

The Capgemini logo is located in the top left corner of the image. It consists of the word "Capgemini" in a white, cursive-style font, followed by a white icon of a water drop with a leaf inside it. The background of the entire image is a photograph of a man with a beard, wearing a blue t-shirt, working in a factory or warehouse. He is looking down at a large sheet of brown paper or cardboard he is holding. In the background, another man is visible, and there are stacks of cardboard boxes and other industrial equipment. The lighting is somewhat dim, with some overhead lights visible. A large, light blue abstract shape, resembling a stylized drop or a leaf, is overlaid on the image, starting from the logo and extending towards the bottom right corner.

Capgemini

BECOME A GREENER AND MORE PROFITABLE ENTERPRISE WITH **SUSTAINABLE PACKAGING**

USING A LEVEL-SETTING
APPROACH TO STRIKE A BALANCE
AND GET A COMPETITIVE EDGE

Seventy percent of S&P 500 companies in 2022 incorporated ESG (Environmental, Social, and Governance) metrics in their priorities – a 13 percent increase year over year. While some are lagging in the environmental category, the use of carbon-footprint metrics, for example, increased 300 percent in the same period – a sign that the sustainability imperative is becoming ever clearer across industries.

In the packaging industry, companies are under tremendous pressure to adopt environmentally friendly strategies. Supply

A formidable challenge for CPG companies

The sustainability imperative has presented consumer-packaged goods (CPG) companies with formidable challenges: reduce the amount of packaging, improve choice of materials, and engage in effective recycling on a grand scale, all while navigating increasingly complex regulations at local, national, and international levels – some of which are constantly changing.

Caring for the environment is obviously important; no one is happy about the mountains of garbage in our landfills and the volume of waste floating around our ocean. Companies want to make a difference. But a business can only afford to act if it is profitable. Sustainability solutions must therefore be implemented efficiently and yield outcomes that generate value or are, at a minimum, cost-effective.

Traditional packaging methods and materials cannot meet all these requirements. The focus for CPG players then becomes reevaluating and revamping the entire process.

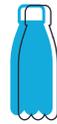


chains are a fundamental vector, often being the source of over 90 percent of a company's greenhouse-gas emissions.

But a business can only pursue sustainability if it is cost effective. This is critical in a time of economic tension and uncertainty. Pursuing both targets successfully is possible but requires a careful balance. A level-setting approach aimed at proper optimization is an effective strategy to achieve sustainable packaging and become a greener, more profitable enterprise.

The shift towards sustainable packaging

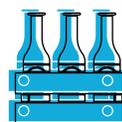
Sustainable packaging is the answer. This is the use of materials, designs, and methods that minimize the environmental impact of packaging products while preserving their functionality and quality. There are a few layers to the concept.



Primary packaging: This is the first layer that encloses the product and protects it directly from contamination or damage. Examples include bottles, tubes, and jars.



Secondary packaging: This is the outer layer surrounding the primary packaging that protects the product within during handling. Examples include cardboard boxes, plastic containers, shrink wrap, and similar items.



Tertiary packaging: The final layer providing additional protection during shipping and handling is known as tertiary packaging. Think of pallets and crates; these are packages that protect everything during transportation and make handling more efficient.

The difficulty for large enterprises in transforming their packaging process is the monumental detail and volume comprising these three layers for all their products, designs, and materials – all of which need to meet regulatory standards.

Without the right approach, the effects can be disastrous. For example, 300 million toothpaste tubes go to landfill in the UK alone every year, a result of poor design that makes recycling difficult. This is the sort of mistake that occurs when trying to optimize one aspect – such as cost – too zealously.

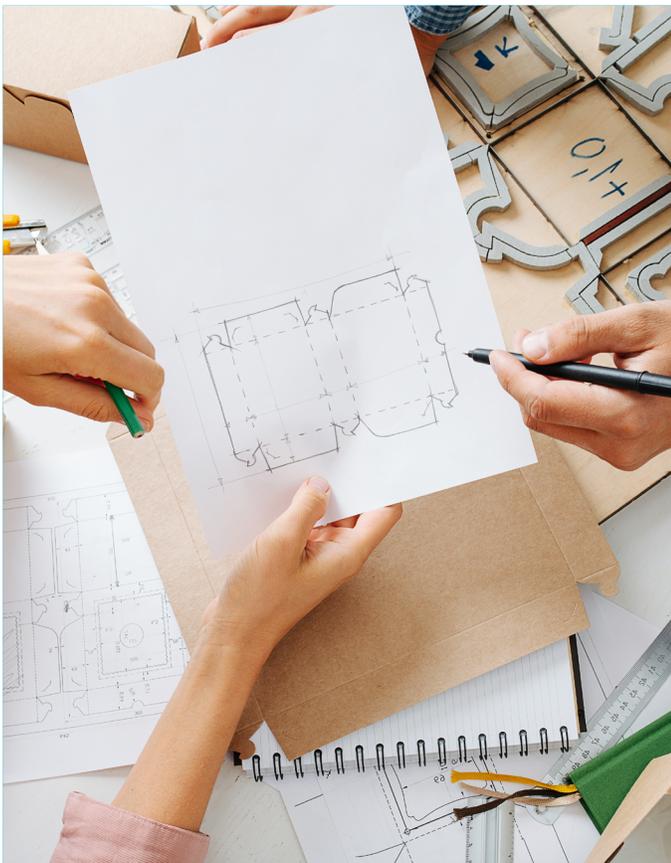
By level setting, companies can carefully examine all these elements to make better decisions and be more focused and effective with sustainable packaging.

Level setting clears the way forward

Imagine sustainable operations as the destination of a journey. Sustainable packaging is a path forward, but it is shrouded in fog. Level setting clears the way by establishing a standard of what constitutes sustainable packaging, providing needed direction for the business and giving it a competitive edge in the market.

Level setting helps determine the right combination, impact, and use of materials such as paper, plastic, glass, and biopolymer, each having their own set of benefits and drawbacks. It can also identify implementations that make recycling more intuitive for consumers: they should be able to easily segregate waste and not struggle to choose the right bin.

Companies that level-set can navigate complexities and work with their partners effectively to evaluate the sustainability of different materials and designs. However, many players, especially those packaging large volumes, fear that sustainability bears a significant investment. This means that level setting needs to be viable: it must be cost-effective with a clear ROI and not done just for the sake of sustainability.



Achieving a careful balance between cost and sustainability

While primary packaging may be an obvious starting point, it is difficult to change as it is so heavily tied to branding for consumers. In many cases, it has already been optimized, and we know the risk of pushing further.

The right levers for balancing both aims are less obvious, such as packaging filling rate, transported volume, distance covered by trucks during delivery, and internal dunnage – all areas that can be optimized to reduce both cost and emissions. The role of engineering here is vital, as are data and analytics, so the business can measure the effect of changes and inform future decisions.

Capgemini's engineers, data scientists, and industry experts are equipped to help CPG organizations untangle the complexities of this space. With a deep understanding of the circular economy, our teams combine multidisciplinary expertise with digital proficiency to leverage technology for the right outcomes, while taking a change-management approach to ensure there is no unexpected blowback on the environment.

Our experience in supporting OEMs has shown that revamping the packaging process requires more adjustment than investment and, through our rigorous and data-driven lifecycle assessment, we can pull the right levers to level-set and optimize packaging designs and materials to achieve that careful balance. Together, we can make sustainable packaging and a greener supply chain a reality, positioning the enterprise toward a more sustainable and profitable future.



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About Capgemini

Capgemini is a global leader in partnering with companies to transform and manage their business by harnessing the power of technology. The Group is guided every day by its purpose of unleashing human energy through technology for an inclusive and sustainable future. It is a responsible and diverse organization of 360,000 team members in more than 50 countries. With its strong 55-year heritage and deep industry expertise, Capgemini is trusted by its clients to address the entire breadth of their business needs, from strategy and design to operations, fueled by the fast evolving and innovative world of cloud, data, AI, connectivity, software, digital engineering, and platforms. The Group reported in 2022 global revenues of €22 billion (about \$23 billion USD at 2022 average rate).

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