# Sustainability Bulletin – November 2024

From AI environmental considerations to small-scale repair and habitat restoration, we explore three of the latest cross-industry innovations worldwide and provide actionable strategies for integrating circularity into your business

Millie Diamond, Eryn Murray & Quin Yeung
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# Need to know

**Explore three cross-industry innovations in global sustainability progress in your monthly data-led bulletin.**

## Opportunity

**Strategies**

WGSN recommends that organisations commit to a circular design system that applies the three defining principles of the circular economy.

**1. Eliminate waste and pollution**
**2. Circulate products and materials**
**3. Regenerate nature**

Each month, we showcase real-world, cross-industry applications of circular principles from around the globe. Discover how to contextualise these innovations into actionable strategies to make your business more sustainable.

- **AI for impact:** harnessing the positive power of AI to offset emissions and reduce waste
- **Small-scale repair:** initiatives promote sustainability by reducing waste, extending product lifespans and encouraging a reuse culture
- **Habitat restoration through design:** brands and products with ecosystem regeneration at their core

## Don't miss

**A selection of WGSN's recent sustainability forecasts**

- **Insight:** Store Strategy: Sustainable Design – transform purely transactional spaces into places that articulate brand values and build trust. Discover seven strategies to make a big impact with a smaller carbon footprint
- **Fashion:** Sustainability & Innovation: Long-Term Design – EU legislation on product longevity plus growing participation in resale and rental means designing for durability will move up in brands' priority lists
- **Beauty:** Ones to Watch 2025: Biotechnology Beauty Innovators – This ingredient-led sustainability trend will shape the future of the beauty industry
- **Interiors:** Key Trend: Sustainable Party Supplies – WGSN identifies seven priorities for sustainable party supplies, from material priorities to lasting reuse via crafted heirlooms and alternative botanicals
- **Food & Drink:** Intelligence: Bio-based Food Packaging – uncover bio-based material innovations in food and drink packaging applications
- **Consumer Tech:** Key Trend: Consumer Waste Management Tech – discover how brands are taking meaningful steps toward eco-friendly business models by prioritising ethical, sustainable and long-lasting consumer goods
- **Sports & Outdoor:** Intelligence: Strategic Alternatives to Eliminate PFAS – this report provides an overview of upcoming changes and suitable alternatives

"While AI demands significant energy resources, it also offers hope in tackling climate change via aiding in reducing emissions, increasing resource usage and efficiency. It builds resilience through informing decision-making about environmental changes. Brands must harness AI responsibly to leverage it for social good, transforming challenges into opportunities. Companies harnessing AI at a large scale, such as Google, Meta, and Microsoft, are going into nuclear power to offset AI's energy demands. Some people fear nuclear power because of the Fukushima and Chernobyl disasters, but it's a relatively clean, safe and reliable power source"

Carol Aquino, Head of Consumer Tech, WGSN

# AI for impact

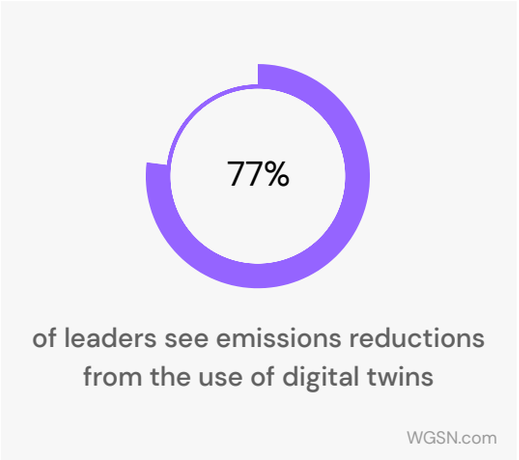
## Circular principle 1: eliminate waste and pollution

### Strategies

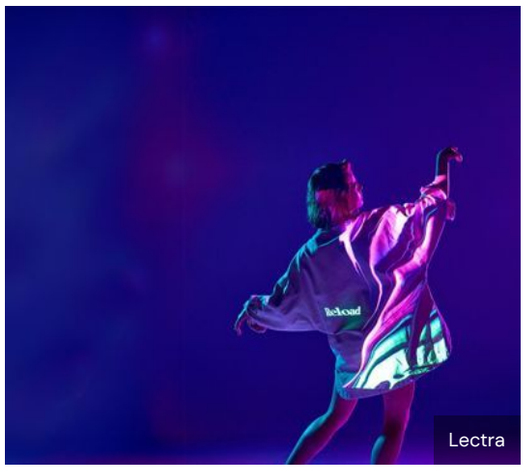
- Despite AI's environmental challenges and potential risks to climate targets, businesses have the opportunity to harness it for positive impact through optimised supply chains, predictive maintenance and smart resource management, helping industries minimise surplus, emissions and resource consumption
- In manufacturing, Jubilant Bhartia Group (India) has utilised AI-powered soft sensors to improve data collection and analysis to enhance product quality, optimise processes and manage energy use, leading to a 20% reduction in Scope 1 emissions (World Economic Forum)
- Leverage digital twins and AI to simulate real-world scenarios to reduce waste and lower emissions through data-driven adjustments made in real-time
- Use AI to analyse and reduce energy consumption in factories and supply chains by identifying efficiencies and integrating renewable energy sources
- Verify carbon offset projects and track emissions reductions, ensuring transparency and efficacy in sustainability efforts
- Optimise supply chain routes and inventory management with AI, lowering fuel use, transportation time and associated emissions

**WGSN confirmation:** Intelligence: AI Legislation, Intelligence: Transformative AI

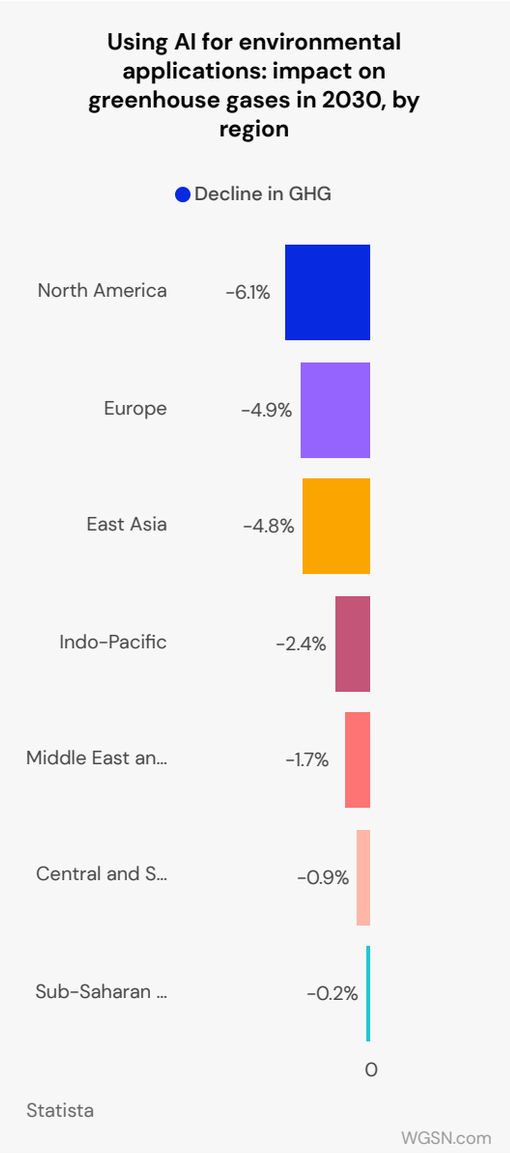
**Follow the trend**: #AI




Hexagon




Lectra's (France) Valia Fashion platform leverages AI to reduce fashion waste by optimising fabric use and automating workflows across production stages



## In action


The £1.2m UKRI-funded BeefTwin project uses AI and data-driven technology to improve feed efficiency and monitor animal health, aiming to decrease GHG emissions across the UK beef industry


Google's AI-enabled flood forecasting system enhances disaster preparedness by providing flood alerts up to seven days in advance, expanding from two countries at launch to 80 countries, including 23 in Africa


Stellantis is deploying AI-powered innovations, including digital twins, 3D vision-enabled robot guidance and autonomous mobile robots to enhance manufacturing efficiency and sustainability. These technologies have contributed to over a 20% reduction in the company's manufacturing carbon footprint since 2021 as part of its goal to become carbon net zero by 2038


Concrete.ai (US) utilises AI-driven software to optimise concrete mixes, achieving a 30% reduction in emissions and cutting costs by over $5 per cubic yard. By reducing cement use, a major source of carbon emissions, the company aims to lower the global carbon footprint by about 500 million tonnes

# Small-scale repair

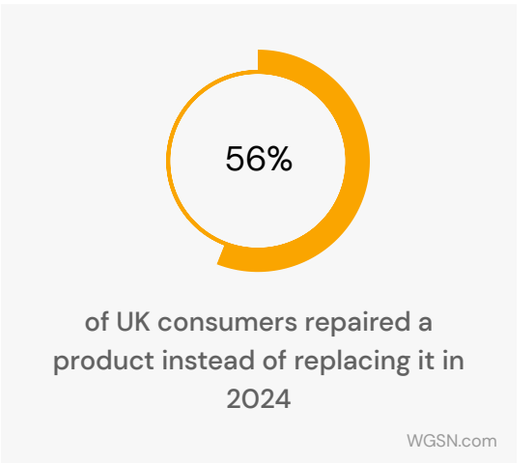
## Circular principle 2: circulate products and materials

### Strategies

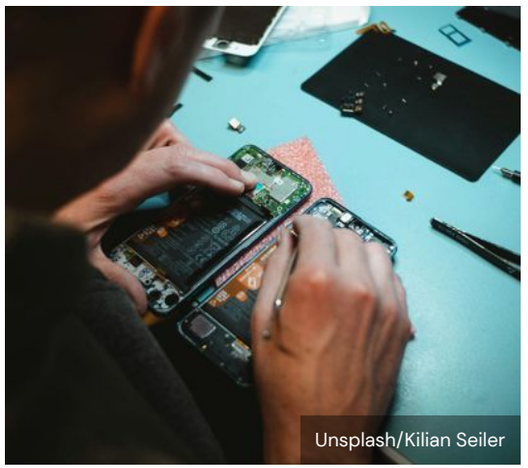
- Record-breaking waste is generated annually. Consumers are becoming increasingly aware of this and want to play their part in reducing this by investing in brands tackling the problem
- The global electronics repair market is expected to reach $198bn by 2030 (Statista). India is preparing to implement a repairability index for mobile phones and electronic products. Repairing items instead of discarding them is crucial for a sustainable future and many apparel, outdoor and interiors brands are now prioritising repair
- Adopt take-back and repair schemes to prevent your items from entering landfills and accept corporate responsibility and accountability
- Design for end-of-life repairability, reduce unnecessary trims and finishings which can't be easily repaired or recycled
- Collaborate with community initiatives to empower the Right to Repair

**WGSN confirmation:** The Repair Economy, Intelligence: Design for Repair

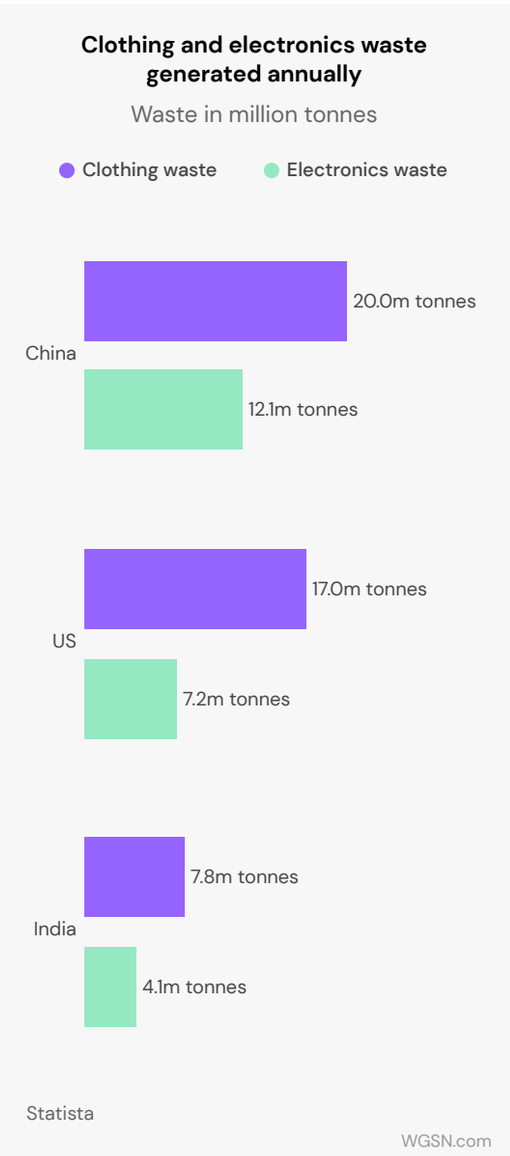
**Follow the trend**: #CircularDesign, #BeyondRepair, #CircularEconomy




Deloitte




India is launching a repairability index for mobile phones and electronics to reduce e-waste and encourage repair-friendly designs, led by the Consumer Affairs Ministry



# In action


Los Angeles-based Suay Sew Shop takes an innovative approach by repurposing durable Gore-Tex jackets into tents


Future Fixers taster sessions in London (UK) offer a beginner's guide to electronics and tech repairs, funded by the Virgin Media O2 Time after Time fund


YKK (Japan) introduces a Revived Renewal Series to extend the lifespan of textiles by offering innovative repair solutions for damaged zippers


Danish furniture brand TAKT has released its first sofa, Spoke, in collaboration with Anderssen & Voll. It is designed specifically with repair in mind to be a long-life, low-waste and entirely recyclable product

# Habitat restoration through design

## Circular principle 3: regenerate nature

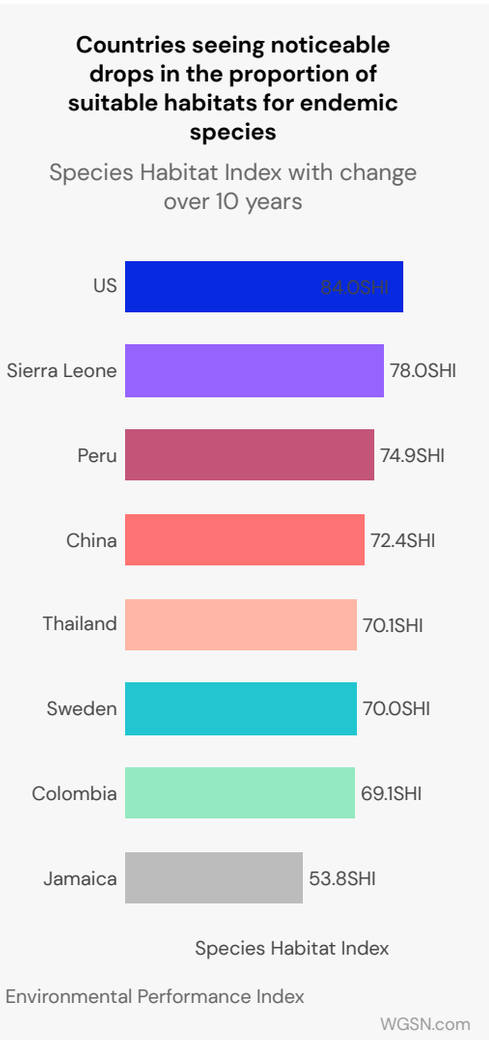
### Strategies

- As habitats shrink and fragment, species with limited geographic ranges are particularly vulnerable, facing increased risks of extinction. This disrupts ecosystems, impacting biodiversity and reducing resilience against environmental changes. Preserving these endemic habitats is crucial to maintaining biodiversity and the health of local ecosystems
- Formulate products that, when used or disposed of, contribute to ecological health, such as skincare items containing reef-safe ingredients or packaging that biodegrades in soil or marine environments
- Design products with a focus on end-of-life regeneration, ensuring they either return essential nutrients to the environment or transform into habitats for wildlife, promoting a full-circle ecological benefit
- Incorporate water-saving technologies within products and production processes to alleviate pressure on local water resources

**WGSN confirmation:** Brand Strategy: Nature Positivity

**Follow the trend**: #BiophilicDesign, #RegenerativeMaterials, #Regenerative Ag


Reef Relief's (US) sunscreen helps to boost the growth of coral rather than bleaching it



# In action


Thalasso (Norway) restores coastal habitats by sustainably harvesting invasive sargassum, reducing its negative impact on marine ecosystems and transforming it into valuable products that foster local economic development and environmental sustainability


Design studio Formafantasma (Italy) has created a series of hollow terracotta pillars to house birds and insects, which surround a biodiverse garden in a vineyard for French champagne house Perrier-Jouët


Researchers at the University of Texas Rio Grande Valley are exploring the use of recycled glass waste as a sustainable soil alternative, showing that it enhances plant growth and reduces landfill waste, thereby supporting habitat restoration and food security


Foster + Partners' (UK) plan for Gaafaru Island in the Maldives focuses on habitat restoration and establishes green buffers for biodiversity protection. It incorporates land reclamation with low-impact building methods and 3D-printed modules elevated to withstand rising sea levels

# Contributors

## Europe

Eryn Murray, Strategist, Sports & Outdoors

Pia Fisher, Strategist, Beauty

Millie Diamond, Strategist, Food & Drink

Helen Palmer, Head of Materials & Textiles

Carol Aquino, Head of Consumer Tech

Matt Zara, Strategist, Consumer Tech

Katie Raath, Senior Strategist, Packaging

Quinlan Yeung, Data Analyst Apprentice

## Americas, LATAM and South Africa

Angela Ringo, Senior Strategist, Interiors

Hanne Lima, Head of Client Success

Mariana Santiloni, Client Services Manager

Nicolle Moraes, New Business Specialist

Maria Pascua, Senior Customer Service Specialist

## Asia Pacific

Natacia Lim, Consumer Researcher

Qian Sun, Localisation Editor

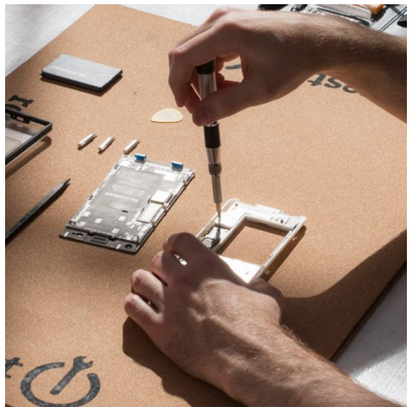
## Methodology

- WGSN uses AI and real-time social listening tools to identify trends, keywords and sentiments on social media. We capture intelligence from millions of posts by analysing text-based data in post captions and hashtags
- WGSN uses a proprietary search index to identify trends and keywords on what topics and areas people are engaging with worldwide. We capture intelligence from millions of searches by analysing text-based data and by understanding its evolution over time
- Index refers to the use of a benchmark indicator as a reference to show a continuous increase of a trend vs a specific value
- In this report, data is also sourced from Statista, Business Waste, Our World in Data and Environmental Performance Index (Yale University)
- Data was collected in October 2024

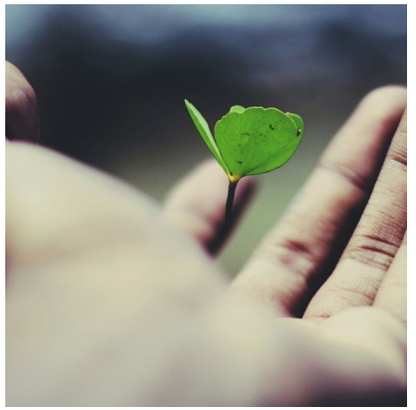
## Further research

STEPIC Strategies 2027: Executive Summary

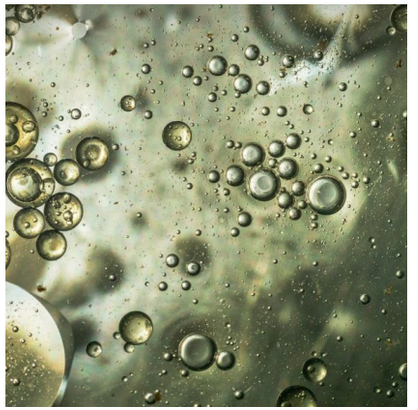
Brand Strategy: Nature Positivity



Intelligence: Design For Repair



Intelligence: Climate Smart



Brand & Product Strategy: Designed to Disappear