Consumer Products and Retail

How sustainability is fundamentally changing consumer preferences
Growing concerns about environmental challenges and the need for conservation of natural resources – as well as greater expectations around societal issues – have brought sustainability into the mainstream for consumers and organizations. This extensive research program analyzes the impact of sustainability on consumers’ purchasing patterns and examines how far organizations have come in understanding and meeting their expectations.

Our key findings are:

**Consumer preferences are strongly impacted by sustainability:**

- A significant majority of consumers (79%) are changing their purchase preferences based on sustainability. This contrasts sharply with the 36% of organizations who believe consumers are willing to make this change in their choices/preferences based on social or environmental impact. Such a gap represents a risk of ~6% of brands and retailers revenue if unaddressed.

- Consumers practice sustainability-led behavior in their daily life (e.g., minimizing food waste or using energy-efficient appliances), and in their shopping behavior (e.g., preferring products with minimal packaging). They attribute positive emotions such as feeling “happy” when buying sustainable products, which shows the potential for sustainability to impact customer experience, happiness and loyalty.

- However, COVID-19 has made the situation more nuanced, with consumers weighing up safety issues against sustainability goals. For example, we are currently seeing a decrease in demand for used or refurbished products as customers prefer avoiding “touch-based” practices. At the same time, however, consumers are still keen to make sustainability work:
  - 65% are willing to purchase alternative non-plastic products or packaging than plastics in the light of COVID-19.
  - 68% want to increase use of local products – they consider it as a perfect blend of “safe” and “sustainable”
  - Moreover, they do not want companies to abandon sustainability goals and practices in these crucial times.

**If they meet these needs, organizations can benefit significantly:**

- 77% say their sustainability approaches increase customer loyalty and 63% have seen a revenue uptick. There is a significant opportunity to gain market share given this growing action/intention of consumers to switch based on sustainability.

**However, despite the mutual value on offer to both, both consumers and organizations show weaknesses in their thinking and approach:**

- Organizations fail to grasp how fundamentally consumer preferences have shifted as a result of sustainability – in terms of trust, loyalty, and price expectations.

- Many consumers are not aware of the environmental or social consequences of many of the common products they purchase and therefore their best intentions go unfulfilled.

**We highlight four best practices:**

- Empower consumers and employees through awareness, education and choice to to deeply embed sustainability.

- Position technology at the core of sustainability initiatives to drive value

- Build in robust sustainability governance

- Collaborate with the broader ecosystem for a greater impact.
Introduction

Climate change and sustainability issues are top of our social and economic agenda. This is clearly reflected in our research into consumer sentiment and opinion:

- Nearly 80% of consumers want to be able to make a difference in saving the planet for future generations.
- 77% are concerned about the humane and fair treatment of workers.
- 72% are personally concerned about their environmental footprint.
- 66% choose to purchase products or services based on their “environmental friendliness.”

Clearly, concerns about climate change, pollution, biodiversity loss, resource scarcity, and the wider well-being of society means that consumers are posing hard sustainability questions to consumer products and retail (CPR) organizations. And, these changing behaviors and values regarding environmental friendliness, social responsibility, and economic inclusiveness are translating into a demand for corporate change. As well as consumers, governments, public-interest groups, investors, competitors, and employees are also pushing CPR organizations to change their ways of working, cultures, and products. These changes have far-reaching implications for the sector and demand that products, services, operations, and ecosystems in which the companies operate are sustainable.

To understand where the CPR industry stands today in terms of sustainability, we launched a comprehensive research program, surveying 7,500 consumers and 750 large organizations in this sector. In addition, we conducted one-on-one interviews with a range of sustainability leads from large organizations. More details on the research methodology are found at the end of the report.

Drawing on that extensive research, our report focuses on:

1. The importance that consumers and organizations place on sustainability and the impact it has on how consumers behave and buy
2. How COVID-19 has impacted sustainability and safety preferences
3. The benefits organizations are deriving from sustainability approaches
4. The differences between perception and practice in sustainability
5. The maturity levels of CPR organizations in scaling their sustainability initiatives
6. How organizations can accelerate their sustainability journey.
Defining sustainability in CPR

The United Nations definition of sustainable development strives to strike a balance between the present and the future: “Sustainable development has been defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. For sustainable development to be achieved, it is crucial to harmonize three core elements: economic growth, social inclusion and environmental protection. These elements are interconnected, and all are crucial for the well-being of individuals and societies.” Using this definition as a basis, we assess sustainability in the consumer products and retail industry along three dimensions: environmental, social, and economic (see Figure 1).

**Figure 1. Sustainability framework for consumer products and retail organizations**

- **Environmental friendliness**
  - Initiatives focused on conservation of natural resources, reducing carbon and greenhouse gas emissions, responsible end-of-life disposal, etc.

- **Social responsibility**
  - Initiatives focused on safe working conditions for the workforce, fair labor policies, and policies against child labor, gender discrimination and forced labor, etc.

- **Economic inclusiveness**
  - Initiatives focused on fair trade and commitments to a wider cause – poverty reduction, education, etc.

Source: Capgemini Research Institute Analysis.
This framework – including planet- and human-friendly operations, processes, products, and services – also becomes the basis for how we define sustainability initiatives across the industry’s value chain. As Figure 2 shows, we identified many areas where the industry is pursuing sustainability. These range from sustainable product design and development to broader societal initiatives such as poverty reduction.

**Figure 2.** Sustainability across the CPR value chain

- **PRODUCT DESIGN**
  1. Circular product design (maximum material recycling after product usage, easily taken apart into components, etc.)
  2. Product sustainability (products that use less water or natural resources to manufacture)

- **SOURCING**
  3. Responsible use of natural resources
  4. Due diligence of footprint of the raw materials

- **MANUFACTURING**
  5. Sustainable manufacturing process (implementing maintenance, quality, and production processes to reduce waste and improve recyclability and reuse of materials.)
  6. Use of renewable power and focus on energy efficiency
  7. Waste reduction

- **PACKAGING**
  8. Recycled/recyclable/alternative packaging
  9. Refillable packaging
  10. Sustainable warehouse operations (building material, lighting etc.)
  11. Lower emissions (route optimization, combining LTL truckloads etc.)
  12. Extending sustainability to logistics partners

- **CIRCULAR ECONOMY**
  13. Reducing waste in-stores
  14. Reducing consumables in
  15. Use of renewable power and focus on energy efficiency
  16. Lower last-mile emissions
  17. Extending sustainability to logistics partners
  18. Recycle/upcycle unsold products/used products/packaging
  19. Product as a service models
  20. Fair labor policy (worker safety, policy against child labor, policy against forced labor, policy against discrimination, fair prices to labor etc.)

- **FULFILLMENT**
  21. Energy usage in data centers etc.
  22. Wider initiatives for humanity

- **STORE OPERATIONS**
  13. Reducing waste in stores
  14. Reducing consumables in
  15. Use of renewable power and focus on energy efficiency
  16. Lower last-mile emissions
  17. Extending sustainability to logistics partners
  18. Recycle/upcycle unsold products/used products/packaging
  19. Product as a service models
  20. Fair labor policy (worker safety, policy against child labor, policy against forced labor, policy against discrimination, fair prices to labor etc.)

- **INFORMATION TECHNOLOGY**
  21. Energy usage in data centers etc.

- **BEYOND OPERATIONS**
  22. Wider initiatives for humanity

Source: Capgemini Research Institute Analysis.
Sustainability is key: Consumers see an emotional connection; organizations see it as a strategic priority

Sustainability impacts consumers purchase preferences and makes them happy

More than half (52%) of consumers say that they share an emotional connection with products or organizations that they perceive as sustainable. As Figure 3 shows, 64% say that buying sustainable products makes them feel happy about their purchase (and this reaches 72% among 25–35 year olds). Sustainability thus makes a difference by touching upon the positive emotional aspects of consumers. “There is definitely a change that has taken place in the world in consumers. Specifically, the younger generations – such as GenZ – are really starting to take decisions based on sustainability. Millennials are also sustainability oriented, but they still struggle sometimes to act upon that. But I think GenZ is much more likely to actually change their behaviors,” says Eelco Smit, senior director sustainability at Philips.

From the perspective of countries, 70% of consumers from Italy, 71% from Spain, and 66% from UK agree to feeling happy when buying sustainable products as compared to 58% of US consumers.

Figure 3. Consumers share an emotional connect with sustainability

Percentage of consumers agreeing to statements below

- Buying sustainable products from organizations makes me feel happy when shopping
- I feel an emotional connection with a product/organization which is sustainable/undertakes sustainability initiatives

Source: Capgemini Research Institute, Sustainability in Consumer Products and Retail Survey, March 2020, N=7,520 consumers.
The emotional connection with sustainability is also reflected in purchase preferences. Overall, 79% of consumers are changing purchase preference based on the social responsibility, inclusiveness or environmental impact of their purchases (see Figure 4).

Of those who have changed preferences, the primary motivations are:

- Wanting to make a difference in saving the planet for future generations (80%)
- Concerns about fair workforce treatment (77%)
- Concerns about issues like poverty and hunger (76%).

Increasingly, organizations are also offering products that directly address consumers’ sustainability preferences. For instance, P&G introduced Tide Purclean detergent made from plant-based ingredients. It also launched packaging made from recycled beach plastics for its Head and Shoulders brand. H&M, to balance the fast fashion impact, allows consumers to recycle old clothing in stores for a discount and introduced its “Conscious Collection,” which is made of organic or recycled materials. The apparel brand aims to use 100% recycled or other sustainable materials for its production by 2030. Likewise, Netherlands-based G Star Raw introduced sustainably manufactured jeans – the water used in production is either recycled and reused, or dyes used consume less water, and all the materials used in the jeans are recyclable.

![Figure 4. Consumers are changing purchase preferences based on social, economic, and environmental impact](image_url)

Source: Capgemini Research Institute, Sustainability in Consumer Products and Retail Survey, March 2020, N=7,520 consumers.
Consumers practice sustainability in their day-to-day and shopping behavior

Consumers are following sustainability-led practices in their daily life. Our research shows that nearly 60% say that they regularly look to minimize household waste and close to half (45%) regularly use energy efficient appliances. For instance, because Sweden’s population has embraced the need to sort and segregate household waste, the country is able to operate more than 34 “waste-to-energy” power plants that generate enough electricity to power 250,000 households.\(^1\)

Across geographies:

- 68% of consumers say that they regularly bring their own bags to do grocery shopping. This can be partly attributed to government restrictions to restrict plastic use and also to “changed” consumer preferences to avoid any sort of touch-based practices in the store during the COVID-19 pandemic. By countries, this is led by the UK (79%), the Netherlands (77%), Italy (75%), as compared to 41% of consumers from the US.
- 42% say they regularly ensure that product packaging is recycled. This is led by 66% of consumers from Spain and 65% from Sweden, as compared to 35% from the US.

Figure 5. Consumers adopt sustainable behavior in their purchases and daily life

Source: Capgemini Research Institute, Sustainability in Consumer Products and Retail Survey, March 2020, N=7,520 consumers.
As a result, consumers also pay close attention to the sustainability initiatives of retail organizations they engage with. And, there is a clear sense that they are underwhelmed by the pace of change they are seeing:

• Less than half (45%) say their retailer has stopped giving single-use plastic bags.
• Only 36% think packaging is 'ecofriendly' (see Figure 6).

Figure 6: Consumers pay attention to sustainability-led initiatives taken by retailers

<table>
<thead>
<tr>
<th>Percentage of consumers agreeing to the various sustainability initiatives from the retailers they frequently shop with</th>
</tr>
</thead>
<tbody>
<tr>
<td>My retailer has stopped giving single-use plastic bags in stores to carry products</td>
</tr>
<tr>
<td>My retailer has recycling initiatives in-store</td>
</tr>
<tr>
<td>The packaging of products in stores is minimal and ecofriendly</td>
</tr>
<tr>
<td>My retailer is taking visible measures to reduce losing energy</td>
</tr>
</tbody>
</table>

Source: Capgemini Research Institute, Sustainability in Consumer Products and Retail Survey, March 2020, N=7,520 consumers.

• Sector wise, consumers say many of the initiatives are taken by their grocers, with 54% agreeing that their grocer has stopped using single-use plastics; and 53% agreeing that their grocer has recycling initiatives in store and take visible energy conservations measures (e.g. doors in front of fridges, keeping temperature maintained in store by door closing, etc.). For instance, US-based Kroger supermarkets is investing in low-carbon refrigerants, LED lights retrofitting, and leak reduction initiatives for refrigerants in its stores to conserve energy – and these kinds of initiatives are being noticed and appreciated by consumers.
• Country wise, 58% of French consumers, followed by 49% from UK and 47% from the Netherlands agree that their retailers have stopped using single use plastic bags in stores to carry products, in contrast with only 28% from the US.

Overall, 79% of consumers are changing purchase preference based on the social responsibility, inclusiveness or environmental impact of their purchases.
Sustainability is a strategic priority for consumer products and retail organizations

Ynte de Vries, program manager for Farm Energy at FrieslandCampina – a Dutch multinational dairy cooperative – says, “Our member dairy farmers are committed to producing milk in the most sustainable way possible. Sustainable business operations are the core of our member dairy farmers’ work since we started almost 150 years ago. One can say, caring for animals and nature is part of our DNA. More recently, we see a growing interest in sustainability around us. Customers and consumers realize the importance of the topic and have started asking questions. For larger companies it is now a strategic priority to be able to answer these questions and to start working on these issues in a collective way. This is why you now see consortia of large companies across the world are coming up with initiatives and/or are taking over initiative from governments. At FrieslandCampina, we have a strong track record of “act and measure”. We have stepped up our game and are used to cooperate with others, even competitors, to solve strategic collective challenges. We call this “Cooperative Sustainability”, and we believe it is the key to actually achieve results that matter.”

Our interviews with over 750 executives in the consumer products and retail industry confirms how important this issue is to organizations:

- 90% say sustainability is highly important for the industry
- 75% believe that they have a strategy, infrastructure, and resources in place to drive sustainability and circular economy efforts
- Two thirds (66%) say that sustainability is fully integrated into their business objectives. (see Figure 7).

**Figure 7.** Sustainability is a strategic priority for consumer products and retail industry

<table>
<thead>
<tr>
<th>Percentage of executives agreeing to statements below</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainability is highly important for my industry</td>
</tr>
<tr>
<td>90%</td>
</tr>
<tr>
<td>88%</td>
</tr>
<tr>
<td>91%</td>
</tr>
<tr>
<td>We believe that we have the strategy, infrastructure, and resources to drive sustainability and circular economy initiatives</td>
</tr>
<tr>
<td>75%</td>
</tr>
<tr>
<td>76%</td>
</tr>
<tr>
<td>73%</td>
</tr>
<tr>
<td>Sustainability is fully integrated into our business objectives</td>
</tr>
<tr>
<td>66%</td>
</tr>
<tr>
<td>69%</td>
</tr>
<tr>
<td>64%</td>
</tr>
</tbody>
</table>

Source: Capgemini Research Institute, Sustainability in Consumer Products and Retail Survey, April-May 2020, N=750 consumer products and retail organizations; N=400 consumer products manufacturing organizations; N=350 retail organizations.

Our research on digital transformation priorities in the light of COVID-19 outbreak echoes the same views.7

- 18% of consumer goods manufacturing firms consider sustainability and enhancing purpose as an immediate priority, and 47% consider this as a key priority in next 6–12 months.
- In the case of retail, it is an immediate priority for 30% of retailers, and a key priority in next 6–12 months for 41% retail organizations.
The COVID-19 pandemic has added a safety dimension to sustainability that consumers and organizations must now balance.

The COVID-19 situation has heightened consumer preferences for health and safety practices. Our earlier research on impact on consumer behavior due to COVID-19 highlighted that 77% of consumers will be more cautious about cleanliness, health, and safety in the post-pandemic era; and 62% of consumers will shift to brands and retailers who continue to exhibit higher levels of product safety.

In our current research as well, this trend of focus on safety is validated. Consumers are putting a safety lens to a few sustainability initiatives in the short run – and we see implications both positive and negative with respect to sustainability (see Figure 8).

**Concerns over safety and hygiene have eclipsed sustainable packaging preferences**

As consumers adopt a more cautious approach towards touch-based practices, they prioritize packaging hygiene. As Figure 8 shows:

- 53% of consumers plan to reduce use of as-a-subscription model (items in refillable packaging, etc.).
- 40% plan to reduce purchase of used/refurbished products.
- Our previous research on COVID and consumer behavior also found that nearly 40% of consumers prefer their products in disposable packaging due to health and safety concerns.

In the light of COVID-19, in the next 12 months...

- I prefer to reduce as-a-subscription models (items in refillable packaging) 53%
- I prefer to reduce purchase of used/refurbished products 40%
- I prefer to purchase products in disposable packaging* 40%

* Datapoint from our previous research.

Source: Capgemini Research Institute, Sustainability in Consumer Products and Retail Survey, March 2020, N=7,520 consumers; Capgemini Research Institute, Consumer Behavior Survey, April 4–8, 2020, N=11,281 consumers.
As a result, organizations have had to re-assess what was previously considered sustainable best practice. For instance, Starbucks has temporarily banned reusable cups in response to the coronavirus outbreak. California has lifted the ban on the use of single use plastic bags in supermarkets for 60 days. Moreover, 78% organizations in our research agree that their business models and practices will be reassessed from a health and safety perspective and they will explore new models in sourcing, packaging, etc. At a segment level, this is led by food and beverage firms (87%) and grocery retailers (84%).

Consumers perceive local products as a perfect blend of “safe” and “sustainable”

The current pandemic has reinforced consumer preferences for locally sourced products. Our research reveals that 68% of consumers plan to purchase more locally made products rather than imported or non-local products in the next 12 months (see Figure 9). This trend is driven by a number of factors – the perceived level of safety in local products, greater trust and traceability of local products over imported ones, the smaller carbon footprint of local products, and a sense of supporting local communities.

- Age wise, this appetite is strong across all age groups of consumers
- Country wise, this is more pronounced in India, Italy, and France.

Figure 9. Consumer preferences towards localism are high

In the light of COVID-19, I prefer to purchase more locally made/produced products rather than imported/non-local products in the next 12 months

Source: Capgemini Research Institute, Sustainability in Consumer Products and Retail Survey, March 2020, N=7,520 consumers.

Ylenia Tommasato, brand sustainability and communication manager at Italy’s Barilla Group – a large food corporation – agrees. “As a result of the pandemic, I believe that there is a huge trend towards localism, more plant-based food, and eCommerce. As a company, we have to accelerate those models and channels, but we always keep sustainability in mind. That is because now, more than ever, we have seen how ‘people’s well-being’ is intertwined with being ‘planet worthy.’ So, I believe that the sustainability agenda for our company and for the whole world will be quite intense over the next few years,” she says.
Consumers expect organizations to live to their “purpose” and “sustainability” credentials:

Earlier research that we conducted into consumer behavior in the pandemic highlights the following:

- 67% of consumers said that they will be more cautious about the scarcity of natural resources due to the COVID-19 crisis.
- 65% said that they will be more mindful about the impact of their overall consumption in the “new normal.”
- 78% of consumers believe that companies have a larger role to play in society.
- A majority (over 53%) prefer to engage with CPR companies that showcase strong sustainability credentials and embody a sense of purpose.

Pia Heidenmark Cook, chief sustainability officer at Ingka Group, echoes this sentiment, saying, “COVID has accelerated a lot of people’s thinking on health and well-being. This is not only for themselves and their families and communities, but also for the planet. People have started to realize how things are interconnected and how vulnerable we are.”

Consumers understand that organizations are facing economic pressures in light of the COVID-19 situation. However, they expect businesses to step up and act on sustainability issues; and they will closely scrutinize the actions taken by organizations to separate those companies that are truly committed to sustainability, from those that are “greenwashing.”

“Sustainability is a journey, but can also be seen as a mosaic. Every single project or phase of the value chain is a piece of this mosaic. And, as in any mosaic, each piece can be of different shape, size or color, but when put together with the other pieces it gives you the sustainability journey and the sustainability overview of the company.”

Elena Dimichino, Sustainability Director at Luxottica
Sustainable organizations derive significant customer-facing and financial benefits

There is a common misconception that putting resources into sustainability comes at a cost, with attention diverted from core business priorities. However, various studies from the World Economic Forum, among others, finds a positive connection between eco-innovation and increased financial and other performance.14

Our research also finds a strong connection between sustainability and business benefits (see Figure 10):

- Nearly 80% of executives pointed to an increase in customer loyalty as a key benefit from sustainability initiatives.
- Over two thirds (69%) pointed to an increase in brand value. The impact of sustainability credentials on brand value and sales is supported by our consumer research: if consumers perceive that the brands they are buying from are not environmentally sustainable or socially responsible, 70% tell their friends and family about the experience and urge them not to interact with the organization.
- 68% of the organizations also point to improvement in environmental, social and governance (ESG) ratings of their organization driven by sustainability initiatives.
- Nearly 63% of organizations also said that sustainability initiatives helped boost revenues. Eelco Smit, senior director sustainability at Philips says, “There’s no reason why you cannot be sustainable and profitable. Look at the sustainable brand index, as well as the niche players – we are getting to a position where consumers are starting to reward sustainable brands. This has also made it possible for organizations to further invest in sustainability. This idea that sustainability costs money and will impact profitability is very dated. We have to move away from that paradigm. It’s simply not true.”

We see several examples of organizations using innovative approaches to make their operations more sustainable and, in return, gaining consumer trust, confidence, revenue, and profitability.

- For instance, the collaboration between Adidas and “Parley for the Oceans” led to the company selling more than one million sneakers made with recycled ocean plastic in 2017.15
- Unilever’s “Sustainable Living Brands” are growing 69% faster than the rest of the business and delivering 75% of the company’s growth.16

“There’s no reason why you cannot be sustainable and profitable. Look at the sustainable brand index, as well as the niche players – we are getting to a position where consumers are starting to reward sustainable brands. This has also made it possible for organizations to further invest in sustainability. This idea that sustainability costs money and will impact profitability is very dated. We have to move away from that paradigm. It’s simply not true.”

Eelco Smit, Senior Director Sustainability at Philips

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Moreover, many sustainability initiatives, be waste reduction or energy efficiency, lead to cost-savings. Eelco Smit, senior director sustainability at Philips sums it up, saying, “We see the rewards of sustainability coming from different stakeholders. Investors are rewarding us by either buying more shares or sticking with the shares for a longer period of time. Retailers are rewarding us by giving us more shelf space or more presence in online stores. GenZ consumers are increasingly buying from sustainable brands. We also see that people want to work with and for Philips. We are convinced that we get access to higher quality talent because we have a clear purpose as a company. All these elements are benefits and obviously there are still some cost-saving opportunities. For example, reducing electricity brings cost saving and improving the recyclability of our waste streams improves profitability. There are many benefits of doing things this way.”

Circular is a key enabler for us to become climate positive, because we have a climate footprint fixed in the products we sell, the materials we choose for our products, and the production and the transport of our products. The IKEA ambition to become a circular business by 2030 meaning designing all products with circular principles in mind, using renewable or recycled materials and working with customers to keep products in use for longer.

Pia Heidenmark Cook, Chief Sustainability Officer at Ingka Group.

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**Figure 10. Key benefits derived from sustainability initiatives**

### Percentage of organizations agreeing to the benefits below

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase in consumer loyalty</td>
<td>77%</td>
</tr>
<tr>
<td>Increase in brand value</td>
<td>69%</td>
</tr>
<tr>
<td>Increase in brand recommendations</td>
<td>69%</td>
</tr>
<tr>
<td>Improvement in ESG rating of the company</td>
<td>68%</td>
</tr>
<tr>
<td>Increase in employee motivation levels</td>
<td>67%</td>
</tr>
<tr>
<td>Increase in customer satisfaction scores</td>
<td>65%</td>
</tr>
<tr>
<td>Increase in total revenue</td>
<td>63%</td>
</tr>
<tr>
<td>Increase in supplier loyalty</td>
<td>61%</td>
</tr>
</tbody>
</table>

Source: Capgemini Research Institute, Sustainability in Consumer Products and Retail Survey, April–May 2020, N=750 consumer products and retail organizations.
There is a significant gap between perception and practice of sustainability

Consumers think they practice sustainability, but do not always grasp the cold reality of a product’s impact on the environment

Consumers value sustainability and feel it is their moral responsibility to make sustainable purchases. Nearly 80% of consumers say they want to be able to make a difference in saving the planet for future generations. More than 74% of consumers feel purchasing sustainable products is a moral responsibility. Given the high ambitions of consumers to be sustainable, a key question is how aware consumers are on the topic of sustainability and whether they understand the consequences of purchasing products from a sustainability perspective.

Consumer think their level of awareness of sustainable products is high, and organizations feel that people are also up to speed:

- Only 38% consumers say they do not have the awareness to differentiate sustainable products from non-sustainable products.
- 76% of executives say that consumers are aware of the “sustainability consequences” of their purchase decisions, such as comprehending the total environmental impact of a product.

However, despite the faith that executives have, we found that most consumers are not aware of the environmental or social consequences of many of the products they purchased:

- 78% of consumers were not aware that it takes 1,000 liters of water to produce one chocolate bar.
- 68% of consumers were not aware that an average burger patty results in more emissions than driving 15 km in a large car.
- 61% of consumers were not aware it takes 7,500 liters of water to make a single pair of jeans.

Figure 11. Consumers awareness of impact of their everyday purchase decisions

<table>
<thead>
<tr>
<th>Product or service purchased in the past one year</th>
<th>Sustainability issue associated with the product or service</th>
<th>Share of consumers who are not aware of the environmental issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bought a bar of chocolate</td>
<td>One thousand liters of water are used to produce one chocolate bar.</td>
<td>78%</td>
</tr>
<tr>
<td>Purchased a burger</td>
<td>The average burger patty results in more carbon emissions than driving 15 km in a large car</td>
<td>68%</td>
</tr>
<tr>
<td>Purchased a pair of jeans</td>
<td>It takes around 7,500 liters of water to make a single pair of jeans</td>
<td>61%</td>
</tr>
<tr>
<td>Ordered online delivery</td>
<td>Nearly one-third of solid waste in the US comes from e-commerce packaging</td>
<td>60%</td>
</tr>
</tbody>
</table>

Source: Capgemini Research Institute, Sustainability in Consumer Products and Retail Survey, March 2020, N=7,520 consumers.
Alberto Chiappinotto, Global Climate Neutral Project Manager Industrial Operation at Electrolux agrees, “The customers want sustainability, but not always they know what it means to develop a sustainable products; here it’s where we have to create culture if we want grow and move forward.”

Moreover, once consumers are made aware of the true sustainability impact of a product, they become very determined to change their behavior. Nearly 68% of consumers who purchased the products mentioned in Figure 11 were willing to purchase a more sustainable product once they were made aware of the sustainability issues.

This highlights the need for more sustainability-related information to be available for consumers and reinforces the importance of brands driving the sustainability agenda. For example, Levi Strauss & Co. CEO Chip Bergh has said, “We want to use less water, the most precious resource in the world today, and this industry uses a lot of water.” Levi’s now uses a “waterless technology,” which reduces the water required in the denim finishing process by 96%.

Consumers do not trust sustainability claims made by organizations

Organizations understand that consumers place a high importance on sustainability. Nearly 70% of executives say that their consumers are willing to put in more effort to purchasing products they perceive as sustainable. Organizations see sustainability as a key priority, and many will be implementing multiple initiatives to make their products more sustainable. However, these efforts are not always trusted by consumers.

As Figure 12 shows:
- 65% of executives say their consumers are very much aware of their sustainability initiatives.
- However, close to half of consumers (49%) say they do not have any information to verify the sustainability claims of products and 44% say they do not trust product sustainability claims.

Building consumer trust is critical for organizations given the low consumer trust on sustainability claims – educating consumers on the sustainability issues and certifications will be required to achieve this.

**Figure 12. Consumers do not trust sustainability claims**

![Chart showing consumer trust in sustainability claims](chart.png)

- 65% of executives say their consumers are highly aware of their sustainability initiatives
- 49% of consumers say they do not have any information to verify the sustainability claims made by these products
- 44% of consumers say they do not trust the sustainability claims made by these products

Source: Capgemini Research Institute, Sustainability in Consumer Products and Retail Survey, March-May 2020, N=7,520 consumers; N=750 consumer products and retail organizations.
Organizations are yet to come to terms with how fundamentally consumer preferences have shifted

Organizations, while they recognize the importance of sustainability, are yet to accept the fact that consumers will change their purchase preference based on sustainability factors alone:

- Only 36% of organizations say that consumers are willing to change their choices/preferences based on social or environmental impact.
- However, as we saw earlier, 79% of consumers have signaled their intention of changing based on social, inclusive, or environmental grounds – 42% having already changed and 37% planning to do so (see Figure 13).

![Figure 13. Gap in organization perception vs consumer preferences on willingness to shift purchases](image)

Our consumers are willing to change their choices/preferences based on social/environmental impact

I have already changed/may change my purchase preferences based on social, economic or environmental impact

36%

79%

Organizational perception

Consumer view

Source: Capgemini Research Institute, Sustainability in Consumer Products and Retail Survey, March-May 2020, N=7,520 consumers; N=750 consumer products and retail organizations.

The trend to switch the preferences based on sustainability factors will also impact well-known brands:

- We found 53% of consumers overall and 57% of consumers in the 18–24 age group have switched to lesser-known brands if they are sustainable.
- However only 24% of executives say their consumers are willing to switch from a well-known brand to an unknown brand that they perceive as sustainable.

At a country level, this perception gap is most pronounced in Italy, France, and Spain (see Figure 14). Citizens in these countries exhibit high levels of sustainability traits which are above global averages. For instance, citizens in France take an extra effort to purchase sustainable products such as buying in bulk (France – 54%, global – 49%). Citizens in Spain care more about sustainability (Spain – 78%, global – 66%) and citizens in Italy say it is their personal responsibility to become sustainable (Italy – 77%, global – 72%)

“The customers want sustainability, but not always they know what it means to develop a sustainable products; here it’s where we have to create culture if we want grow and move forward.”

Alberto Chiappinotto, Global Climate Neutral Project Manager Industrial Operation at Electrolux
Figure 14. Gap in organization perception vs consumer preferences on willingness to shift to less-known brands

<table>
<thead>
<tr>
<th>Region</th>
<th>Share of Consumers</th>
<th>Share of Organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td>53%</td>
<td>24%</td>
</tr>
<tr>
<td>US</td>
<td>43%</td>
<td>36%</td>
</tr>
<tr>
<td>UK</td>
<td>50%</td>
<td>26%</td>
</tr>
<tr>
<td>Sweden</td>
<td>49%</td>
<td>17%</td>
</tr>
<tr>
<td>France</td>
<td>60%</td>
<td>14%</td>
</tr>
<tr>
<td>Germany</td>
<td>48%</td>
<td>24%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>61%</td>
<td>12%</td>
</tr>
<tr>
<td>Italy</td>
<td>59%</td>
<td>17%</td>
</tr>
<tr>
<td>Spain</td>
<td>66%</td>
<td>37%</td>
</tr>
</tbody>
</table>

Source: Capgemini Research Institute, Sustainability in Consumer Products and Retail Survey, March–May 2020, N=7,520 consumers; N=750 consumer products and retail organizations.

Infact, lagging on sustainability is a missed revenue opportunity for retail and consumer products organizations. On the basis of responses from our consumer survey, we did an additional analysis to understand what will be the impact of “not” being sustainable on organizations. We found that it is ~6% missed revenue opportunity for organizations, if they do not focus on sustainability practices (see Figure 15). There are significant variations by geographies – as the most profound impact can be seen in Italy, Sweden and Spain. (the detailed methodology can be found in Appendix 1).

Figure 15. Potential loss of revenue for organizations from the growing disconnect between consumer intent to switch and organizations belief they will do this

Missed revenue for the organization when sustainability practices are not adopted (in %)

<table>
<thead>
<tr>
<th>Region</th>
<th>Missed Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td>5.8%</td>
</tr>
<tr>
<td>Italy</td>
<td>7.8%</td>
</tr>
<tr>
<td>Sweden</td>
<td>7.2%</td>
</tr>
<tr>
<td>Spain</td>
<td>6.8%</td>
</tr>
<tr>
<td>India</td>
<td>6.1%</td>
</tr>
<tr>
<td>France</td>
<td>6.0%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>4.6%</td>
</tr>
<tr>
<td>UK</td>
<td>4.5%</td>
</tr>
<tr>
<td>Germany</td>
<td>3.8%</td>
</tr>
<tr>
<td>US</td>
<td>3.1%</td>
</tr>
</tbody>
</table>

Source: Capgemini Research Institute, Sustainability in Consumer Products and Retail Survey, March 2020, N=7,520 consumers; Capgemini Research Institute Analysis
Organizations are not aware that consumers do not necessarily associate sustainability with a price premium

Consumers expect sustainability and a clear corporate purpose to be the “new normal” for CPR companies. But organizations associate sustainability with a premium: 59% say consumers are willing to pay a price premium for the products/brands they perceive as sustainable. However, consumers do not expect sustainability to come at a high price:

- 65% say that sustainable products do not need to be more expensive than similar products that are non-sustainable.
- Close to 40% overall also say that have paid less than average price for products that they perceive as sustainable. Of that nearly half of the younger demographic (18–35 years) has paid lower-than-average prices for sustainable products as compared to other age groups (see Figure 16).
- Although 57% have paid higher-than-average prices for products that they think are sustainable, two thirds have only paid up to 10% more on average.

Given the high share of consumers (especially the younger population) who have purchased sustainable products at lower prices, and the price premium of sustainability being less than 10% for two thirds of customers – organizations need to closely examine the pricing for sustainable products and come up with products that are affordable and sustainable.

A number of organizations are moving to a new model that is sustainable and cost effective. For instance, Allbirds – a sustainable sneaker brand that makes its products from plant-based materials – positions itself as an affordable, cost-effective brand. This is driven by low production costs – a result of minimal variety in raw materials and designs used in production.31

Source: Capgemini Research Institute, Sustainability in Consumer Products and Retail Survey, March 2020, N=7,520 consumers.
The implementation of sustainability across CPR organizations is fragmented and fails to achieve scale

For sustainability to meet the ambitious goals of the industry, it needs to be pursued across the value chain and actively scaled across regions. Elena Dimichino, sustainability director at Luxottica – a leading Italian eyewear conglomerate – says, “Sustainability is a journey, but can also be seen as a mosaic. Every single project or phase of the value chain is a piece of this mosaic. And, as in any mosaic, each piece can be of different shape, size or color, but when put together with the other pieces it gives you the sustainability journey and the sustainability overview of the company.”

As mentioned previously, 75% of CPR organizations claim to have a strategy, infrastructure, and resources in place to drive sustainability and circular economy efforts. To assess the maturity of CPR organizations, we analyzed the deployment of those sustainability initiatives we defined earlier in Figure 2, from “Sustainable product design” to “Sustainability beyond operations”:

It is clear that some initiatives receive significant attention, but there is not a consistent focus on the entire value chain. More importantly, very few initiatives are scaled – by which we mean initiatives that are implemented at a larger scale across different business units and geographies.

• The most commonly scaled initiatives are fair labor policies and safe working conditions – with 48% organizations claiming to have achieved scale in these areas.
• In contrast, sustainable IT, which involves reducing the impact of the digital footprint (such as energy efficiency in data centers) is only being scaled by just 18% of the organizations. With COVID-19, as the trend of digital engagement and eCommerce grows, it also bolsters operations at data centers. So, looking at measures of making them energy efficient, powering them with renewable energy, and reducing water usage, etc. become critical.

As Figure 17 shows, nearly half of the organizations have started to deploy sustainability initiatives across some of the regions in which they operate. However, when it comes to achieving scale across regions, fewer than a quarter have achieved widespread coverage.

Source: Capgemini Research Institute, Sustainability in Consumer Products and Retail Survey, April–May 2020, N=750 consumer products and retail organizations.
Sustainability at scale: maturity within subsectors

Even at a subsector level, a maturity assessment of success at delivering scale in sustainability finds that highly mature approaches are still relatively rare. However, there are significant variations across consumer products and retail subsectors.

Within consumer products manufacturing, food and beverages and household care products have scaled sustainability across multiple areas of the value chain. However, consumer white goods lags behind, especially in the areas of sourcing, logistics, packaging, IT, and beyond operations (see Figure 18).

![Figure 18. Sustainability scaling* maturity in consumer products manufacturing subsectors](image)

*Sustainability scaling* refers to extending the sustainability initiatives across the regions and business units in which the organization operates.

Source: Capgemini Research Institute, Sustainability in Consumer Products and Retail Survey, April–May 2020, N=750 consumer products and retail organizations.
Similarly, in retail, grocery retail leads the way, with higher maturity in the areas of sourcing, store operations, packaging and labor. However, fashion retail trails, particularly in the areas of sourcing, distribution, fulfillment, circular economy, and “beyond operations” (see Figure 19).

*Scaling refers to extending the sustainability initiatives across the regions and business units in which the organization operates.

Source: Capgemini Research Institute, Sustainability in Consumer Products and Retail Survey, April-May 2020, N=750 consumer products and retail organizations.
Looking at the individual functional areas in more detail, we found organizations focusing on a few specific initiatives in particular. Figure 20 gives a snapshot of the top initiatives scaled in a range of areas, from product design to beyond operations contributing towards broader communities and society.

**Figure 20. Sustainability maturity within the value chain areas is fragmented**

<table>
<thead>
<tr>
<th>Circular Product Design</th>
<th>Sourcing</th>
<th>Manufacturing</th>
<th>Packaging</th>
</tr>
</thead>
<tbody>
<tr>
<td>20%</td>
<td>20%</td>
<td>15%</td>
<td>15%</td>
</tr>
</tbody>
</table>

- **Product design**: Sourcing products not tested on animals: 43%
- **Sourcing**: Sourcing only recycled/recyclable materials: 12%  
  Water usage as a sourcing criteria: 14%
- **Manufacturing**: Demand-driven manufacturing: 38%  
  Recycling water: 11%  
  Renewable power: 14%  
  Recycling instructions: 38%
- **Packaging**: Refillable models: 15%  
  Using recycled/recyclable packaging: 15%

- **Circular product design**: Amsterdam-based smartphone company, Fairphone has created modular smartphones – which are designed to be easily repaired and upgraded.26
- **Sourcing**: Patagonia’s cotton is certified by the Global Organic Textile Standard (GOTS), 72% of their lines are made with recycled raw materials and 76% of their line is Fair Trade Certified24,21
- **Manufacturing**: In 2019, Unilever cut the amount of water abstracted by their factories by 47% per ton of production since 2008 through initiatives like rainwater harvesting, vacuum pump optimization, metering and solar water heating.22
- **Packaging**: Nestlé is piloting reusable and refillable dispensers in stores for pet care and soluble coffee.23
- **Distribution**: UK-based Tesco, China’s JD.com and Alibaba are some of the retailers implementing AI-based optimized routing.25
- **Fulfillment**: Amazon India said its fleet of delivery vehicles in the country will include 10,000 electric vehicles by 2025.28
- **Store operations**: Tesco in Ireland used AI and IoT based smart energy services to cut total annual energy bills by 25%.26
- **Information Technology**: IKEA stores are plastered with more than 900,000 solar panels and has more than 500 on-site wind turbines. In Sept 2019, it announced that it will be able to produce more renewable electricity than it uses in all of its stores.27
- **Beyond operations**: Amazon India said its fleet of delivery vehicles in the country will include 10,000 electric vehicles by 2025.28

**Note**: % in boxes represents the percent of organizations scaling the initiative (extending the initiative across the regions and business units the organization operates in).

Source: Capgemini Research Institute, Sustainability in Consumer Products and Retail Survey, April–May 2020, N=750 consumer products and retail organizations; Capgemini Research Institute Analysis.
Circular economy – an imperative in the new normal

“The circular economy is based on the principles of designing out waste and pollution, keeping products and materials in use, and regenerating natural systems” – Ellen MacArthur Foundation definition.

Major developed markets are putting an increasing focus on the circular economy. For example, when the “European Green Deal” was launched, it outlined circular economy savings of about €600 billion for EU organizations. The revised European Green Deal framework of December 2019 also highlights the circular economy as the key contributor to achieving the EU’s ambition of net-zero carbon emissions by 2050.

It is important for organizations to consider the ways in which a product is designed, used, and disposed of. However, very few organizations are focusing on circular economy initiatives to achieve this or have significant plans. Our research shows that:

- Only 18% of executives say they have invested in circular economy initiatives.
- Only 35% plan to invest in this area in the next three years, signaling that more needs to be done.

The circular economy requires organizations to understand the sustainability impact of each part of their value chain, starting from product design. In Figure 21, we outline the broad framework that can help organizations understand and assess their current impact and identify opportunities to embrace circular economy principles.

![Figure 21. Framework for enabling the circular economy](image)

Source: Capgemini, “Loops of life, how consumer products and retail brands can build value and resiliency through the circular economy; Capgemini Research Institute Analysis.

A number of leading organizations have started initiatives in the refillable/reusable packaging space. Loop, a platform that partners with multiple firms such as Unilever, Procter & Gamble, Nestlé, Coca-Cola, and PepsiCo, offers subscriptions to common products such as shampoo, detergent and ice cream in reusable packaging. The pilot for this platform began in New York and Paris in 2019 and witnessed high consumer interest. Netherlands-based Mud Jeans offers jeans as-a-service business model, in which customers lease their product so that raw materials flow back into new products at the end of their life.
Pia Heidenmark Cook, chief sustainability officer at Ingka Group, adds, "Circular is a key enabler for us to become climate positive, because we have a climate footprint fixed in the products we sell, the materials we choose for our products, and the production and the transport of our products. The IKEA ambition to become a circular business by 2030 meaning designing all products with circular principles in mind, using renewable or recycled materials and working with customers to keep products in use for longer."

Two key factors drive this change:

- Technologies such as AI, automation, analytics, and 3D printing that establish visibility, agility, and aid innovation
- Expanding beyond internal boundaries to create collaborative network systems among the entire network – suppliers, manufacturers, distributors, and peers to broaden opportunities for recycling, reuse, etc.

We examine these two factors later in the report.

When asked about the challenges faced by organizations in scaling sustainability, many factors came to the fore. Four in five (80%) of organizations mentioned the impact on margins or cost overruns as a key challenge in the way of sustainability and close to three-quarters point to the fact that other issues or opportunities take priority over sustainability. Ylenia Tommasato, brand sustainability and communication manager at Barilla Group, says, "Internal challenges are the key issue that organizations face in deploying sustainability initiatives. For sustainability initiatives to thrive, you really need to have a single-minded approach from top-down or from bottom-up, and the entire organization needs to be aligned on the priorities."

Pia Heidenmark Cook, chief sustainability officer at Ingka Group, adds, "I think a challenge that many organizations face is change management. A perception many organizations have is that sustainability is more expensive. However, they do not realize that initiatives such as waste reduction or energy efficiency will reduce your operational costs. So, I would say the key challenge that stands in the way of sustainability is change management – showing the business case, why it makes sense, and influencing and inspiring people to understand why it makes a difference."

As previously mentioned, sustainability yields benefit for the businesses. The key question is how to overcome challenges mentioned by executives and how to scale sustainability. In the next section, we focus on key actions that the consumer products and retail organizations must take to accelerate sustainability programs in the long run.

"Internal challenges are the key issue that organizations face in deploying sustainability initiatives. For sustainability initiatives to thrive, you really need to have a single-minded approach from top-down or from bottom-up, and the entire organization needs to be aligned on the priorities."

Ylenia Tommasato, Brand Sustainability and Communication Manager at Barilla Group
How can CPR organizations accelerate sustainability?

To understand how organizations can accelerate their sustainability strategy and deliver their goals, we wanted to identify the best practices of the organizations that are leading in this field. Organizations must look at their sustainability initiatives from a safety perspective due to COVID-19. For instance, Starbucks is now trialing “greener cup technology” in select stores. The new cup uses the BioPBS™ liner, which makes the cup certified compostable and recyclable while maintaining the same look and feel as the classic Starbucks cup.

Based on our research – as well as in-depth interviews with industry executives – this section highlights the winning practices of high performers, pinpointing the areas that others can emulate to drive their sustainability programs (see Figure 22).

**Figure 22.** Sustainability best practices for the consumer products and retail industry

<table>
<thead>
<tr>
<th>Collaborate with the broader ecosystem</th>
<th>Empower consumers and employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Establish end-to-end visibility of key ecosystem partners</td>
<td>• Empower employees to practise sustainable behaviour internally</td>
</tr>
<tr>
<td>• Share sustainability goals; work with the partners to drive action; and share accountability</td>
<td>• Educate consumers through education, awareness and choice.</td>
</tr>
<tr>
<td>• Work with peer networks</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bring in robust governance</th>
<th>Position technology at the core</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Ensure top leadership is committed and accountable</td>
<td>• Include sustainability as a basic principle for business case</td>
</tr>
<tr>
<td>• Look at a central governing structure and a federated delivery</td>
<td>• Map the technology use cases to the broader sustainability goals</td>
</tr>
<tr>
<td>• Align KPIs with established frameworks; measure and audit</td>
<td>• Measure success</td>
</tr>
</tbody>
</table>

**Empower consumers and employees to embed sustainable practices**

In order to accelerate the adoption of sustainability initiatives across the value chain, organization need to focus on two areas to drive fast adoption:

- Empower employees to practice sustainable behavior internally within the organization
- At the same time, educate and empower consumers to improve awareness about sustainability.

There are a number of ways to tackle these issues:

- **Empower employees to practice sustainable behavior internally within the organization**
  Executives tell us that the main drivers for their sustainability initiatives are to explore business opportunities across markets (74%) and to match up with competitive pressure (70%). However, only 55% say that the driver for sustainability initiatives is their own commitment to environment protection, conservation and societal well-being.
This is also reflected in the lack of commitment to encouraging employees to be more sustainable. We found that:

– Only 43% of executives say that the driver for sustainability initiatives is to motivate and address employees’ sustainability preferences.
– Only 15% of executives say they are currently focusing sustainability initiatives internally within their organization, such as building ecofriendly campuses.

However, a number of companies are taking a lead here. For instance, Eelco Smit, senior director sustainability at Philips says, “Today’s younger generation are looking for purpose in their jobs. As a company, we want talented employees to join us and today these talented people take conscious decisions about which company they want to work. We are committed to embedding sustainability - with its societal and environmental focus, into our organization and culture, which also helps to attract top talent.”

Driving sustainability within the organization – and encouraging employees to become sustainability champions – will help infuse sustainability into the organization’s value chain from the ground up. Karen Hamilton – global vice president for sustainability at Unilever – says, “We really want everybody in the company to live our purpose, which is to make sustainable living commonplace.”

P&G is working to engage, equip and reward employees for building sustainability thinking and practices into their everyday work as part of their environmental sustainability goals for 2030.

• Educate and empower consumers to improve awareness about sustainability: Organizations must play a key role in highlighting the sustainability footprint of their products as consumer awareness of the environmental impact of many products is low. For instance, Unilever is planning to show how much greenhouse gas was emitted in the process of manufacturing and shipping their products to consumers.

They must also ensure that they empower consumers with choice of products and services that help them balance their purpose and sustainability-led ambitions as suited to their budgets and lifestyles. This means evaluating product range, pricing as well as the role loyalty and reward can play in driving positive incentives for change.

Product certification is another way to drive this. Most consumers consider certifications logos (60%) as trustworthy. Increasing consumer awareness and trust on the certification logos will be key to build consumer knowledge on the sustainability initiatives. Few organizations are already working in this area and being the first mover to drive sustainability certifications. Ynte de Vries, Program manager Farm Energy at FrieslandCampina, highlights the importance of this topic, saying: “We agree consumers should become more aware of which products are produced in a more sustainable way. With all kinds of initiatives, that is not easy for them to distinguish. Therefore we also believe in independent certificates, to help them make the right choice. So for instance, we have dairy with the independent On the Way to PlanetProof quality mark, for consumers who want dairy that scores high on Biodiversity, Climate and Animal Welfare. It is a high standard and we are the first large Dairy Company to offer dairy with this quality mark. So we see that we need to do more to help consumers understand what it is. That’s also why we as companies need to work together: to take measurable steps in the right direction and create clarity so that consumers can make the right choices.”

Position technology at the core of sustainability initiatives

Technology opens new frontiers to manage and scale up sustainability initiatives. New technologies also help organizations to leapfrog sustainability initiatives. For instance, some firms are developing solutions for households that have no access to electricity in sub-Saharan Africa, providing them with power from solar energy.

Our research reveals that organizations are planning to invest across a range of emerging technologies to drive their sustainability initiatives (see Figure 23).
Which of these emerging technologies is your organization planning to invest in the next one to three years to drive sustainability initiatives?

- **AR/VR**: 63%
- **RFID**: 59%
- **3D printing**: 49%
- **5G**: 47%
- **IOT/IIOT sensors**: 47%
- **Artificial intelligence/machine learning**: 47%

Source: Capgemini Research Institute, Sustainability in Consumer Products and Retail Survey, April–May 2020, N=750 consumer products and retail organizations.

We see some interesting use cases of these technologies across the value chain; and some leading examples where organizations are already leveraging these technologies for sustainability and gaining various business benefits like cost savings, profitability, revenue:

**AI and advanced sensors**: LG TurboWash 360 washers and dryers not only detect the volume and weight of each unique laundry load, but also use AI and advanced sensors to identify fabric types in each load. Using AI, the washer compares this information against more than 20,000 data points related to washer usage to program the optimal wash cycle setting, improving cleaning performance and extending the life of garments by 15%. This reduces the impact of textile and garment waste on the environment.

**3D printing**: enables the manufacturing industry to produce less waste, less inventory and less CO2 emissions. In 2018, Nike announced that it was using 3D printing technology – Flyprint – to design the synthetic upper portion of some of its shoes.

**Blockchain**: In sourcing, organizations are using technologies such as blockchain and DLT (distributed ledger technology) for tracing the path of the product and displaying that it has been sourced responsibly. Walmart has been using blockchain to track food items’ trajectories, following successful trials with pork in China and sliced mangoes in the US. In the fashion world, designer Martine Jarlgaard began a pilot program with start-up, Provenance, using a digital platform to track the path of raw garments to consumers’ shelves.

**Digital twins**: Digital twins, especially by linking IoT data, sensors and any other data sources into a common interconnected data system, helps investigate the resource usage and energy efficiency in manufacturing. This helps organizations to investigate energy consumption at a larger scale. Unilever by using digital twins claims savings of $2.8 million in operating costs, generated mainly through reduction in energy costs.
AI: British cosmetics retailer, Lush, is using AI to help drive its sustainability message. Based on AI and machine learning, the Lush “Lens” app allows customers to use their phones to scan the company’s “bath bombs,” which have no packaging or labels. This gives the consumer product information such as ingredients, price and even videos of what the bath bomb looks like once submerged.

AR/VR: Organizations are deploying AR/VR-enabled packaging to reduce environmental impact and enhance customer awareness and engagement. Chiquita Brands International, a Swiss producer and distributor of bananas and other produce, offers a virtual reality (VR) experience that lets people to follow the journey of a banana from Chiquita farms in Latin America to their kitchen tables by scanning the sticker on the banana. The VR experience shows more information about Chiquita’s sustainability initiatives and innovations in farm management and logistics. Similarly, Nestle, for instance, replaced the plastic toys and free gifts that comes along with their cereal pack, with digital rewards using AR where customers on scanning are shown videos, puzzles, and activities.

Cloud computing: Apart from cost efficiency and agility, cloud computing drives sustainable IT. It does this by replacing the need for in-house data centers – and the associated hardware, powering, lighting and cooling systems – with shared systems. The shared model significantly reduces energy use for organizations. Research by Google and Lawrence Berkeley National Laboratory says that transitioning commonly used software applications to the cloud can cut an organization’s energy use by 87%. Furthermore, the fact that key cloud service providers such as Amazon are planning to shift to renewable energy to power their data center network is a big plus for cloud-driven sustainability.

Data analytics: It is critical for organizations to establish transparency across the value chain to track how the product flows from the product design to the supply chain and back. A single, unified view of the data is critical to establish the areas of focus. For instance, Walmart’s Sustainability Index gathers and analyzes data across their product’s lifecycle – from sourcing, manufacturing, transporting, to selling and end of use – to identify the critical environmental and social hotspots that needs focus. In terms of sustainability, digital technologies and digital dashboarding will allow us to get a much faster grip on the performance of the organization and being able to actually steer. You can only control what you measure. If you have very manual reports, which give you data insights on a half yearly basis, you’re not managing anything. You would want to see close to real-time information on sustainability performance feeding into the organization. So that’s also where digital plays a key role,” says Eelco Smit, senior director sustainability at Philips.

AI: Organizations are leveraging AI in order to arrive at the best possible route for logistics. For instance, Alibaba uses AI-based routing algorithms to reduce travel distance for their logistics by 30%.

Wasteless, an Israel-based start-up, helps retailers with dynamic pricing based on machine learning. The algorithm initiates and optimizes markdowns for products approaching expiry dates and automatically adjusts prices in the aisles. The “AI dynamic pricing engine is able to reduce the price in real time as it gets closer to the expiration date and incentivize the consumer to purchase that item while it’s still fresh. On average, for supermarkets, we are able to reduce waste by roughly about 30%, and thus increase revenues by over 40%,” says Ilya Movshovich, vice president at Wasteless.

AI: H&M uses AI to predict customer orders based upon varied internal and external data sets (ex., past purchases, weather conditions, economic factors). This helps the firm to ship only those orders that consumers plan to purchase.

Autonomous vehicles: AI is also emerging as an important application area for autonomous vehicles, which has the potential to reduce emissions and air pollution. Amazon especially has been showing keen interest in building an autonomous delivery infrastructure.

AI: Organizations are using AI to optimize reverse logistics waste. IKEA – by mapping its entire store, fulfilment, and distribution network – uses AI and data analytics to identify the next-best possible location for returned items. This means returned items can be recycled or sold, reducing the amount of returned merchandise that ends up in landfill.

AI: Organizations are deploying AR/VR-enabled packaging to reduce environmental impact and enhance customer awareness and engagement. Chiquita Brands International, a Swiss producer and distributor of bananas and other produce, offers a virtual reality (VR) experience that lets people to follow the journey of a banana from Chiquita farms in Latin America to their kitchen tables by scanning the sticker on the banana. The VR experience shows more information about Chiquita’s sustainability initiatives and innovations in farm management and logistics. Similarly, Nestle, for instance, replaced the plastic toys and free gifts that comes along with their cereal pack, with digital rewards using AR where customers on scanning are shown videos, puzzles, and activities.
The critical factors for success with technology-driven initiatives include:

• **Include sustainability as a basic principle for business case:** It is crucial for organizations not just to add sustainability as a key objective, but to focus on business cases that are sustainable. For instance, Nike views 3D printing technology from the objective of reducing prototyping waste.61

• **Map the technology use cases to the broader sustainability goals of the organization.** For instance, if the firm plans to invest in autonomous vehicles, this can be mapped to the sustainability development goal of addressing climate change or reducing carbon emissions. Elena Dimichino, sustainability director at Luxottica, says that their firm see automation from the broader view of safety of employees, “We introduce automation that also allows us to safeguard the ergonomics and the health, safety and well-being of our employees in the workplace. For instance, the transfer of repetitive tasks over to automation solutions keeps processes simple and efficient, facilitates the work of operators and reduces ergonomic risks and injuries.”

• **Measure success:** Include tangible sustainability benefits (ex., energy savings, reduction in emissions, water consumption saved) as also a key metric when measuring the success rate of these technologies.

**Bring in robust governance for sustainability**

Effective management of sustainability requires a clear strategic vision, committed leadership, and a culture promoting sustainability. However, none of this will bear fruit without a robust governance structure. Robust governance helps an organization to scale the sustainability strategy across business units, oversees the objective-setting and reporting processes, and strengthens relations with external stakeholders like investors. “To scale up sustainability, first of all you need to ensure commitment at the top,” says Elco Smit, senior director sustainability at Philips. “If the top is not committed it will not happen. Secondly, ensure the governance structure is really well set up, so it is really clear who takes the decisions and how things are getting cascaded into organizations.

Thirdly, make sure you have the right expertise — you need people who know sustainability. You need strong functional owners who can really provide the guidance and the clarity. And, lastly, decide very clearly why you are doing this and how will you benefit from this.”

In this context, key considerations are as follows:

• **Ensure top leadership is committed to and accountable for sustainability:** Having sustainability champions in the c-suite is essential to scale, with 84% of organizations in our survey saying they involve their c-suite in sustainability governance. However, along with involvement, being accountable is also key. In PepsiCo the senior leadership team – including chairman and CEO, sector CEOs and top functional leaders – assume direct oversight of the sustainability agenda. Sustainability is a key accountability factor for every member of in their senior leadership team.62

Our research also showcases that having a dedicated head of sustainability, who works in collaboration with other business units, helps to ensure focus on driving sustainability strategy and advancing the company’s program. The chief sustainability officer (CSO) or head of sustainability plays an important sensing and monitoring role. Jason Jay, a senior lecturer at the MIT Sloan School of Management, says, “CSOs today are constantly listening to scientists, regulators, customers, and investors. Plus, they are monitoring the company’s performance on key sustainability indicators and delegating material issues to the relevant business unit.”**63** Our research reveals that currently only 30% of organizations have a dedicated sustainability head or chief sustainability officer. Of those who have this dedicated role, 64% report to the CEO.

• **Look at a central governing structure and a federated delivery structure for sustainability:** A centralized governance body – responsible for defining the vision, principles, framework, strategy, and overall success metrics for sustainability – steers the organization in a common direction and drives culture change. A centralized governance body can help to:

  – Display leadership commitment

**“AI dynamic pricing engine is able to reduce the price in real time as it gets closer to the expiration date and incentivize the consumer to purchase that item while it’s still fresh. On average, for supermarkets, we are able to reduce waste by roughly about 30%, and thus increase revenues by over 40%.”**

Ilya Movshovich, Vice President at Wasteless.
– Clarify roles, responsibilities, and priorities
– Coordinate efforts across the business functions – gathering relevant data, tracking progress, and socializing its impact
– Drive culture change and supports innovation.

At the same time, devolving implementation and delivery of specific initiatives to business units streamlines the governance process and fosters experimentation and innovation. Elena Dimichino, sustainability director at Luxottica, says, “The Sustainability function at Luxottica is at a corporate level and centralized. This allows us to make sure that initiatives proposed at local level are consistent with the corporate policy and, therefore, consistent with Luxottica’s vision and strategy for sustainability. At the same time, the Sustainability function is also very cross-functional: we engage with different functions and support them on the initiatives they are running. I think this kind of model – which allows us all to head in the same direction while at the same time listening, collaborating and sharing best practices across functions – promotes new ideas and investments.”

However, our research found that more needs to be done in terms of the industry’s approach to governance structures:

– Only 35% have a central governance body to oversee their sustainability objectives.
– Organizations do not involve many key stakeholders – such as business unit heads, specialist teams, etc. – in sustainability governance. Our research reveals that only 48% of organizations involve heads of different business divisions (e.g., procurement head, supply chain head, etc.) and only 25% involve specialist teams (e.g., water conservation team, packaging team, etc.) in their sustainability governance. A few sustainability leaders, such as IKEA, try to involve stakeholders across the ecosystem in sustainability governance and implementation. Pia Heidenmark Cook, chief sustainability officer at Ingka Group, says, “We have a global team cutting across multiple disciplines. We have one team looking at impact and analytics who are doing the reporting and also looking at the true impact of the activities that we are implementing. We also have a specialist team – involving climate specialists, sustainable transport specialists, human rights specialists, etc. In the cross-functional Sustainability Committee that steers strategy and strategic goal setting, heads of important group functions like procurement, real estate and retail are represented.”

• Align KPIs with established frameworks; measure and audit:
Around 61% of organizations in our research say they use external frameworks such as the United Nations Sustainable Development Goals (SDGs) to identify sustainability initiatives for their organization and to set goals. However, as we saw earlier, there is a general lack of trust in companies’ claims, particularly with consumers. Therefore, external assurance of performance data can play a critical role in building confidence in the credibility of performance against KPIs. However, audit and assurance in the sustainability space tends to focus on a few commonly measured KPIs, such as GHG emissions, water usage, waste generated, etc. When it comes to KPIs such as food wastage, end products returned, supply-chain miles, etc. – very few consumer products and retail organizations are receiving third-party assurance (see Figure 24).

“...If you go 20 years back it was a lot about auditing and inspecting factories to secure compliance of the basics. In the recent times we are in collaboration with our business partners focusing on training and development of factory owners and factory workers around both environmental and social topics. It is important to go beyond the compliance agenda and in collaboration with our business partners ensure that human rights are respected and that we work in a way which drives positive development of the climate agenda. We see it as important to establish close collaborations around sustainability also outside of the actual business negotiations.”

Anna Palmqvist, Sustainability Manager at H&M
Moreover, sustainability reporting should also demonstrate integration in action. Most organizations today look at integrated reporting as a way of showing how integral sustainability is to their business strategies. More than half (53%) of organizations in our research said that their sustainability reporting is integrated into the group annual report.

Collaborate with the broader ecosystem for a larger impact

Sustainability-led collaborations with an organization’s network – such as suppliers, vendors, distributors and logistics partners, as well as peer organizations – can help alleviate the environmental and social impacts deeply embedded in the sector’s supply chains.

How can organizations include the broader ecosystem partners as active participants of their sustainability initiatives?

- Establish end-to-end visibility of key ecosystem partners: Organizations should identify the critical partners by mapping the supply chain networks and their interdependencies to ensure visibility and cascading of initiatives across the value chain. This is critical when subcontracting is involved across the value chain in case of sourcing or logistics. For instance, the vendor assessment scorecard of Clorox profiles their key supplier’s sustainability initiatives, who represent about two thirds of their purchases. The scorecard also mandates the suppliers to provide their further suppliers data to get a holistic view of the network.

- Establish collaboration-led models with the value chain partners: This can be achieved at various levels:
  - Share sustainability goals with the value chain partners: For instance, General Mills’ sustainability mission promotes environmental and socially responsible practices across the company’s value chain including vendors, suppliers and partners. Training, education and awareness sessions help in arriving at a mutually agreeable approach for sustainability initiatives. Elena Dimichino, sustainability director at Luxottica, says, “The training and information aspect for suppliers is important. In 2013, at Luxottica we introduced the Luxottica Responsible Sourcing and Manufacturing program with the aim to achieve full alignment with our Code of Ethics and principles, international standards and local laws in the areas of ethics, labor, health, safety and the environment. The program applies to both our production and distribution sites and suppliers of mainly raw materials, components and finished products. This program has evolved over the years to include: 1) on-site audits, 2) training initiatives on our responsible sourcing principles, program and way of doing things (e.g. topics that are checked during on-site audits) and 3) informative initiatives and mutual acknowledgement for those suppliers that belong to very big multinational companies.”
companies and, as such, already have their own responsible sourcing and sustainability programs.”

– **Work with the partners to drive action:** Large organizations should also be at the forefront in driving action with the ecosystem partners to discover key solutions that drives impact. For instance, Levi Strauss has worked alongside its vendors in Bangladesh, India, Sri Lanka, and Vietnam to help them reduce emissions by 20% and decrease their operating cost by about $1 million collectively.66 Anna Palmqvist, Sustainability Manager at H&M adds, “If you go 20 years back it was a lot about auditing and inspecting factories to secure compliance of the basics. In the recent times we are in collaboration with our business partners focusing on training and development of factory owners and factory workers around both environmental and social topics. It is important to go beyond the compliance agenda and in collaboration with our business partners ensure that human rights are respected and that we work in a way which drives positive development of the climate agenda. We see it as important to establish close collaborations around sustainability also outside of the actual business negotiations.”

– **Share accountability:** Organizations can also extend their sustainability-related KPIs to their value chain partners and track their progress. Our research reveals that firms are yet to bring this into action. For instance, in the case of overall energy consumption or waste reduction rate, more than three-quarters track the progress of their own initiatives, but only 40% monitor suppliers or vendors’ KPIs.

Organizations can also establish a reward system to encourage and recognize progress made. For example, providing “preferred status” benchmarks for network partners, offering credit notes, or extending long-term contracts.

• **Consortia with peer networks:** One of the UN’s sustainable development goals focuses on “strengthening the means of implementing sustainability initiatives and revitalizing global partnership for sustainable development”, bringing together national governments, the international community and the private sector. Jeff King, director of sustainability at Hershey’s, highlights the importance of collaboration, especially when sourcing for their main ingredient, cocoa: “We cannot do this alone. No single company can solve the issues in cocoa alone. We must work with other cocoa companies; governments have a critical role to play in enabling this work; and we need civil society as a partner as well.”67 Consortia, such as the Consumer Goods Forum, bring together consumer product and retail organizations to design new and collaborative approaches for solving issues such as forced labor, deforestation, food waste, etc.
Conclusion

Sustainability is a topic that consumers and organizations hold close to their hearts. Consumers feel an emotional connection with sustainability and their behavior is shifting as a result. At the same time, many organizations are making sustainability a strategic priority.

However, a disconnect is undermining these good intentions. While consumers want to be sustainable, they are not always aware of the environmental footprint of the common products they purchase or enabled with sufficient choice to convert this intent into action.

Likewise, organizations are out of sync with consumer views, including consumer concerns about how trustworthy sustainability claims are and the pace at which consumer preferences and loyalty is shifting. For instance, while 80% of consumers are changing their purchases on the basis of environmental and social impact, only a third of organizations are recognizing the change. This is creating a significant gap, that represent a material threat/opportunity to those who ignore or embrace the challenge of 6% of revenue.

Finally, organizations are also failing to scale sustainability, missing out on realizing the key benefits sustainability provides in terms of loyalty, employee churn, ESG performance and ultimately sales protection & growth.

To plug these gaps, and turn ambition into reality, organizations need to accelerate sustainability to scale: exploiting technology’s huge potential to drive and realize the sustainability imperative, educating and empowering consumers and employees, putting robust governance in place, and extending sustainability to the entire ecosystem – including suppliers, vendors distributors, logistics partners, and even peer organizations.

“We agree consumers should become more aware of which products are produced in a more sustainable way. With all kinds of initiatives, that is not easy for them to distinct. Therefore we also believe in independent certificates, to help them make the right choice. So for instance, we have dairy with the independent On the Way to PlanetProof quality mark, for consumers who want dairy that scores high on Biodiversity, Climate and Animal Welfare. It is a high standard and we are the first large Dairy Company to offer dairy with this quality mark. So we see that we need to do more to help consumers understand what it is. That’s also why we as companies need to work together: to take measurable steps in the right direction and create clarity so that customers can make the right choices.”

Ynte de Vries, Program Manager Farm Energy at FrieslandCampina
Lagging on sustainability is a missed revenue opportunity for retail and consumer products organizations

On the basis of responses from our consumer survey, we did an additional back of the envelope analysis to understand what will be the impact of “not” being sustainable on organizations. We found that it is ~6% missed potential revenue opportunity for organizations, if they do not focus on sustainability practices.

Figure 25. Potential loss of revenue for organizations from the growing disconnect between consumer intent to switch and organisations belief they will do this

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<td>Share of consumers who are hesitant to buy from organizations which they perceive as non-sustainable</td>
<td>60%</td>
<td>44%</td>
<td>56%</td>
<td>72%</td>
<td>70%</td>
<td>58%</td>
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<td>Of the consumers who are hesitant, share of consumers who have already reduced spending from organizations they perceive as non-sustainable</td>
<td>34%</td>
<td>27%</td>
<td>30%</td>
<td>31%</td>
<td>32%</td>
<td>29%</td>
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<td>% reduction of spending already done if consumers find that organizations are not engaged in sustainable practices</td>
<td>28%</td>
<td>26%</td>
<td>27%</td>
<td>32%</td>
<td>27%</td>
<td>23%</td>
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<td>Missed revenue for the organization when sustainability practices are not adopted</td>
<td>5.8%</td>
<td>3.1%</td>
<td>4.5%</td>
<td>7.2%</td>
<td>6.0%</td>
<td>3.8%</td>
<td>4.6%</td>
<td>7.8%</td>
<td>6.8%</td>
<td>6.1%</td>
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*Consumers who always took this action

Source: Capgemini Research Institute, Sustainability in Consumer Products and Retail Survey, March 2020, N=7,520 consumers; Capgemini Research Institute Analysis
We surveyed 7,500 consumers globally to understand their preferences, behaviors, and expectations on sustainability.

Source: Capgemini Research Institute, Sustainability in Consumer Products and Retail Survey, March 2020, N=7,520 consumers.
We also surveyed 750 senior executives in various subsectors of CPR to gain more insights on maturity, priorities, and outlook of sustainability.

Source: Capgemini Research Institute, Sustainability in Consumer Products and Retail Survey, April–May 2020, N=750 consumer products and retail organizations.
Capgemini Invent

A preferred partner to help you solve sustainability challenges within the CPR industry

Value proposition and approach:

Our ambition is to enable our CPR clients (and many others) to lower their carbon footprint in accordance with the Paris Agreement.

We are actively working with CPR clients to:

- Developing & operationalizing sustainable packaging strategies
- Reducing waste through retail sales prediction.

We already work with:

- Original equipment manufacturers’ new business model for energy transition – we helped set up battery cell production for a global battery manufacturer, enabling the transition from fossil fuels to clean energy, and we developed a user-friendly electric vehicle (EV charging app).
- New market entrants to create energy transition offers – we’re defining new business models in the energy storage market and developing a sustainable financing offer. Our green/clean offers have seen us enter the gas and power retail markets, and we’re helping brands to reposition themselves in the context of how battery technology can help people and the planet.
- OEMs and energy providers to increase their share of renewables – we’re helping a leading firm develop a growth strategy for its renewables offering, enabling it to become a European leader in renewables. We support the development of biogas in selected companies, and we’re helping one client define a digital vision of its renewable activities by setting up an e-mobility business unit. In the UK, we’re defining the governance model for the partnership management of a firm’s domestic solar business, and we’re designing and building operational services to enable 5% of the UK population living in high-rise buildings and large properties to have access to smart meters, leading to a reduction in energy consumption. Some of the largest energy providers are also seeing energy savings as a result of our support.
- Investors to accelerate funding for energy transition – we’re identifying and scouting for startups and innovation projects and supporting the development of a dedicated cleantech acceleration program.
- Energy consumers to reduce their energy and CO2 footprint – we set up the very first renewable power purchase agreement in France, helped to qualify and select providers for renewable energy, and defined the 2030 climate strategy and project setup. We are also helping one client optimize its energy mix consumption, leveraging data and AI. And, we’re building green IT reporting, helping cities to develop a new mobility concept, and enabling some countries to run carbon free for weeks at a time.

Why us?

As a globally renowned technology and digital leader, Capgemini inherits the responsibility, the ambition, and the means to contribute to solving major societal questions that shape our world – and at Capgemini Invent we are contributing to making this ambition a reality. Invent for Society showcases how social impact is part of the fabric of what we do for our clients every day. For more information, please visit:
https://www.capgemini.com/service/invent/invent-for-society/
Our Integrated Architecture framework

We have created the Integrated Architecture Framework (IAF) with a new focus on Sustainability, which is unique in the industry

- One of the hardest things when designing an IT solution is to decide what artefacts to develop and how to structure the various business, information, information system and technology infrastructure related aspects and to balance these against environmental, security and governance related considerations. To help, we developed a complete architecture framework called IAF (integrated architecture framework).
- Aspects like quality and value for money, sustainability and agility are key characteristics critical to any IT solution. Sustainability in an information technology context can be characterized by the application of IT practices and technologies for the benefit of customers and others stakeholders that ensure long-term well-being in economic, social, and environmental sustainability pillars.68
- Capgemini’s New Integrated Architecture Framework (IAF) V6 - the Sustainability Edition provides alignment considering all relevant artefacts.

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Three Perspectives:
- Sustainability Perspective
- Security Perspective
- Governance Perspective

Four main Aspect Areas:
- Business Aspect Area
- Information Aspect Area
- Information Systems Aspect Area
- Technology Infrastructure Aspect Area

Why?
"What" services are required?
"What" is required from each service?

How?
"How" can customer needs be realized with technology components?
"How" do technology components interrelate "How" do components ‘implement’ services

With what?
"With What" standards, products, guidelines will technology components be implemented?
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The authors would like to especially thank Subrahmanyam KVJ from the Capgemini Research Institute for his contributions to the report.

The authors would also like to thank Tim Bridges, Lindsey Mazza, Werner van der Lely, Michael Petevinos, Prashant Chaturvedi, Shannon Warner, Mike Haddon, Vito Labate, Matt Bradley, Bhavesh Unadkat, Phil Davies, Emily Twomey, Desiree Fraser, Emma Pluck, Karin Danielsson, Jenna Wichmann, Vincent le Noble, Emmanuel Fonteneau, Jordan Friedman, Sophie Berg, Louise Marie Goelen, Claire Lavagna, Hanne Buus van der Kam, Andrillon Florent, Michaela Scalsi, Theresa Ignatius, Michiel Boreel, Jean-Baptiste Perrin, Annie Hughes, Joost Bleize, Martin van Vugt, Mikko Nordlund, Ella Paludo, and Ankita Fanje for their contributions to this report.

**About the Capgemini Research Institute**

The Capgemini Research Institute is Capgemini’s in-house think tank on all things digital. The Institute publishes research on the impact of digital technologies on large traditional businesses. The team draws on the worldwide network of Capgemini experts and works closely with academic and technology partners. The Institute has dedicated research centers in India, the United Kingdom, and the United States. It was recently ranked Top 1 in the world for the quality of its research by independent analysts.

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