

# Delivering a Net Zero future

## Module two



# Delivering a Net Zero future

## Agenda

Navigating the Transition to a Net Zero Future

---

Resources in the Economy

---

The Circular Economy

---

Re-evaluating Assets for the Low-Carbon Future

---

The Carbon Budget

---

Risks and Opportunities

---

Final Thoughts



# Navigating the Transition to a Net Zero Future

The transition to a Net Zero emission economy will require a systematic approach to thinking, different actions and innovative climate solutions. It presents a clear opportunity for a more sustainable, resilient, and inclusive economy.

However, it also introduces new risks to traditional sectors which will have significant impacts on society.

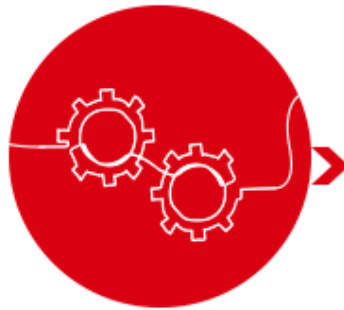
# Resources in the Economy

Today's dominant industrial model is linear. In most cases, this is based on the extraction of resources, the manufacture of components into products and then the disposal of products after use. This 'take, make and dispose' is often referred to as **"The Linear Economy"**.



## 1. Take

Raw materials are sourced



## 2. Make

Materials are  
manufactured into  
products



## 3. Use

Materials are used by  
individuals, households or  
other businesses



## 4. Dispose

Materials are collected  
after use



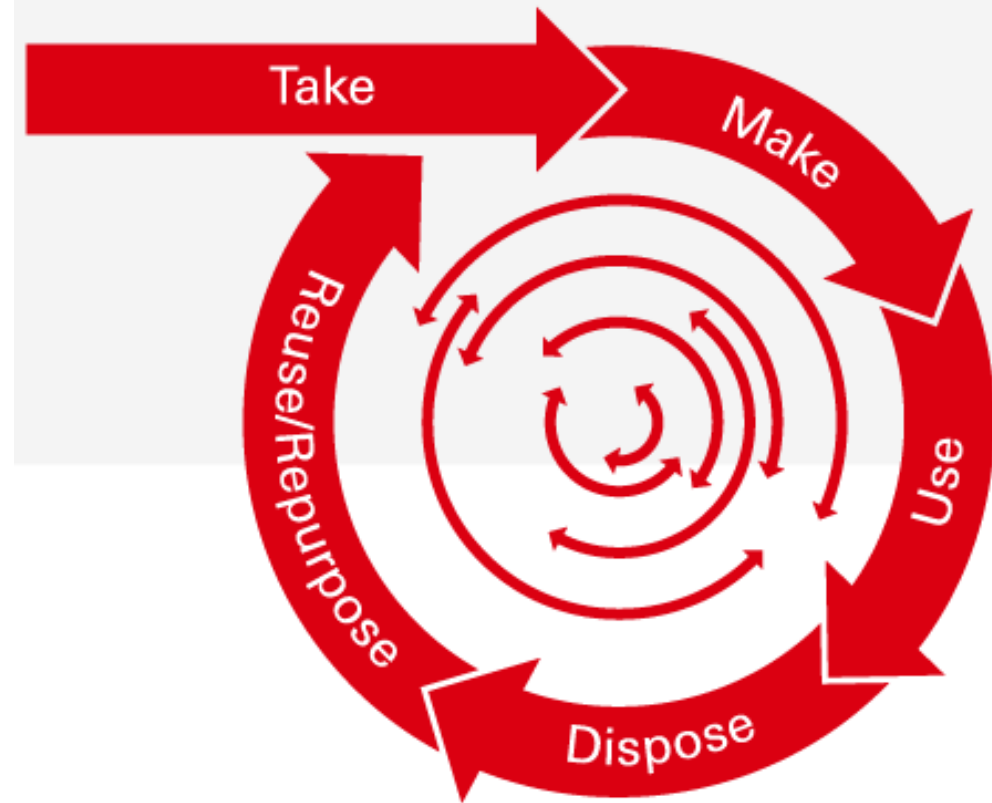
# The Circular Economy

An alternative manufacturing approach is the “Circular Economy”. This is designed so that components are recovered and reused or recycled.

## > Fundamentally Different

The circular economy is fundamentally different to the linear. Assessing businesses with the mind-set of the ‘circular economy’ can unlock innovation, inform product design and deliver resilient business models. For instance, the circular economy can:

- Reduce the price of volatility of raw materials
- Enhance manufacturing efficiency, interconnectedness and greater security in the supply chain
- Unlock innovation in product design
- Support new business services
- Create jobs
- Improve relationships with suppliers
- Improve environmental performance over the lifetime of a product



# Revaluating Assets for the Low-Carbon Future

As countries, regulators, businesses and society transitions to a low-carbon future, several assets will need to be revalued or even stranded.

## > The Fossil Fuel Industry and Greenhouse Gases

Government and Regulators are increasingly recognising that they need to intervene to resolve this trade-off. The development and financing of fossil fuel power stations is in decline and incentives are being offered to accelerate alternative energy sources, especially renewables.

These changes mean a growing number of fossil fuel reserves are no longer cost-effective to extract and burn, essentially rendering them 'stranded assets', effectively wiping trillions of dollars off balance sheets and global markets.

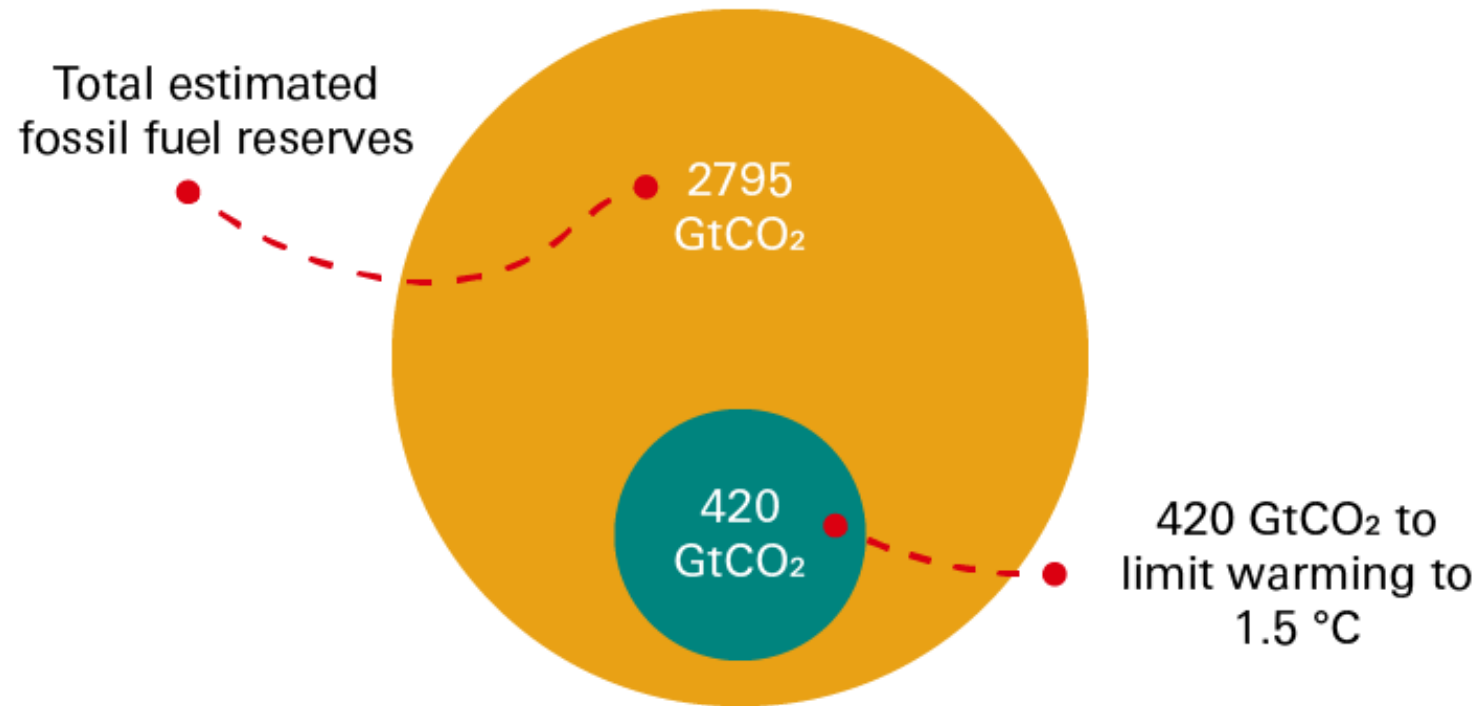
Change. Climate Change increases risk across the economy, affecting the productivity of several key industries and impacting key sectors such as agriculture and infrastructure.



# The 'Carbon Budget'

Most scientists agree that there is an absolute, cumulative amount of greenhouse gas which can be emitted into the atmosphere in order to maintain a certain temperature threshold. This is known as the 'Carbon Budget'. Emitting more greenhouse gas than the budget is likely to have serious impacts across all societies, countries and the natural environment.

Analysis by Carbon Tracker, an environmental non-governmental organisation, indicates that burning all the known fossil fuels assets (without out an effective form of carbon capture at source) will emit more greenhouse gas than the global Carbon Budget\*.



Source: IPCC, 2019

\*Carbon Tracker report – Unburn able Carbon: Are the World's Financial Markets Carrying a Carbon Bubble?

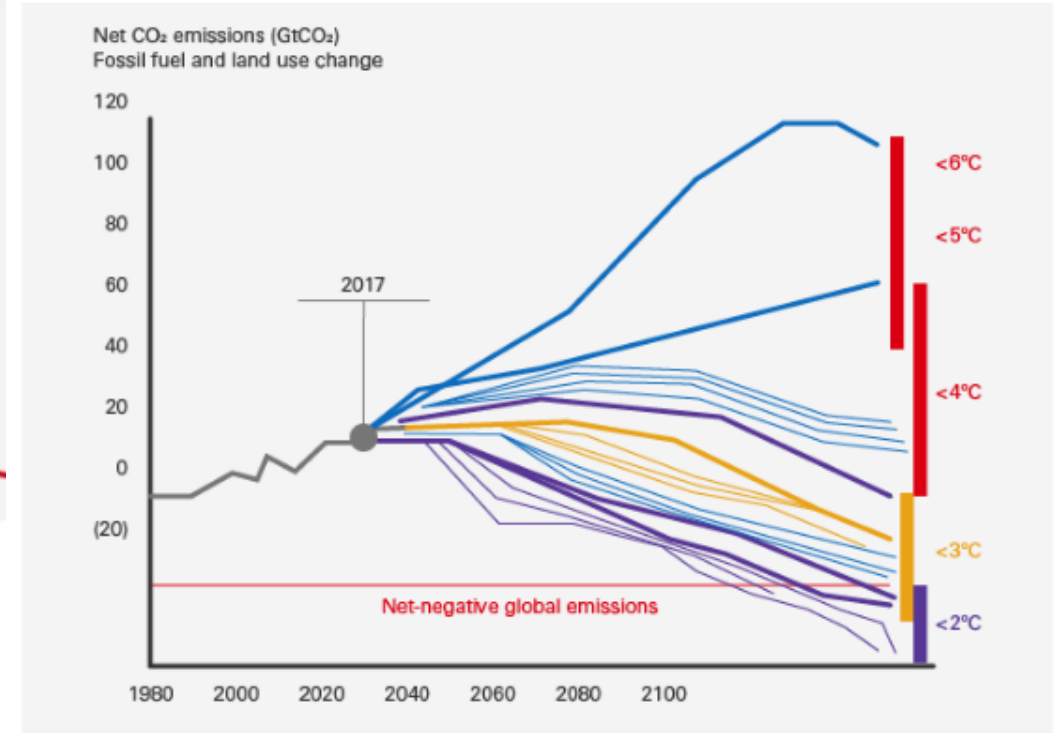
# Risks and Opportunities

The transition to a Net Zero sustainable economy will present risks and opportunities for businesses in all sectors.

The shift to a Net Zero world will present significant risks and investment opportunities. There are three main types of risks associated with Climate Change.

Physical risks are more visible but transition risks may be more financially relevant.

Climate projections extracted from the latest IPCC report



Physical risks

These risks are linked to the exposure of the physical consequences of Climate Change e.g. sea level rising. These are risks induced by the transition to a low

Transition risks

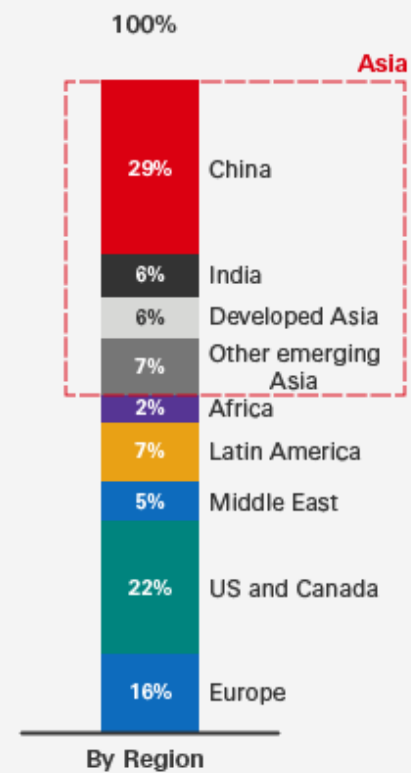
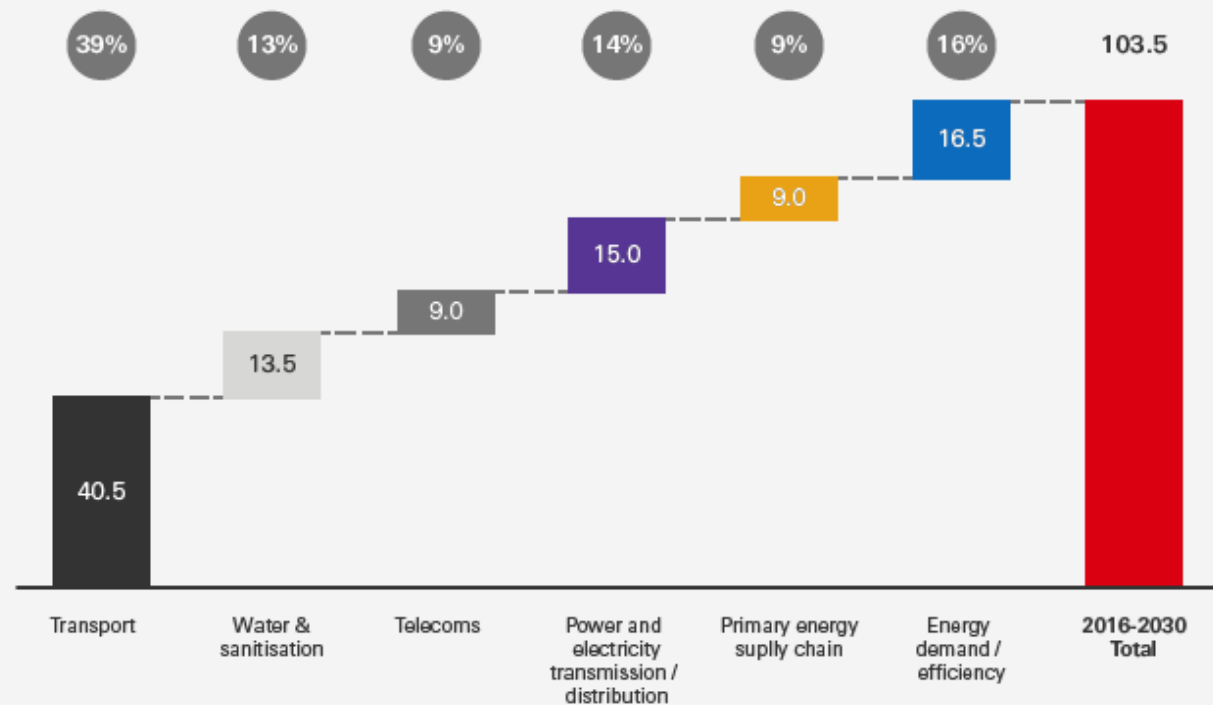
These are risks from parties who have suffered loss from the effects of climate change seeking compensation from those they hold responsible. E.g. civil action against individual Board members, specific businesses or reputational damage for financing activities deemed unsustainable or environmentally harmful.

Liability risks



## Global infrastructure investment needed in the next 15 years

USD trillion



# Learning Outcomes

Unlocking innovation in the 21<sup>st</sup> century needs a different thinking process. The Net Zero transition requires radical new solutions to increase the pace of change.

To find new opportunities and deliver systemic change, we need to ask different questions about the implications of megatrends such as climate change and the 4<sup>th</sup> Industrial Revolution on lifestyles, businesses, society and the environment. Put simply, what worked in the past is no longer fit for purpose.

This is the end of module two, you should have;

- Increased your knowledge on the range of frameworks such as the circular economy to demonstrate how conventional value is being impacted by the issues identified in module one.



Thank you