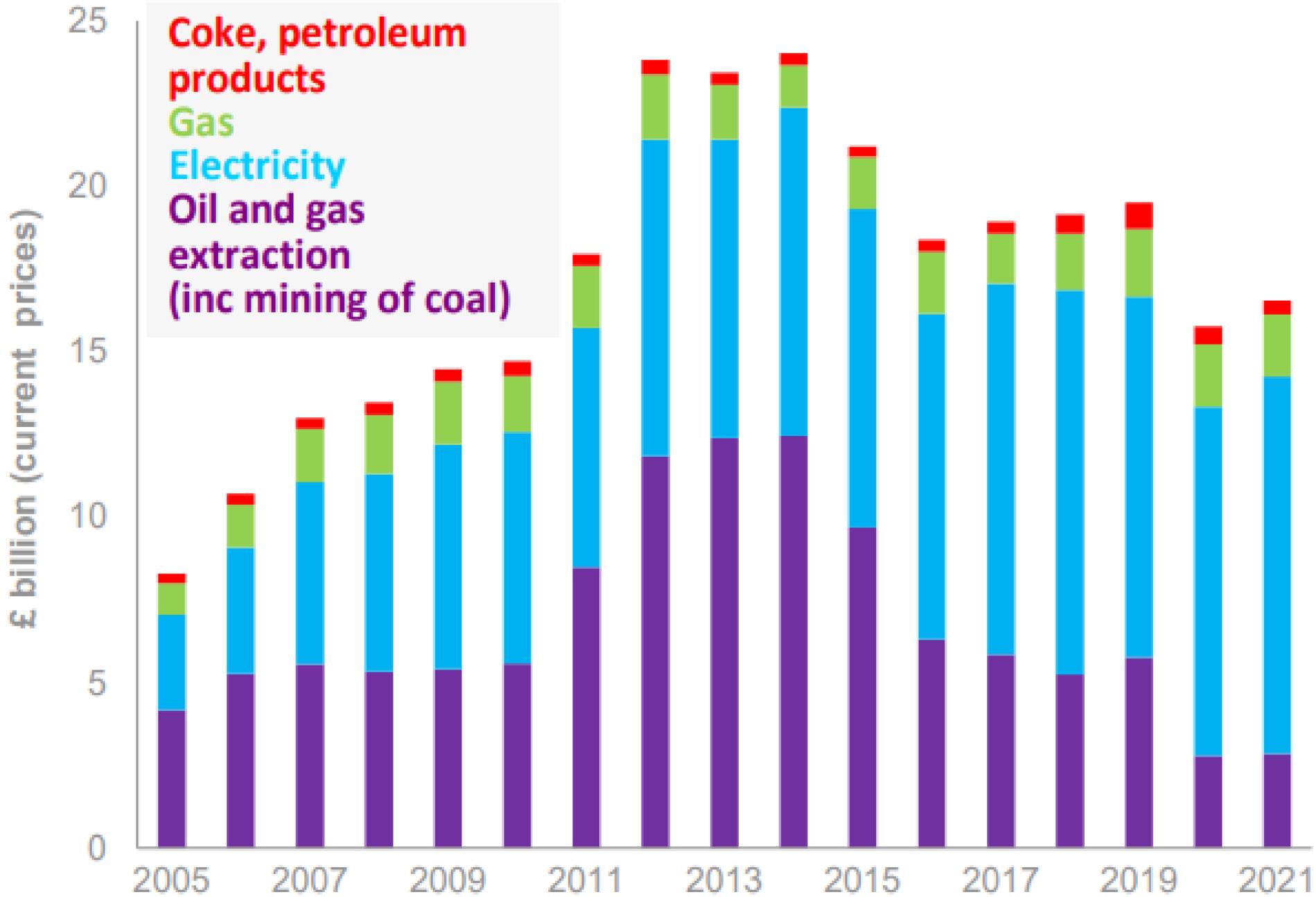
2019



SOURCE: NATIONAL GRID

ENERGY IN THE ECONOMY

Investment in the energy industries, 2005 to 2021



Benchmarks

- . You can use benchmarks to assess your energy usage.
- . Benchmark your usage in relation to businesses in your own sectors.
- . Compare electricity, heating and transport separately or all together.

Renewable Energy

Options and Benefits

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Renewable Energy

- Not using up a finite resource faster than nature is replenishing it.
- Energy derived from natural sources.
- Produce much lower emissions (but not zero).
- Generate jobs and are becoming cheaper.
- Key to renewables is their emission profile – not producing emissions faster than the planet can reabsorb them.

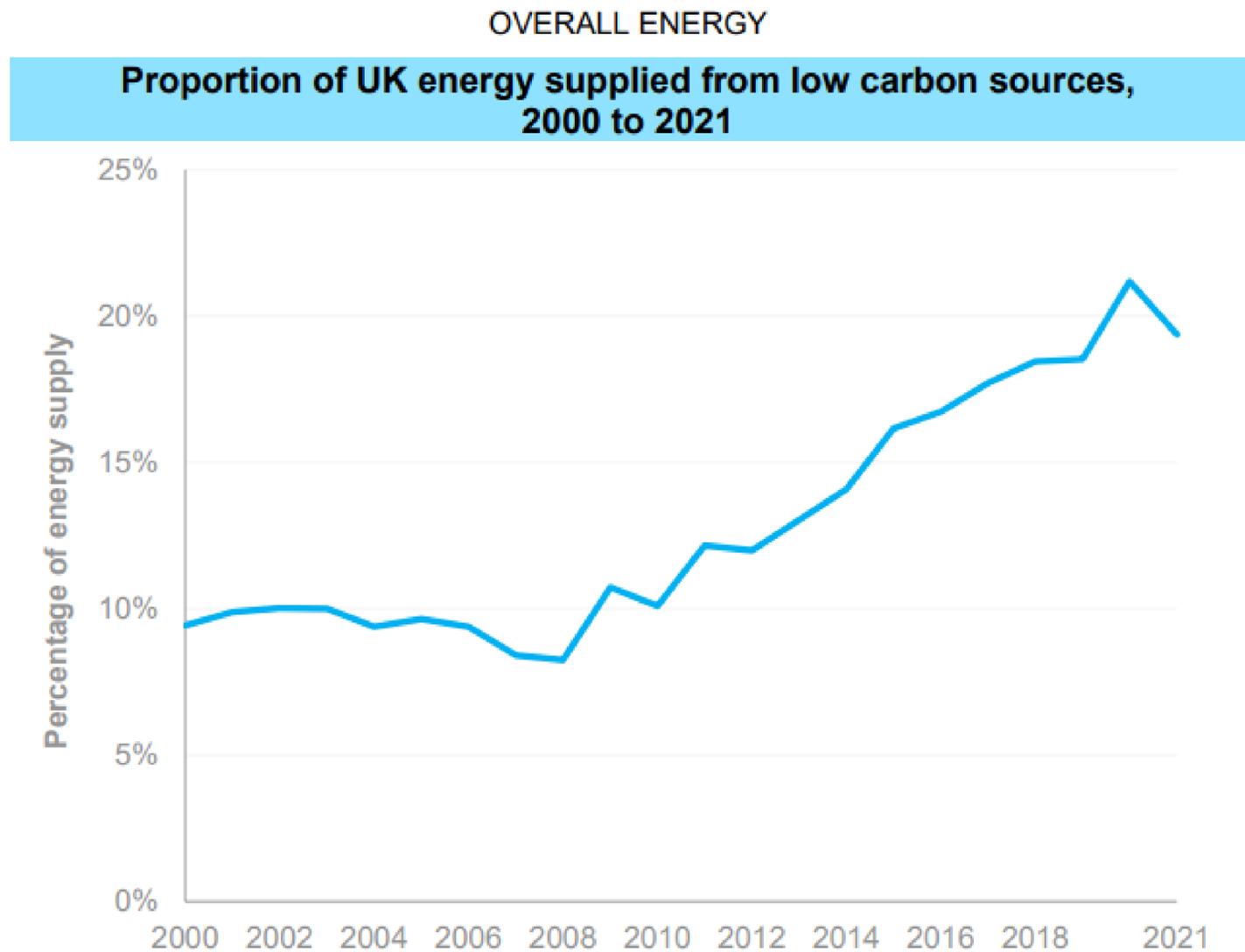
Renewable Energy

- Onshore wind
- Offshore wind
- Micro-generation
- Anaerobic digestors
- Biofuel
- Electric vehicles
- Heat-pump systems
- District heating systems

Sustainable and Self-reliant
Resistant to fuel poverty and global
shortages

UK Low-Carbon Sources

- Nuclear
- Wind
- Solar
- Hydro
- Bioenergy
- Transport fuels
- Heat pumps
- Other



THE PATH TO NET ZERO ENERGY

**SECURE.
AFFORDABLE.
CLEAN.**



DECEMBER 2021

NI Energy Strategy - Path to Net Zero

- In 2010 the Strategic Energy Framework was published
- In June 2019, UK became the first country to commit to a 100% reduction in GHG emissions by 2050
- In December 2021, the Northern Ireland Energy Strategy - the Path to Net Zero Energy was published by the Dept. for the Economy

NI Energy Strategy - 5 Principles



Placing you at the heart of our energy future: We will make energy as simple as possible for everyone in society and develop policies that enable and protect consumers through the energy transition. Affordability and fairness will be key considerations in all our policy decisions.



Grow the green economy: We will create new jobs and grow a skills base for the low carbon economy through innovation, support and focusing on our competitive strengths.



Do more with less: We will set clear targets, standards and regulations that drive improvements in energy efficiency, provide support to invest in improvements to buildings and help consumers make changes that reduce their energy use.

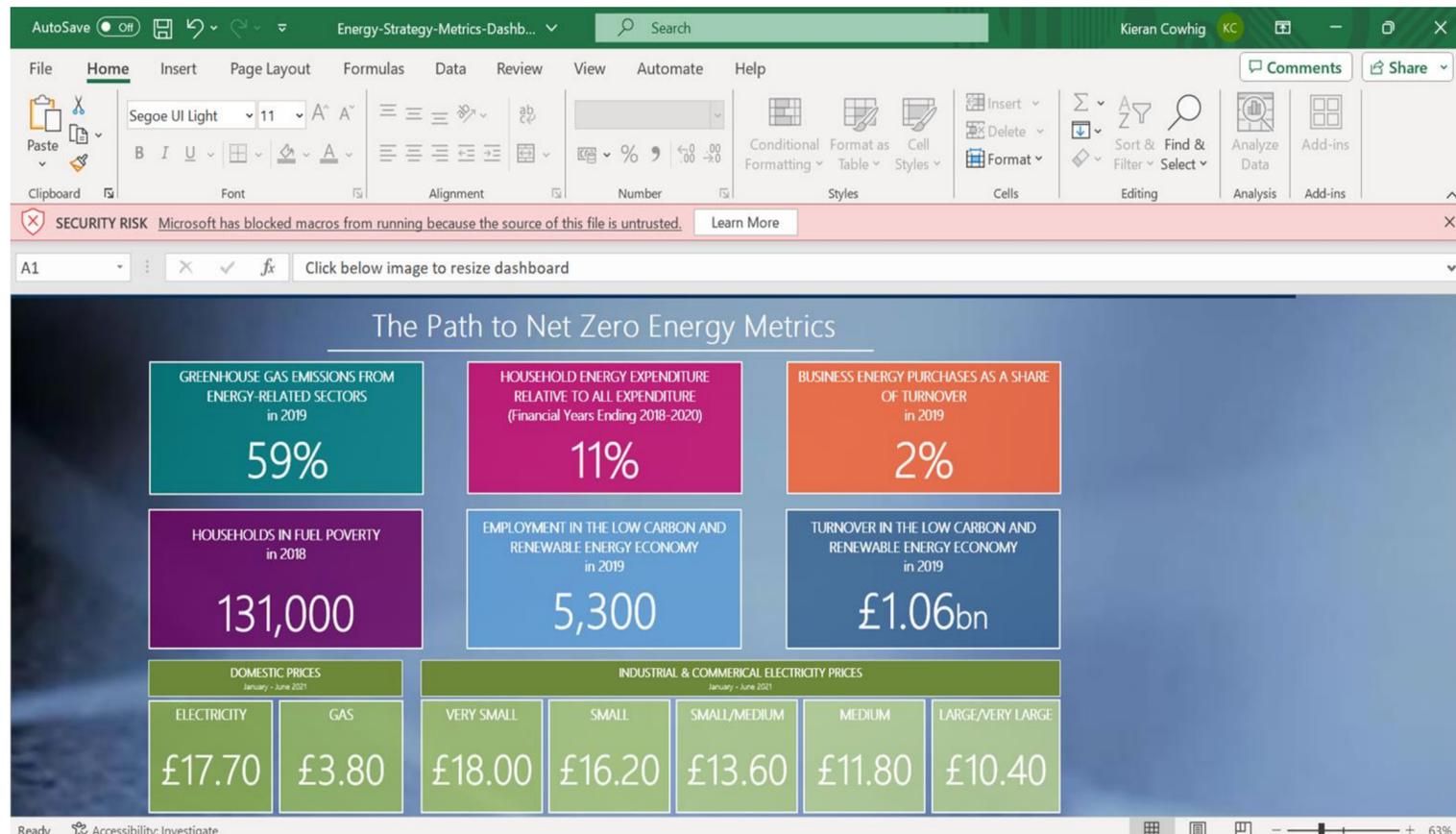


Replace fossil fuels with renewable energy: We will phase out fossil fuels by growing our indigenous renewable base, supported by sustainable renewable imports and use these to decarbonise power, heat and transport.



Create a flexible, resilient and integrated energy system: We will create a flexible, smart and digitised energy system that integrates renewables across heat, power and transport, creates value for consumers and enhances security of supply.

NI Energy Strategy - Path to Net Zero



Accompanying this plan, the Department produced a number of reports including:

- An Action Plan
- An Interactive Dashboard

NI Energy Strategy - Path to Net Zero

Since September 2021- the Department have also started publishing an e-zine relating to funding opportunities for net zero innovation



Payback Period

- Investing is more efficient and sustainable. Methods might cost a lot up front but will save you money in the long run.
- Payback period is the amount of time it takes to recover the cost of an investment.
- The shorter the payback period, the better the investment.
- Part of a risk and opportunity analysis.

Circular Economy

Tourism and Waste

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Linear Economy

Our economy is traditionally based on the Take-Make-Waste system.

An economy where the extraction of finite resources are used to make products that are thrown away after use.

Moves in one direction



Linear Economy

The world is where it is today because of the linear economy, a result of the Industrial Revolution.

Negative effects we are feeling today, but also historical positives:

- Millions brought out of poverty
- Population soared
- Goods were mass produced
- Food was mass produced
- Time of abundance in many first-world countries

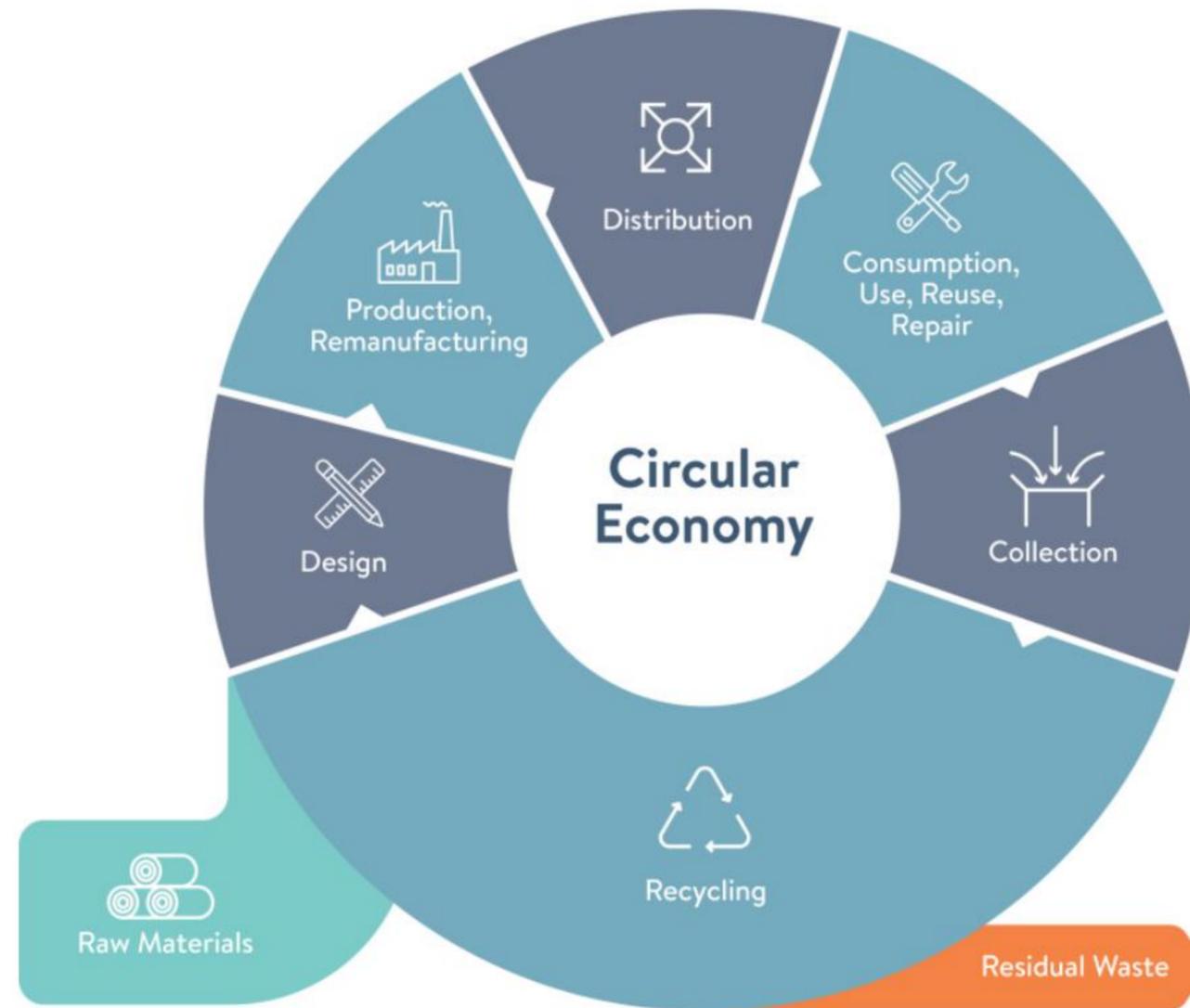


Half of all GHGs and more than 90% of biodiversity loss and water stress come from resource extraction and processing.

Wasted Material

- > 100 million tonnes of materials are used in Ireland every year! Much of this is valuable, but goes to waste.
- > 1 million tonnes of food is wasted every year
- > $\frac{2}{3}$ of plastic does not get recycled – Repak is improving these measures
- Only 2% of material used in Ireland comes from recyclables (compared to 12% in EU)

What is the Circular Economy?



©EPA

What is the Circular Economy?



Principles of Circular Economy



80% of a product's environmental & economic impact is determined at design stage

@zerowaste.ie



What if we could build an economy that use things rather than uses them up?

@zerowaste.ie

REGENERATE
NATURAL
SYSTEMS



Avoid the use of non-renewable resources and preserve or enhance renewable ones

@zerowaste.ie

Eco Design

Eco design considers all aspect of a product's life-cycle in a way that is most environmentally friendly by:

- Increasing life-span of product
- Increasing recyclability, reuse, refurbishment
- Replacing materials with more sustainable materials
- Reducing weight of the product
- Using biodegradable materials

The benefits of **ECO-DESIGN**

HIGHER QUALITY PRODUCTS

Eco-design products are **more versatile** and are manufactured with longer-lasting materials.

MORE EFFICIENT PRODUCTION

They **save energy** and require fewer natural resources and raw materials.

FEWER EMISSIONS

They consume less energy during transport for lower **CO₂ emissions**.

MORE SUSTAINABLE INDUSTRIES

Companies benefit from **innovation** and become more committed to the environment.

HAPPIER CONSUMERS

Consumers' needs are met with **more attractive products** that satisfy an increasingly demanding public.

MARKET DIFFERENTIATION

Sustainable products have **added value** that gives them an edge over competitors.



Policy Goals

Proposals for Change



Collaborate for system change

1. Develop and implement a programme to support and promote behaviour change.
2. Create clusters and networks to raise awareness and assist collaboration.
3. Develop an outcome-focused Circular Economy monitoring framework.



Design out waste

4. Embed Circular Economy principles in public procurement.
5. Work with businesses to increase circular design.



Manage resources to retain value

6. Create and support platforms and hubs to share goods and materials.
7. Maximise the value of materials locally.



Stimulate system change with funding, incentives and penalties

8. Establish a Circular Economy funding programme.
9. Create a regulatory framework that supports and incentivises greater circulation of goods and materials.



Invest in innovation, research and skills

10. Invest in research and development to support the valorisation of materials.
11. Embed Circular Economy principles at all levels of education.
12. Design of future skills programmes and reviews of current programmes to support a Just Transition.

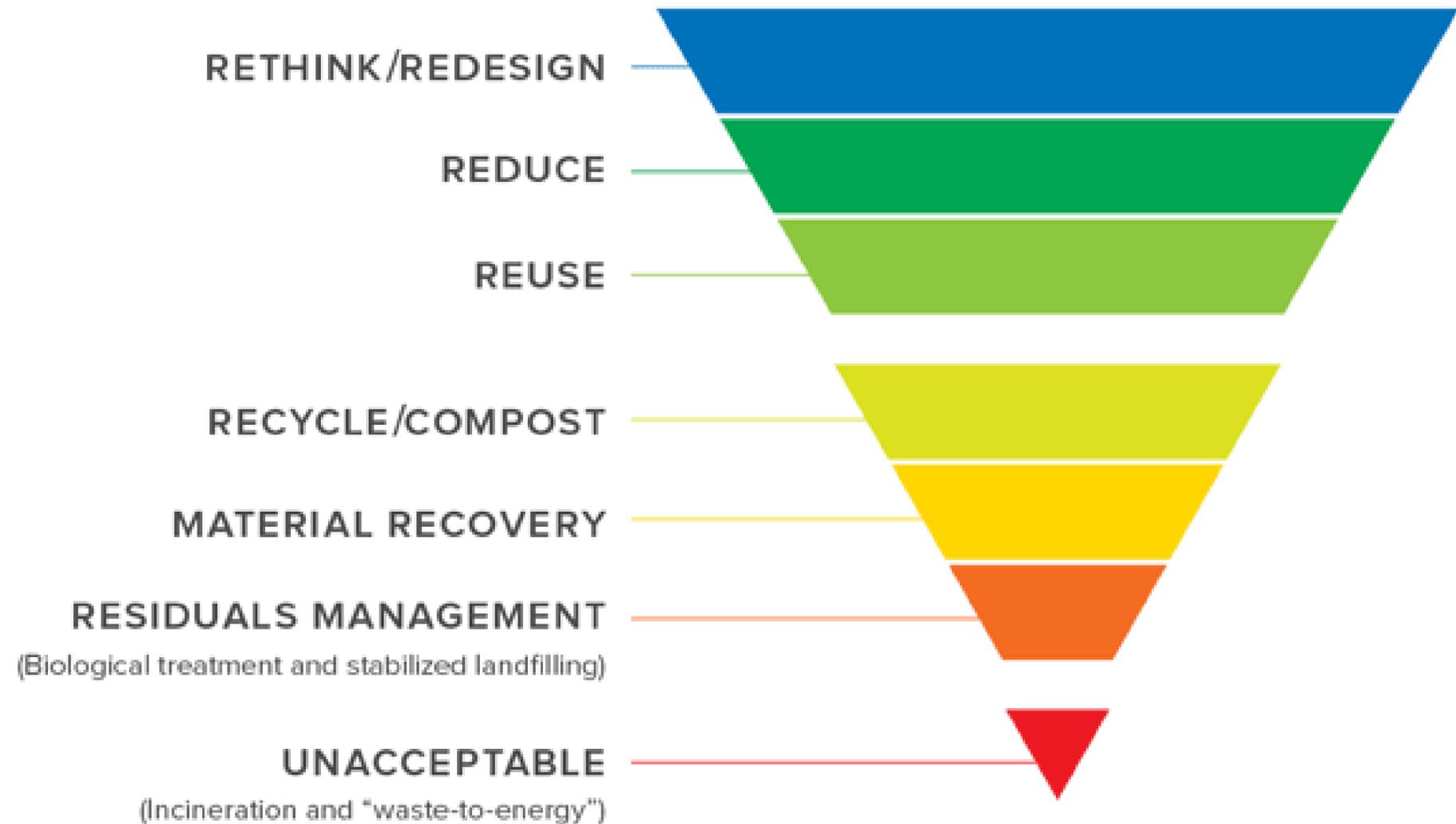
Making Change – Circular Economy Strategy for NI

- Published in 2023
- Currently only 8% circular - 92% from virgin resources
- Plastic bag levy
- Target: By 2050 we will have halved our material footprint to 8 tonnes per person per year.

All the Rs!

THE ZERO WASTE HIERARCHY 7.0

- . Refuse
- . Redesign
- . Reduce
- . Reuse
- . Repurpose
- . Repair
- . Remanufacture
- . Recycle
- . Recover
- . Return



© Zero Waste International Alliance zwia.org/zwh

Reduce

- The things we can't Refuse, we must Reduce
- Reduce harmful, wasteful and non-recyclable products
- Use simple ways but also think BIG and outside the box
- Reduce materials that are specific to your workplace

Repair and Refurbish

- Upcycling
- Possibilities are endless - get creative
- Repairing products is fundamental to a circular economy
- Repairmystuff.ie has a directory of over 800 repair businesses
- Do you have examples from your workplace?

Reuse

- Used paper instead of note paper
- Refill ink cartridges/ toner
- Reusable cups, cutlery, plates
- Donate instead of throwing away equipment/ furniture
- Greywater recycling
- Reuse packaging
- Shred paper for packaging
- Rechargeable batteries
- “Think before you throw”
- Do you have examples from your workplace?

Recycle

- Organic recycling
- Strategically located bins
- Reuse station
- Team ambassador
- Newsletters and training

Pollution

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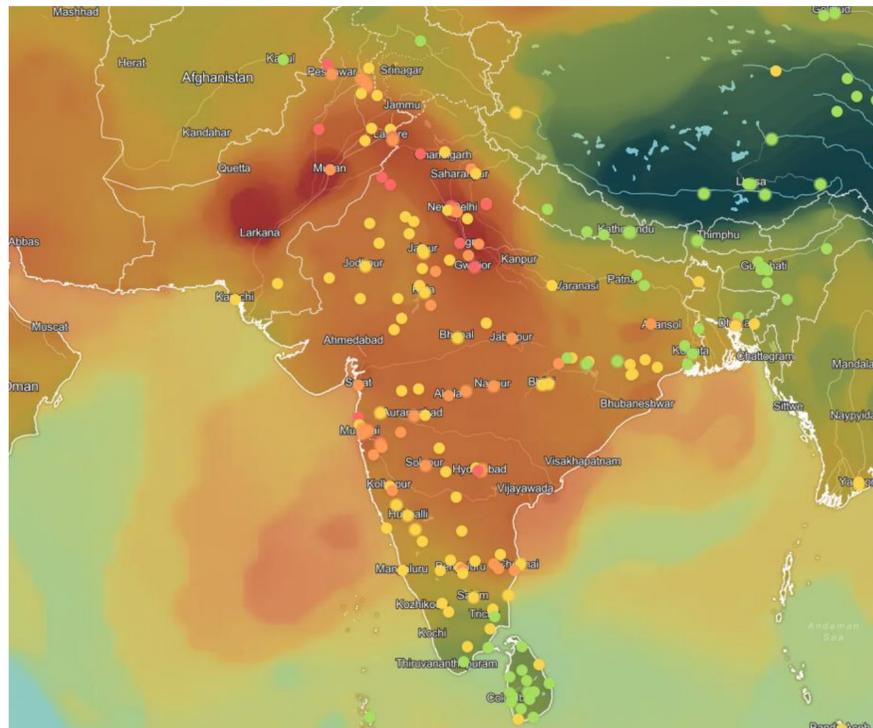
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Pollution

- Pollution is one of the biggest global killers, affecting over 100 million people
- It is also one of the biggest killers of biodiversity
- Harms people, wildlife and the environment
- Bad for business: more and more investors and customers seek cleaner companies



Air Pollution

Over 1300 premature deaths per year in Ireland

Severe consequences arise when humans alter its typical composition (mostly from burning of fossil fuels)

Affects people in direct ways (cardiovascular health) and indirect ways such as global warming

Domestic solid fuel burning, traffic

Water Pollution

Our rivers and lakes are the lifeblood of the planet.

Half of Irish rivers are in an unsatisfactory condition.

Local waterbodies likely have not been in a clean state in recent memory.

Water conservation helps prevent pollution.

The biggest sources in Northern Ireland are agriculture, untreated wastewater discharge, runoff from forestry and roadways.

Land Pollution

Land Pollution damages our flora, fauna, soil and water sources.

Most land pollution that we see is caused by illegal dumping.

Producing too much rubbish in the first place takes a toll on the planet, even when it is disposed of legally.

Rate of rubbish from growing population is unsustainable.

Doing Your Part

As custodians of the land, it is our duty to leave it better for the forthcoming generations.

Support groups and organisations that fight for clean air, water and soil.

Taking part in or organising your own clean-ups is incredibly rewarding.

After all, fulfilment comes from helping others.

News > UK

Starling murmurations thrive in Belfast after light pollution reduced

The numbers of birds taking part in the evening displays over Albert Bridge had dropped in recent years.

Rebecca Black • 1 day ago



Funding for Biodiversity

Grow Wild's Community Programme:

- A **£2000 grant** to transform an urban space with UK native plants, encourage wildlife and engage your local community.
- **Tailored online training sessions** to support your project delivery, build your knowledge and help you inspire other people to get involved.
- Opportunities to **connect with other groups** taking part in the programme, share experiences and learn from each other.

The opportunity is more than just financial support - we're seeking groups who are keen to engage with all aspects of the programme.

Grow Wild
Community
Programme 2024

**Applications
open!**

Receive £2000 to transform an urban space with UK native plants, and engage your local community.

**Apply by: 3pm, 30
January 2024**

growwild.kew.org 



GROW WILD

Royal Botanic Gardens
Kew



Case Study – City Hotel, Derry



City Hotel – Measuring Usage

- With increased cost and environmental damage, they knew they had to cut down energy usage
- Implemented plan
- “big part of making changes was finding out what we’re using”
- Monitoring and tracking
- Fridges, wine chillers, glass washers etc

City Hotel – Building Maintenance System

Using Technology:

- Computer control system
- Manages heat and water levels
- Took investment
- Saved 528 tons of carbon emissions
- £58,000 in saving



City Hotel – Biodiversity Action

- Help native bees
- Plant native species
- Use roof and outdoor space more effectively
- Improve biodiversity
- Help native birds
- Free resource - <https://pollinators.ie/resources/>



City Hotel – Separating Waste

- Cans go to Can Can Recycling
- River Ridge recycling – also food waste for compost
- Zero Waste to Landfill award
- Gold Award – Let's Recycle
- Gold Star – Green Tourism
- Highest score in the UK



City Hotel – Staff buy-in

“We could never achieve any of this without the staff buy-in and commitment”

- Training – information and education sessions
- Brought outside agencies to help
- Day 1 induction process
- Company orientation

“Instil in all new recruits that we are energy efficient hotel and committed to reducing environmental impact”

City Hotel – Collaborating

- RAPP
- Green Business Tourism Scheme
- Hospitality Food Agreement
- “A lot of companies here actually, before they book, want to find out your environmental credentials... Great to have accolades behind us”

Find out if your
business could achieve
an award with our
FREE 10 minute
GreenCheck Quiz

**GREEN
CHECK** ✓



Thank you!

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