

# Innovating Net Zero Products and Services

TRANSFORMATION GUIDE

# Table of Contents

03	Introduction to the Guide
04	The Problem
05	The Questions
06	Nike Approach
08	Unilever Approach
10	Wipro Approach
12	Key Takeaways
13	Checklist and Additional Resources

# Introduction

Transform to Net Zero is a cross-sector initiative to accelerate the transition to an inclusive net zero global economy. The initiative includes 10 member companies that are climate leaders in their industries – Danone, HSBC, Maersk, Mercedes-Benz, Microsoft, Natura & Co., Nike, Inc., Starbucks, Unilever, and Wipro – plus Environmental Defense Fund, and BSR as Secretariat.

To support companies in meeting targets backed up by transformation plans to achieve net zero no later than 2050, Transform to Net Zero is publishing a series of Transformation Guides. Each Transformation Guide shares experiences and lessons learned by three Transform to Net Zero members when addressing a challenging issue in net zero implementation. A Transformation Guide does not prescribe a single way to tackle net zero implementation but instead invites readers to choose between and combine different approaches depending on which is best suited to their circumstances. The third in the series, this Transformation Guide focuses on how companies can innovate net zero products and services.

The views expressed in this publication have been informed by the collective work of Transform to Net Zero members, but do not necessarily represent the views of every member on each issue.

# The Problem

Along with a focus on achieving net zero goals by decarbonizing their own operations and supply chains, leading companies are transforming old or creating new products and services to deliver significant reductions in greenhouse gas (GHG) emissions for their customers. For example, net zero products may incorporate low carbon content materials, produce less waste, use renewable energy systems in production, or re-purpose removed GHG emissions in product raw materials. Net zero services may assist other companies in measuring and controlling GHG emissions, or decarbonizing operations or supply chains.

Innovating net zero products and services is a complex undertaking. Companies need to put their net zero ambition at the heart of creative processes. It requires multiple teams, such as research and development, engineering, marketing, finance, and information technology, to work together to generate product ideas and convert them into viable products and services.

In this Transformation Guide, three Transform to Net Zero members, Nike, Unilever, and Wipro, share their approaches to developing products and services that convert their ambitious net zero commitments into actions to benefit their customers.

# The Questions

01

What processes do companies use to generate ideas for net zero product and services?

02

Which company functions are involved in creating net zero products and services and how do teams collaborate?

03

How do net zero products and services contribute to companies' overall net zero goals and how is this measured?

# Nike

## APPROACH

Nike takes an end-to-end approach to sustainability with a focus on reducing its GHG and waste footprint. The company's diverse teams are innovating to design out waste from the beginning of the product creation process, transforming manufacturing scrap into products and scaling solutions to move us closer to a circular future.

As a creator of products, Nike recognizes that companies must explore new solutions and partner in unexpected places to create products that last longer and are designed with their end in mind. Circular design principles are helping Nike on this journey.

### DESIGN NET ZERO PRODUCTS

The **Space Hippie Project** signaled Nike's adoption of a pilot ethos around waste. The idea was to design for the earth with In Situ Resource Utilization, the practice of generating products with local materials. Applying this practice to shoes instead of space exploration prompted Nike and the industry to look at materials that are already abundant but not often used, like waste. Nike had to work with certain design considerations to make use of recycled materials. One of the color options of the Space Hippie shoe is a natural gray, because that is the color of the recycled fiber, and the particles of recycled material that show up in the foam provide a unique texture to the shoe's appearance.

The Space Hippie Project innovations catalyzed the adoption of a circular material toolkit to be applied across other product lines and business units. The ethos of using waste in high performance shoes led to the development of the Cosmic Unity basketball shoe and the Zoom Alphafly Next Nature marathon shoe - made with at least 50% recycled content by weight and Nike's most sustainably-minded performance shoe yet.

Circular design principles are being employed to deliver high-performance innovation to athletes while reducing Nike's dependency on natural resources. Ultimately, this is a journey and eliminating manufacturing waste is a complex process. Different products, made in different factories, create very different waste streams, each raising a distinct set of waste-mitigation challenges to solve. Nike is actively addressing waste and scaling those learnings across the enterprise. Across the company and value chain, Nike is innovating significantly on pilots that recycle and reuse materials, create efficiencies, and reduce waste at the source by adopting better practices at factories, distribution centers, retail stores, and headquarters. These pilots allow Nike to innovate and then expand practices across the company.

### REDUCE DEPENDENCE ON MATERIALS THAT PRODUCE GHG EMISSIONS

Materials make up about 70% of Nike's GHG footprint. The company is aiming to reduce 0.5 million tons of GHG emissions by 2025 by using environmentally preferred materials in 50% of all key materials such as polyester, cotton, leather,



and rubber. By reusing existing plastics, yarns, and textiles, Nike can significantly reduce emissions. To help achieve the company's 2025 targets, Nike set functional goals against the areas of greatest impact linked to its innovation roadmap:

- **Recycled Polyester** reduces carbon emissions by up to 30% compared to virgin polyester. By designing with rPoly, Nike diverts an average of one billion plastic bottles annually from landfills and waterways.
- **Sustainable Cotton:** As of FY20, 100% of the cotton Nike uses across its entire apparel line is certified organic, recycled, or Better Cotton, sourced through the Better Cotton Initiative.
- **Nike Flyleather** is made with at least 50% recycled leather fiber, combined with synthetic materials. Nike is also investing in synthetic and recycled synthetic leather alternatives.
- **All Nike Air** soles contain at least 50% recycled materials and are made using 100% renewable energy.
- **Nike Flyknit** is precision-engineered and involves significantly fewer parts to construct the shoe, reducing waste by 60% compared to traditional footwear upper fabrication. Each shoe upper made with rPoly Nike Flyknit yarns contain an average of six to seven recycled plastic bottles.

### CLOSE THE CIRCLE

The final phase of a product's life is one of the most challenging pieces of the sustainability puzzle. To close

the loop, Nike is innovating and advancing new circular business models. The company has a target to donate, refurbish, or recycle 10 times more used or defective Nike finished product waste by 2025. Nike is innovating to responsibly extend the life of products and materials by:

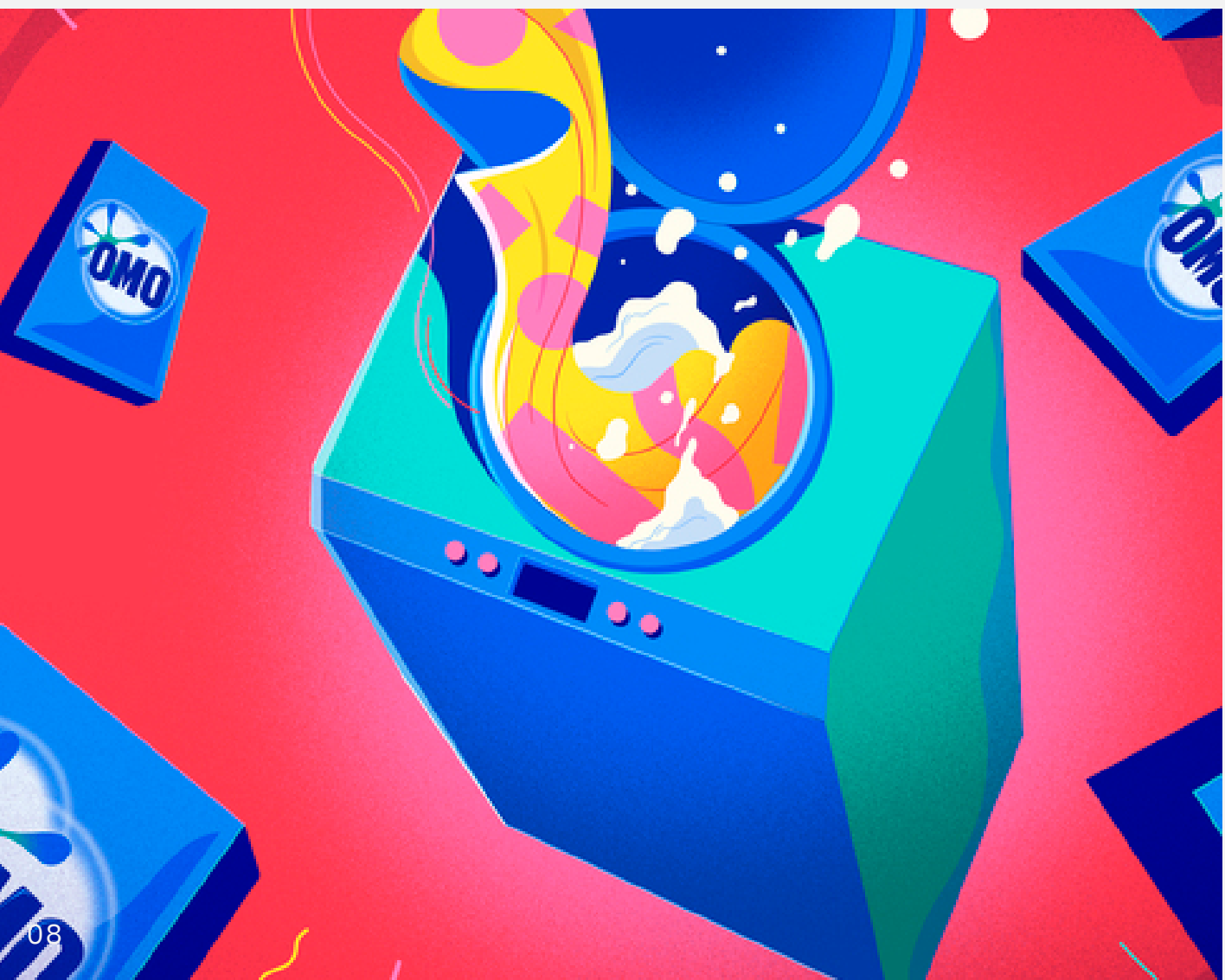
- **Recycling and Donation:** The service, available in select stores across Europe and Asia, invites people to drop off used athletic footwear and apparel at a participating local Nike store. As an evolution of Nike's global Reuse-a-Shoe program, the service is also accepting athletic apparel for the first time.
- **Nike Refurbished** takes Nike's gently worn, like-new and slightly imperfect footwear, and refurbishes them by hand to extend their life at can't-beat pricing in select Nike stores.
- **Nike Grind**, launched in 1992, transforms manufacturing scrap and end-of-life footwear into new Nike Grind materials used to make products, playgrounds, running tracks and sport courts.

### PARTNER ACROSS THE INDUSTRY

Nike is exploring new solutions and partnership opportunities to create products that last longer and are designed with their end in mind. This requires an integrated approach with an entire ecosystem of players across the company, its supply chain, its industry, and beyond to lower shared impact. Nike has set **2025 targets** to focus on greatest areas of impact and collaboration to find better alternatives for sourcing materials, production, energy, logistics, and takeback.

# Unilever

APPROACH





## CREATE PRODUCTS MADE WITH FOSSIL FUEL ALTERNATIVE RAW MATERIALS

As the majority of Unilever's emissions occur at the raw material level, the company's approach to net zero product innovation is particularly focused on creating products made with fossil fuel alternative raw materials. Unilever launched a €1 billion **Clean Future** innovation strategy that seeks to replace ingredients derived from fossil fuels with alternatives from renewable or recycled sources by 2030. Instead of extracting fossil fuel from underground sources, the company will seek to use carbon already on or above ground. In China, laundry brand OMO has reformulated products using repurposed carbon, introducing surfactants made with captured emissions. The products are available at no extra cost to consumers.

## DIVERSIFY SOURCES OF CARBON RAW MATERIALS IN PRODUCTS

Central to Clean Future is Unilever's '**Carbon Rainbow**', a framework that seeks to diversify the sources of carbon for its feedstock. Carbon Rainbow is a tool and a descriptive language to assist Unilever in eliminating fossil fuel-based materials. It began as a dialogue between the company's technology and science teams, who recognized that too much emphasis was being placed on palm as a "green" raw material to replace petrochemicals. Unilever scientists realized that it was not good enough to switch everything petrochemical to palm kernel oil.

**The company learned that there are many sources of carbon within plant materials; many technical materials are available that carbon can be recovered from, including plant waste, CO<sub>2</sub> from air or steel works, or recycling.**

Unilever started categorizing different types/sources of carbon with colors, leading to the Carbon Rainbow. Non-renewable virgin fossil fuel is known as 'black' carbon, while renewable and recycled carbon sources include 'purple' carbon captured from the air or from industrial emissions, 'blue' carbon from sources in the ocean, 'grey' carbon from waste materials, and 'green' carbon from plants and terrestrial biomass. The OMO innovation in China highlighted above is an example of 'purple carbon'. While the tech team recognized this nomenclature was not sufficiently technical for some internal discussions, it was perfect for a conversation with the marketing team and suppliers, as it simplifies the conversation.

## PARTNER WITH OTHERS TO SCALE INNOVATION

Unilever's challenge in creating net zero products is that it does not produce its own chemicals. Rather, it purchases ingredients and formulates them for its cleaning products. As Unilever deploys its strategy to move away from fossil fuel-based ingredients, it also seeks to engage its suppliers on the decarbonization journey. Partnerships with raw material providers are critical in innovating net zero products, and Unilever is making it a priority to work with partners who share its values and can help it reach its climate goals.

For the OMO product, Unilever partnered with leading tech and chemical manufacturing firms to create the innovative surfactant line. The shift in production uses biotechnologies and a newly configured supply chain between the three partners working together for the first time:

- **Capture:** LanzaTech, the world leader in CarbonSmart™ products, uses biotechnology to capture waste industrial emissions at its Beijing Shougang LanzaTech plant in China and converts these emissions to ethanol.
- **Conversion:** India Glycols Ltd converts the ethanol into ethylene oxide, a key feedstock to make surfactants at its site in India.
- **Formulation:** Unilever uses the surfactant in the new OMO laundry capsules, manufactured at its Hefei factory in China.

## APPLY LEARNINGS TO MAKE PROGRESS

Along the way, Unilever has had to overcome challenges associated with small-scale product launches. The company found that it is almost as labour-intensive to launch a "net zero demonstrator product" as it is to launch a scaled-up, permanent product. The experience has enabled Unilever to gain clarity about the costs and benefits of demonstrator products. It gathers data to learn when the material supply base is readily available to scale up production and to ascertain when partners will need to increase production of new raw materials.

A second lesson came from marketing teams: a central question was how they would sell new products to consumers if performance remained unchanged. The learning was to develop a more rounded strategy in the future that ensures better performance of the product overall, in addition to making the ingredients more sustainable. Net zero product development is unique in that research and development, procurement, finance, legal, and marketing work closely together at all steps of the journey.

# Wipro

## APPROACH

### SUPPORT CUSTOMERS' NET ZERO JOURNEY

Wipro considers itself to be a net zero influencer both in terms of its own internal practices and across its range of net zero and sustainability-focused offerings. In alignment with its internal [decarbonization roadmap](#), Wipro enables client transformation to a net zero economy by strategically harnessing the power of technology, domain expertise, and experience across four key dimensions:

1. Wipro's own work reducing Scope 1-3 GHG emissions to achieve net zero by 2040
2. Supporting the evolution of clients and partners towards Green IT operations by modernizing operations and transitioning to renewables
3. Comprehensively engaging with clients across their value chains to enable sustainable (internal) operations and reporting capabilities through business and technological modernization
4. Developing more sustainable client operations and new products and services based on less carbon-intensive business models through circular supply chains, waste recovery and recycling, and product lifecycle extension

To offer integrated and comprehensive GHG solutions, Wipro leverages a diverse array of digital technologies and software (cloud, IoT, AI, machine learning, predictive analytics) and business transformation frameworks (strategic design, engineering, domain expertise). Generally, Wipro believes

software modernization through the cloud is the next big frontier of sustainability, as it unlocks considerable opportunities for both business growth and emissions reduction through greater efficiencies, system flexibility, optimization, and operational resilience.

### MAKE NET ZERO A THROUGH LINE IN ALL NEW OFFERINGS

Teams across Wipro work towards a shared goal that has been set at the leadership level: product innovation should promote progress toward customers' net zero emission goals. Wipro, as a service-oriented organization, meets customers where they are on the net zero journey, taking into account the customer's existing operational footprint, organizational goals, and history. Teams work in collaboration to develop product and service offerings calibrated to each specific client. For instance, engineering and research and development teams collaborate with design teams to create a connected supply chain in which layered sustainability solutions ride on top of supply chain infrastructure, enabling customers to use data to measure the carbon footprint of the value chain. Wipro's banking and finance domain services supports net zero-based lending and investment activities, increasingly driven by regulation, by assessing the GHG characteristics of assets and creating emissions reduction roadmaps.

Wipro recognizes design is central to approaching sustainability and leverages Designit, a Wipro-owned





strategic design consultancy, to develop design-based solutions to sustainability challenges. Designit has helped companies capture sustainability patterns to reduce emissions. Recent projects include:

1. Creating a neobank to help reduce carbon emissions by promoting collaboration across supply chains in Latin America
2. Developing an IT platform for supply chain sustainability at a global energy company
3. Creating a mobile app to promote responsible energy use among consumers
4. Developing a digital service to capture and visualize data related to CO<sub>2</sub> emissions across value chains and define reduction strategies

### **GATHER MULTIPLE FUNCTIONS TOGETHER TO DRIVE NET ZERO INNOVATION**

Meeting the challenge of driving continuous net zero product innovation requires organization-wide behavior change and commitment to sustainability. At Wipro, functional teams meet bi-weekly for a sustainability-focused conversation to discuss recent projects, track progress, brainstorm solutions and develop integrated go-to-market strategies. For a global organization like Wipro, with 139 offices and clients in more than 50 countries, regular touchpoints are essential for cross-functional collaboration, ideation and innovation. Teams also collaborate on an ad-hoc basis for specific deals to develop

custom solutions that strategically leverage Wipro's diverse capabilities.

At the corporate brand level, a single point of contact is tasked with creating a unified sustainability story that strategically highlights work from across the company. In collaboration with subject matter experts, this corporate sustainability lead creates a company-wide narrative that infuses sustainability into every facet of the company's work. This work also seeks to encourage client-facing teams to familiarize themselves with Wipro's sustainability offerings and consider how their customers may benefit from net zero and sustainability services.

### **MEASURE PRODUCT AND SERVICE IMPACT**

For Wipro, measuring and quantifying impact is an ongoing challenge. While the company assists others in measuring and accounting for carbon footprint reductions across multiple business domains, the attribution of those solutions to Wipro's engagement is not always easy to qualify. Nevertheless, the company fastidiously documents and collects case studies to document the innovation process. To enable stronger tracking and measuring of key metrics, Wipro is working on frameworks and tools which help quantify and benchmark the impact of low carbon solutions across different sectors and business contexts. This work will enable Wipro to continue to make the case that the net zero journey is a unique opportunity for businesses to reinvent their operations, develop better business models, and unlock new growth avenues.

# Key Takeaways

Innovating net zero products and services is a key element of every company's net zero strategy. If products and services are not redesigned to lower GHGs, it is impossible for companies to achieve net zero goals. The experiences of these Transform to Net Zero members illustrate the need for a deep understanding of the emissions profile of all products in the supply chain, from end-to-end, in order to identify key areas where fossil fuel resources can be eliminated and where circularity can be promoted.

While Nike, Unilever, and Wipro each operate in different value chains and across different industries, each company has engaged research and development, and innovations teams to specifically focus on designing net zero products. All of their approaches show how critical internal support and external partnerships are for net zero product development.

Key takeaways from these companies' experiences include:

---

**1. Collaborate and communicate across the business and with external stakeholders.**

All functions within the business and throughout the value chain are affected by net zero product development. From supply chain partners and procurement teams to data analytics, finance, and marketing teams, company-wide engagement is needed to deliver net zero innovations.

Collaboration can help to identify unexpected solutions across different stages of a product's lifecycle (e.g., in the Unilever example, moving from a source of waste to a solution).

**2. Demonstrate market viability of the product through equal or improved performance.**

Being net zero does not have to be the selling point and might not actually be the best one. Focusing on individual aspects of a product that are net zero might not be compelling for consumers but promoting overall improvement to a product's performance or a consumer's experience is.

**3. Identify solutions that can be applied throughout the value chain.**

Developing net zero strategies that apply across different product lines can help maximize the impact of one innovation and accelerate progress towards reduced emissions. Piloting different product designs and strategies is a great way to learn by doing and can bring to light scalable solutions.

**4. Pursue partnerships with a net zero mentality from the start**

Developing net zero products requires extensive collaboration with procurement teams and suppliers to create a net zero supply chain. Identify suppliers who are already on a similar journey and be prepared to work with existing suppliers to identify how they can make existing practices net zero.

**5. Maintain flexible and dynamic design teams.**

Circumstances are always changing, supply chains are volatile, data on net zero is ever-evolving, and consumer preferences are transient. Innovations in recycling, circularity, and material development are always emerging. Design teams need to be adaptable and ready to respond to new discoveries across the net zero space.

# Checklist

- ✓ Understand the emissions profile of products and services to identify key areas for innovation
- ✓ Establish a cross-functional communication channel to facilitate collaboration on the project
- ✓ Engage with supply chain partners to procure net zero materials
- ✓ Continue product development to launch the new product or service
- ✓ Measure impact of the new product or service
- ✓ Assign a business function, e.g., research and development or innovations, to lead the project across the company
- ✓ Select a new or existing product or service to pilot and test
- ✓ Co-ordinate with marketing teams to determine the best way to market the product or service e.g., net zero or performance
- ✓ Identify innovations that can be applied to other product lines
- ✓ Partner with suppliers to identify future opportunities for procurement of net zero materials

## Additional Resources

**Nike:** [Nike's Most Sustainably-Minded Performance Shoe Yet](#)

**Unilever:** [Turning off the Tap for Fossil Carbon](#)  
[Unilever to eliminate fossil fuels in cleaning products by 2030](#)

**Wipro:** [Creating a Net Zero Future](#)



 Transform  
to Net Zero

TRANSFORMTONETZERO.ORG



natura&co



Secretariat

