

The *dual transition*

The path to a digital and sustainable economy

Executive Summary

The world is undergoing a dual transition towards a more digital and sustainable future. We at Capgemini call this future the eco-digital era™. The term 'eco-digital economy' refers to an economic system that delivers not only financial value but also environmental and social value. In the eco-digital era™, there is greater exploration of the value that digital technologies hold for business, in which they play a crucial role in achieving sustainable goals; the rapid evolution of emerging tech such as generative AI and synthetic biology; and the more profound and sophisticated collaboration that can give rise to effective digital ecosystems.

A new eco-digital economy in the making

Together with Harvard Business School, the latest research by Capgemini Research Institute on the eco-digital era™ reveals that nearly eight in ten organizations (77%) agree that we are experiencing a dual transition towards a more digital and sustainable world.

Suraj Srinivasan, Philip J. Stomberg Professor of Business Administration at Harvard Business School and Faculty Chair of the Digital Value Lab at Harvard's Digital, Data, and Design Institute, defines this new era as: "The eco-digital economy refers to the dual transition to an economy that delivers not only economic value but also environmental and social value."

Nadège Petit, Chief Innovation Officer at Schneider Electric shares how eco-digital economy is core focus of businesses: “It (dual transition) is core to our mission of being our customers’ digital partner for sustainability and efficiency.”

Thomas Kurian, Chief Executive Officer of Google Cloud summarizes this new economy: “Digitization and sustainability go hand in hand.”



Digitization and sustainability go hand in hand.”

Thomas Kurian,
Chief Executive Officer of Google Cloud

The eco-digital economy is also an era of profit – with purpose

The eco-digital economy is not just about driving profit. Rather, it targets growth alongside environmental and societal sustainability. Aiman Ezzat, Chief Executive Officer at Capgemini, comments: “We are today at a crossroads: organizations need to deliver growth and prosperity in a sustainable and ecologically safe way.”

While, in theory, higher profits should lead to greater investment, increased productivity, and a rise in wages, in reality, this has not always transpired. Understandably, stakeholders are looking for more meaningful action. Jim O’Neill, a former economy minister and a member of the UK House of Lords, and former Head of Asset Management at Goldman Sachs, elaborates further: “This is leading to what I call an era of ‘profit with better purpose,’ where we cannot afford to avoid sustainability. More and more, we will see politicians attacking companies that just [aim to] make [a] profit.”

The optimal integration of digital technologies with sustainability goals will deliver environmental gains across the entire value chain, as well as delivering societal gains by generating job opportunities, mitigating bias and discrimination, and empowering small businesses, among other significant advantages.

Prakash Arunkundrum, Chief Operating Officer at Logitech, talks about Design for Sustainability: “When applied to sustainability, (good design) means thinking about what design decisions can we make at every point of the life-cycle.”

Data is at the core of the eco-digital economy

Data is the key to progress in all aspects of business.

Thomas Kurian, Chief Executive Officer at Google Cloud, talking about the significance of data in the eco-digital economy says: “Data is essentially the foundation of digitization.” The widespread availability of technologies such as cloud, semiconductors, graphics processing units (GPUs), the Internet of Things (IoT), sensors, etc., has enabled more organizations to use data to drive strategic decision-making.

Eefje Dikker, Head of Global HR Transformation, Digitization and Operations at Mercedes-Benz Group AG, highlights the importance of implementing a data strategy across various functional areas: “It has become even more important for us to focus on a common, coordinated data approach across departments.”

Data is also important in setting, measuring, and tracking sustainability goals. Vincent Charpiot, EVP, Head of Group Sustainability Business Accelerator at Capgemini, elaborates: “Smart use of data will also be essential to increasing efficiency across a range of industries and preventing unnecessary emissions.”

Software is the new competitive differentiator

Organizations are continuously searching for new strategies through which to derive greater value from digital technologies. These are now at the core of the business model, rather than being simply a differentiator. Jiani Zhang, EVP and Chief Software Officer, Capgemini Engineering, elaborates: “Software is no longer an ‘add-on’ to the product lifecycle and value chain. Rather, it’s the key to staying ahead of the competition and unlocking new revenue streams.”

Today, most organizations are realizing software-driven benefits. For example, 73% of organizations achieve faster R&D in existing products and services, and 62% of organizations have used software to gain a competitive advantage (e.g., an increase in market share).

Capgemini’s Aiman Ezzat comments: “I believe we are at the dawn of a new transformative era, and we have only scratched the surface of how digital technologies can expedite the delivery of substantial economic, environmental, and societal benefits.”



I believe we are at the dawn of a new transformative era, and we have only scratched the surface of how digital technologies can expedite the delivery of substantial economic, environmental, and societal benefits.”

Aiman Ezzat,
Chief Executive Officer,
Capgemini

Generative AI is top-of-mind for industry leaders

Generative AI has the potential to become a powerful transformative tool in the eco-digital economy. Following unprecedented growth over a short time period, it has already had significant impact across sectors including manufacturing, healthcare, finance, and logistics.

Generative AI has a wide range of applications, from creating text, images, and videos in different styles to generating tailored content, including speech-to-text conversion and voice recognition. Bijoy Sagar, EVP, Chief Information and Digital Transformation Officer (CIDO) at Bayer speaks about its significance: “I believe that the next decade is truly going to be the decade of AI – especially of text-based AI.” Jim O’Neill mentions the possible application of generative AI in drug development: “If you can teach a computer to [find new antibiotics], that is one of the most powerful positives of AI I can think of.”

Aiman Ezzat elaborates on how organizations can benefit from the adoption of generative AI: “By using generative AI to automate processes, optimize resources, implement predictive maintenance, optimize the supply chain, mitigate risks, and improve decision-making, organizations can achieve cost savings and enhance overall financial performance.”

It is important to balance exploration of emerging digital innovations with legacy landscape

Adoption of new technologies needs to be balanced with respect for the existing social, cultural, and organizational considerations in order to derive maximum

Executive Summary

value. Frank Loydl, Chief Information Officer, Audi shares: “We needed to transform the existing architectural landscape such that new technologies could operate using the existing data to create value.”

Adoption of digital technologies also means re-engineering the skill sets of the existing workforce. Mercedes-Benz’s Eefje Dikker comments: “We are entering a digital era in which most people will be expected to adapt to working with new technology.” Training programs to help long-serving employees upskill and stay relevant will nurture a positive culture amid digital transformation initiatives. Adrienne Horel-Pagès, Chief Sustainability Officer at La Banque Postale says: “The only way to drive change is to train and reskill people continuously.”

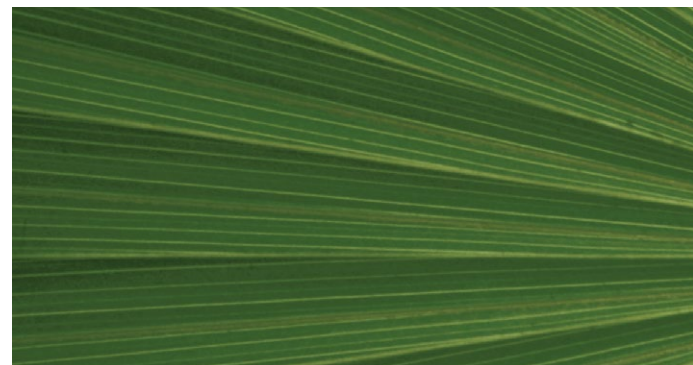
Collaboration is the key to success in the eco-digital era™

In the eco-digital economy, organizations – and, indeed, nations – can no longer afford to operate in isolation. Collaborative ecosystems will become imperative to harnessing the various digital technologies effectively for sustainable growth.

Jim O’Neill emphasizes the need for all nations to work together: “When it comes to digitalization and sustainability, world leaders have all got to be sitting in the

same room. At the moment, they are not.” Bayer’s Bijoy Sagar adds: “We will achieve sustainability goals only if everybody in the ecosystem works on them together.”

The emergence of any new technology is associated with ethical concerns around potential misuse. Emerging technologies such as generative AI and synthetic biology are not immune to this ethical conundrum. Susan Hockfield, Professor of Neuroscience and President Emerita at MIT, reiterates: “We need to set strongly enforced perimeters but, unfortunately, we do not have strong international agreement.” Collaborative commitment between the various participants is required to facilitate the formulation and implementation of clearly defined boundaries around the use of emerging technologies.



Get the culture right

A culture that encourages experimentation is essential to the success of this new eco-digital economy. It will also rely on ensuring access to education, information, and facilitating conditions, is available to everyone, irrespective of their gender or socio-economic background. Unfortunately, there remain subtle barriers to women in particular that will result in the early death of some brilliant ideas. Susan Hockfield highlights this challenge in practical terms: **“Less than 4% of venture-capital dollars go into women-founded companies.”**

As a way of overcoming such obstacles at a structural level, Eefje Dikker advises organizations to be more forward-looking: **“A strategy may have been successful for the preceding 10 years, but this does not guarantee success for the next 10. When the organization is faced with waves of change, leaders need to avoid the complacency of living in past glory and move forward with their eyes open.”**

