



# RENEWABLE ENERGY IS NOT ENOUGH: NEW PAPER HIGHLIGHTS WHAT MORE IS NEEDED TO REACH CLIMATE TARGETS

- As part of Climate Week NYC, the Ellen MacArthur Foundation today released a paper demonstrating the essential role that the circular economy plays in tackling climate change
- Greenhouse gases (GHGs) are not falling quickly enough to achieve climate targets
- Switching to renewable energy will only lead to a 55% reduction in emissions
- The remaining 45% of emissions come from the way we make and use products, and how we produce food and manage land
- The paper illustrates how applying the circular economy in just five key areas (cement, plastics, steel, aluminium and food) can remove nearly half of these remaining emissions, a reduction of 9.3 billion tonnes in 2050. This is equivalent to eliminating all current emissions from transport worldwide.
- The Ellen MacArthur Foundation calls on government and business leaders to adopt the circular economy as a vital framework for achieving net zero emissions by 2050

## **New York, 23 September 2019**

As leaders from around the world gather in New York for Climate Week NYC, the Ellen MacArthur Foundation has launched a new paper, in collaboration with Material Economics, revealing the need for a fundamental shift in the global approach to tackling climate change.

The UK-based charity, whose mission is to accelerate the transition to a circular economy to tackle the world's most significant challenges, says it is vital to move beyond the current focus on renewable energy as a solution to climate change.

As set out in *Completing the Picture: How the Circular Economy tackles Climate Change*, moving to renewables can only address 55% of global greenhouse gas emissions. To achieve UN climate goals, the paper highlights the urgent need to tackle the remaining 45%.

The paper demonstrates the potential of the circular economy in tackling these overlooked emissions. To illustrate this potential, the paper looks at five key areas to demonstrate this - steel, plastic, aluminium, cement and food.

Adopting a circular economy framework in these areas can achieve a reduction totalling 9.3 billion tonnes of greenhouse gases in 2050. This is equivalent to eliminating current emissions from all forms of transport globally.

These examples provide a clear message to other industries - such as fashion, electronics, and packaging - of the value the circular economy can offer.



Diet shift, emerging innovations, and carbon capture and storage are the final pieces required to complete the picture of how the world can achieve net zero emissions by 2050.

By releasing the paper, the Ellen MacArthur Foundation said it sought to bring an important missing piece to climate change solutions, demonstrating how businesses, financial institutions, and policymakers can build a thriving and resilient economy while playing an essential role in combating climate change.

“Switching to renewable energy plays a vital role in addressing climate change, but this alone will not be enough. In order to achieve targets on climate, it is critical that we transform how we design, make, and use products, and food. Completing the picture through a transition to a circular economy can enable us to meet the needs of a growing global population, while creating a prosperous and resilient economy that can run in the long term,” said Dame Ellen MacArthur, founder of the Ellen MacArthur Foundation.

The Paris Agreement calls for net zero emissions by 2050 to limit temperature increase to 1.5 °C. Whilst the circular economy is underpinned by renewable energy, the paper also demonstrates the crucial role the food sector and key industry sectors can play in reducing emissions to meet that target.

“This paper shows that transitioning to a circular economy is not only an opportunity to tackle emissions across sectors, but to design an economy that is restorative and regenerative, creating benefits for society, businesses, and the environment,” Dame Ellen added.

Christiana Figueres, former Executive Secretary of the UN Framework Convention on Climate Change and Founding Partner, Global Optimism said: “Carbon constraints actually represent huge ingenuity opportunities. That is true for every company, for every city and any country. That is the direction in which we need to move, and this report offers compelling figures to give confidence in our ability to optimize decarbonisation and economic development in mutual support of each other.”

The circular economy is based on three principles: design out waste and pollution, keep products and materials in use, and regenerate natural systems.

In addition to reducing emissions, the paper shows that the circular economy has the potential to increase resilience to the effects of climate change and contribute to the meeting of numerous UN sustainable development goals.

European Investment Bank’s president Dr Werner Hoyer recently commented: “Fighting global warming and environmental crises are the most urgent challenges of our time. Strengthening the circular economy is one of the most powerful tools in our arsenal. It will not only help achieve the Paris Agreement targets but also bring huge benefits for the economy and society.”



## **NOTES TO EDITOR**

### **ABOUT THE ELLEN MACARTHUR FOUNDATION**

The Ellen MacArthur Foundation was launched in 2010 with the aim of accelerating the transition to the circular economy. Since its creation, the charity has emerged as a global thought leader, putting the circular economy on the agenda of decision-makers around the world. The charity's work focuses on seven key areas: insight and analysis; business; institutions, governments, and cities; systemic initiatives; circular design; learning; and communications. With its Knowledge Partners (Arup, Dragon Rouge, IDEO, and SYSTEMIQ), the Foundation works to quantify the economic opportunity of a more circular model and to develop approaches for capturing its value. The Foundation collaborates with its Global Partners (Danone, DS Smith, Google, H&M Group, Intesa Sanpaolo, Philips, Renault, SC Johnson, Solvay, Unilever), Core Philanthropic Funders (The Eric and Wendy Schmidt Fund for Strategic Innovation, SUN, MAVA, players of People's Postcode Lottery (GB)) and its CE100 network (businesses, universities, emerging innovators, governments, cities, affiliate organisations), to build capacity, explore collaboration opportunities and to develop circular business initiatives.

[ellenmacarthurfoundation.org](https://ellenmacarthurfoundation.org) | [@circulareconomy](https://twitter.com/circulareconomy)

### **ABOUT MATERIAL ECONOMICS**

Material Economics is a Stockholm-based management consultancy firm specialising in sustainability from a business strategy, technology and policy perspective. The firm has published leading reports on climate and circular economy in collaboration with Ellen MacArthur Foundation, European Climate Foundation, Cambridge University, Wuppertal Institute, Climate-KIC, Sitra and others. With experience from more than 100 sustainability-related strategy projects in sectors such as buildings, transportation, packaging, manufacturing, chemicals and food, Material Economics advises world-leading businesses to reduce their environmental footprints and become more circular.

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