

The plant-forward opportunity: *A business playbook to meet consumer demand within planetary boundaries*

→ *Crafting innovative plant-forward portfolios presents a powerful opportunity for agrifood companies to meet better-for-you consumer needs within planetary boundaries*



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Preface | About this business playbook

The global food system is overdue for change, racking up USD \$12 trillion annually in hidden environmental, health and social costs.¹ Confronted with the planet's limited resources and poor dietary patterns, the growing population requires more diverse and sustainable food production and consumption.

WBCSD's Agriculture & Food Pathway envisions a regenerative and equitable food system producing healthy, safe and nutritious food for all, including solutions to grow the share and diversity of regeneratively produced plants and alternative proteins in diets. With this goal in mind, we collaborated with Deloitte Consulting LLP and WBCSD members to develop a new-to-market business playbook that unpacks the value and path forward to expand plant-forward foods.

What are plant-forward foods and why are they beneficial?

Often overlooked as a climate and health solution, "plant-forward" foods include a high share and diversity of plant-derived ingredients. Thanks to a reliance on fruits, vegetables, whole grains, nuts and pulses, plant-forward diets are both nutrient-rich and better for the environment than those heavily reliant on animal proteins. Plant-forward foods include offerings that combine or blend plant-based ingredients with animal-based ingredients, such as fresh salads with a side portion of animal protein or old-fashioned oatmeal made with milk and topped with fruit and nuts.

Project Drawdown, a leading climate solution research organization, evaluated more than 90 solutions that can curtail the global temperature rise to 1.5°C by 2100. The study indicates that a shift to plant-rich diets is the climate solution with the highest potential in the food and agriculture sector.² A plant-rich transition would also create significant health co-benefits, preventing about 5 million premature deaths and 11 million total deaths annually by 2050.³

Why develop a business playbook for plant-forward foods?

Plant-forward foods can offer businesses long-term growth potential while driving sustainable production and consumer health outcomes. Despite ample research on the sustainability and health benefits of plant-forward foods, there is insufficient market guidance on how food and agriculture businesses can tactically harness the value potential of plant-forward portfolios. This has stunted the widespread advancement of these foods. This paper aims to close this gap by providing a clear business case framework with supporting evidence on the value created by plant-forward foods and actionable direction on how businesses can navigate this transition.

Plant-forward vs plant-based analogues

Media attention and economic analysis to-date have focused primarily on plant-based meat and dairy analogues. While plant-forward diets may include analogues, this analysis adopts a wider lens and considers plant-forward foods as a whole, ranging from fresh fruits and legumes to packaged foods with a majority of plant-derived ingredients. For insight into meat and dairy analogues specifically, please refer to WBCSD's publication on [Meat & dairy analogues: Opportunities, challenges and next steps](#) and Deloitte's article on [Alternative Proteins – A reality check](#).

How was the business playbook for plant-forward foods developed?

Insights in this paper stem from a variety of resources, including primary interviews, surveys and secondary market research. While we intend for this playbook to be globally applicable, sources are primarily from European and North American markets, given data availability and the outsized impact of the Global North's food system and consumption habits on human and planetary health.

What other resources and research support the plant-forward imperative?

This paper builds upon a range of existing research and resources that promote the value of plant and protein diversification as a critical sustainability and health benefit imperative, such as:

The plant-forward imperative

- [Sustainable and Healthy Diets: Reviewing existing dietary guidelines and identifying gaps for future action \(WBCSD\)](#)
- [Food and Land Use Coalition's Growing Better report 2019: Ten Critical Transitions to Transform Food and Land Use](#)
- [Food and Agriculture Organization \(FAO\) of the United Nations United Nations Climate Change Conference \(COP28\) Roadmap](#)
- [EAT-Lancet Commission on Food, Planet, Health](#)
- [Intergovernmental Panel on Climate Change Special Report on Climate Change and Land](#)

Defining business pathways to plant-forward transformation

- [Shifting Behavior Toward Plant-Forward Foods \(WBCSD\)](#)
- [Food System Economics Commission's Economics of the Food System Transformation](#)
- [Food: Pathways to Decarbonization \(Deloitte\)](#)

WBCSD Agriculture & Food Pathway

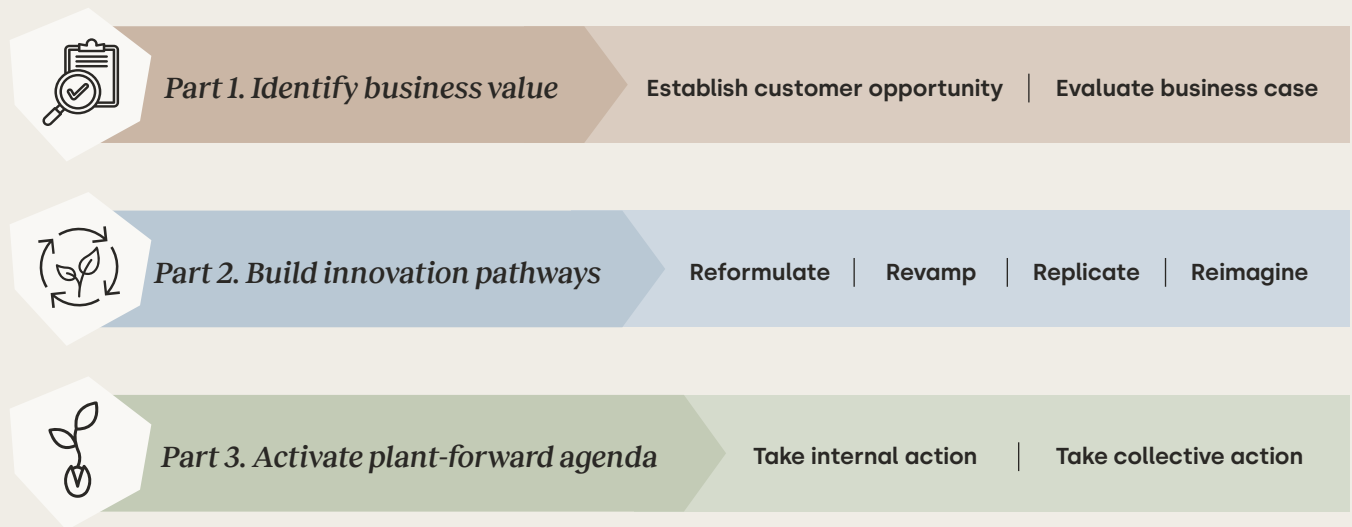
- [Food & Agriculture Roadmap](#)
- [CEO Guide to Food Systems Transformation](#)
- [Vision 2050 Food Pathway: We can provide healthy diets for all](#)

Executive summary

Food businesses have an essential role to play in transforming food systems toward delivering nutritious diets within planetary boundaries. In doing so, they can create meaningful business value along the way. Estimates suggest that by 2029, the market size for plant-based foods alone will grow at a 12.4% compound annual growth rate (CAGR) and reach USD \$95.5 billion globally.⁴ However, despite the strong sustainability, health and commercial opportunities, most leading food companies do not have data-driven business cases for plant-forward foods similar to the rigor of other business cases. This playbook is designed to empower organizations to feel confident in making and scaling plant-forward investments by offering a structure for organizations to better understand the opportunity, spotlighting areas of positive value and illustrating options to launch and scale plant-forward strategies.

To capitalize on the plant-forward movement, organizations should **first identify the business value potential** by establishing the customer opportunity and evaluating the business case. With customer needs and market potential understood, organizations can **then identify and build the best-fit innovation pathways**, from reworking existing products to developing new-to-market products. To **ultimately activate their plant-forward agendas**, organizations should consider investing in taking both internal and collective action.

Figure 1: Business playbook for plant-forward portfolios





Part 1. Identifying business value

Establishing the consumer opportunity

Consumers are continuing to fuel the post-pandemic wellness revolution and are demanding better-for-you food products. Consumers recognize that plant-forward foods are inherently well-suited to meet this demand – a staggering 83% of US consumers who are eating more plant-based foods are doing so to improve their overall health and nutrition.⁵

However, this knowledge and intention does not always translate to day-to-day behavior change for most consumers. Many well-intentioned consumers have other foundational purchasing drivers – namely taste, price and convenience – and hold preconceived notions on the ability of plant-forward foods to meet these foundational needs:

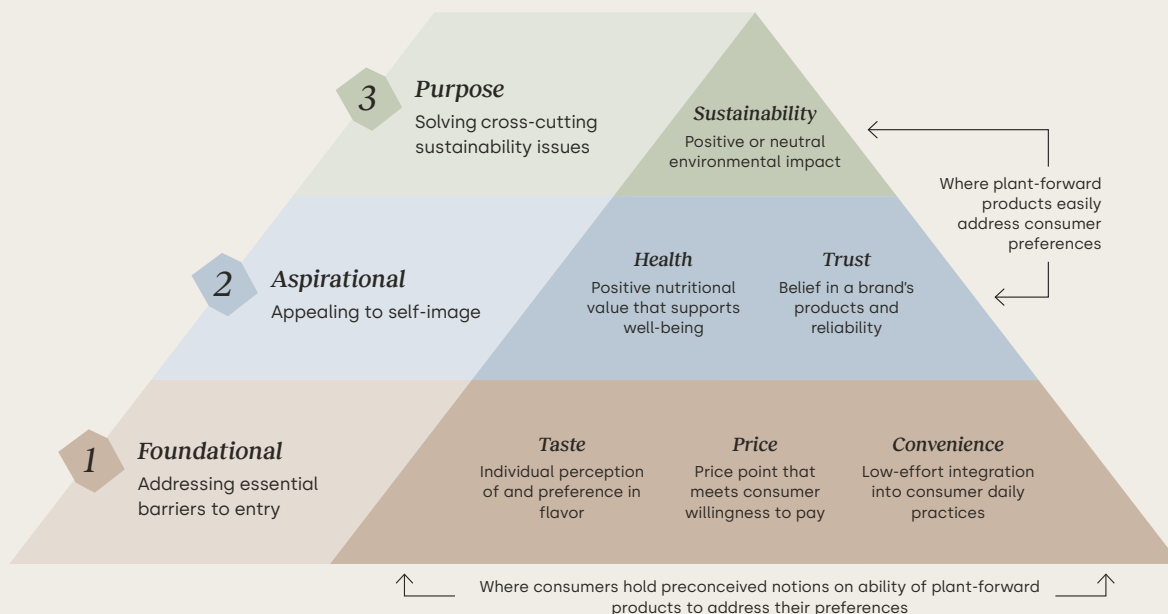
- Taste: 43% in the US express concern that plant-forward is less satisfying;⁶
- Price: 70% in the UK perceive plant-forward food as more expensive and harder to afford;⁷
- Convenience: 80% in the UK perceive plant-based diets as not easy, while 77% consider it inconvenient.⁸

Leading food organizations identified the challenge of developing products that meet consumer needs as the biggest barrier to expanding plant-forward portfolios. To realize value, organizations must deliver food products that meet these foundational needs and help

consumers close the intention-action gap they experience. Primarily, plant-forward foods must be tasty and enjoyable to spur consumer interest. In a survey of consumers, “using flavors I love” emerged as the top way to motivate plant-forward dish trial.⁹ To drive continuous adoption, plant-forward foods must also be affordable and convenient, including having sufficient options when eating out and ease of preparation when at home.

With these objectives in mind, organizations should invest in better understanding the consumer and market landscape and in educating consumers. Establishing the opportunity – identifying the relevant segments, along with their specific needs, motivations and willingness-to-pay – will first set organizations up to quantify the value potential of new plant-forward offerings. For example, [WBCSD's 2021 publication, Shifting diets: Methods to encourage consumers in the UK to eat healthier, more sustainable meals](#), more sustainable foods study identifies six distinct consumer segments based on diet and health patterns identified through ethnographic research (e.g., interviews, shop-alongs) to understand how real people analyze trade-offs and make choices in day-to-day eating.¹⁰ Only with this understanding can organizations begin to build an innovation pipeline for products that address consumer needs while navigating the inherent trade-offs that these needs often bring. Moreover, organizations should then educate consumers on how plant-forward foods meet their foundational needs. For example, plant-based diets are in practice cheaper than omnivorous diets in high-income countries,¹¹ indicating an opportunity to debunk the myth that plant-forward eating is more expensive.

Figure 2: Consumer hierarchy of needs*



*Noting that the consumer hierarchy of needs may differ slightly by geography and continues to shift as the food system evolves

Evaluating the business case

Plant-forward foods present an opportunity to drive tangible business benefits across four key value areas. Leading food organizations' top motivations for pursuing plant-forward portfolios tend to align with revenue growth, given the customer and consumer opportunity, and with environmental, social and governance (ESG) leadership, given plants' positive environmental and nutritional profiles. Additionally, plant-forward portfolios can deliver cost reduction benefits under the right operating conditions and can provide supplementary risk mitigation benefits.

Given their proximity to consumers, downstream organizations (e.g., foodservices and restaurants, consumer-facing manufacturers and retailers) are in the best position to generate value because of their ability to directly capitalize on

the consumer adoption of plant-forward food products. These downstream players, however, rely on corresponding shifts in production from their upstream partners (e.g., from input providers and producers to processors and equipment providers).

Though upstream organizations are further from the consumer and lack the ability to directly capture value from consumers, they can generate value and competitive advantage by supporting downstream customers and developing unique intellectual property that solves industry challenges (e.g., proprietary seeds, equipment). However, some upstream organizations would benefit from co-investment and other de-risking strategies to help overcome upfront resource requirements, such as multi-year commitments for farmers to grow a new crop.

Figure 3: Business case framework for plant-forward portfolios



Case study | Identifying business value – Meati

The consumer opportunity | Meeting consumer needs, 60% of Meati buyers repurchase.

- **Nutrition** – Meati designed its value proposition in response to the perception of plant-based meat as unhealthy and highly processed. As such, its formulations feature no more than five recognizable ingredients. Made of 95% mushroom root, its products offer 15-17 grams of complete protein, 8 grams of fiber and micronutrients and no cholesterol, saturated fats or sugar.
- **Taste & convenience** – Since most meat alternatives are ground products and 60% of meat purchases are whole cuts, Meati focused on plant-based whole cuts to deliver on unmet needs. From Italian Seasoned Cutlets to Garlic & Pepper Steaks, its products are flavorful and can be prepared in minutes with familiar, convenient techniques such as sautéing, baking or grilling.

The business case | Meati has raised USD \$275 million in capital to fund its growth, tapping into key value areas.

- **Revenue growth** – After just one year on the market, Meati products are in 3,600 stores. It expects to expand into 10,000 locations by year two. Because of its products' exceptional nutritional profile compared to peers, Meati products are priced at a premium (from USD \$8.99 to USD \$10.99 for two servings) and enjoy attractive unit economics. Moreover, retail partners experience higher margins from Meati products and retailers provide them with secondary marketing and sought-after shelf space that further escalate new consumer acquisition.
- **Cost reduction** – The team is operationalizing the Mega Ranch, Meati's first large-scale facility that will produce tens of millions of pounds a year. Though capital- and time-intensive to build, the vertically integrated operation with growing, harvesting, processing and packaging under one roof will ultimately allow Meati to capture all the margin and enjoy economies of scale.

Business case framework for plant-forward portfolios | Trends & proof points

Revenue growth

Plant-forward foods offer high revenue growth prospects, with the market size for plant-based foods alone seeing a 12.4% compound annual growth rate (CAGR), reaching USD \$95.5 billion globally by 2029;¹² compared to 6.5% expected CAGR for food overall.¹³ Leading food organizations identified growth in customer and consumer spending as the lever creating the most business value, more so than price premiums, margin expansion and reduced material and production costs. This is thanks to rapidly emerging and growing consumer demand – for example, over half of the US population is open to a plant-forward eating pattern (53%). This is especially true of millennials (64%) and students (66%), suggesting longer-term growth.¹⁴

By meeting changing consumer preferences, businesses are primed to enhance existing customer loyalty and attract new customers, in turn generating revenue growth through increased sales volume. Conversely, there is more variable ability to capture price premiums for plant-forward foods due to wide-ranging cost profiles and the need to balance price premiums against volume. On average, food and beverage products marketed as sustainable have a 33% price premium compared to conventionally marketed counterparts, though this varies by category.¹⁵ However, consumer behavior also indicates that there is limited willingness to pay premiums for plant-based protein and dairy analogues, especially during cost-of-living crises.

ESG leadership

As the adoption of plant-forward portfolios can yield positive nature-, climate- and health-related benefits, pursuing more plant-forward products positions businesses to meet growing compliance requirements (e.g., Corporate Sustainability Reporting Directive (CSRD), International Financial Reporting Standards (IFRS)), accelerate progress on ESG goals (e.g., Science Based Targets, Nutri-Score goals), and advance positioning as accountable ESG leaders. Compared to meat- and dairy-rich diets, plant-forward diets are 20-55% less resource-intensive and can generate 30% savings or more in food-related scope 3 greenhouse gas (GHG) emissions.¹⁶ Plant-forward diets, like those focused on protective foods, also promise generous healthcare savings – nearly USD \$8.5 billion (GBP £6.7 billion) in the UK alone.¹⁷ Given these benefits, plant-forward portfolios may offer cost-effective means to improve ESG outcomes compared to other ESG investments (e.g., renewable energy), though specific ESG benefits depend on a company's existing portfolio and degree of animal-derived ingredients.

However, companies should carefully manage some ESG and nutrition impacts to realize the social impact and market potential of plant-forward foods. For example, though plant-based diets are in practice cheaper than omnivorous diets in high-income countries,¹⁸ price premiums and distribution limitations for some plant products (e.g., fresh foods in food deserts) may hinder broader accessibility and uptake. Additionally, increased processing and additives common to alternative protein and dairy products or other ultra-processed plant-forward foods (e.g., soft drinks, pastries) can dampen health and nutrition outcomes; these products should avoid "health-washing" that highlights their plant origins. It is necessary to deliberately weigh these types of considerations with trade-offs to avoid unintended adverse outcomes.

Cost reduction

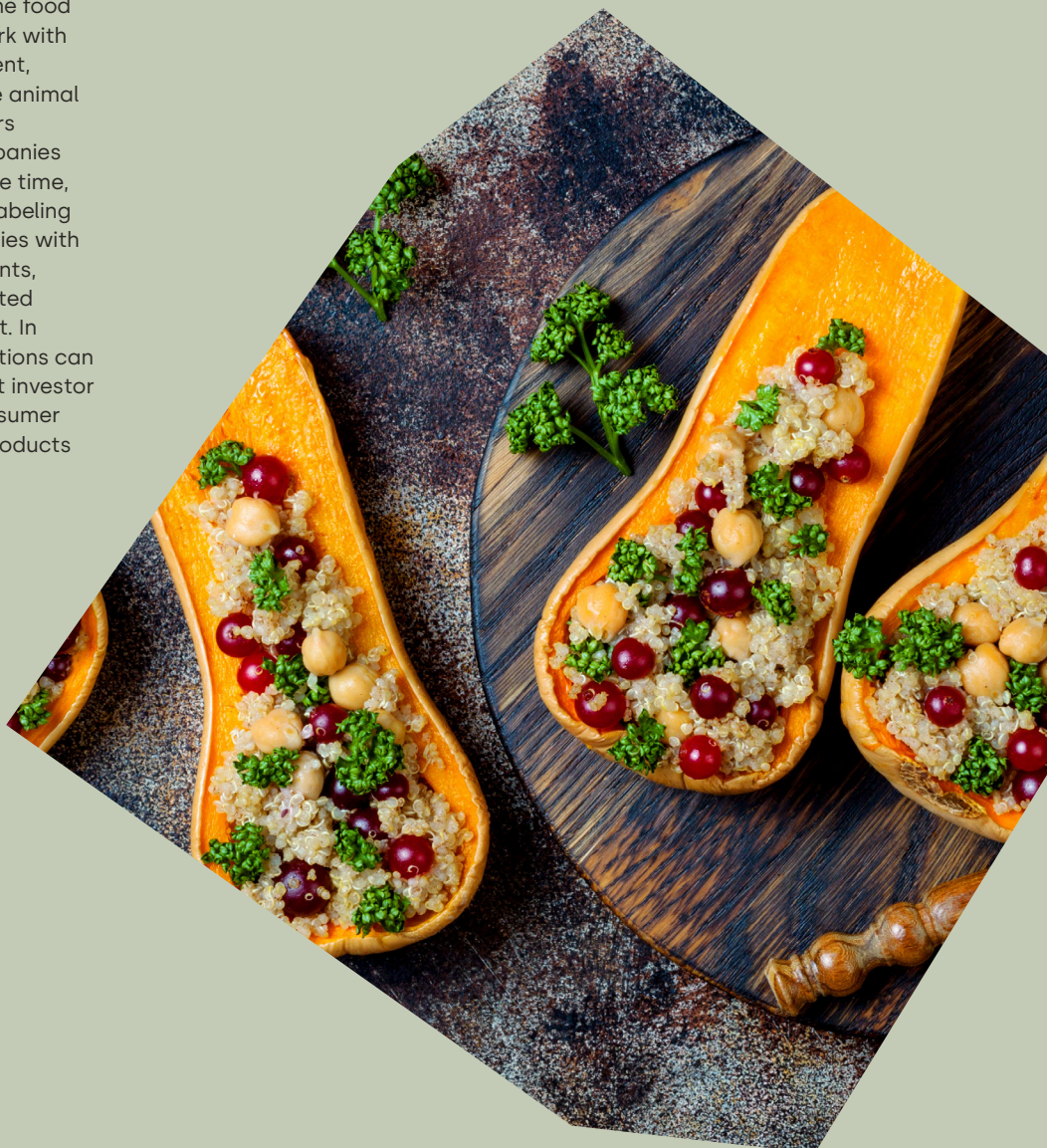
Plant-forward foods can have a higher, lower or neutral cost impact depending on a business's operating context. New plant-forward R&D can be capital-intensive, with upfront investments in product development and new production lines. Plant-forward products in particular have potentially higher operating expenses from longer processing cycles and labor and from some pricier ingredients, such as quinoa or chia. For consumer packaged goods (CPG) plant-based analogues, products often experience low or negative margins and companies typically test them over a 1-3 year time horizon to reach scale and profitability.

Under the right conditions, the adoption of diverse plant-based foods can also generate long-term savings. The cost of inputs for farmers can go down as multi-crop rotations lessen the need for fertilizers, pesticides and irrigation.¹⁹ Some plant-based ingredients, in particular oats, beans and lentils, are cheaper per gram of protein than animal-based sources.²⁰ Organizations can create efficiencies and accelerate their return on investment by focusing R&D on lower-cost innovations outside analogues and by retrofitting existing facilities. However, in evaluating cost-saving opportunities, organizations must also consider trade-offs with nutrition and the pricing of new products.

Risk mitigation

Diverse plant-forward portfolios present a positive, albeit supplementary, opportunity to proactively mitigate individual company and systemic supply chain risks. The food system is rife with risk: food value chains are overly reliant on a narrow range of commodities that increase a business's short-term exposure to volatility and the threat of natural resource shortages (i.e., food, water) is a top long-term risk according to the World Economic Forum's 2024 Global Risk Report.²¹ Diverse plant-forward foods support adaptive supply chains as they are less resource-intensive, support ecological system resilience²² and are subject to less supply concentration and disease or recall risk compared to animal-derived products.²³ Moreover, locally adapted crops are also more resilient to weather extremes, such as millet and sorghum compared to corn or rice.²⁴ However, specific supply risk hotspots may shift as climate change can affect the ability of a crop to grow in its native region.

Active investors are also rallying around the food chain risk issue – FAIRR, an investor network with USD \$70 trillion in assets under management, aims to lower financial risks from intensive animal production.²⁵ Meanwhile, 64% of consumers believe that governments should tax companies that promote unhealthy foods; at the same time, governments are introducing an influx of labeling and policy guidelines.²⁶ Finally, for companies with large portfolios of animal-derived ingredients, animal welfare issues may pose a risk related to adverse media and consumer sentiment. In embracing plant-forward action, organizations can proactively position themselves to support investor expectations for risk mitigation, meet consumer demand for transparent, better-for-you products and shape regulatory motions.





Part 2. Building innovation pathways

Establishing the consumer opportunity

Organizations can start to address consumer needs and generate business value through innovation, ranging from reworking existing products to developing new plant-forward products. Each approach can help address distinctive consumer needs.

Evaluating the business case

Reworking existing products, recipes and meals through reformulation or revamping with more plant-based inputs means organizations are able to leverage existing consumer trust to

drive purchasing. Innovating existing products also likely delivers ESG leadership benefits (e.g., nutrition, GHG emissions, nature), though these approaches may impact input material costs and introduce supply chain and production complexity. Meanwhile, developing net new products requires overcoming consumer barriers for price, taste, convenience and health. New products offer the chance to drive greater revenues by winning over new consumers and may also deliver ESG benefits (e.g., GHG emissions). However, new products will require additional R&D and production investments and will need to balance price premiums against consumer willingness to pay and affordability.

Figure 4: Innovation pathways

	Innovation pathways	Consumer opportunity
Existing products	Reformulate Substitute animal-derived ingredients with plant-based ingredients (e.g., oat-milk chocolate)	→ Lower consumer barriers as brand trust exists; consumers likely willing to try → Need to deliver taste and price parity for consumers to repeat purchasing
	Revamp Add more volume and diversity of plant ingredients into existing recipes (e.g., half beef, half bean blended burgers)	→ Moderate consumer barriers, with taste and convenience concerns primarily preventing adoption of familiar items → Need to minimize trade-offs with recipe health and competitive pricing
New products	Replicate Mimic conventional protein and dairy with plant isolates (e.g., quinoa noodles, plant protein isolate burgers)	→ Variable consumer barriers, with price and health currently preventing scaling in certain categories (i.e., alternative meats) → Need to continue meeting taste and convenience standards that spurred initial adoption
	Reimagine Develop new-to-market plant-forward products (e.g., mushroom crisps, banana milk)	→ Moderate consumer barriers, with potential for taste and convenience to spark consumer interest → Need to build trust while minimizing trade-offs with recipe health and pricing

Case study | Building innovation pathways – Unilever

Unilever is championing plant-based products to drive revenue growth and build climate-aligned portfolios. In 2022, Unilever achieved USD \$1.3 billion (EUR €1.2 billion) in sales from plant-based products and has committed to reaching USD \$1.6 billion (EUR €1.5 billion) in annual sales by 2025 for plant-based products in categories whose products traditionally use animal-derived ingredients. To achieve this, Unilever is innovating across all pathways, such as:

Existing products

- **Reformulate** – Hellmann's Vegan Mayo delivers the same taste and is now available in 33 markets, with flavor options such as Smoked Mayo in Argentina and Garlic & Herb in the UK and Nordic markets.
- **Revamp** – Knorr products often tout "hidden" vegetables,

such as their carrot and spinach wraps or spinach and tomato pastas that make getting micro- and macronutrients easy and convenient.

New products

- **Replicate** – The Vegetarian Butcher partnered with The Düzgün Group, a döner producer, to introduce a plant-based kebab skewer in Europe. It has the flavorings and texture of its animal kebab counterparts and is handled in exactly the same way – from skewer grilling to juicy slicing – for convenient preparation by restaurant operators.
- **Reimagine** – Knorr launched Rinde Mas, made of spices and vegetable protein. When hydrated and mixed with ground meat, it resourcefully helps to make more mince, reducing the amount of meat needed to prepare meals.



Part 3. Activating plant-forward agendas

Plant-forward portfolios present a powerful business opportunity that can be achieved by taking both internal and collective action.

Taking internal action

Organizations at any point in their plant-forward journey can advance value creation through the “no-regret initiatives” available to them. Organizations whose plant-forward efforts are emerging should start with establishing plant-forward goals and piloting initiatives, while more mature organizations can embark on initiatives to scale up and then lead the industry. In either case, it is possible to de-risk new go-to-market initiatives by conducting small pilots to test and learn and by adapting infrastructure or outsourcing manufacturing for new product launches.

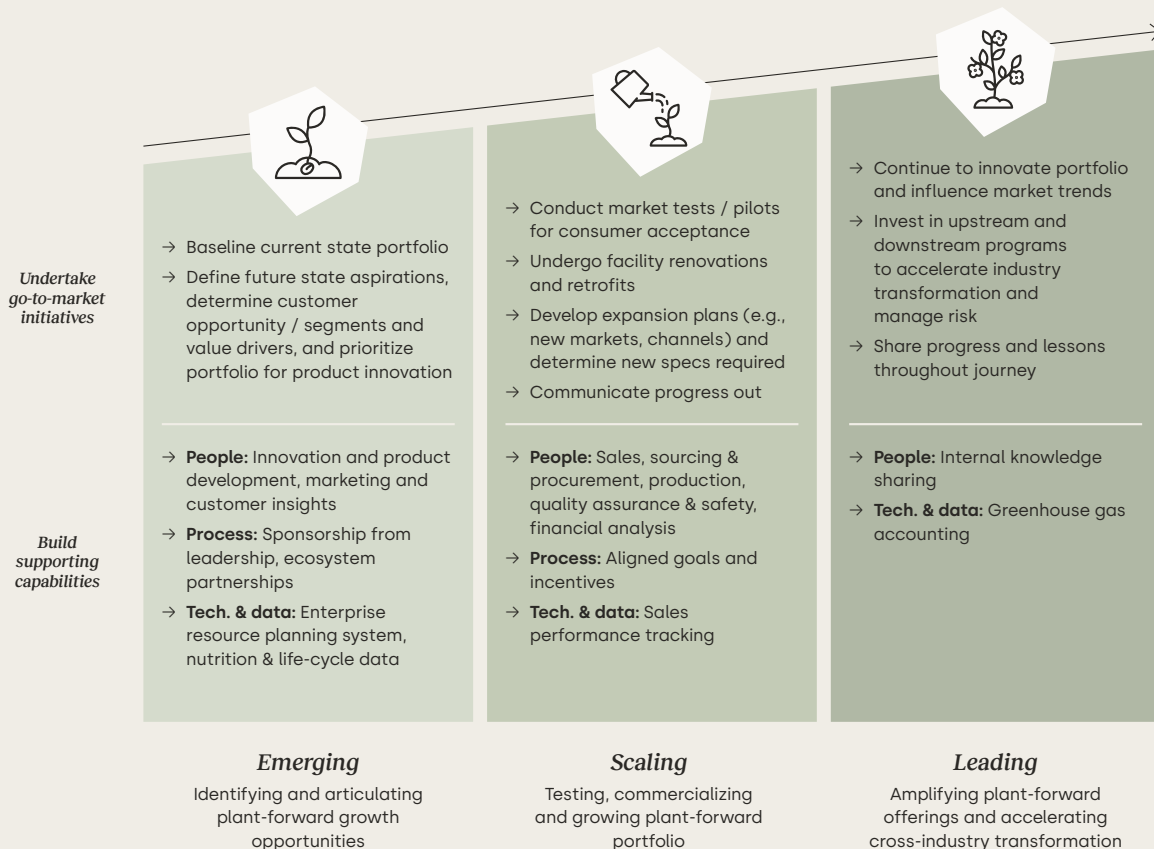
To set these initiatives in motion, organizations will need to advance supporting capabilities across people, process, technology and data.

- **People:** Talent with the right skills to uncover consumer insights, develop new products, craft compelling marketing and communications, source key ingredients, manufacture and quality assure production, and evaluate financial and legal conditions.

- **Process:** Ways of working to integrate plant-forward priorities into business operations through leadership support, goal setting, knowledge-sharing and enabling value chain partnerships.
- **Technology & data:** Technology foundation that captures and integrates key data (e.g., financial, ESG) to enable performance monitoring and data-driven decision making.

Finally, regardless of commercialization maturity, businesses can also look within their own operations to promote plant-forward adoption. By targeting change within their own four walls, from championing plant-forward options in cafeterias (e.g., plant-powered Fridays) to offering employee resources (e.g., wellness events focused on teaching plant-forward cooking), businesses can build workplace culture and demonstrate their commitment to plant-forward leadership.

Figure 5: Internal action across the stages of plant-forward maturity



Leading practices | Marketing

Leading food organizations identified compelling consumer messaging for plant-forward products as the most meaningful enabler to unlock value from these products. To prompt plant-forward demand, organizations can employ lessons learned across the 5 P's of marketing (product, promotion, price, placement and people), such as:

Product | Modifying dishes or menus themselves, from simply reducing the amount of meat in a dish to improving the flavor and texture of plant-forward dishes, is a critical lever. Offering more plant-forward choices also increases the likelihood that diners will select a dish from this category, since there is a greater chance they will find a dish they find appealing. In a University of Cambridge study, researchers tested the impact of doubling the availability of vegetarian options (from 1 out of 4 dishes on the menu to 2 out of 4) on food sales in university cafés. Results showed that vegetarian dish sales increased by 70% when more of these options were available to diners.²⁷

Promotion | Indulgent labelling descriptions woo consumers. Flavor-forward adjectives (e.g., crispy, crunchy, creamy, smoky, sweet), including those that describe a food's provenance,

are most compelling to consumers. Meanwhile, terms that may contradict with flavor (e.g., healthy, light, low-calorie) or that stress the elimination of ingredients (e.g., vegan, meat-free) can leave consumers disengaged. When Panera Bread renamed its Low Fat Vegetarian Black Bean Soup to Cuban Black Bean Soup, sales increased 13%.²⁸

Price | Offering vegetarian dishes as the default, with meat as an optional surcharge, leverages psychological phenomena such as the status-quo bias and loss aversion. In a Radboud University study comparing two menu designs – one with all vegetarian dishes with meat offered for an extra cost and one with both vegetarian and meat dishes – researchers found that 73% percent selected a vegetarian option when the default choice was with meat at an extra cost, compared to 44% when menus included both vegetarian and meat dishes.²⁹

For additional marketing insights, see WBCSD's [Shifting behaviors towards plant-forward foods: a toolkit for food businesses](#) and the World Resources Institute [Playbook For Guiding Diners Toward Plant-rich Dishes in Food Service](#).

Leading practices | Data

Data availability and metrics to evaluate plant-forward portfolios are an essential capability for leading food companies. HowGood, a sustainability intelligence platform with the world's largest ingredient sustainability database, works with companies throughout the supply chain to measure, reduce and communicate their impact across key environmental and social dimensions. Their database of over 90,000 agricultural emission factors includes diverse crops such as carob, cactus and seaweed, as well as rare varieties such as black oats and Indian apple banana. Using HowGood's platform, Latis, a food company can:

- **Measure the impact** of individual food products or of full portfolios on metrics like greenhouse gas emissions, water use, biodiversity, land-use change, labor risk and animal welfare – either with or without primary data.
- **Discover and model abatement measures**, such as ingredient swaps, to efficiently reduce footprints.
- **Support commercial teams' sales motions and product differentiation** with sustainability claims (e.g., climate-friendly label, minimally processed label) leveraging third party-verified product attributes and impact calculations. Products displaying HowGood's sustainability attributes have driven a sales lift of 25%.

Ingredient, a leading global ingredients solutions company, is currently powering their business-to-business sales to consumer packaged goods companies with HowGood's automated product carbon footprinting and sustainability claims. With many enterprise customers working towards public carbon reduction commitments, Ingredient has differentiated themselves by offering **comprehensive, quantified sustainability data** to drive **118% year-over-year revenue increases** in its plant-based protein portfolio.³⁰

When showcasing their prototype innovations at IFT 2023, Ingredient leveraged HowGood's Platform to offer a direct comparison of their VITESSENCE® Pulse 1853 pea protein isolate against conventional animal-based whey protein concentrate. Their pea protein isolate provides companies with a **47% reduction in carbon emissions, 6% reduction in blue water usage and 5% increase in consumer base**.³¹ This assessment is available for all ingredients in their portfolio and has replaced the need for commissioned LCAs.

“Our customers need holistic, sustainable ingredient solutions to meet consumer and regulatory demands for greater transparency. Partnering with HowGood provides third-party validation of the sustainability impact of our ingredients and enables our customers to confidently make informed decisions.”

Brian Nash, VP, Sustainability at Ingredient

Taking collective action

The widespread adoption of plant-forward dietary choices will require a seismic shift in the norms and behaviors of many individuals and businesses alike. By acting collectively, businesses can amplify individual efforts to generate momentum for plant-forward adoption.

- Setting industry ambition: Establish principles and share best practices for goal-setting and measurement of plant-forward portfolios, set industry-wide targets and promote organizational adoption of industry targets
 - Collaborating on innovation: Participate in cross-ecosystem partnerships to identify and source ingredients that meet consumer and environmental requirements, accelerate new product research and development and de-risk investments
- Advocating for plant-forward: Accelerate widespread behavior change by influencing key stakeholder groups
 - Shape policy and regulation: Support and inform the development of emerging regulatory requirements, guidance and incentives (e.g., farmer assistance)
 - Encourage institutional procurement policies: Engage leaders of large groups where impact can be magnified (e.g., schools, hospitals, sports arenas)
 - Champion consumer campaigns: Partner on grassroots trendsetting (e.g., Beans is How campaign) and team with prominent food media personalities to motivate consumer adoption

Case study | Activating plant-forward agendas – Givaudan Innovation Hubs

Givaudan, a global leader in fragrances and flavors, has established Innovation Hubs in Switzerland, Singapore, Brazil and the United States to accelerate the adoption of plant-based foods and unlock market and ESG advantages alongside partners. Welcoming customers, start-ups, academic researchers, chefs and others along with its own experts, these innovation hubs enable the rapid, agile development of products that meet consumer needs for taste, price and convenience. The hubs have kitchens and labs, extrusion machines, small-scale processing lines and co-working spaces to support the co-creation process, from raw material selection and product R&D to application, flavor science and consumer testing.

Givaudan, Bühler and Cargill joined forces to help commercialize promising plant-based start-ups via the Asia Pacific Scale It Up! Challenge, where five regional start-ups gained access to the Protein Innovation Centre in Singapore

to improve the overall eating experience and optimize the manufacturing process to scale production. The organizations selected the winner, Meatless Kingdom, for its mushroom-based bak kwa (Asian barbecued meat), which delivers on the taste and texture desired by the Indonesian consumer palate. Meatless Kingdom retained continued access to the Protein Innovation Centre.

“We realize that no one company can do this alone. We need to work together to address challenges, accelerate innovation and shape the future of food.”

Fabio Campanile, Global Head of Science and Technology, Taste & Well-being at Givaudan

Conclusion

Plant-forward transitions present a necessary step in improving human health outcomes and in aligning global food production and consumption within planetary boundaries. Companies can leverage this playbook to assess potential of investing in new plant-forward offerings. By becoming early adopters, food businesses can realize first-to-market benefits and significant growth opportunities – if they solve foundational consumer needs for taste, convenience and affordability. The path to success requires that businesses accelerate innovation and take internal and collective action to ultimately win the hearts, minds and buy-in of consumers.

If you are interested in working with WBCSD and/or Deloitte to understand more about how plant-forward foods can create value for your organizations, please visit our WBCSD [website](#) for contact information or reach out to [Deloitte](#).



Endnotes

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Disclaimer

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