

The big food redesign

REGENERATING NATURE WITH
THE CIRCULAR ECONOMY



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In support of the study

"We are all in the race to a net-zero and nature-positive future: the Race to Zero and the Race to Resilience. I am delighted to see and support the work the Ellen MacArthur Foundation together with FMCG companies, many of whom are Race to Zero members, is doing in reimagining the food system for the benefit of the farmer, consumer and the planet. I remain confident that together we can and will achieve a net-zero and nature-positive future with farmers in the centre."

Nigel Topping, High Level Champion for Climate Action at COP26

"We welcome the call to redesign food portfolio's from 'farm to fork'. Accelerating the transition to regenerative food systems is critical to deliver on climate goals and restore biodiversity. Business can and must lead the transition through supporting farmers, leading product and supply chain innovation, and offering consumers more diverse, regeneratively sourced products. Unilever, through its Knorr brand's 'Eat for Good' campaign, is committed to lead the way at scale."

Hanneke Faber, President, Foods and Refreshment, Unilever

As someone who has been inspired by the Ellen MacArthur Foundation's vision of a circular economy, I could not have been more delighted to hear that they are now focusing their attention on industry-led solutions for transforming our broken food systems. We welcome this report and look forward to collaborating with the Foundation over the coming months and years to make nature-positive food the norm.

Patrick Holden, Farmer and Chief Executive, Sustainable Food Trust

"It has become a global consensus that developing a circular economy could be a way to respond to global challenges such as climate change and biodiversity loss. From the perspective of the circular economy development model, the Ellen MacArthur Foundation's study, The big food redesign: regenerating nature with the circular economy, has outlined, it further explains the huge contribution that a circular economy can make to global sustainable development."

Zhao Kai, Vice President, China Association of Circular Economy

"A circular and regenerative food system can protect and restore our environment and enhance biodiversity. We welcome this landmark study highlighting how the circular economy can help achieve a nature-positive future. By providing relevant, science-based evidence, these studies can play an important role in setting out how FMCG companies can contribute to delivering a food system that helps nature and people thrive."

Mark Schneider, Chief Executive Officer, Nestlé

"We all know our food systems are in crisis. As we look to feed a planet of eight billion people, we can no longer afford to waste, pollute, and deplete. We must invest in food systems, built regeneratively, that allow nature to flourish. This is an important step in our transition to a circular economy. This study offers critical solutions on how fast-moving consumer goods companies and food retailers can play a critical role in this move towards a food system that works for both people and the environment."

Inger Andersen, Executive Director, United Nations Environment Programme

"This study is a treasure trove. It pinpoints how fast-moving consumer goods companies and retailers can drive real transformation in our food systems for the benefit of people and the planet, making money on the vanguard of change while they're at it. As nations around the world, triggered by this year's UN Food Systems Summit, chart their pathways to sustainable food systems by 2030, this study offers critical insights as to how food companies can accelerate the urgent shifts that are required towards regenerative food production and healthy food consumption."

Dr Gunhild Stordalen, Founder & Executive Chair, EAT

“We welcome this new paper exploring how the pursuit of a circular economy can help deliver transformative change for a safer, more equitable, and biodiverse future. Our future prosperity and survival depend on a living planet and our ability to create a nature-positive economy – one that operates within planetary boundaries and that helps us reverse nature loss and overcome the climate crisis. The study aligns with WWF’s approach to food system transformation, clearly showing that systemic action across production, consumption, and loss and waste is required to achieve a truly sustainable future. We are part of nature, not separate from it. Investing in what is our most precious asset will make it our greatest ally.”

Marco Lambertini, Director General, WWF International

“The ambition of this study to support an increased use of products produced using agroecological principles is one that is endorsed by the Soil Association. There is increasing recognition of the vital role that our farming, land use, and food systems play in tackling the interconnected climate, nature, and health crises and we look forward to working with the Ellen MacArthur Foundation and partners to achieve real transformational change.”

Liz Bowles, Associate Director, Soil Association

“We were honored to contribute to this work, which reaffirms our conviction that food can be a solution to many of the societal challenges we face. The big food redesign: Regenerating nature with the circular economy shows how circular economy principles can help us design and deliver products that fight climate change, protect biodiversity and reconnect consumers with their food. The opportunity is one we must seize – for our business and for our planet.”

Henri Bruxelles, Executive Vice President and Chief Operating Officer, Danone

“We support this study for its innovative and comprehensive proposal for fighting food waste and climate change, which highlights the need for collaboration along the production chain. This study informs our new initiatives that will contribute to regenerative agriculture, engage small rural producers, and work towards completing the cycle of the circular food economy.”

Lucio Vicente, Sustainability Director, Carrefour Brasil Group

“Applying circular economy principles can help transform our food systems to tackle critical challenges including climate change and biodiversity loss. Accelerating this shift can boost resilience and unlock sustainable economic opportunities, like the 5% projected annual growth in the USD 46 billion upcycled foods market. By strengthening the knowledge base, this important study will contribute to the informed action we urgently need. UNECE will continue to support countries to leverage existing political commitment for circular economy in all sectors.”

Olga Algayerova, Executive Secretary, United Nations Economic Commission for Europe (UNECE)

“Applying the findings of this collaborative work, and reflecting on our current dependency on only a few crops is essential to address our agricultural footprint and create positive outcomes for the climate and nature. We must not forget that biodiversity enabled agriculture, and allowed humanity to thrive around the world: our future continues to depend on it. Let biodiversity be the source of innovation and sustainable growth.”

Florence Jeantet, Managing Director, One Planet Business for Biodiversity (OP2B)

“The UK government is committed to ensuring that our entire food system is sustainable for generations to come – a commitment which we will pursue further through our upcoming Food Strategy White Paper. This study shows that much can be gained by effective collaboration across the entire supply chain – from our farmers and food producers, all the way through to our hospitality sector and supermarkets – to help build a better food system.”

Victoria Prentis, Food and Drink Minister, Department for Environment, Food and Rural Affairs (DEFRA)

“To transform global food systems, we must completely rethink how we grow our food and how we make our food products by applying the principles of a circular economy, as well as how we inspire consumers to choose sustainably sourced products. As part of our Positive Agriculture Ambition, PepsiCo has committed to spreading the adoption of regenerative farming practices and strengthening farming communities. But we cannot stop there. We agree that further action must be taken and thank the Ellen MacArthur Foundation for its guidance as we continue this critical journey.”

Ramon Laguarta, Chief Executive Officer, PepsiCo

“LEAF welcomes this study. It provides excellent insights and guidance to help break the mould of the current food system and build practical, innovative, and smart approaches for our economy, using circular principles to transform farming and food systems. This work supports LEAF’s commitment to the health, diversity, and enrichment of our farms, people, and planet, and our work to develop and promote the adoption of more regenerative, integrated, and nature-based agriculture. We look forward to working together to deliver nature-positive farming that supports our biodiversity and precious ecosystems.”

Caroline Drummond MBE, Chief Executive, Linking Environment And Farming (LEAF)

“Food systems are a major driver of environmental issues, particularly climate change, biodiversity loss, and soil degradation, as well as contributing to diet-related ill-health. Food systems need to be re-engineered to minimise their negative impacts. Building supply chains that are more regenerative is a key route towards this aim, and this study is a concrete contribution to how this can be accelerated by the industry.”

Tim Benton, Research Director, Emerging Risks, and Director, Environment and Society Programme, Chatham House

“This study presents an inspiring opportunity for FMCGs and retailers to start designing the future of our food in a way that is circular and regenerative. This points to the need for new forms of collaboration to demonstrate how regeneratively grown food products should become the norm in markets and also to bring clarity to ecosystem indicators and outcomes that should guide the transition to regenerative agriculture.”

Felipe Villela, Founder and CCO, reNature

“There’s no doubt that food companies have changed the world – unfortunately, often for the worse. But today, fast-growing food companies can no longer ignore the health of people or the planet. This study shows that businesses have an incredible opportunity to not only change the way we eat, but restore ecosystems, help solve the climate crisis, and improve biodiversity. It should be required reading for all food CEOs and CSOs.”

Danielle Nierenberg, President & Founder, Food Tank

“This study highlights the great opportunity food buyers have to redesign menus and food products in ways that help achieve a nature-positive food system.”

Michiel Bakker, VP, Global Workplace Programs, Google

“We wholeheartedly agree with the recommendations in this study. The fight against climate change can only be won if everyone in the food system plays a part. When sourcing our food we are mindful of the resources we use and our aim is to protect vital ecosystems and give nature a chance to thrive. We will continue to do all we can to offer our customers food that is not just good for them but good for the planet too.”

Marija Rompani, Director of Sustainability & Ethics, John Lewis Partnership

This study proves we don’t need breakthrough food technologies to solve the food system crisis. Instead, we need to break away from foods that stress and degrade the environments. The Ellen MacArthur Foundation has been leading the way in showing how the circular economy can achieve this, and in the process create a new cultural economy connected to how good food is actually grown and raised.

Dan Barber, chef and author of *The Third Plate*

“As we build momentum towards a nature-positive, low-carbon global economy in 2050, businesses, policymakers, and all sectors of society can rely on the circular economy principles to go beyond incremental improvements. The insights in this study can be used instead to transform the food sector, reduce pressure on biodiversity loss and make us more resilient to the impacts of climate change. The illustrative cases included highlight that this ambition is not only required, it is possible and growing.”

Gonzalo Muñoz, Co-founder, Sistema B, and Founder, TriCiclos

“This study gives practical actions by which food producers can redesign their product portfolios for regenerative outcomes that not only mitigate climate change, but also economically benefit actors across the full food production ecosystem. The circular design for food approach will be leading our Circular Food System’s portfolio and inform our regenerative agriculture projects with farmers. We recommend it to all players in the food system.”

Dr Ir Martine van Veelen, Director, European Institute of Innovation & Technology (EIT) Food, CLC West (Belgium, Luxembourg, France, Switzerland)

“FMCG and retail companies play a pivotal role in shifting to a climate- and nature-positive food system, and the shift to healthier, sustainable products is a significant business opportunity. This study provides a timely call to action and roadmap to help companies go from incremental sourcing improvements to portfolio redesign.”

Jeremy Oppenheim, Founder and Senior Partner, SYSTEMIQ

“How we grow, produce, and eat food makes a difference for the climate and the future of our planet. We all know this, but too often we don’t know how to take action. This study creates an entry point for anyone working in food retail or fast-moving consumer goods companies to be part of the solution.”

Melina Shannon-DiPietro, Executive Director, MAD

“Rethinking how we design food is essential to accelerate the move to a regenerative food system that is centered on biodiversity. This report marks an important step in the Ellen MacArthur Foundation’s work to balance efforts to solve today’s ecological and economic challenges through the circular economy. Notably, it bridges critical tactical gaps for food FMCGs and retailers in search of new ways to meet their sustainability goals, showing how the circular economy framework can be practically – and fruitfully – realised within the food sector.”

Dr Nabil Nasr, CEO, the REMADE Institute, and Associate Provost for Academic Affairs & Director, Golisano Institute for Sustainability, Rochester Institute of Technology

“This study is one of the first to explore the options for a smarter use of ingredients through sourcing improvements. This can be a major contribution of food companies to increase biodiversity and provide the reliability needed for farmers to grow these rare species. The same goes for upcycled food – there are so many by-products that still end up as feed, despite being nutritious and fit for human consumption!”

Stephanie Wunder, Senior Fellow, Coordinator Land Use Policy, Coordinator Food Systems, Ecologic Institute

“The Ellen MacArthur Foundation has written a must-read primer for anyone considering the food industry’s role in tackling climate change. As a business focused on creating sustainable proteins and fibres that nourish the world through the power of circular economy, we prove that it’s possible now – that we can design future-proof food products that taste better than ever and are nature-positive.”

Gregory Belt, CEO, EverGrain

“The population of the world has grown from below 2 billion a century ago to nearly 8 billion today. That we can sustain a four-fold increase in humanity is incredible – but it is happening at a huge environmental cost. Human ingenuity can create fresh, local, sustainable foods for all, but only through brave and insightful leadership from government and business. This study lights a path to a regenerative, nature-positive food system built on circular principles: I recommend it to all leaders in the food industry.”

Richard Pennycook, Chairman, British Retail Consortium

“Our Group is supporting companies in the food sector to redesign the current production approach and enhance new business models within the entire food chain. In fact, responding immediately with a circular approach, both to current demands and to the needs and aspirations of future generations, will bring not only environmental benefits, but also strategic opportunities for growth and competitiveness for all the players involved.”

Maurizio Montagnese, Chairman, Intesa Sanpaolo Innovation Center

About this study

The circular economy is increasingly recognised as a solutions framework to address global challenges like climate change and biodiversity loss. Moving towards a food system that builds natural capital and that is pro-nature, i.e. one that allows nature to thrive, is an essential part of the transition to a circular economy. While the current food system has sustained a growing population and brought economic development, much of it is essentially 'linear' and extractive, particularly in more developed markets. It is wasteful, polluting, and depletive, and is the primary driver of biodiversity loss and accounts for a third of global greenhouse gas emissions.

The Ellen MacArthur Foundation started its exploration of a circular economy for food in 2013, as part of the report *Towards the circular economy vol. 2*, in which it explored how food waste and the by-products of food processing could be used to help transform food systems.

In 2019, the report *Cities and circular economy for food* focused on cities as major hubs of food consumption, and identified opportunities for businesses, governments, and other organisations in urban settings to create a healthy food system by applying circular economy principles.

Building on that work, this study now looks at the role fast-moving consumer goods companies (FMCGs) and food retailers can play to move us towards a food system with significant positive impacts for business, people, and the environment. It explores the ways in which food products can be designed in closer collaboration with farmers, for nature. It also investigates the crucial enabling role of policies and incentives.

This study builds on the Foundation's papers *The nature imperative: how the circular economy tackles biodiversity loss* (2021) and *Completing the picture* (2019), which illustrate the fundamental role of the circular economy – particularly when applied to food – as a solutions framework to achieve biodiversity and climate goals, respectively.

This study aims to add to the existing landscape of food system efforts and studies by:

- Identifying the significant opportunity for FMCGs and retailers to catalyse a rapid transition towards a nature-positive food system
- Exploring how circular design for food can be fully leveraged as the approach to realise such an outcome

- Analysing the economics of circular design opportunities for a select number of food types in the EU and the UK, using a replicable approach
- Laying out what businesses and policymakers can do to accelerate progress on this agenda

This study was produced in collaboration with Material Economics, which provided analytical support and expertise, and Alpha Food Labs, which worked on the product concepts of the future featured in the study. Many others have contributed to this work and all contributing organisations are listed at the end of this document. We are deeply grateful to all collaborators and contributors for the time and expertise they have dedicated to this project.

To quote the study, please use the following reference: Ellen MacArthur Foundation, *The big food redesign: Regenerating nature with the circular economy* (2021)

What if food
could help
tackle climate
change?

What if food could build biodiversity?

What would that look like?
Here are four concept foods
from a nature-positive future...

**The More
The Merrier.**



Down To Earth.
Heirloom Potatoes.

**Taste
Biodiversity.**



Down To Earth.
Heirloom Potatoes.

Chato

**Diversify
Your Potato.**

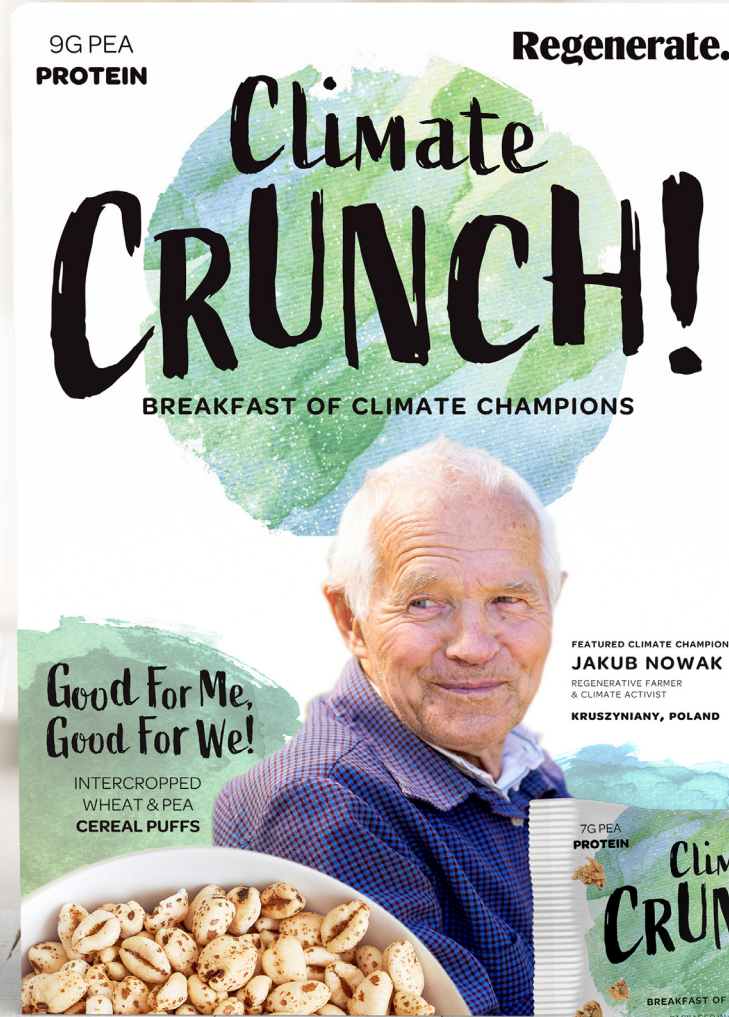


Down To Earth.
Heirloom Potatoes.

These are now your average potatoes!
*Down To Earth is a line of super delicious,
resilient potato varieties grown in a way that reduces
their carbon footprint and biodiversity impact.*

Down To Earth.

Regenerate
your →
mornings!



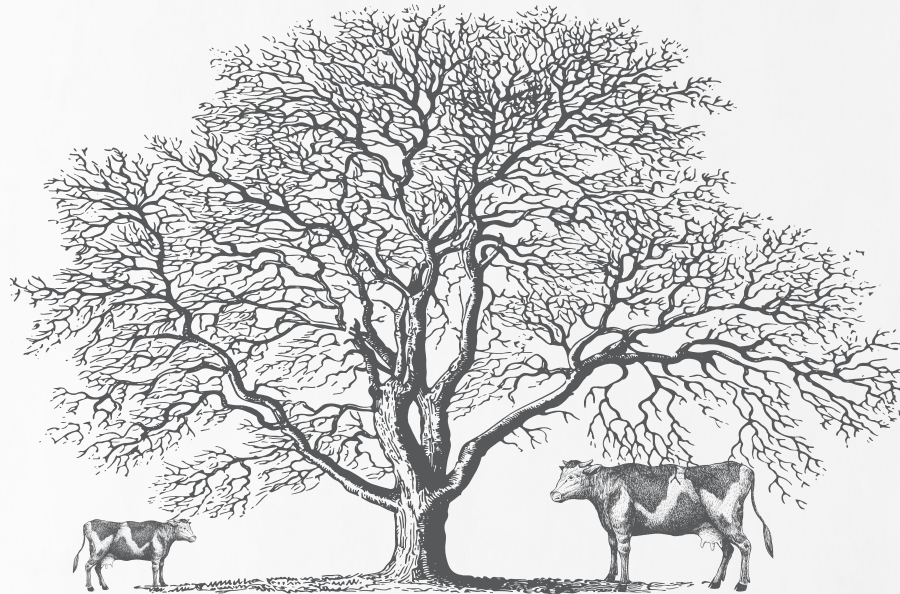
**Start your day with our classic cold cereal,
hot cereal, or on-the-go bar!**

Regenerate's Climate Crunch is a delicious, nutrient-dense, protein-packed blend of regeneratively grown wheat and peas that will keep you full for hours. And with every bite you are helping to reverse climate change.



Regenerate.

FOOD THAT'S GROWN TOGETHER, TASTES BETTER



Silvo makes deliciously indulgent dairy and plant-based cheeses that are good for the planet without compromise. Our award-winning cheeses are made with walnuts and cow's milk grown together symbiotically on silvopasture farms. All part of our mission to transform the food system through one of the most delicious foods on the planet.



SILVO
Take a piece of silvopasture with you.

COOKIES YOU LOVE

MADE FROM THINGS YOU'D NEVER EXPECT!



Sweet Up cookies are made from plant-based, nutrient-dense upcycled ingredients. Baked with upcycled flours made from plant-based milk alternative by-products and coffee cherry. Sweetened with upcycled sweeteners, made from cacao fruit pulp, fruit juice pulp, or crop leftovers. They're insanely delicious, good for the planet, and help support farming communities.

FULL CIRCLE FARMS

UPCYCLED, SWEET.

Executive summary

Fast-moving consumer goods companies (FMCGs) and food retailers have an enormous opportunity to mainstream nature-positive food that is good for farmers and business. This study provides a new, design-led approach to realise the opportunity, and demonstrates it is possible.

As the primary driver of biodiversity loss and accounting for a third of global greenhouse gas emissions, it is now well-established that food needs to be a crucial part of the solution to climate change and biodiversity loss. Leading FMCGs and retailers have substantial influence on the food system: in the EU and UK, for example, 40% of agricultural land use is influenced by the top 10 FMCGs and retailers. Many of these players are currently part of the problem, but given their size and influence they can be, and need to be, part of the solution. They have a unique opportunity to contribute at scale and speed to creating a nature-positive food system that supports the livelihoods of current and future farmers. It is critical that actions by large FMCGs and retailers – on which this report focuses – are complemented by additional efforts to create a food system that is distributed, diverse, and inclusive.

By acting now, FMCGs and retailers can maximise benefits not only to the environment but also to their businesses, to consumers, and to farmers.

Transforming the food system will take time and investment but there are significant benefits to be reaped by taking bold action now. Businesses can tap into growth opportunities by creating offerings that meet growing consumer demand for products that are nutritious and good for nature. The scale of these opportunities are illustrated by sales of organic food and drink reaching USD 129 billion in 2019 and Unilever's Sustainable Living Brands growing 69% faster than the rest of its business. Supporting regenerative food production can improve supply-chain resilience, helping safeguard ingredient supply from pests, diseases, and increasingly frequent extreme weather events. By taking actions to build a nature-positive food system, FMCGs and retailers can better support farmer livelihoods, by not only strengthening their resilience to shocks but also helping them to increase total food output, diversify their income streams, improve their profitability (after a transition phase), and provide health benefits. These actions can also enable businesses to move ahead of changing government regulations aimed at, for example, including environmental impacts in product labels and standards.

Top 10 FMCGs and retailers influence

40%

of agricultural land in the EU and UK

To realise this opportunity, businesses will need to move beyond incremental sourcing improvements by redesigning their product portfolios.

Many leading FMCGs and retailers are already setting climate and biodiversity targets through efforts such as the Race to Zero, the Science-Based Targets initiative (SBTi), and the Science-Based Targets (SBTs) for Nature, expected in 2022. All businesses are encouraged to follow in these leaders' footsteps. Yet meeting these commitments will not be possible by solely relying on better sourcing of the current ingredient mix. Today, just four crops provide 60% of the world's calories, and many locally relevant ingredients that could substitute for higher impact ones are hardly used. A nature-positive food system requires a more diverse mix of plants and livestock, and a better understanding of local contexts to function effectively.

Major FMCGs and retailers can catalyse this shift in the mix of crops and livestock at scale and pace by creating the demand for diverse ingredients, which most often means fundamentally redesigning their food product portfolios. Food design shapes what is eaten, which ingredients are grown, and how they are produced.

Some businesses are already recognising the role of food design in positive food system transformation.

For example, 'developing product portfolios to boost cultivated biodiversity' is one of the pillars of the business-led One Planet Business for Biodiversity initiative. But, across the food industry, food design remains an underexplored yet significant opportunity to create products that are not only nutritious and tasty, and tap into new business growth opportunities, but also help achieve climate and biodiversity goals.

Circular design for food makes possible a future in which food is good for nature, farmers, and business.

Circular design for food – the combining of food design with the principles of the circular economy – offers an actionable framework to redesign product portfolios for nature-positive outcomes (see Figure 1). It encompasses rethinking product concepts, ingredient selection and sourcing, and packaging. This study shows that combining four ingredient selection and sourcing opportunities unlocks substantial environmental, economic, and yield benefits.

CIRCULAR DESIGN FOR FOOD

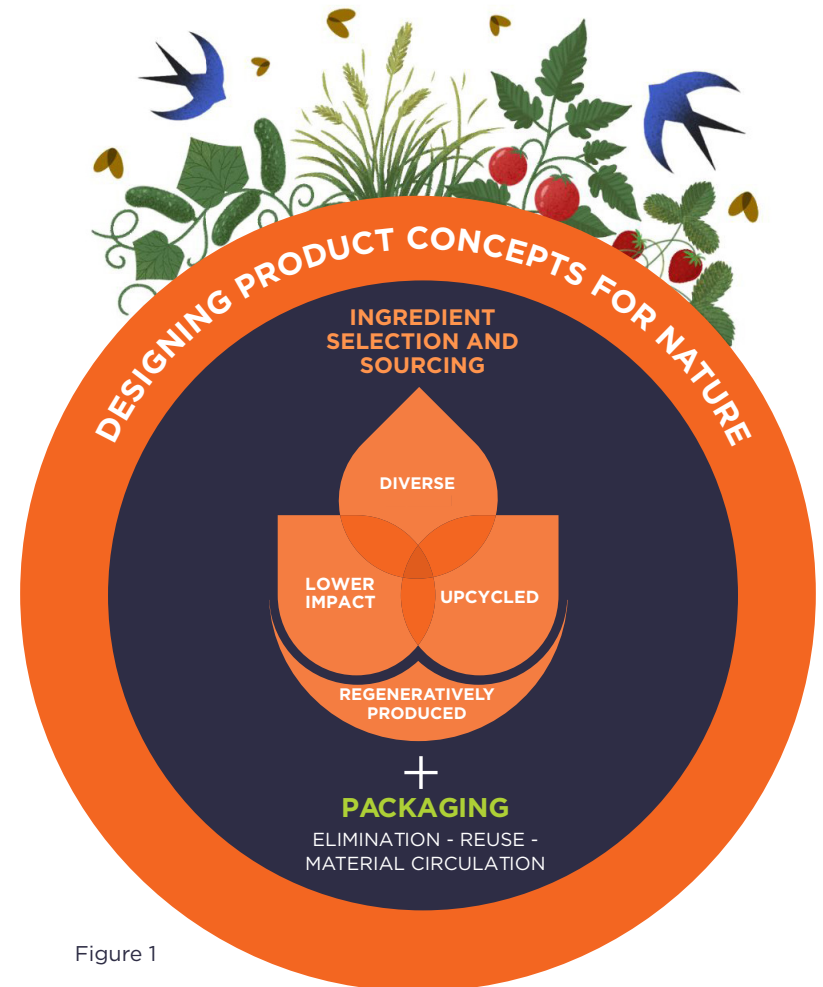


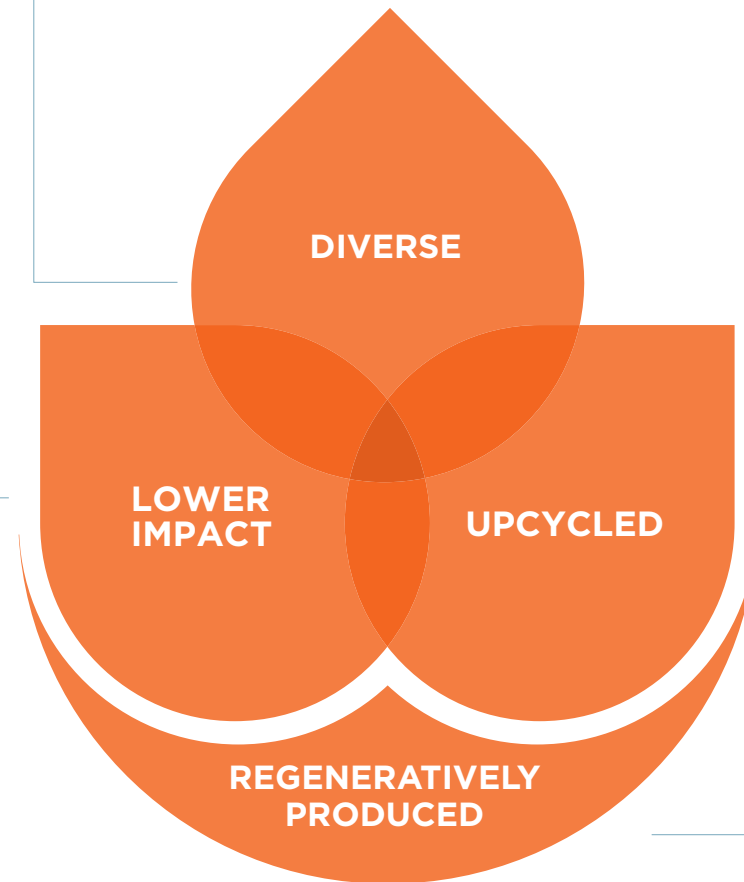
Figure 1

DIVERSE INGREDIENTS

To increase genetic diversity of crops and livestock, and therefore build food supply resilience, businesses can incorporate a broader range of ingredients in their product portfolios. For example, the culinary property of sweetness can be derived not just from sugar cane, sugar beet, or corn, but also from perennial crops such as date palm, carob, and coconut, and high-intensity natural sweeteners such as monk fruit and stevia. The same reasoning applies to varieties. Planting a range of crop varieties such as population wheat can make wheat production globally more resilient to shocks.

LOWER IMPACT INGREDIENTS

'Quick wins' are available by shifting from conventionally produced animal products to lower impact alternatives, as well as from higher impact crops to lower impact crops. Many businesses are already exploring the potential to switch from conventionally produced animal proteins to plant proteins. This study shows that the opportunity extends well beyond diversifying protein sources. For example, within the modelled geographies, replacing conventional wheat flour with pea flour in a box of breakfast cereal can reduce farm-level greenhouse gas emissions by 40% and farm-level biodiversity loss by 5%.

**UPCYCLED INGREDIENTS**

With a third of food being lost or wasted, upcycling innovations provide opportunities not only to avoid sending food and by-products to landfill, but also to turn them into high-value ingredients. The USD 46 billion upcycled food market is projected to grow at 5% annually, enabled by new technologies. FMCGs and retailers can scale these solutions to tap into the growing market opportunity. Using upcycled ingredients alleviates pressure on land and maximises return on invested land, energy, and other inputs used to grow food.

REGENERATIVELY PRODUCED INGREDIENTS

In recent years, leading businesses have recognised the environmental benefits of regenerative production. It can lead to greater yields and compelling increases in farmer profitability. There is no one-size-fits-all approach and practices used will need to be reviewed over time. However, for all the ingredients modelled, a set of context-dependent practices have been identified that, on average and after a transition period, increase total food output and provide additional profitability for farmers, while generating significant climate and biodiversity benefits.

In this study, regenerative production refers to growing food in ways that generate positive outcomes for nature, which include but are not limited to: healthy and stable soils, improved local biodiversity, improved air and water quality. Farmers may draw from many different schools of thought such as regenerative agriculture, agroecology, agroforestry, and conservation agriculture to apply the best set of practices to drive regenerative outcomes on their land.

Comprehensively applying circular design for food results in environmental, economic, and yield benefits significantly greater than those achieved by better sourcing alone.

Analysis of example ingredients – wheat, dairy, and potatoes in the EU and the UK, and sweeteners – shows that taking advantage of all four circular design for food opportunities together has the potential to generate substantial environmental, food output, and farmer profitability benefits versus business-as-usual (see Figure 2). The benefits of these actions, which are first steps on the journey to a nature-positive food system, are significantly more compelling than better sourcing of current ingredients alone.

While the exact benefits are ingredient- and geography-specific, the consistency of findings

across modelled ingredients suggests circular design for food will lead to superior increases in farmer profitability, total food output, and environmental benefits in many other cases as well.

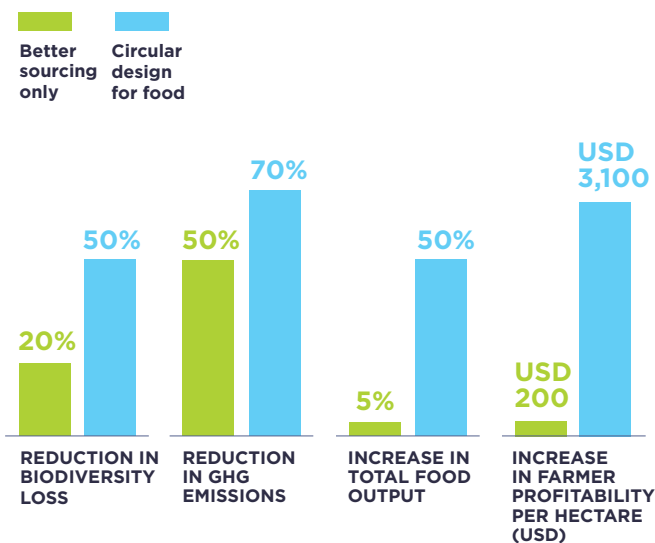
A key component here is moving from looking at individual ingredients in isolation to understanding the wider ecosystems they belong to. This means designing in partnership with farmers to ensure that the reality of evolving farm systems is taken into account. Doing so will enable food design strategies to realise the potential of the diverse crops and livestock that are integral components of regenerative farming systems. This potential, only a fraction of which is modelled in this study, is to make the food system truly nature-positive – rather than only reducing its negative impact – while maximising total food output and profitability for farmers.

Businesses can take five actions to make nature-positive food mainstream:

1. Create ambitious and well-resourced action plans to make nature-positive product portfolios a reality
2. Create a new collaborative dynamic with farmers
3. Develop iconic products to showcase the potential of circular design for food
4. Contribute to and use common on-farm metrics and definitions
5. Advocate for policies that support a nature-positive food system

Figure 2

CIRCULAR DESIGN FOR FOOD OFFERS SIGNIFICANTLY GREATER BENEFITS THAN BETTER SOURCING ALONE*



*On average for three modelled ingredients (per harvest for wheat and potatoes, and per year for dairy) in the UK and EU.

A future where nature-positive food is available at scale is possible. Circular design for food offers FMCGs and retailers a pathway to realise food's potential to be good for nature, farmers, and business.

Rather than bending
nature to produce food...



food can be designed for nature to thrive

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The Food initiative's Advisory Board has supported the Foundation's work since 2019, helping to conceive and launch the *Cities and circular economy for food* report and to build on it with this study.

This study was also partially funded by the SUN Institute and we are very grateful for this ongoing support of the Foundation's work.

Thanks also go to all organisations and individuals across policy, industry, and academia, as well as those from think tanks, who contributed to this study with insights and constructive input, through interviews and online workshops.

Special thanks in particular to the farmers we spoke with who generously shared their knowledge and perspectives on sensitive issues that encompass factors beyond producing food, and which touch on families, friendships, and lifestyles. For this reason we have not named them here, but we hope this study will bring positive outcomes for all involved, and for future generations.

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The Ellen MacArthur Foundation would like to thank the organisations who contributed to the study for all their constructive input. Please note that contribution to the study, or any part of it, or any reference to a third-party organisation within the study, does not indicate any kind of partnership or agency between the contributors and the Foundation, nor an endorsement by that contributor or third party of the study's conclusions or recommendations.

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 Climate Champions
 Co-op
 Danone
 Dawn Meats
 Delicious Planet Consultancy
 Department of Environment, Food and Rural Affairs, UK Government
 Ecologic
 EIT-Food
 European Carbon Farmers
 EverGrain
 FarmED
 Farming & Wildlife Advisory Group (FWAG Southwest)
 Food, Farming and Countryside Commission (FFCC)
 General Mills
 Google
 Griffith Foods
 Groupe Bel
 HowGood
 IFOAM Organics Europe
 International Union for Conservation of Nature (IUCN)
 John Lewis Partnership
 Linking Environment And Farming (LEAF)
 Mars, Incorporated
 Mattson
 McCain
 Moss & Mollusk Consulting
 Mondeléz International
 Nature Friendly Farming Network
 Nestlé
 New Foundation Farms Ltd
 One Planet Business for Biodiversity (OP2B)
 PepsiCo
 ReLondon
 reNature
 Sainsbury's
 Soil Association
 Sustainable Food Trust
 Tesco Stores Limited
 The Coca-Cola Company
 The Finnish Innovation Fund Sitra
 The Kellogg Company
 The Land Institute
 Unilever
 Upcycled Food Association
 Waitrose & Partners
 Walmart
 Wm Morrison Supermarkets plc
 WWF-UK

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The Ellen MacArthur Foundation, a UK-based charity, develops and promotes the idea of a circular economy in order to tackle some of the biggest challenges of our time, such as plastic pollution, climate change, and the loss of biodiversity. In a circular economy, business models, products, and materials are designed to increase use and reuse, creating an economic system in which nothing becomes waste and everything has value. Increasingly built on renewable energy and materials, a circular economy is distributed, diverse, and inclusive. The Ellen MacArthur Foundation collaborates with and inspires, businesses, organisations, and other key actors to accelerate the transition to a circular economy.

Further information:

www.ellenmacarthurfoundation.org

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