



Sustainable packaging in the FMCG and retail sector

April 2025



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01 Introduction

The problem of managing plastic waste is a growing concern. Only 15% of plastic waste gets collected for recycling at a global scale and nearly half of it still ends up being discarded irresponsibly.¹ This indicates that only 9% of waste actually gets recycled.² Over the last two decades, the world has doubled its production of plastic with most of it ending up in landfills or being incinerated. A recent Organisation for Economic Co-operation and Development (OECD) report reveals that a staggering 91% of waste is not recycled.³ Another report by the United Nations Environment Programme (UNEP) indicates that in 2016, an estimated 11 million metric tonnes of plastic trash found its way into the ocean.⁴

India plays a significant role in the plastic waste crisis. The country is one of the twelve countries which are accountable for 60% of the world's mismanaged plastic.⁵ With a population exceeding 1.4 billion people, India produces 26,000 tonnes of plastic waste daily which is equivalent to about 26,000 small cars.⁶

In a bid to combat this, on 5 June 2018, the Prime Minister announced that India would phase out single-use plastics by 2022. Following this, on 12 August 2021, the Ministry of Environment, Forest and Climate Change (MOEFCC) enforced a ban on certain single-use plastic items from 1 July 2022. Since 2016, the Plastic Waste Management Rules have made it mandatory for users of plastics to collect and recycle their waste. These extended producer responsibility (EPR) rules, initially voluntary, are now enforced through an online EPR trading platform.^{7,8}

The retail and consumer goods industry is facing growing pressure to adopt sustainable practices driven by regulations, investors and consumers. The twenty-first century's consumers focus on human rights, tackling climate change and supporting businesses which embrace circular economy practices. In India, a majority of consumers are now willing to invest more in products with sustainable and minimal packaging for their purchases. In recent times, there have been major changes in India's regulatory landscape to improve plastic waste management and effectively implement EPR. The Central Pollution Control Board (CPCB), the Ministry of Environment, Forest and Climate Change (MOEFCC), and the Food Safety and Standards Authority of India (FSSAI) have come up with new laws and policy regulations which indicate a promising movement towards tackling the country's waste management challenges. Investors, too, want to know how a company's sustainability plans are aligned with its business model and, ultimately, its prospects for creating long-term value.



1. <https://www.oecd.org/en/about/news/press-releases/2022/02/plastic-pollution-is-growing-relentlessly-as-waste-management-and-recycling-fall-short.html>

2. Ibid

3. Ibid

4. https://wedocs.unep.org/bitstream/handle/20.500.11822/41263/Plastic_Science_E.pdf

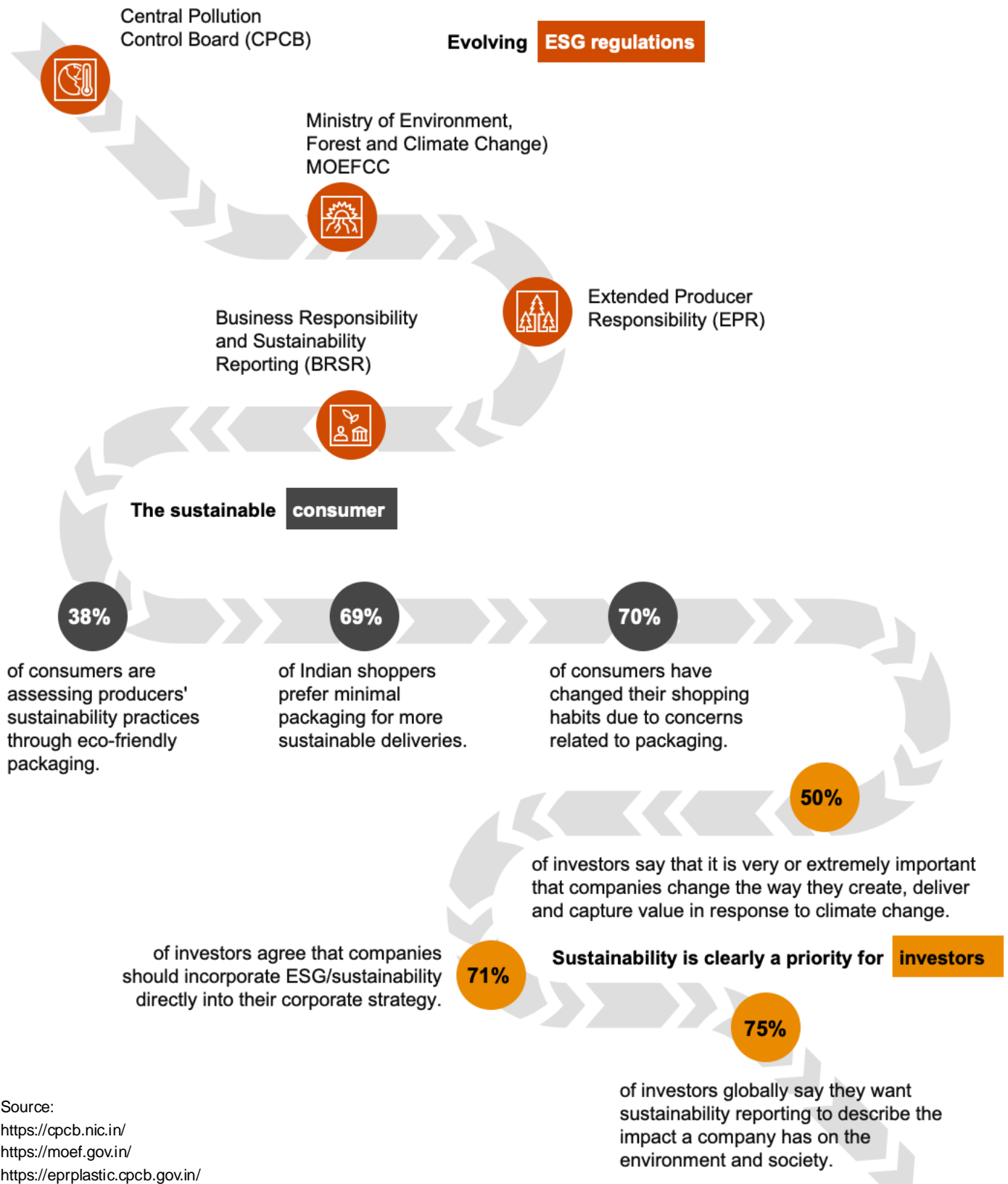
5. https://www.business-standard.com/india-news/india-among-12-nations-responsible-for-60-of-mismanaged-plastic-waste-124041200709_1.html

6. <https://economictimes.indiatimes.com/news/politics-and-nation/how-india-is-drowning-in-plastic/articleshow/69706090.cms?from=mdr>

7. <https://pib.gov.in/PressReleasePage.aspx?PRID=1837518>

8. <https://eprplastic.cpcb.gov.in/#/plastic/home>

Figure 1: The rise of sustainable packaging



Source:

<https://cpcb.nic.in/>

<https://moef.gov.in/>

<https://eprplastic.cpcb.gov.in/>

<https://www.pwc.in/assets/pdfs/consulting/esg/business-responsibility-and-sustainability-report.pdf>

<https://www.pwc.com/gx/en/news-room/press-releases/2024/pwc-2024-voice-of-consumer-survey.html>

https://www.business-standard.com/industry/news/69-indian-shoppers-prefer-deliveries-with-minimal-packaging-amazon-study-124032700672_1.html

<https://www.businesswire.com/news/home/20220323005205/en/Over-70-of-Consumers-Would-Change-Their-Shopping-Habits-After-Learning-a-Brand-Isn%E2%80%99t-Operating-Sustainably-Sensormatic-Solutions-by-Johnson-Controls-Survey-Finds>

<https://www.pwc.com/gx/en/issues/c-suite-insights/global-investor-survey.html>

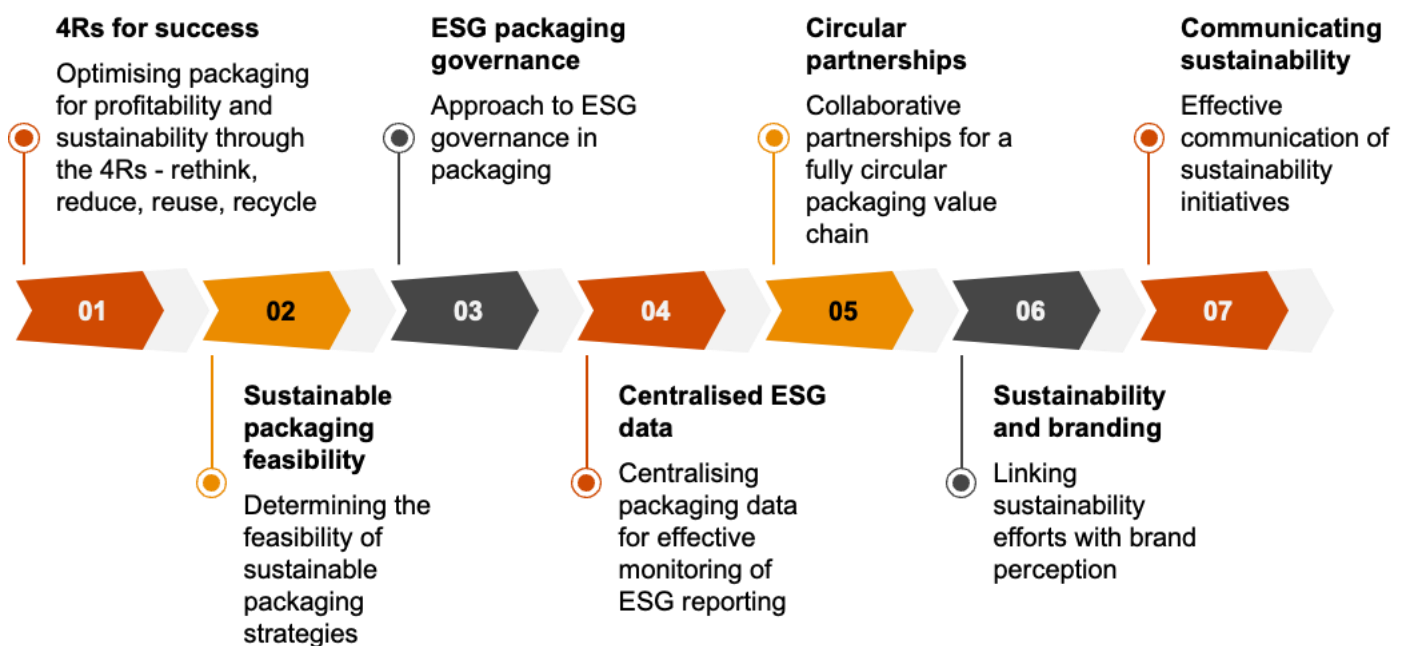
<https://www.pwc.com/gx/en/services/sustainability/impact-management-for-sustainable-business.html>

<https://www.pwc.com/gx/en/issues/c-suite-insights/global-investor-survey.html>

02 Sustainable packaging and ESG integration

Most packaging strategies tend to focus on actions that are largely based on market trends and internal systems practised by established organisations. A structured ESG governance framework is crucial for executing a sustainable packaging strategy in a company. Brand perception of sustainability is shaped by both external communication and internal performance. Aligning green marketing outreach with sustainability reporting standards is crucial for companies to have effective outbound communication mechanisms. Let us explore these elements in detail.

Figure 2: A holistic approach to sustainable packaging practices



Source: PwC analysis



03 Optimising packaging for profitability and sustainability through the 4Rs⁹

To boost profitability and meet both mandatory and voluntary targets, companies must optimise packaging and make it more economical and sustainable. This involves focusing on four key action fields – rethink, reduce, reuse and recycle.

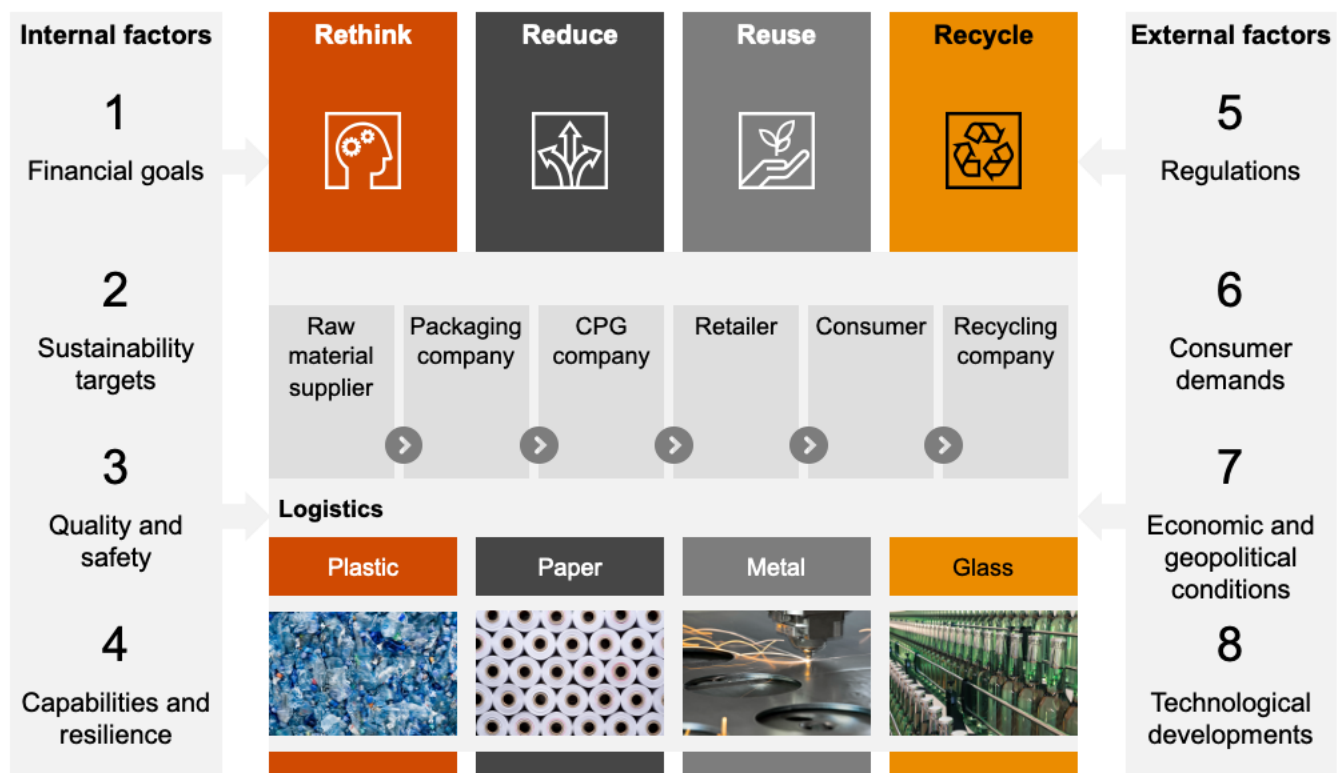
Rethink: This action requires a fundamental rethinking of product and portfolio design and business processes to reduce the use of plastic across its products and logistics. Companies might also need to venture into other segments of the value chain, such as the recycling market, and determine outsourcing options to secure long-term material access.

Reduce: Reducing resource consumption is a strategic lever for companies which are aiming to save costs while meeting their sustainability goals. The primary focus is on reducing packaging material itself, as seen through lightweighting or designing with less material. Reducing energy requirements, transportation needs and packaging-related waste are key focus areas for reducing plastic waste.

Reuse: Packaging designed for multiple uses, such as refillable containers or returnable crates can significantly cut down the use of single-use waste. Reuse strategies also pave the way for closed-loop systems that can strengthen consumer relationships.

Recycle: Though recycling is important, finding the right method of recycling is essential to yield the best results. One of the ways in which recycling can be effectively implemented is by using materials which are easily recyclable and support the existing recycling infrastructure.

Figure 3: Holistic and sustainable packaging optimisation action fields



Source: <https://www.strategyand.pwc.com/de/en/industries/consumer-markets/mastering-food-and-beverage-packaging.html>

⁹. <https://www.strategyand.pwc.com/de/en/industries/consumer-markets/mastering-food-and-beverage-packaging.html>

04

Determining the feasibility of sustainable packaging strategies

A sustainable packaging feasibility assessment encompasses a comprehensive approach which integrates various aspects of the business to create packaging solutions that are not only environmentally friendly but also economically viable, legally compliant and marketable. Understanding these interconnected aspects of sustainable packaging strategy is essential for businesses which are aiming to implement these strategies effectively.



Technical aspect

The technical aspect focuses on the advancements in materials and technologies used to develop sustainable packaging. This includes exploring new biodegradable materials, improving recyclability and innovating packaging designs which can reduce waste and enhance product durability.



Environmental aspect

The environmental aspect examines the environmental footprint of packaging, specifically on carbon emissions, waste minimisation and natural resources. This aspect aims at addressing global environmental challenges.



Financial aspect

The financial aspect analyses the cost-effectiveness and economic benefits of sustainable packaging. It considers the initial investment in sustainable materials and technologies, potential long-term savings through resource efficiency and local sourcing of materials.



Regulatory aspect

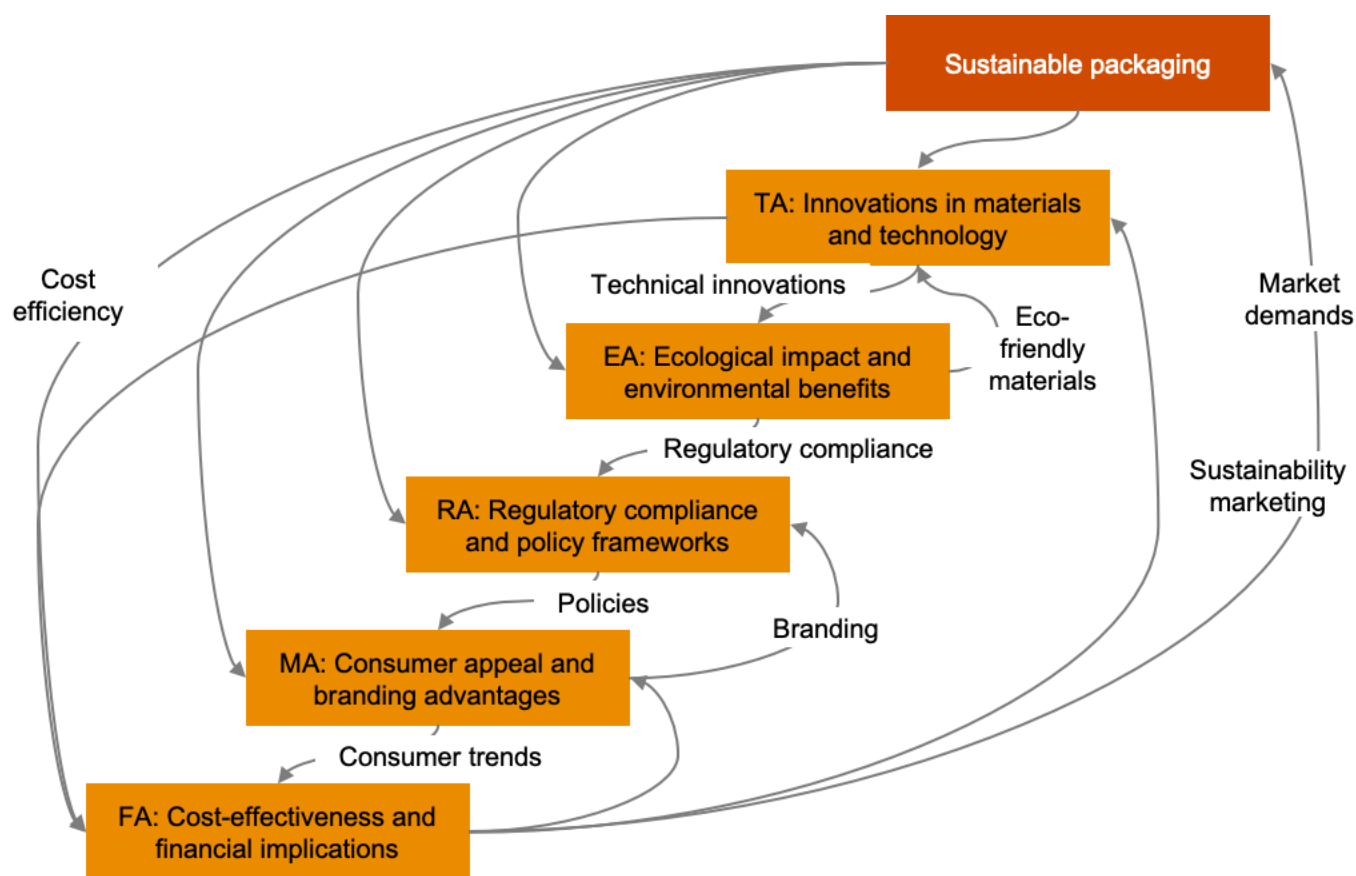
The regulatory aspect involves navigating the complex landscape of laws and regulations governing packaging standards. Compliance with environmental regulations, such as extended producer responsibility, restrictions on hazardous substances and mandates for recycling is essential for avoiding legal penalties.



Marketing aspect

The marketing aspect highlights the role of sustainable packaging in enhancing consumer appeal and strengthening brand identity. Eco-friendly packaging can give a brand a competitive edge in the market, attract environmentally conscious consumers and build brand loyalty.

Figure 4: Interconnected aspects of sustainable packaging



| Abbreviation | Interconnections between aspects | Rationale |
|--|--|---|
| SP: Sustainable packaging TA: Technical aspect EA: Environmental aspect FA: Financial aspect RA: Regulatory aspect MA: Marketing aspect | Technical innovations <-> Eco-friendly materials | Indicates that technical innovations may involve the use of eco-friendly materials and vice versa. |
| | Cost efficiency <-> Market demands | Suggests that cost efficiency is influenced by market demands and vice versa. |
| | Eco-friendly materials <-> Compliance | Implies that materials chosen for sustainability reasons related to sustainability might need to comply with regulations. |
| | Regulatory policies <-> branding | Suggests that sustainability policies might impact branding strategies for sustainable packaging. |
| | Sustainability marketing <-> Consumer trends | Indicates that marketing strategies for sustainable packaging are influenced by consumer trends. |
| | | |

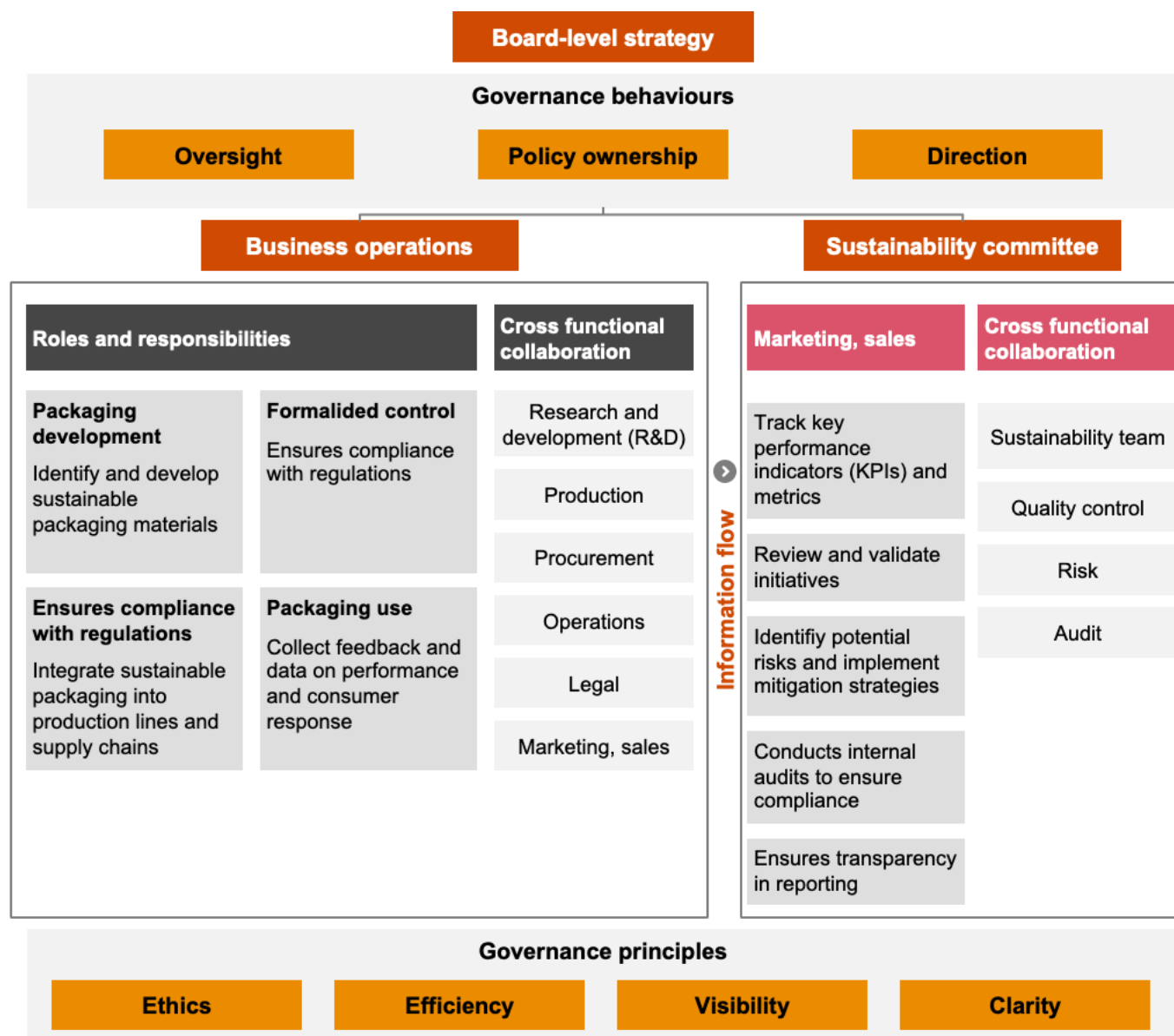
Source: PwC analysis

05 ESG governance in packaging

Implementing any sustainability initiative requires a robust governance framework to ensure effective decision-making, accountability and continuous improvement. This framework ensures that decisions are made effectively, responsibilities are clear and progress is consistently monitored. A comprehensive ESG governance model seamlessly integrates sustainability into the business operations while fostering innovation, adherence to regulations and operational excellence. It is important to verify if the current organisational structure adequately supports the packaging strategy to guarantee its successful implementation across all levels of the organisation.

Figure 5 depicts how sustainable packaging practices can be structured within an organisation. The figure showcases how business operations, sustainability management functions and board level oversight work together harmoniously. Business operations handle the aspects of sustainable packaging such as planning, execution and monitoring to ensure that the daily activities align with sustainability objectives. Sustainability management functions focus on evaluation, validation of practices and managing risks associated with sustainability efforts. The board sets directions and policies that guide sustainability initiatives across the organisation. Communication and feedback mechanisms, among these entities facilitate ongoing assessment and enhancement of sustainability measures.

Figure 5: An illustrative governance framework for sustainable packaging practices



Source: PwC analysis

06

Centralising packaging data for effective ESG reporting

Once the metrics and KPIs are identified, regular monitoring and evaluation of organisational control over this information becomes indispensable. Becoming an ESG-ready organisation depends on centralising data collection. The quality and granularity of data is important as it helps derive meaningful insights which can help the leadership in making informed decisions. Managing diverse metrics, such as type and quantity of materials used, recycled content in materials, energy consumption, recyclability rate and other metrics collected from multiple data owners often requires a streamlined data collection methodology across the organisation. The most effective approach involves taking a detailed journey through each metric's lifecycle, from its source data. Establishing crucial rules for information governance involves implementing an impactful tiered approach, and categorising data based on relevance and impact. Organisational clarity is ensured by clearly defining these categories and aligning them with specific requirements. This streamlines the incorporation of existing metrics and the integration of new metrics into the ESG reporting framework as well as ensuring continuous improvement of the overall ESG performance and reporting processes.

Figure 6: An illustrative packaging related data collection and monitoring dashboard

| | Data to collect | KPIs to analyse | Target | Responsible department | Frequency of measurement | Public commitment |
|-----------------------|--|---|------------------------------|------------------------|--------------------------|-------------------|
| Material usage | Type and quantity of material used | []% of reduction in material usage | []% reduction annually | Procurement | Quarterly | ✓ |
| | Recycled content in materials | []% of recycled materials used | []% recycled content | Procurement | Quarterly | ✗ |
| Environmental impact | Energy consumption in packaging production | Energy use per unit of packaging | []% reduction in energy use | Operations | Quarterly | ✗ |
| | Waste generated during production | Waste generated during production | Zero waste to landfill | Sustainability | Quarterly | ✓ |
| Recyclability | Recyclability rate of packaging materials | []% of packaging which is recyclable | []% recyclability | Product development | Procurement | ✓ |
| Cost efficiency | Cost of sustainable materials vs. conventional materials | Cost savings from sustainable packaging | []% cost savings | Finance | Annually | ✗ |
| Consumer perception | Consumer feedback on materials used in packaging | Consumer satisfaction score | []% satisfaction rate | Marketing | Annually | ✗ |
| Regulatory compliance | Non compliances related to plastic regulations | Number of violations | Zero violations | Legal | Annually | ✓ |

Source: PwC analysis

07

Collaborative partnerships for a circular packaging value chain

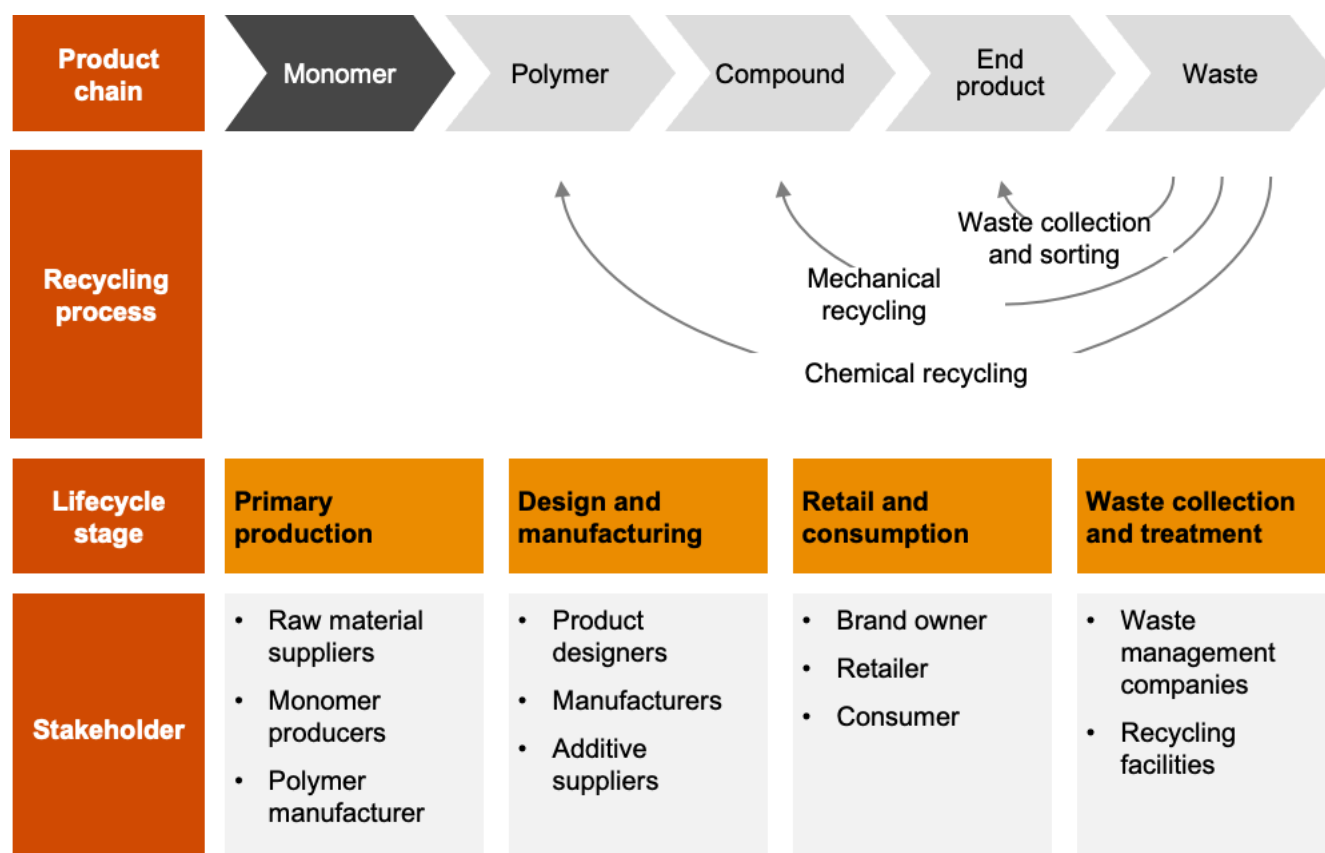
It is important to form partnerships at every level of the value chain to collectively close the circular loop of raw materials and packaging waste by:

- collaborating with suppliers to ensure that they provide details on the recyclability and recycled materials in the packaging they supply
- building partnerships with raw material manufacturers to develop innovative solutions
- working together with the state governments, waste collectors, sorters, and processors to collaboratively establish an end-of-life system that promotes recyclability.

Achieving circular packaging necessitates collaboration across the value chain. Once a product reaches the end of its lifecycle and becomes waste, various recycling methods such as waste sorting, mechanical recycling and chemical recycling can be implemented to ensure its recyclability, thereby preventing the waste from reaching landfills or being incinerated. Numerous stakeholders such as municipalities, waste management firms, physical and chemical recyclers, and intermediaries play a crucial role in this value chain and by partnering with recyclers and waste management entities, organisations can create an infrastructure that supports complete recyclability of these waste materials.

Figure 7 illustrates the plastic value chain, highlighting the key stakeholders, stages of production and recycling processes.

Figure 7: An overview of key stakeholders and processes in the plastic value chain

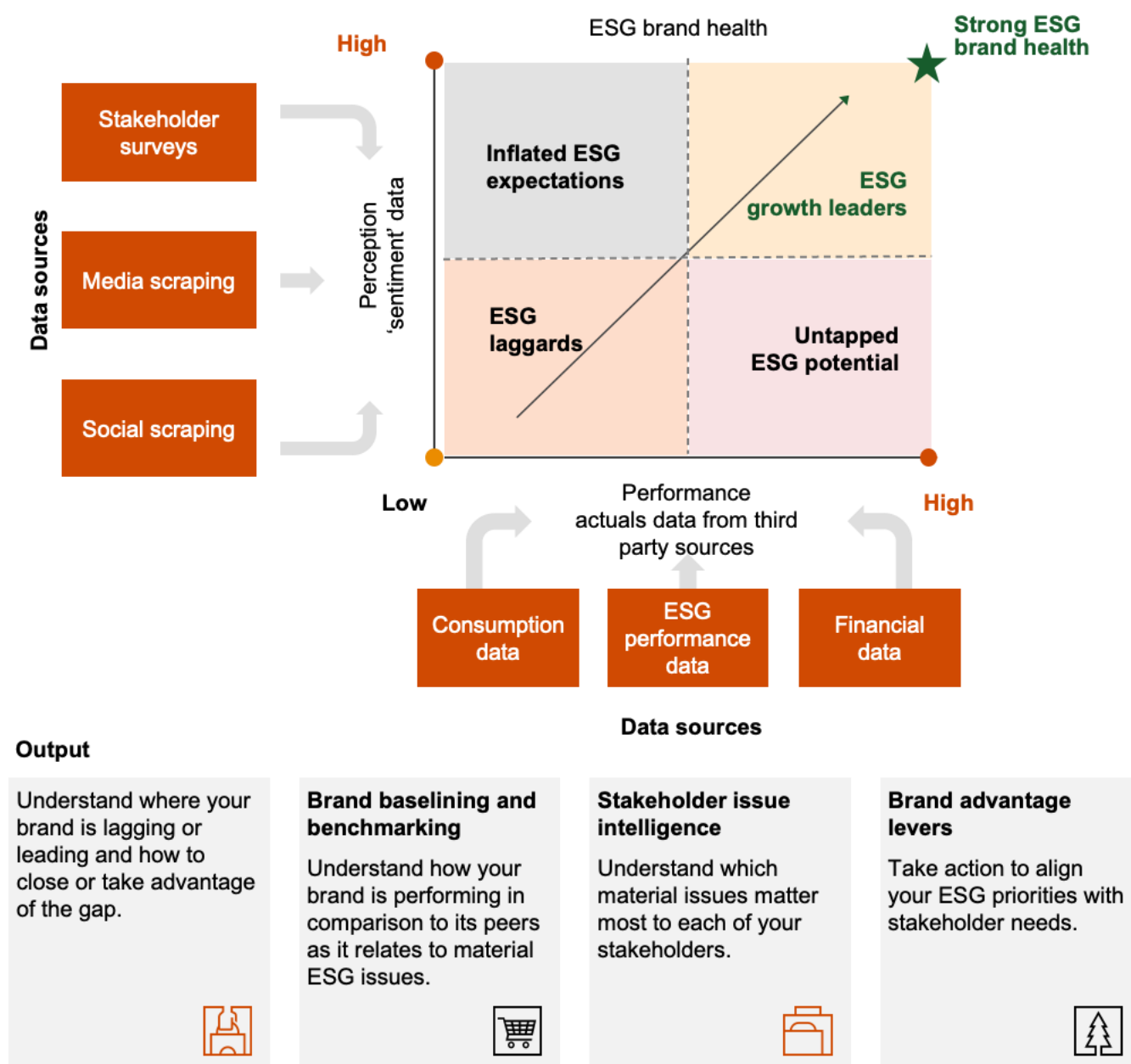


Source: PwC analysis

08 Linking sustainability efforts with brand perception

An organisation's sustainability initiatives and branding activities are closely intertwined as many consumers assess the company on the basis of their internal ESG performance. How a brand's sustainability efforts are perceived is shaped by how it communicates its presence through media and its sustainability initiatives. Conveying the brand's voice and message along with eco-labelling the products plays an important role in shaping the consumers views about the brand. However, perception alone is not enough. The internal operations of a company drive the authenticity and impact of its sustainability efforts. This includes practices like sourcing eco-friendly materials, using energy efficient packaging methods and designing packaging that reduces material usage and waste production. Training the employees is also important to ensure that sustainable practices become a part of the company's culture.

Figure 8: The role of sustainability in shaping brand perception and shaping consumer trust



Source: PwC analysis

09 Communicating sustainability initiatives

Communication plays an important role in convincing various stakeholders about the sincerity of a company's sustainability endeavours. While some standards such as the Global Reporting Initiative (GRI), Integrated Reporting (IR) Framework, Sustainability Accounting Standards Board (SASB), Task Force on Climate-related Financial Disclosures (TCFD), United Nations Sustainable Development Goals (UN SDGs) among others are non-mandatory and non-binding, other standards and frameworks such as the Business Responsibility and Sustainability Reporting (BRSR), European Sustainability Reporting Standards (ESRS), Corporate Sustainability Reporting Directive (CSRD), and the Climate Related Disclosures by Securities and Exchange Commission (SEC) are mandatory. In certain cases, internationally accepted reporting frameworks such as GRI, SASB, TCFD, Integrated Reporting are referred to by regulatory authorities for cross referencing. Though these frameworks and standards share some similarities, there are instances where they don't align which can pose practical challenges for companies which are aiming to create unified and consistent reports that meets the expectations of both investors and jurisdictional compliance and regulations. Ensuring alignment of standards and frameworks is crucial for developing a comprehensive reporting procedure.

Figure 9: An illustrative framework for effective packaging impact reporting



Source: PwC analysis

The disclosure of positive impacts from sustainable packaging initiatives involves three key steps – evaluate, conclude, report – coupled with six fundamental questions. These steps and questions provide a straightforward, lucid and practical approach to enhance the confidence in externally reported packaging endeavours. The questions cover why sustainability packaging information is reported and for whom, setting the stage for subsequent decisions on where to report, what to report, how to report, and how much to report. Addressing questions 1 and 2 guides companies in determining the purpose and audience for packaging efforts. This foundation, in turn, informs decisionmakers and helps them decide where and what to report, how to prepare and present the information and how much information to disclose. While questions 1 and 2 precede the others, the dynamic nature of the process acknowledges the interplay between questions and steps, emphasising their interconnectedness when making judgments about information disclosure. The strength of an organisation's initiatives lies in their relevance and transparency, reinforcing their commitment to authentic and impactful sustainability practices.

10 Conclusion

Driving sustainable packaging initiatives requires supervision by an internal stakeholder along with a comprehensive governance of the process and essential/core capabilities that companies often lack. Though the sustainability team is often the first point of contact for this process, procurement, sourcing and innovation departments can also become the drivers for packaging optimisation. Companies need to address the following aspects to effectively tackle the problem of sustainable packaging:

- collaboration between various departments
- integration of cost and sustainability packaging KPIs
- analysing the portfolio
- engaging in value chain and ecosystem collaboration
- capacity building for teams
- committing to packaging targets set for the organisation
- strengthening communication with suppliers
- conducting lifecycle assessments of packaging materials
- adopting eco-friendly packaging messaging and branding
- fostering cross-industry partnerships for joint sustainability initiatives.

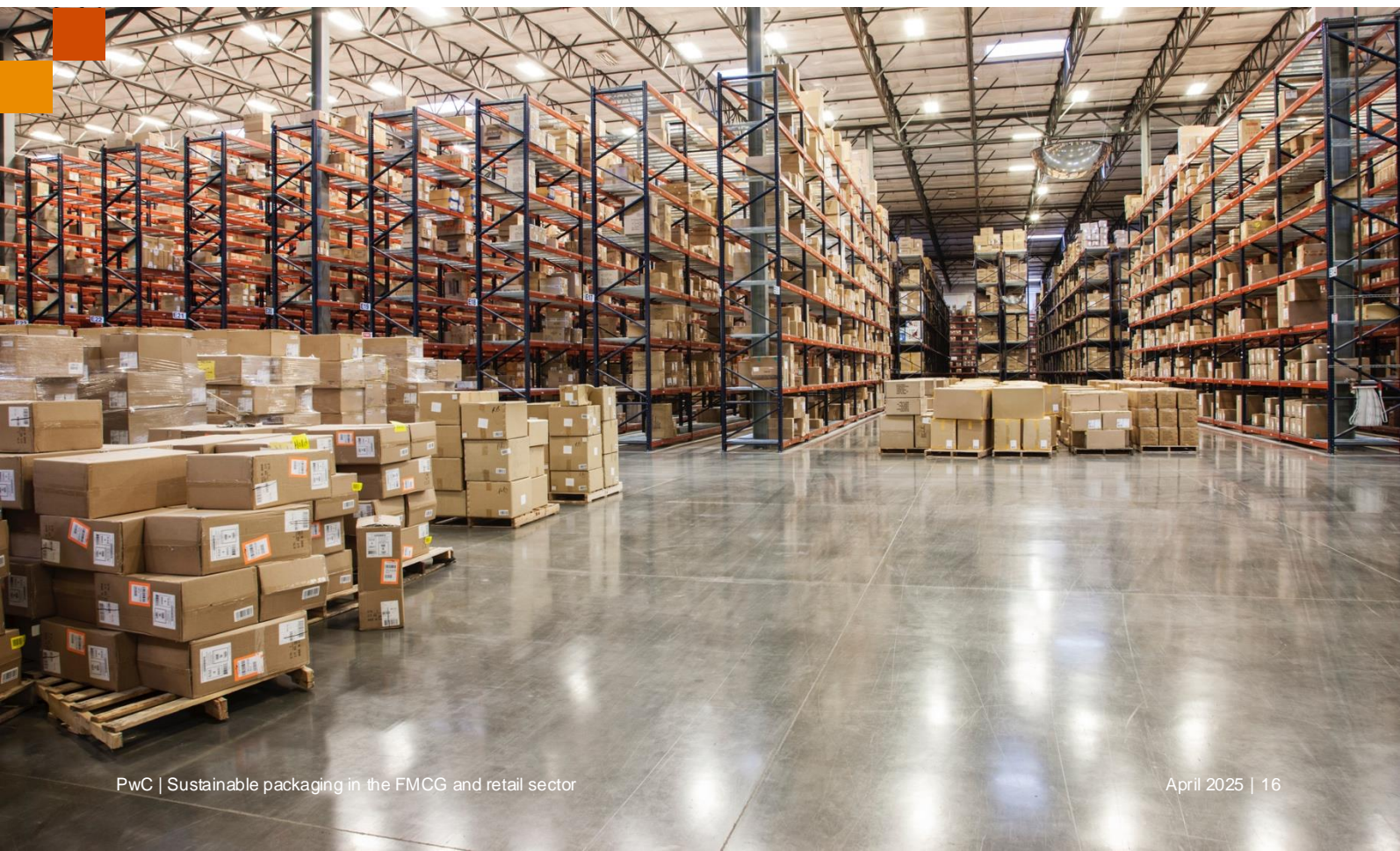
In order to achieve impactful results in driving sustainable packaging initiatives, organisations must adopt these initiatives as a cross-functional priority. A committed approach to sustainable packaging can build trust with consumers, strengthen supplier relationships and position these organisations as leaders of sustainability initiatives in the FMCG and retail sector.



About PwC India's ESG practice

PwC's ESG platform enables clients to navigate the evolving ecosystem around ESG strategy, reporting, climate change, circular economy, technology, governance, social elements of ESG, sustainable supply chain, sustainable finance, capacity building and responsible investments. Our community of solvers provides sectoral insights and empowers businesses with holistic, integrated, fit-for-purpose, outcome-based ESG solutions to deliver sustained outcomes, build resilience, create long-term value and enhance the trust of stakeholders. Our Climate and Sustainability team provides end-to-end support across key areas such as ESG strategy, ESG reporting, ESG transformation, ESG risk management, decarbonisation and climate strategy. We also help businesses to adopt sustainable supply chain practices and leverage ESG technology to drive progress. In the circular economy space, our expertise includes plastic foot printing, designing EPR compliance roadmaps, digitisation for waste monitoring, and conducting studies of plastic alternatives and institutional strengthening to build capabilities.

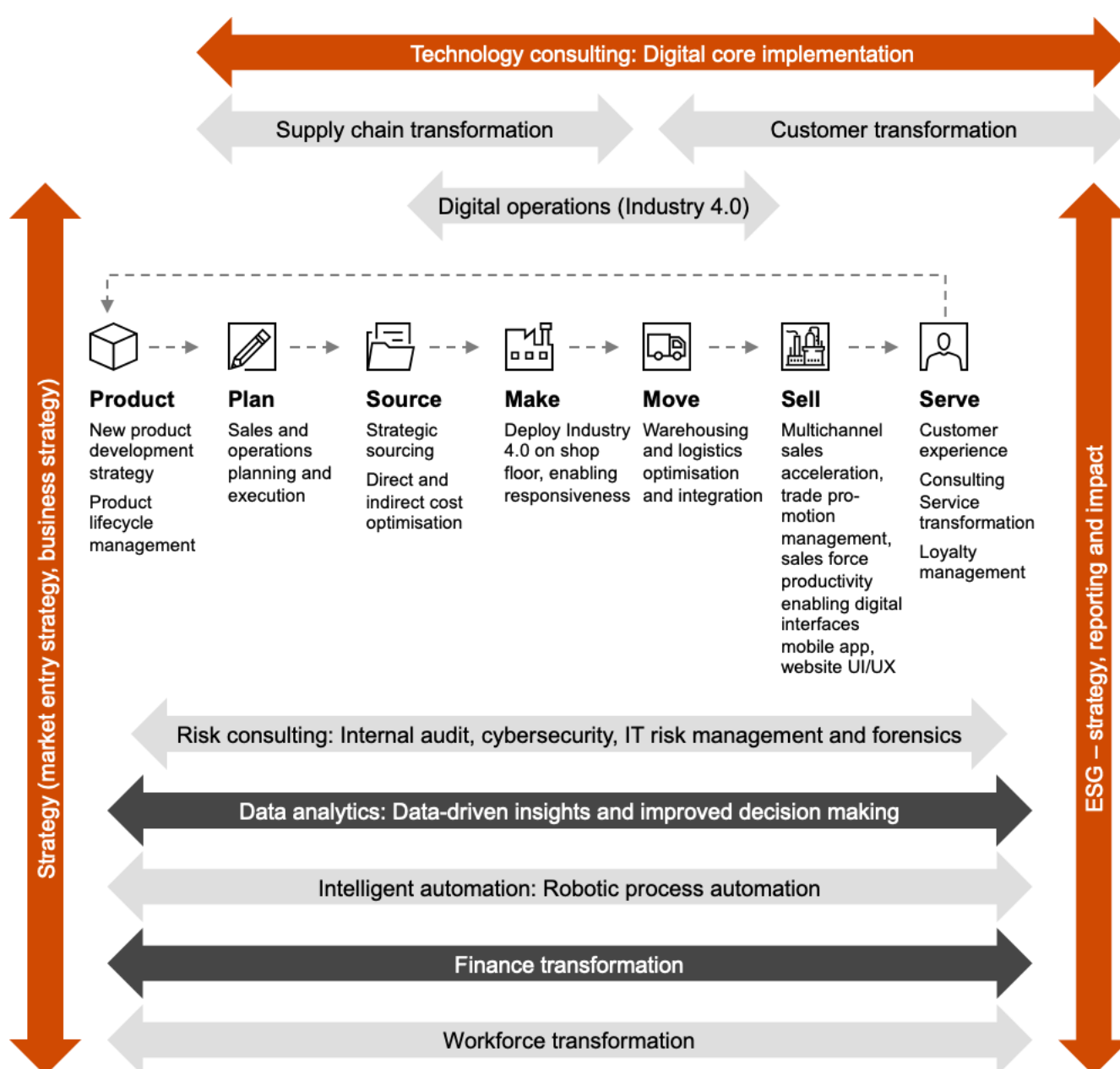
| Climate and sustainability | Circular economy |
|--|---|
| <ul style="list-style-type: none">• ESG strategy• ESG reporting• ESG transformation• ESG risk management• Decarbonisation• Climate strategy• Sustainable supply chain• ESG technology | <ul style="list-style-type: none">• Plastic foot printing• EPR compliance roadmap• Digitisation for monitoring of waste• Study of plastic alternatives• Institutional strengthening |



About PwC India's Retail and Consumer practice

India is one of the fastest growing large economies in the world with domestic consumption contributing 60% of its GDP.¹⁰ The proportion of private consumption will continue to be a significant factor of the country's economic growth with the tailwind of increasing per capita incomes and per capita consumption. India, the third largest retail market in the world, has a huge consumption headroom across all its consumer categories and the size of the retail industry in India has already surpassed USD 1 trillion.¹¹ Therefore, the retail and consumer (R&C) sector is strategically important. At PwC, we are building deep sectoral talent and capabilities, i.e. bespoke solutions, experiences and collaborations across the retail and consumer value chain.

Figure 10: An overview of our competencies across the R&C value chain



Source: PwC analysis

¹⁰ <https://www.fortuneindia.com/macro/the-affluent-now-lead-india-consumption-story/116909>

¹¹ <https://www.financialexpress.com/budget/how-indian-retail-industry-performed-in-2023-andexpectations-from-budget-2024-25-3380077/>

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