




# A WORLD IN CRISIS: ADDRESSING RESOURCE SCARCITY, WASTE GENERATION, AND ENVIRONMENTAL DEGRADATION

## Introduction

Did you know that two billion people cannot access safe drinking water<sup>1</sup>, or consider that about one-third of the food produced or 1.3 billion tons, ends up as waste yearly and, worse, eats into freshwater and fertilizer supply, cropland, and landfill volumes<sup>2</sup>?

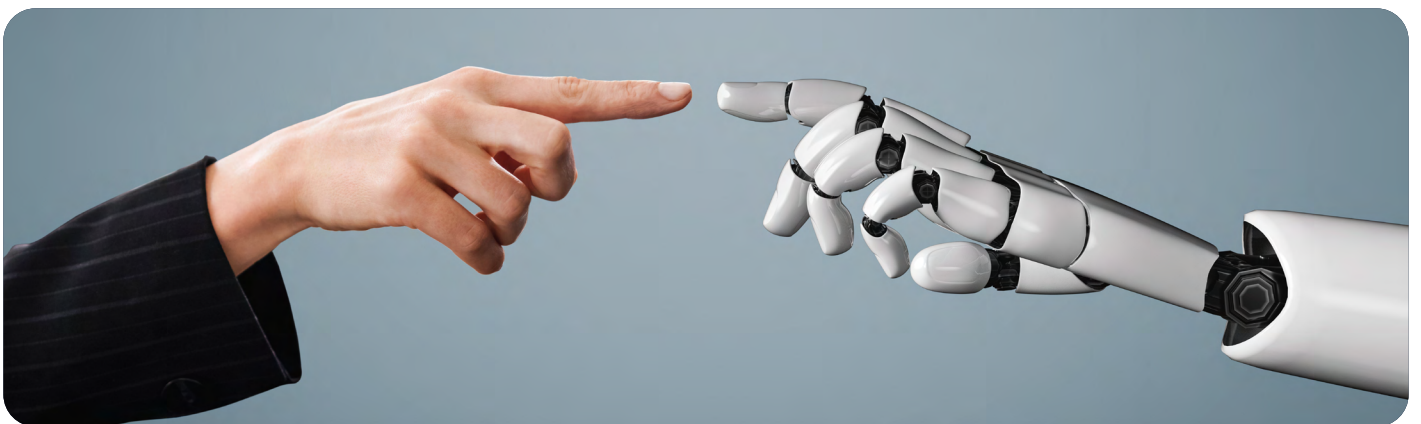


In today's world, there is mounting concern over resource scarcity, waste generation and environmental degradation. The reason behind this growing unease is a stark realization: our current resource consumption patterns are unsustainable. As our population continues to rise and industrialization expands, there's mounting pressure on limited resources like water, minerals, and fossil fuels. Resources, in various forms, can be squandered through overconsumption, inefficient production processes, improper disposal of products, and pollution.

## Sustainability is Inevitable

It's clear that we must adopt a more sustainable approach to waste management by rethinking the way we produce, consume, and dispose of waste.

Experts have narrowed down levers of sustainability, where we must collectively invest the effort to save the planet. Help is available from technology solutions that can play a pivotal role in accelerating these levers by catalyzing innovative solutions and tools. In fact, it is safe to say that technology enablement is essential for sustainability. The Boston Consulting Group calls the act of using advanced technologies to create profitable solutions that also benefit environmental, social and governance (ESG) goals a "technology ecoadvantage."<sup>3</sup>



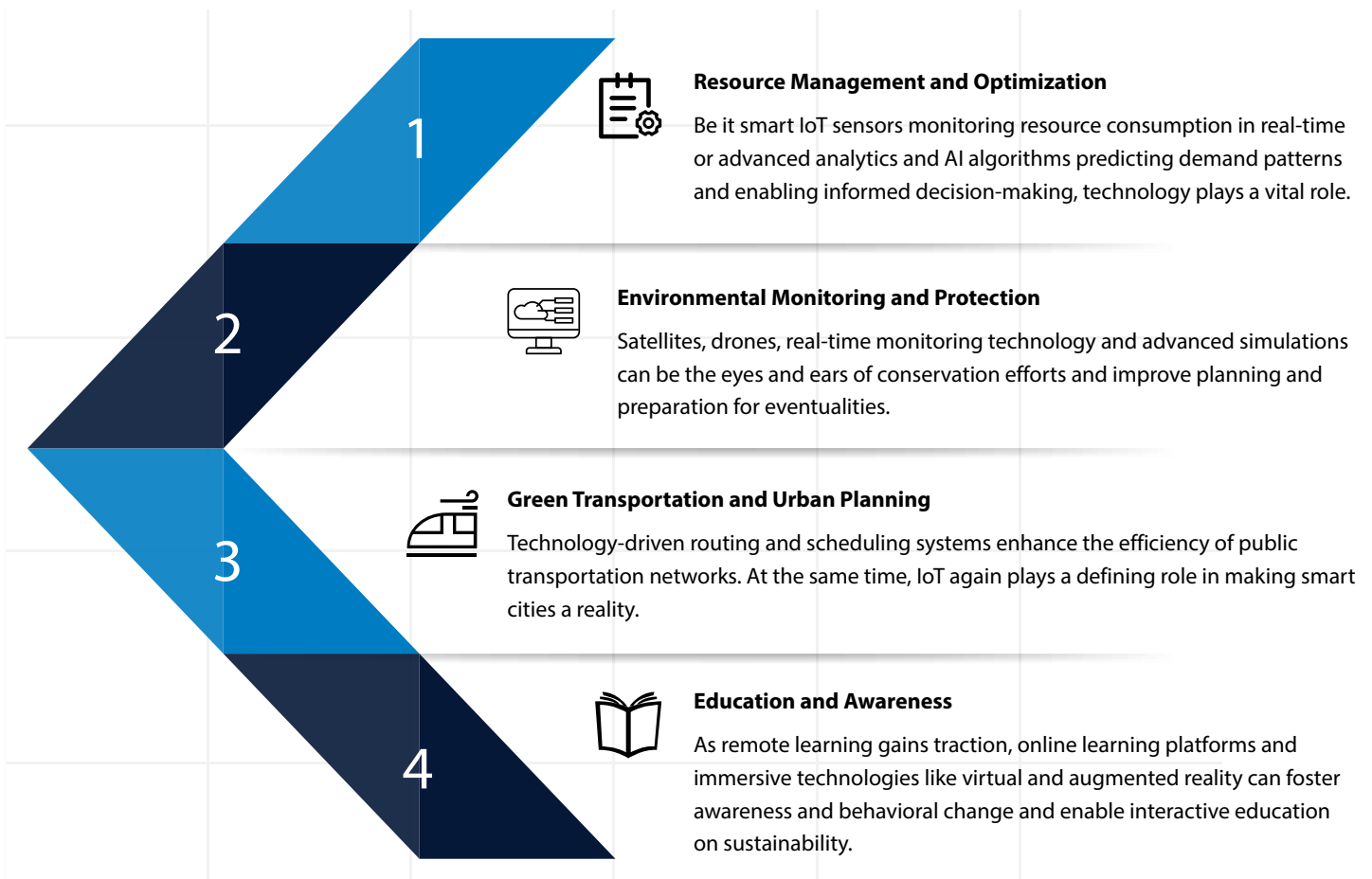
<sup>1</sup> Around 2 billion people don't have access to clean drinking water | New Scientist

<sup>2</sup> 25 Shocking Facts About Food Waste | Earth.Org

<sup>3</sup> How Technology Helps Sustainability Initiatives Thrive | BCG

# Technological Innovations for Global Sustainable Resource Management

Here are some examples of how technology actively addresses environmental challenges and promotes more efficient resource utilization:



## Technology for Sustainability at Work

Countries, cities and environmental organizations are extensively using technology to bring about change in the real world, like in the cases of Project Ocean Cleanup, Singapore's smart water management and India's air quality monitoring app. Harnessing advanced and innovative technologies, these projects enhance our understanding of complex environmental challenges and encourage active participation from the public and private sectors to create a more environmentally conscious future.

However, initiatives launched on a global or governmental scale are insufficient; transformation is imperative at the organizational level. After all, companies consume significant energy and contribute to carbon emissions and global warming. According to the Infosys ESG Radar 2023<sup>4</sup>, an ESG agenda is no longer optional for organizations, with 90% of respondents acknowledging its positive financial impact. So, it's time for businesses to act now.

## Infosys and Citrix: Leading by Example

Technology can again meaningfully and gainfully contribute here, as Infosys and Citrix demonstrate with their solutions.

With the Citrix arsenal, companies can enable remote work on any device, reducing energy consumption. From furnishing energy-efficient digital workplaces to virtual desktops on the cloud, Citrix technology prioritizes sustainability without disturbing the

customer experience. Examples abound – education institutes that provide remote learning can use Citrix Workspace and Microsoft Azure to lower data center energy. Citrix's high-end and efficient endpoint devices can cut energy use by almost 90% while also extending the life of the device and reducing e-waste. Similarly, Citrix Virtual Apps and Desktops and Citrix Cloud Services are other offerings that curtail energy consumption.

<sup>4</sup> Infosys ESG Radar 2023

Infosys has a commendable track record in championing sustainability initiatives within its organization and clients. Understanding fully well that sustainability is an integral part of business strategy for its clients, Infosys is committed to nurturing sustainable resilience by taking the ESG route. Clearly articulated goals guide its journey and that of its clients. For example, it is focused on preserving our planet by working on solutions to combat climate change, water and waste. The company achieved carbon neutrality, surpassing its target by an impressive 30 years, a remarkable achievement. It is committed to reducing 75% of Scope 1 and 2 emissions and 30% of Scope 3 by 2030.

Next, Infosys' Tech for Good program focuses on eGovernance, healthcare and education and taps into the power of cloud and digital technologies to massively impact society.

Infosys' experience with its internal sustainability agenda helps it contribute to its clients meaningfully. The Sustainability and Design practice at Infosys was set up with the exclusive purpose of adding a sustainable layer to its client solutions. For example, it can introduce circular design concepts into the client solution, reducing waste. In addition, Infosys has struck partnerships with clients and suppliers to conceptualize new offerings that align with sustainability objectives.

## Businesses as Agents of Change

Before changing the world, we must first transform our own business. Organizations must recognize the urgency of sustainability. At the same time, they must also understand that the road to sustainability is pebbled with challenges such as the digital divide, privacy and data security, ethical dilemmas, and high initial costs and regulations, any of which can scuttle even the best laid plans. The key lies in adopting a holistic approach that considers technical, economic, social, and environmental factors and utilizing the strong collaboration between stakeholders, including governments, industries, communities, and technology experts. Any transition strategy towards more sustainable operations can only be built upon the foundation of clear-headed policy changes, responsible consumption patterns, and a commitment to long-term change. Clearly, there's plenty to do. Our collective future hinges on our ability to minimize waste and a sustainable way of life, taking a stance on which is not a choice. It is imperative for our survival.

### Authors



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Lax is an innovative, versatile executive with innate ability to successfully transform businesses to continuously reach their highest potential by implementing leading edge technologies paired with creative business models for scalable and sustained solutions to deliver growth. He has a stellar record at leading businesses from strategy to execution in multiple markets and global geographies and possesses an uncanny ability to lead and inspire teams to achieve best-in-class results. Lax is an active evangelist, speaker, investor and blogger on disruptive innovation, business models, future ready enterprises leveraging modern technologies and actively mentor startups and ventures.



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Gerard brings over two decades of industry experience, having worked as both a vendor and a customer. His focus lies in aligning the firm's products and solutions with customer needs and strategies. Gerard's interests span workspace modernization, digital transformation, ICT's impact on sustainability, new ways of thinking about the world, great writing, innovative ideas and being an advocate for sustainable IT.

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