

Deloitte.



The Future of Food
Challenges & opportunities

Perspectives from consumers and food companies



Content

01	Foreword	03	04	Ecosystem orchestration	42
				Collaboration, partnerships & Industry 4.0	
02	Conscious choices	17	05	Conclusion	51
	Health & sustainability				
03	Saving the planet	31	06	Contacts	53
	Sustainable food production & waste management				



Foreword

The Future of Food agenda

For those of us living in developed countries, food is such a basic part of life that we can easily take it for granted. We do so at our peril.

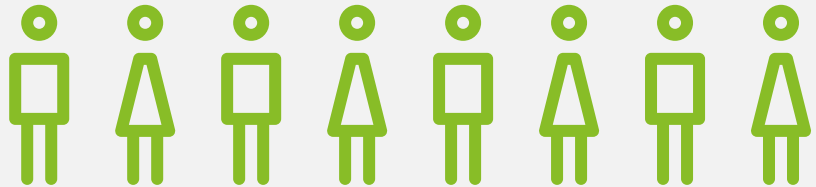
With our planet's limited resources, we must feed a global population expected to grow to 9.7 billion by 2050. Currently, our inefficient food production and distribution system is unable to prevent widespread hunger, even as it takes a terrible toll on the environment. Meanwhile, rich countries face an epidemic of diseases related to a diet of affluence and overabundance.



Today



1 billion people go hungry



2 billion people are overweight or obese

Sources: [Our world in data](#)



1/3 of all food is wasted



25% of greenhouse gas emissions comes from the food industry

Radical transformation

It's clear that we need a radical transformation of the food system to feed the planet in an equitable, healthy and sustainable way. A transformation that advances step-by-step, balancing urgency with stability.

It must also recognise the contributions of all stakeholders.



The food industry,
innovating to
produce healthier
products more
sustainably



Consumers, placing
sustainability and
health at the centre
of their shopping
decisions



Government,
playing the role
of activator and
accelerator

“

We cannot tell people what to eat, but we can make it easier for them to make the right decisions for themselves and for the planet.

Hanneke Faber, Global President Foods & Refreshments Unilever

(Source: [Deloitte web article, Future of Food Global Summit](#))

New opportunities

Along with putting our food system on an environmentally-sound path, this transformation will bring new opportunities to operators in the food value chain. Smart companies will use the food challenge to create competitive advantages for decades to come. For governments, healthcare costs could shift from focusing on curing disease to enhancing total care and wellbeing. And innovation – driven by increasing public awareness and demand – will bring people more options for sustainable and healthy products at affordable prices. This synergy will benefit all stakeholders as well as the planet itself.

Our aim

As a Purpose-led organisation, Deloitte strives to make a sustainable impact that matters for our clients, our people and for society at large. Food is among the strongest levers for improving human health and environmental sustainability. Consequently, Deloitte considers the Future of Food to be a strategic priority.

Our goal is to help food-sector stakeholders develop a roadmap for successfully changing the food ecosystem in Belgium: from a traditional, food production and consumption model to one based on innovation and sustainability.

We believe this evolution will empower food companies to not only become future proof, but also become active contributors to healthy people on a sustainable planet.





The Future of Food & The Conscious Consumer

To help amplify this necessary transformation, we conducted two surveys.

The Future of Food survey covered the entire food-industry value chain in Belgium. Through a survey at 58 companies, it aimed at assessing the maturity of the country's food ecosystem and at creating awareness around more sustainable business practices – from farm to fork – among all stakeholders, including companies, consumers and government.

The Conscious Consumer survey queried 17,000 consumers across 15 European countries. It asked how they look at the impact of food on health and sustainability, and how they let these considerations influence their grocery buying behaviours.

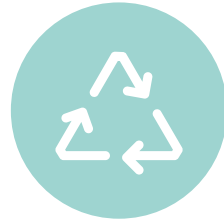
Food-industry value chain



The surveys' data revealed major market trends in three areas.



**Conscious
consumer choices
for health and
sustainability**



**Sustainable
food production
and waste
management**



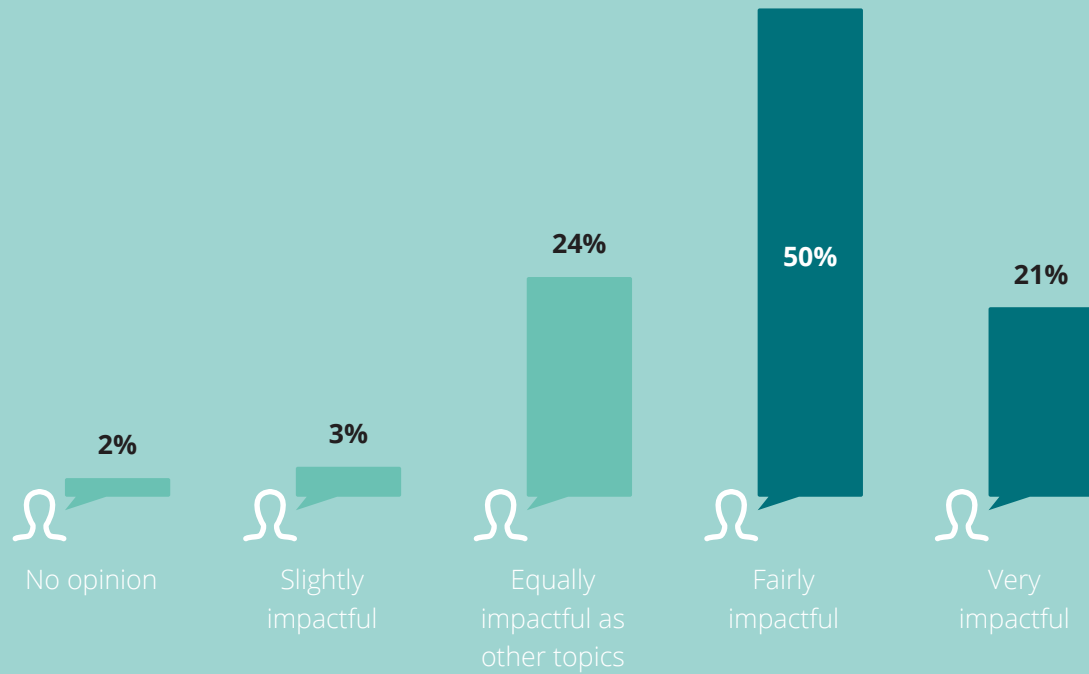
**Ecosystem
collaboration and
Industry 4.0**

Key insights: The Future of Food

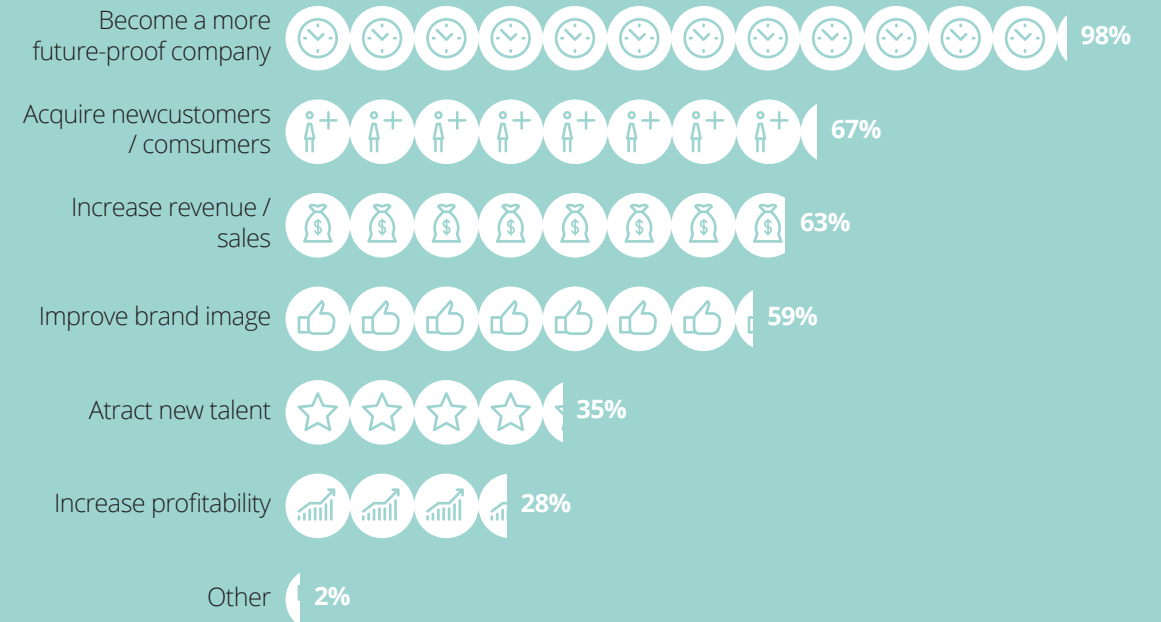
01

Most companies (71%) agree that market trends associated with the Future of Food have a clear impact on their business. Almost all respondents recognised that aligning their business model with future-of food trends is important to keep their company future proof, attract new customers and increase sales. This suggests that companies are questioning the actual sustainability of their business if they don't make the necessary shift to healthier or sustainable products and supply chains.

Impact of future of food trends on busines (% of companies)



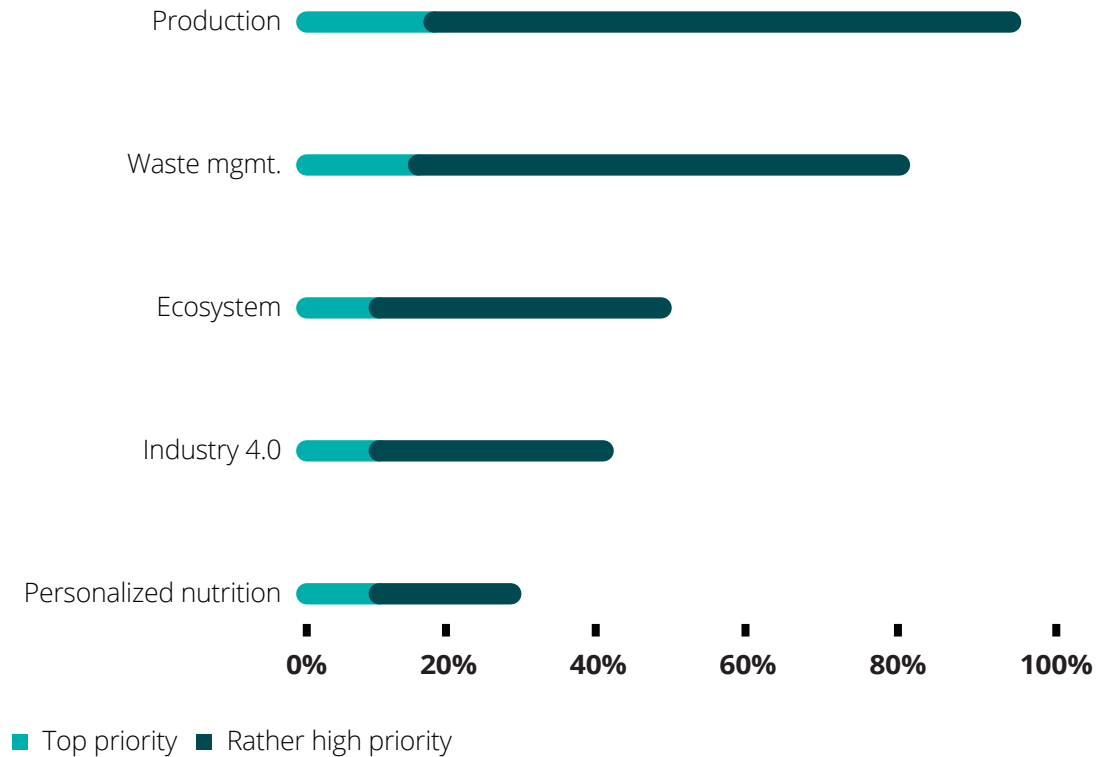
Expected business impact of aligning business model with future of food trends (% of repondents)



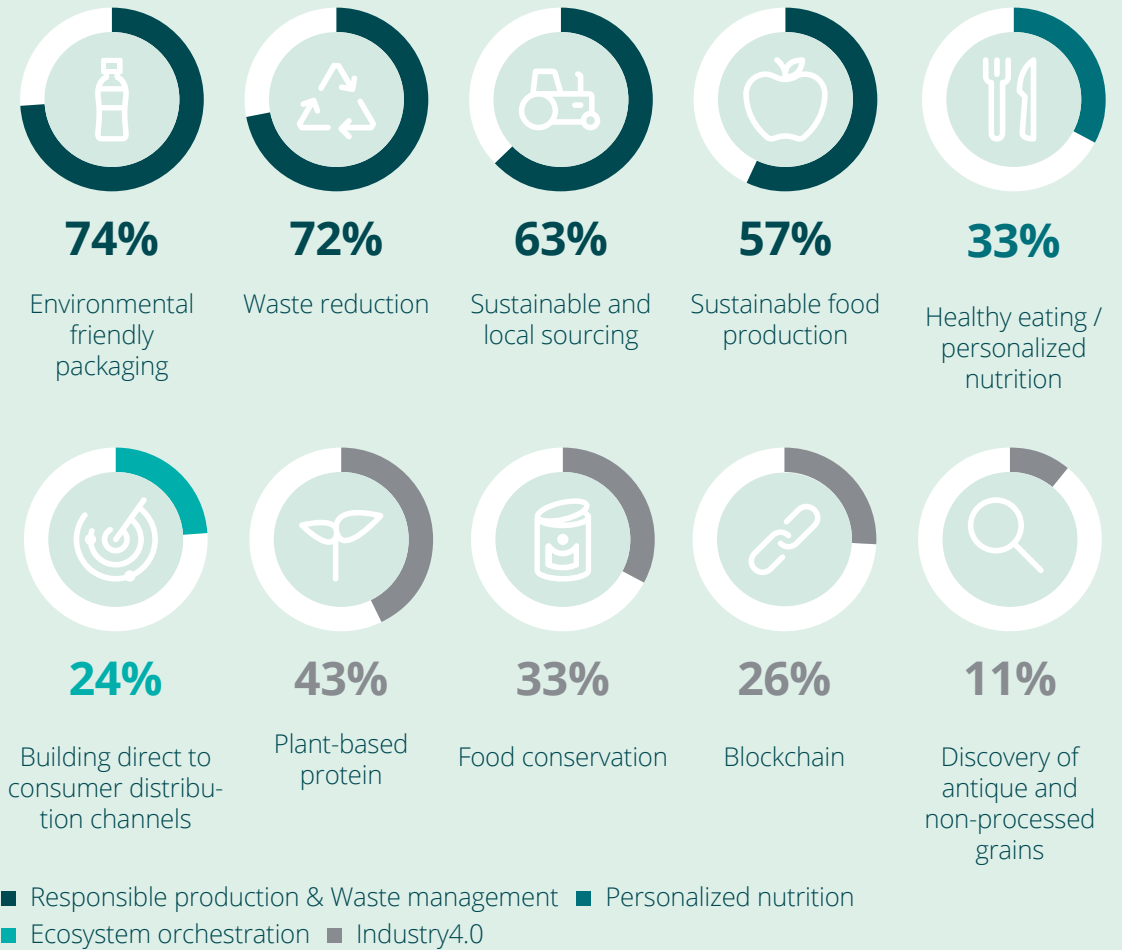
02

Companies prioritise sustainable food production and waste management. Indeed, they are already working on the application of sustainable and local sourcing, sustainable food production, environmentally friendly packaging, and waste reduction.

Importance of the future of food priorities to the business (% of repondents)



Future of food applications on which most companies are working are: environmental-friendly packaging, waste reduction, sustainable and local sourcing, and sustainable food production



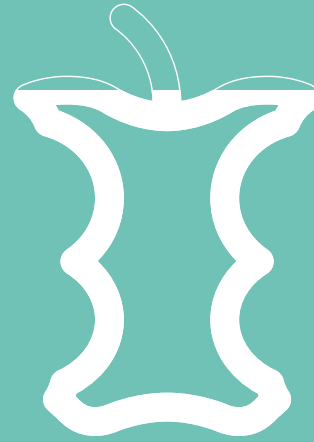
03

But more than a third (63%) declared that their current capabilities are not sufficiently aligned with Future of Food trends. Additionally, 37% of respondents are likely to begin divesting parts of their business unaligned with them. This suggests a readiness for bold moves to future-proof business models.

04

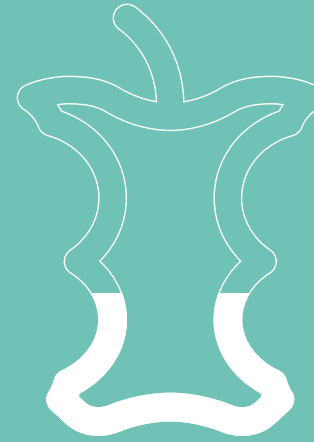
When it comes to implementing Future of Food priorities, companies don't do it alone. They partner or intend to partner with or acquire other companies in the food ecosystem to accelerate their journey. This trend is likely prompted by the realisation that some changes will be quite sizeable and must happen quickly. Additionally, a number of transformations will require innovations beyond the capabilities of a single company. Thus partnerships are likely to cross sectors, forming multidisciplinary collaborations to enable innovations.

Approach to implementing future of food priorities (% of companies)



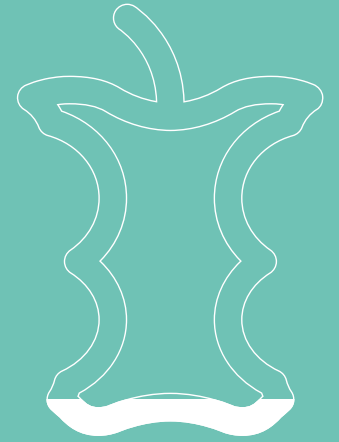
80%

Partnership with other companies in the ecosystem



33%

Acquisitions



4%

Other

05

They also see broader collaboration (along with innovation) as crucial to transformation. Collaborators must represent the food industry, government organisations, universities, research institutions, finance companies, and others. Government, competitors and retailers were selected as the main stakeholders responsible for the companies to put Future of Food trends on their agenda.

Stakeholders playing an important role in putting future of food trends on your agenda (#votes)



Key insights: The Conscious Consumer

01


The good news is that consumers are becoming increasingly aware of the relationship between food and health and are changing their purchasing behaviour accordingly. This translates into new eating habits and a shift towards more fruit and vegetables, less meat and sugar.

02

While affordability continues to be a priority in European grocery shopping, health is gaining in influence, with 57% saying it's more important than affordability. By contrast, only 26% choose sustainability over affordability.

03

It is clear that European consumers expect regulators to play a stronger role in boosting health and sustainability in food retail. Over 40% of respondents would like government intervention to actively promote healthy and more sustainably sourced foods, and discourage unhealthy, unsustainably sourced options.



Conscious choices

Health & sustainability

What we eat and drink profoundly affects our health. It's as obvious as the imperative to produce food sustainably. Yet paradoxically, we're experiencing an epidemic of nutrition-related diseases, as food production and distribution practices rapidly degrade the environment. Fortunately, trends show that attitudes and behaviour are evolving among consumers, government and food industry players.

Food safety has been at the top of the agenda in Europe over the last 20 years. Agencies such as the European Food Safety Authority have made progress on labelling, hygiene, additives, pesticide residues, and biotechnology, as well food inspection and certification policies.

But these efforts fail to address some of the greatest health challenges society is facing today: malnutrition, obesity and cardiovascular disease – due to the over-consumption of processed food, sugar, animal protein and alcohol. This can lead to serious conditions, including type 2 diabetes, asthma, coronary heart disease, cerebrovascular disease, peripheral vascular disease, obesity, hypertension, cancer, alcoholism and gout.

With the dramatic rise of these “lifestyle” diseases, what we eat is becoming more crucial than ever. It’s why we must continue to broaden the discussion beyond basic food safety to emphasise nutritious, balanced and more personalised diets, consisting of more plant-based food, smaller quantities and greater variety.

This will accelerate a shift from a health system focused on treating disease to one focused on care and prevention, with a healthy diet as a key catalyst.

Most important element in buying food



74%

Affordability



26%

Sustainability



57%

Health



43%

Affordability

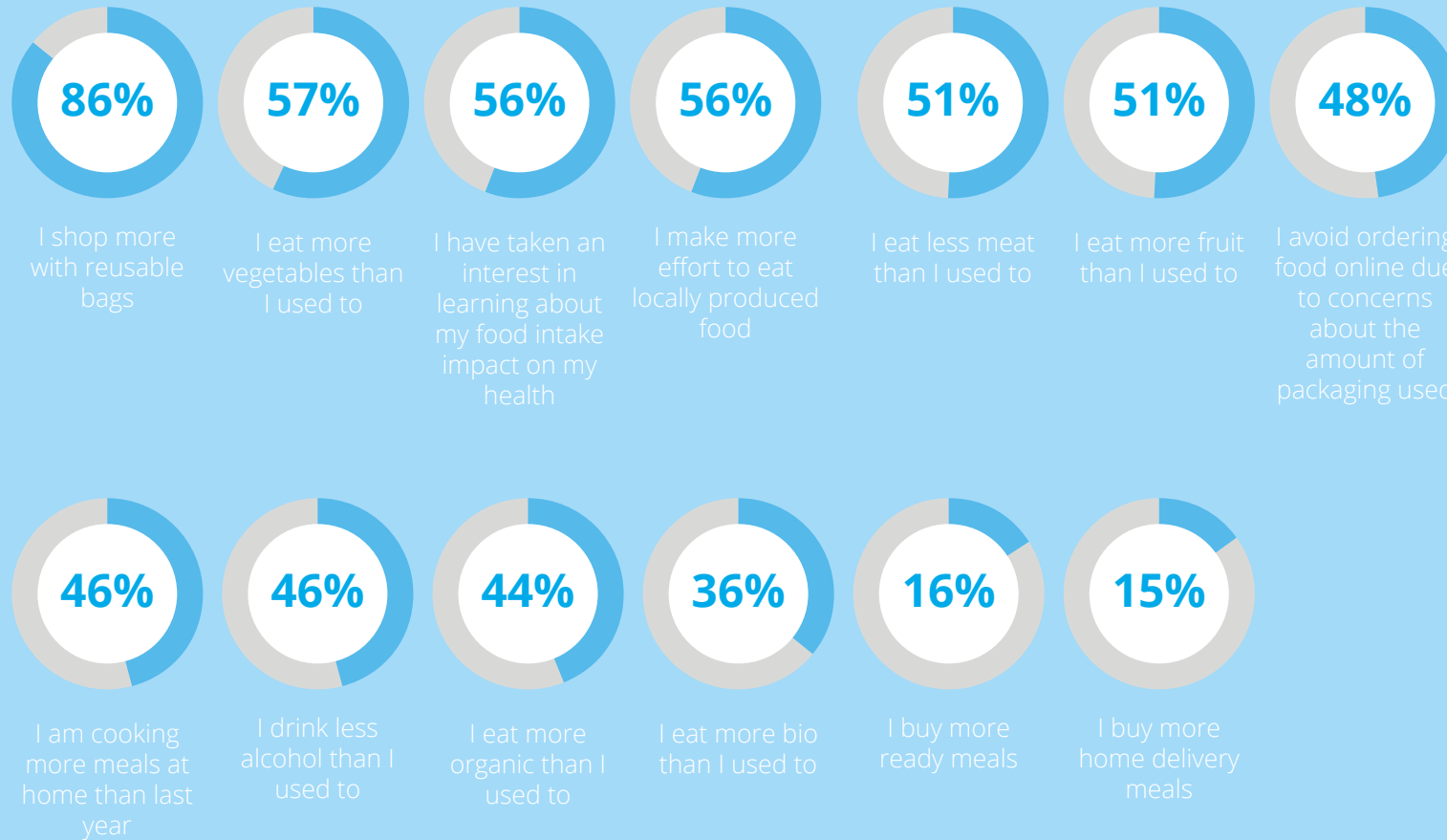
What is healthy food?

A current roadblock is the lack of clarity about what this term exactly means. When looking at the understanding and definition of healthy food across Europe we see a lot of variability, both across geographies and in the magnitude of the shift needed to arrive at a healthy and balanced diet.

This imprecision is one of the factors slowing the development of healthy product offerings by our food-industry survey respondents.



Changing consumer behaviour over the last 12 months



Our current “healthy nutrition paradigm” is based on generalities and vague definitions, such as eat more fruits and vegetables, or eat less processed food, sugar and red meat. Thus, one of the key challenges is how to define healthy food in a way that will be meaningful and actionable for the average consumer.

Conscious choices

A report by the EAT-Lancet Commission on Healthy Diets From Sustainable Food Systems offers the following definition. Healthy diets have an optimal caloric intake and consist largely of a diversity of plant-based foods, low amounts of animal-source foods, and unsaturated rather than saturated fats. They contain limited amounts of refined grains, highly processed foods or added sugars.

One thing is clear: in the future our food will be much more personalised. Food will be optimised for the individual's needs based on their biological makeup, lifestyle, health conditions, environmental factors, and personal preferences. Research such as the PREDICT study (a collaboration between, among others, Harvard University, Oxford University and Stanford University) has increased our understanding of how the gut microbiome, blood sugar and even sleep impact how people respond to food.

Transformation to healthy diets by 2050 will require substantial dietary shifts. This includes a more than doubling in the consumption of healthy foods such as fruits, vegetables, legumes and nuts, and a greater than 50% reduction in global consumption of less healthy foods such as added sugars and red meat (i.e. primarily by reducing excessive consumption in wealthier countries).

EAT-Lancet Commission on Healthy Diets From Sustainable Food Systems.



Closer to home

Belgium is not leading the pack in terms of a healthy diet. In fact, the Belgian diet is characterised by excessive consumption of red meat, processed meat and sugary beverages, and by insufficient consumption of fruits, vegetables, nuts and seeds, milk, eggs and fish. Over time, these patterns have only slightly improved.

Raising the bar

Only 12.7% of the Belgian population aged six or more consume the daily recommended five portions (400 grams) of fruit and vegetables, while 20.4% of the population drink sugary beverages on a daily basis. Meat consumption per capita has increased on average by 7% from 2020 to 2021.

For a Healthy Belgium: Nutritional habits

Consumers in Belgium have a clear need for information on healthy living. Our survey shows that 79% of respondents actively seek information on this. Yet while 53% would like their grocer to educate them about healthier alternatives, only 17% consider the grocery store as a source for this information.

Given the nutritional challenges facing the country, these findings reveal an unexpectedly large gap. Grocers take note: you are viewed as the most trustworthy source of healthy living advice by only 4% of Belgian consumers. That's surprisingly low considering that grocers provide most of our food.

Consumers also expect regulators to play a stronger role in promoting health and environmental sustainability. For example, an impressive 44% of Belgian shoppers feel that unhealthy food should be taxed higher, compared to just 26% who disagree and 30% who are neutral. Asked about unsustainable food, 36% agree with taxing it higher, 30% disagree and 34% are neutral.

Consumers perceive competitors, retailers and environmental and animal associations as having important roles too, probably because of their customer-facing nature.

Unhealthy food should be taxed higher by governments



Unsustainable food should be taxed higher by governments



Unhealthy food should be labelled like cigarettes to discourage the purchase of them



Conscious choices

The good news? Consumers are increasingly aware of the influence of food on health. In Belgium more than half report a growing interest in this topic (56% nationally, 63% urban). They eat more fruit (51%) and vegetables (57%) than previously, while their consumption of red meat (51%) and alcohol (46%) is declining. They are adjusting their grocery buying behaviour accordingly. Viewing health as an important consideration, they rank it 5.1 (the European average) on a scale of 1 to 7.

On the journey towards healthier eating, consumer awareness is one of the drivers and the Nutri-Score system is a good first step. But the labelling scheme must be interpreted in the right way. A healthy diet doesn't mean avoiding all foods C and below (which could include salmon and olive oil). It's about getting the proportions right. Education is thus the second most important consumer driver for Future of Food.

“

It is vital to partner with competitors, retailers and environmental associations to reinforce the connection with consumers.

Metin Fevzi, Managing Director UK & Denmark, Ardo

To inform consumers about healthier alternatives, major Belgian retail players, including Colruyt, Delhaize and Carrefour, adopted the Nutri-Score label on a selection of products. It grades the nutritional aspects of food on a scale from A to E. For example, an A food contains little salt and sugar per 100 g and has a high protein and fibre content. The label enables consumers to judge the nutritional properties of their food purchases to make more conscious choices.



New prospects for the food industry

Obviously, food producers, food retailers and other players have a large role to play in providing more healthy and nutritious options to consumers, as well as accessible information about food nutrients and calories.

This is creating new opportunities for the food industry. The personalised nutrition/diet market represents a huge opening for businesses. From a market of €3.2 billion in 2019, the segment is expected to grow to €14.3 billion by 2027, delivering a CAGR of 13.6%.

According to the newly published report by Research Dive, the global personalized nutrition market is forecasted to rise at a tremendous CAGR of 13.40%,



To respond to evolving customer needs and raise awareness of the impact of food on health, major European retail players such as Colruyt, Delhaize and Carrefour are developing new, healthy products and personalised nutrition solutions. For example, Delhaize applies an “extra” heart logo to healthy products based on their nutritional benefits. Carrefour’s “Act for Food” tag guides shoppers towards healthier foods. And Colruyt teaches customers how to cook healthy via an online platform.

Personalised healthy nutrition: opportunity areas



Healthy and medical nutrition: “functional” food and beverages, with added prebiotics, probiotics and, nutraceutical ingredients to enhance nutritional value and have a positive effect on health beyond basic nutrition.



Precision and “moment based” nutrition: personalised nutrition advice, diets and recipes; nutrition-based energy snacks.



Meal replacement/reformulation: “free from” food labelling (gluten-free, lactose-free, etc.), reduce non-healthy ingredients salt, sugar, fats, etc.



Direct to consumer: food marketplaces, subscription services, fresh meal food delivery, mass customisation via 3D food printing, recipe and process customization, etc.

Ignace De Nollin, Managing Director of SmartWithFood,

believes that we need to shift to prevention. It is proven that healthy lifestyle has an incredible positive effect in the occurrence of welfare diseases. Nutrition, next to movement, sleep & mental, is a crucial aspect for this balanced and healthy lifestyle. Ignace wants to increase the awareness for a healthier food journey through the increase in literacy (empowerment), providing convenient services (simplify) and connect experts & peers with each other.

As he puts it on their website, “A retailer is the first in line to support the customer in his journey to make conscious and healthy food choices. The challenge is to respond to the growing demand of transparency on food information, changing dietary requirements and increased appetite for healthy and trustworthy advice.”

smartwithfood.com

Personalized nutrition areas on which companies focus the most tend to be the ones that grow the most



80%

Product traceability



59%

Higher demand for alternative products



29%

Preventive and curative food



24%

Growing popularity of meal replacement / reformulation



20%

Rising focus on precision health



18%

Accelerating customization of food products



12%

Other



6%

None of the above

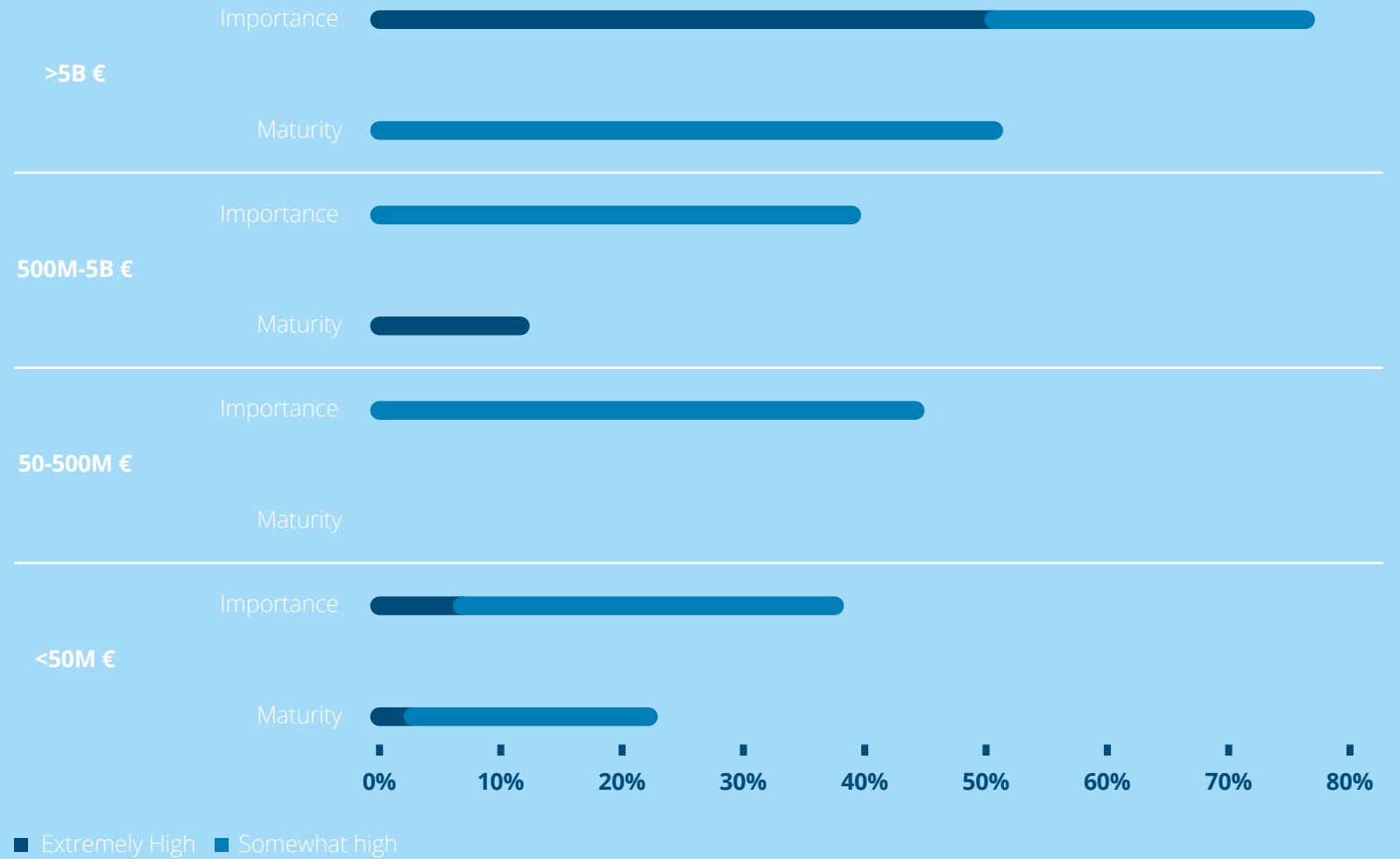
Belgian companies recognise this. In our survey, a third of respondents say they are currently investing in this area. For most players, the priorities are product traceability and plant-based alternative products, due to high consumer demand and a positive forecast. Other areas with a big market potential include alternative and curative foods. To reduce their R&D investments, respondents are collaborating with suppliers, for example to tackle product traceability.

Conscious choices

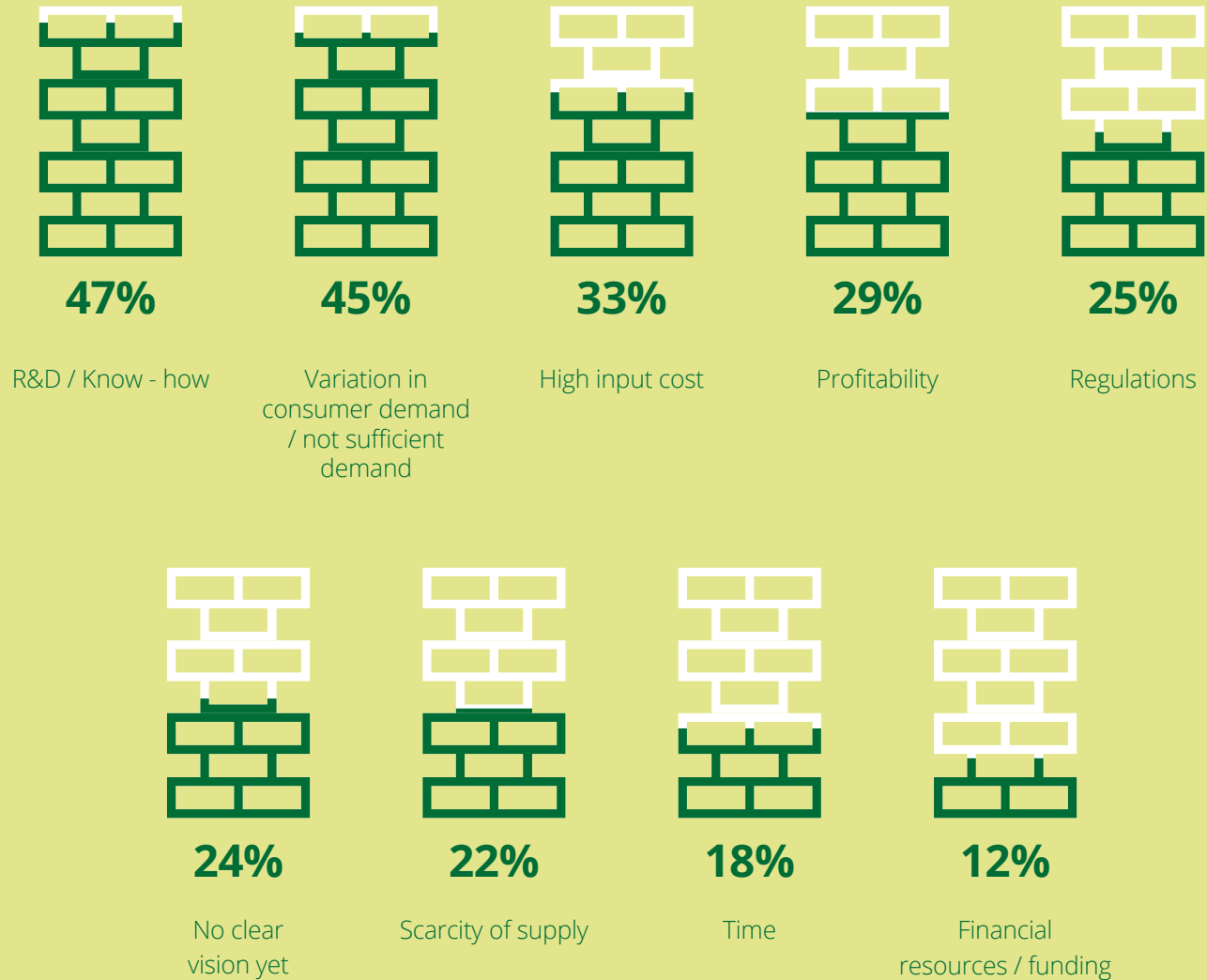
Yet the importance and maturity level of healthy and personalised nutrition is uneven across the industry and linked to company size. Very large companies (> €5 billion) report the highest importance of Future of Food topics to their business. They also claim the highest maturity in these areas.

Nutrition: Level of importance / maturity (% of companies)

Revenue



Key barriers to the development of personalized nutrition as percentage of reporting by companies



Among smaller-sized businesses, the levels of familiarity and maturity vary widely. Personalised and healthy nutrition is at the intersection between R&D and technology. This demands costly investments, a major challenge for these enterprises. In fact, when asked to indicate the main barriers in developing a healthy and personalised nutrition offering, 47% of respondents identified R&D and know-how as the main obstacle. It's not surprising that smaller companies are lagging behind.

The food industry needs to become more attuned to consumer behaviour, which is drastically changing, accelerated by government education and incentives. Retailers play a crucial role in this process, through education and by giving customers the opportunity to drive change via their purchasing decisions.

Companies must adapt accordingly. If they don't, they will be no longer part of the game.



Saving the planet

Sustainable food production & waste management

Driven by shifting consumer preferences – and looming regulatory changes – sustainable food production and waste management are climbing up the priority list of more and more companies. Transforming to a sustainable food production model will require a new agricultural revolution.

Global food production constitutes the single largest driver of environmental degradation. As it stands, the global food system cannot meet the nutritional demands of a growing world population without irreversibly damaging the planet. The environmental processes most impacted include climate change, freshwater use, contamination of water by nitrogen and phosphorus, and the loss of biodiversity. Moreover, significant land has been appropriated from vulnerable human populations for food production.

Environmental cost of food



To feed the growing population the environmental impact of food production is estimated to increase by 50-90% from 2010 to 2050.



The agriculture sector is directly responsible for 12% of global greenhouse gas emissions.



It is the largest freshwater consuming sector.



Excessive use of fertiliser, manure and pesticides is a major source of water pollution, estimated to have reduced biodiversity in rivers, lakes and wetlands by about one-third globally.



More than one-third of global food production, around 1.3 billion tonnes, is lost or wasted annually. Global waste is to set grow 70% by 2050.



Food waste drives up costs for consumers and the food industry.

Sources: [OECD](#), [FAO](#)

Saving the planet

Key actions for sustainability

To avoid worst-case scenarios and eventually transition to a fully sustainable food production model, we urgently need to take these key actions.





Reorient agricultural and fishery priorities

Change from producing high quantities of food from few varieties to producing healthy food and enhancing biodiversity.



Revolutionise sustainability

Create a new agricultural revolution based on sustainability and innovation. Enable higher yields on current cropland. Use water and fertiliser much more efficiently. Change crop and feed management practices to help mitigate climate change. Expand biodiversity within agricultural. As per the Paris Agreement, first achieve zero-emissions for the global food system, and by 2040 make it a net carbon sink.



Waste reduction

Substantially reduce food losses on the production side and food waste on the consumption side. Improve post-harvest infrastructure, food transport, processing and packing. Increase collaboration along the supply chain. Train and equip producers and educate consumers.

Two new EU strategies

In 2020, the European Commission adopted a Biodiversity Strategy and a Farm to Fork Strategy. They bring together nature, farmers, business and consumers to jointly work towards a competitively sustainable future.

In line with the European Green Deal, the strategies propose ambitious EU actions and commitments to halt biodiversity loss and transform food systems to achieve competitive sustainability and protect human and planetary health, as well as the livelihoods of all actors in the food value chain.

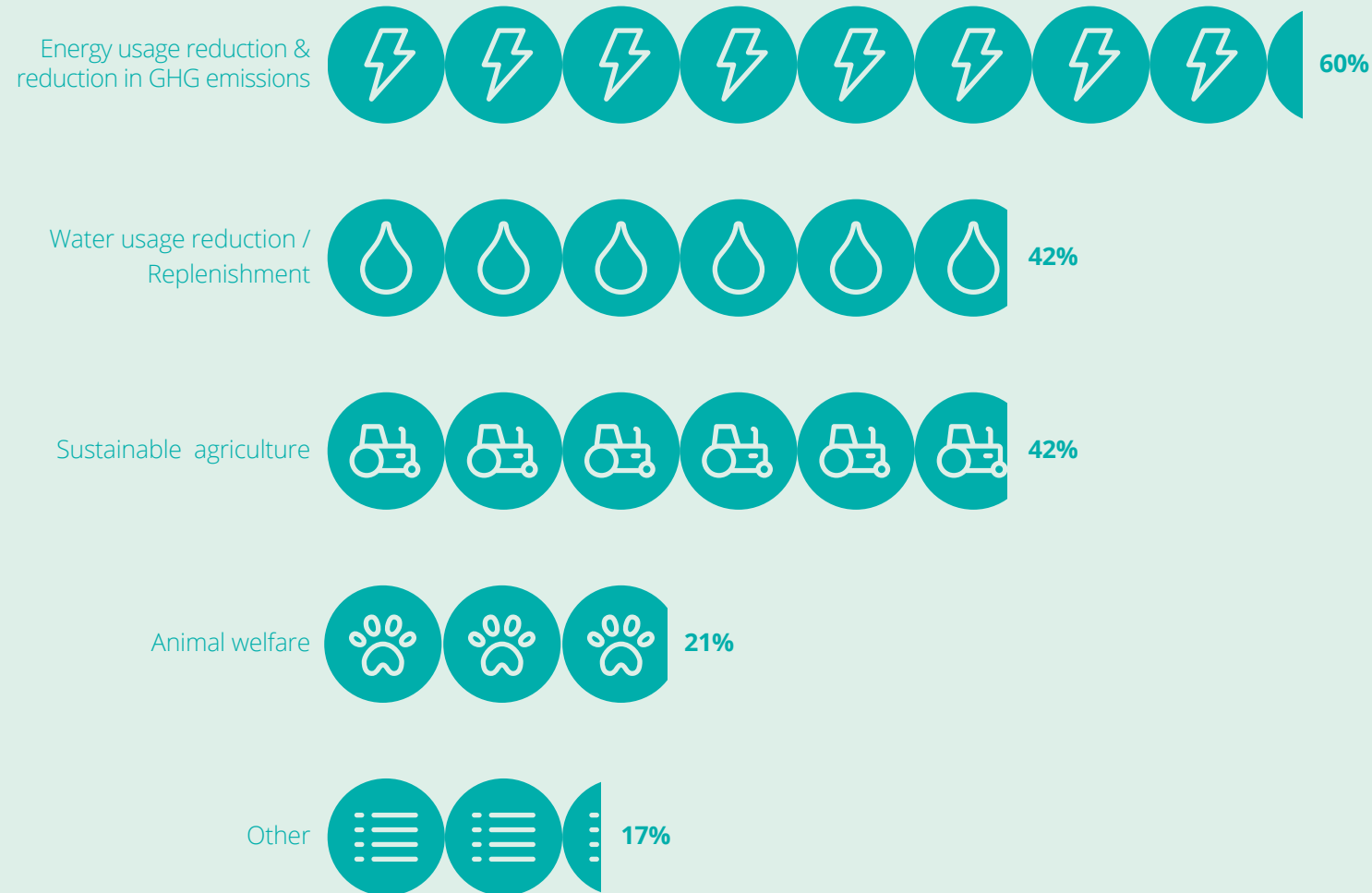
Saving the planet

The Belgian perspective

Belgian food companies are aware of the challenges and are taking action, but the level of maturity is still relatively low.



Responsible production: challenges faced by companies



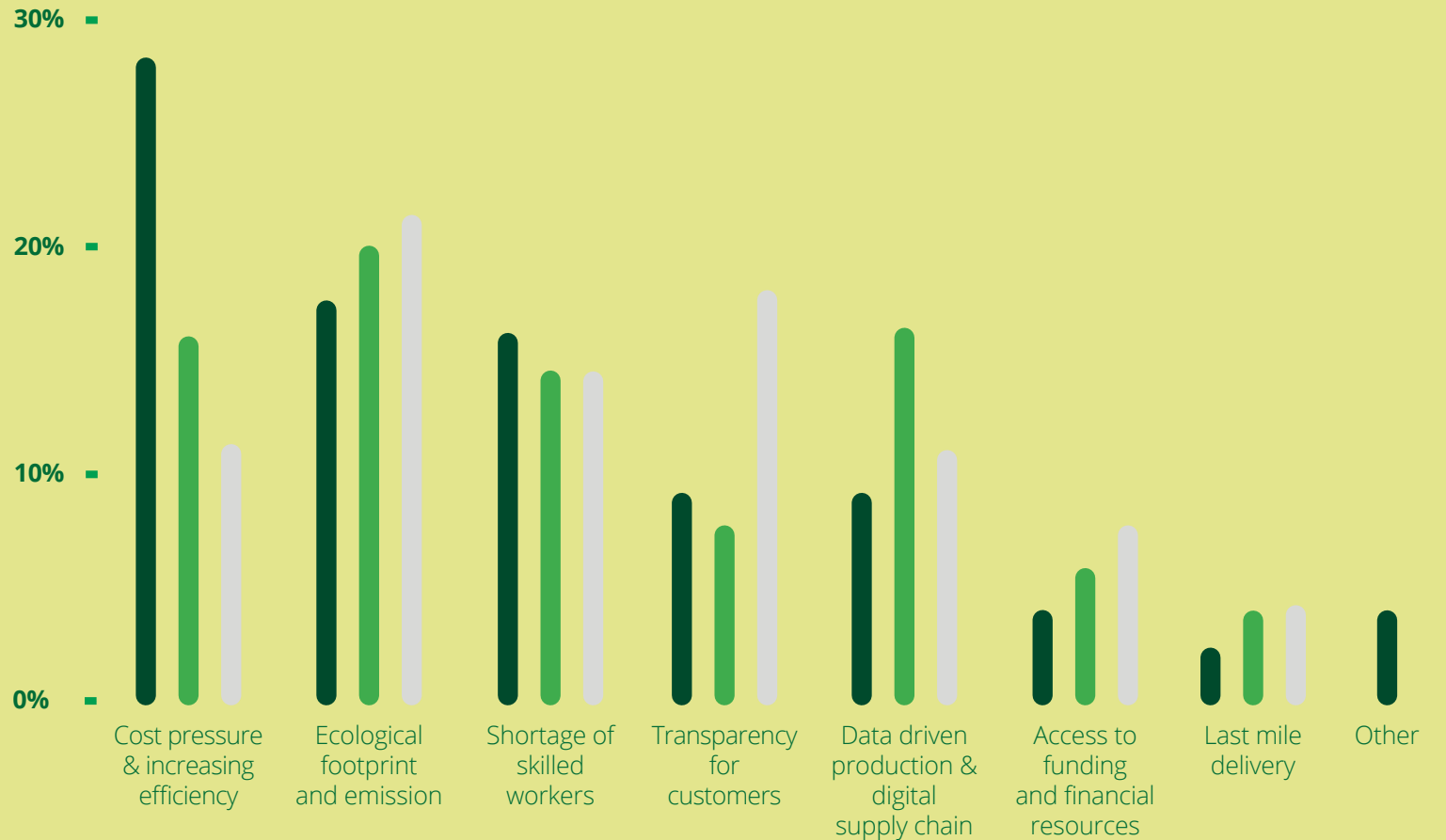
The majority (60%) of respondents listed reducing energy usage and GHG emissions as the number one challenge. Cutting water use came in second (42%), followed by sustainable agriculture (42%).

Saving the planet

To achieve their responsible production and food management ambitions over the next five years, companies foresee cost pressure and efficiency (65%) joining ecological footprint and emissions (69%) as the principal challenges. These concerns could be driven by the anticipation of carbon taxes and new energy efficiency regulations.

Waste management is set to grow in importance. Already, 69% of respondents underlined the difficulty of assuring sustainable packaging material, while 35% pointed to food waste management and the circular economy as a major challenge. Impending packaging regulations, such as a ban on plastic, will add further pressure.

Responsible production: top challenges faced by companies (# votes)



Importance rank: ■ 1 ■ 2 ■ 3

Saving the planet

To respond to these challenges companies know they need to collaborate with their suppliers. Not only on production and waste management, but also on the logistics and distribution for a sustainable supply chain.

Responsible production: current focus areas of companies (# votes)



69%

Sustainable
packaging material



58%

Ecofriendly
designed material



46%

Sustainable supply
chain solution



35%

Waste management and
circular economy



17%

Tech-innovation
in farming



4%

Other

Saving the planet

When choosing a supplier, the majority of Belgian food companies (61%) take into account sustainability, including the supplier's carbon footprint and product traceability, as well as environmentally friendly production methods.

But given the difficulty of one player controlling its entire value chain – especially if not vertically integrated – some are going further. For example, Colruyt has invested in vertical integration, including its own innovative farming operations in West Flanders. The goal is to take full control of the supply chain to benefit from efficiency, innovation and cost control, part of a wider sustainability aim.

Colruyt's approach is atypical. Although our survey demonstrates that sustainable production and waste management are high on the agenda of Belgian companies, the many different initiatives they're trying remain small steps compared to the magnitude of change that's needed. This very ad hoc approach focuses on only some of the issues, where in fact a holistic strategy is required across all facets of the sustainability challenge.

Fortunately, these efforts will be boosted by regulations to accelerate the Green Deal and funding from the EU.

Sustainability aspects are an important decision factor in selecting a supplier for the majority of companies



15%

Top priority



46%

Rather high priority

Inviting consumers on the journey

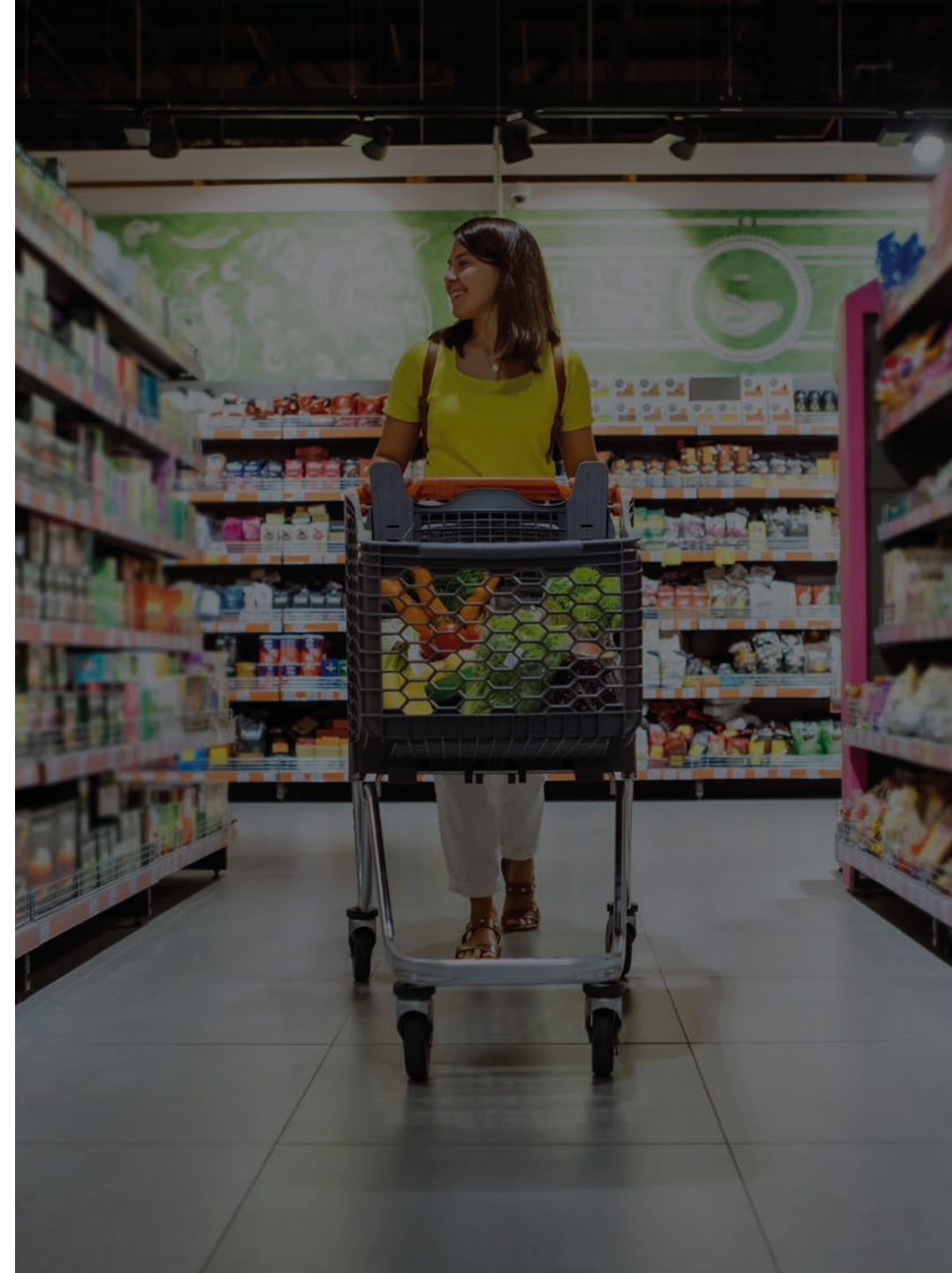
Consumers generally don't see themselves as responsible when it comes to sustainable food production and waste management. Yet they have an important role to play through their purchasing habits.

As with the trend of personalised nutrition, awareness and education are key. Increasingly, consumers have a choice about how sustainably their food is produced. More knowledge about this topic will help them make informed decisions.

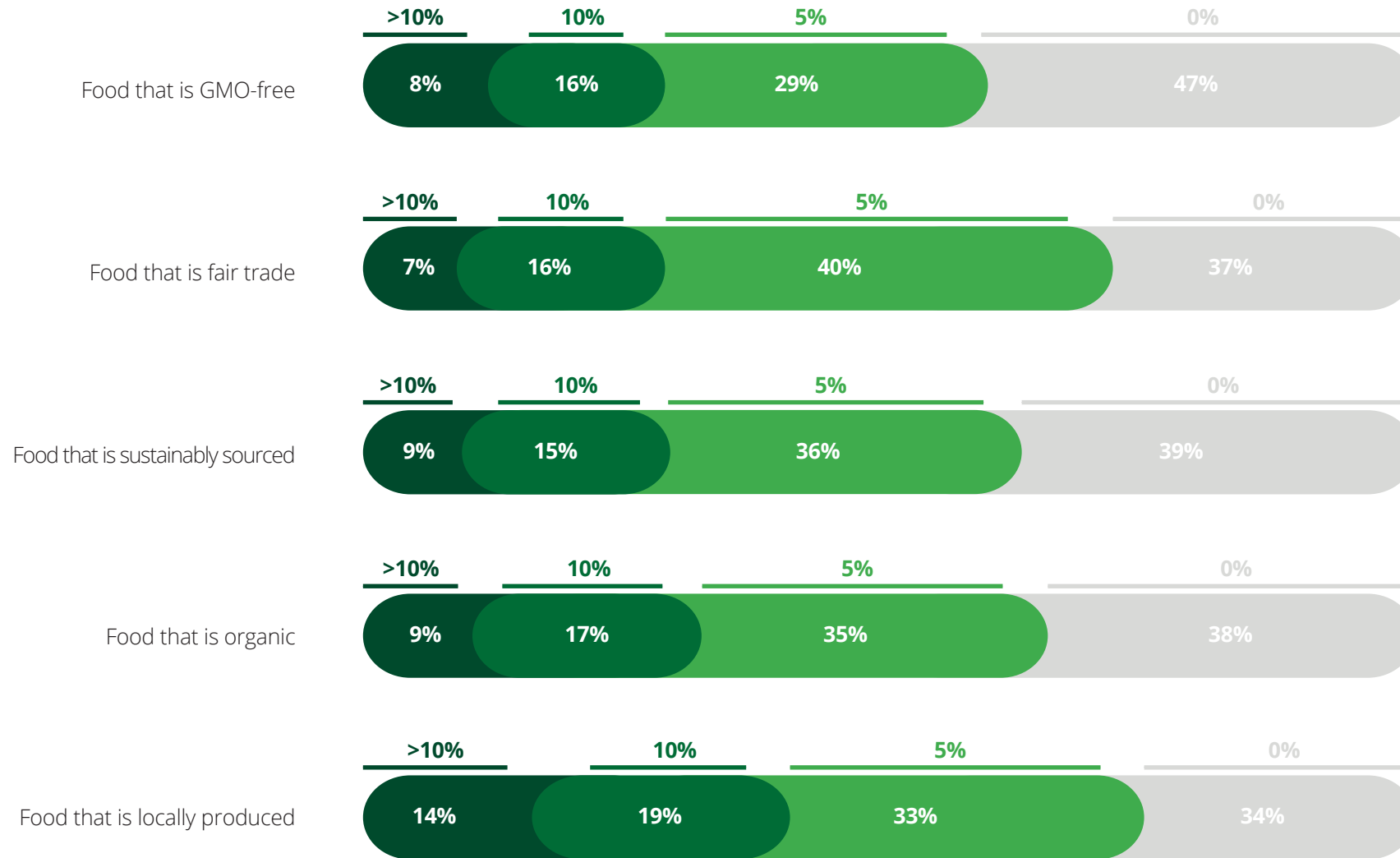
That said, while shoppers today are ready to pay a premium for healthy foods, they're not yet ready to pay more for sustainable ones. Here, food producers and retailers can help the consumer along on the Future of Food journey.

For Belgian grocery shoppers, sustainability is a consideration but is less important than health. On a scale of 1-7, sustainability is ranked 4.5 while the importance of health in food decisions scores 5.1 in Belgium.

There is a nevertheless willingness to pay more for our food, in particular for food that is locally produced and sustainably produced.



Of the following types of food, how much would you be prepared to pay more if they were available in your shop?





Ecosystem orchestration

Collaboration, partnerships & Industry 4.0

The Future of Food agenda demands innovation and farm-to-fork coordination within the food value chain. Achieving this requires a collaborative, profitable business model, set up in partnership with other stakeholders across the ecosystem.

The food system needs an urgent transformation to safeguard our planet's resources and boost human health. It will be an ambitious undertaking. The food ecosystem touches on immensely complex issues, including climate, water, energy, technology, policy, safety, human health, animal well-being, and regulation.

Consequently, the transformation requires innovation and – crucially – collaboration. No single player in the system can do this alone. A wide range of collaborators must take part, representing the food industry, government organisations, universities, research institutions, finance companies, and others.

In fact, to drive systemic change with a profound impact on society and the planet, companies need to move towards food ecosystem collaboration.

Three enablers

Achieving ecosystem orchestration will be a massive change that requires the following enablers.

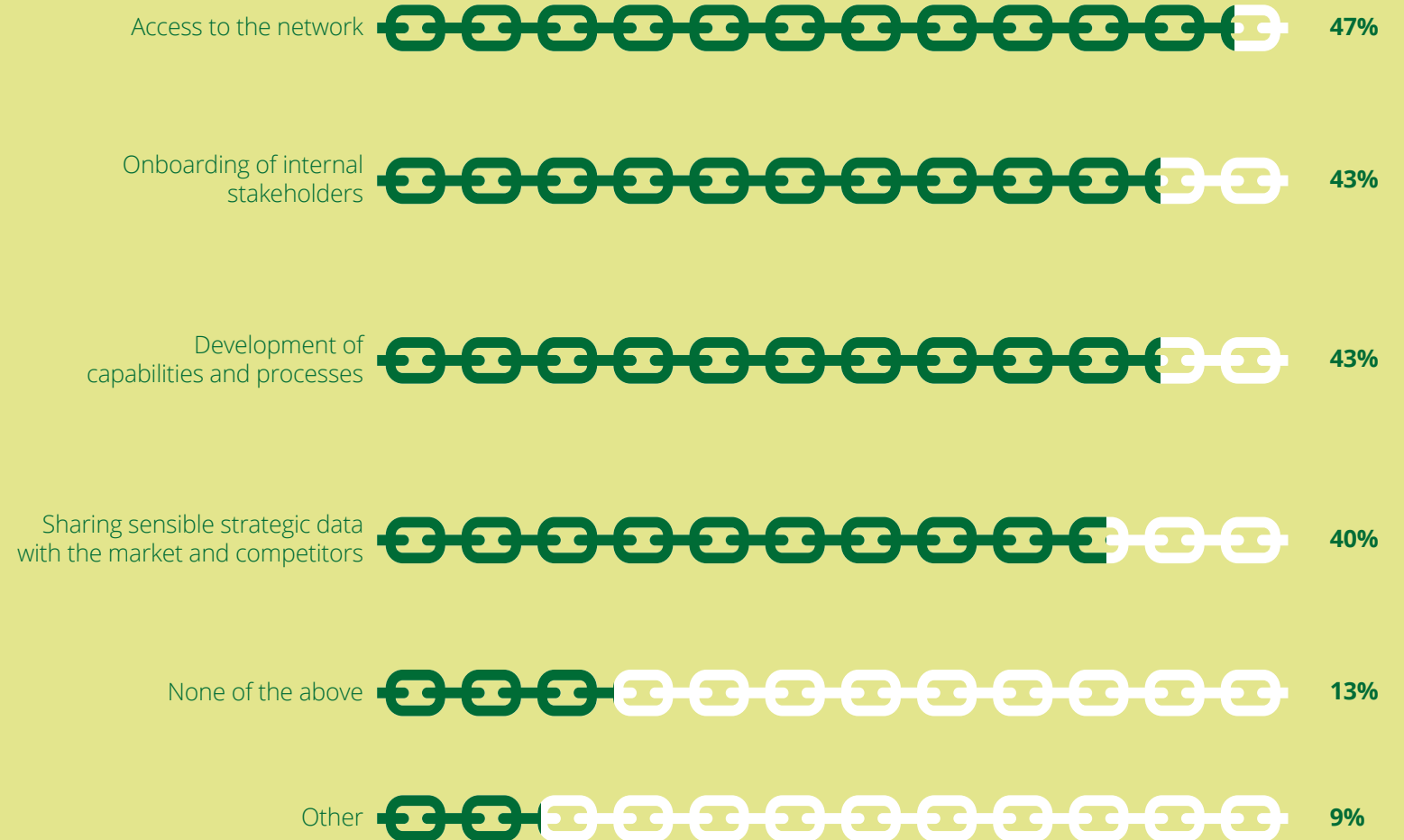
- **Clarity**
Common objectives for measurement tools and scientific insights, with government as the sponsoring and disseminating entity.
- **Innovation across the value chain**
Ingredient, product design, production, packaging, delivery and waste management.
- **Ecosystem cross-coordination**
Governments, consumers, companies, academia and science.

Ecosystem orchestration

Collaboration is not always easy. It requires creating sustainable business models for each stakeholder, building an internal consensus, avoiding long political processes, and promoting cooperation with other players in the same sector.

The companies in our survey highlight three specific challenges they face: access to the network (47%), onboarding internal stakeholders (43%), development of capabilities and processes (43%) and sharing sensitive information with competitors (40%).

Top 3 expected challenges when establishing partnerships in the food value chain ecosystem (time horizon of 5 years)



The government could become a key actor in fostering ecosystem collaboration. In fact, almost 25% of companies perceive it as the most important stakeholder in putting forward the Future of Food agenda.

“

National governments and legislation are among the major enablers in the adoption of Future of Food practices.

Metin Fevzi, Managing Director UK & Denmark, Ardo

“

The government's role is twofold.

- 1) Educate consumers about the value of food and the effort it takes to make a variety of tasty, locally produced, high quality, healthy food products.
- 2) Reinforce the food ecosystem to optimise the entrepreneurial environment for all players. It will require the government to develop an overarching approach and framework to co-create a more sustainable food system, that is also economically sustainable.

Bart Buysse, CEO, Fevia (Federation of the Belgian food industry)

Ecosystem orchestration

When it comes to the collaborations companies are currently pursuing, suppliers are at the top (81%), followed by producers (51%) and academia (51%), then governmental institutions (40%).

Types of stakeholders with who companies are collaborating



81%
Suppliers



51%
Producers



51%
Academic or
research centers



40%
Government



32%
Incubators



32%
Scale-ups or start-ups



30%
Distributors



21%
Environmental /
Animal associations



21%
Competitors

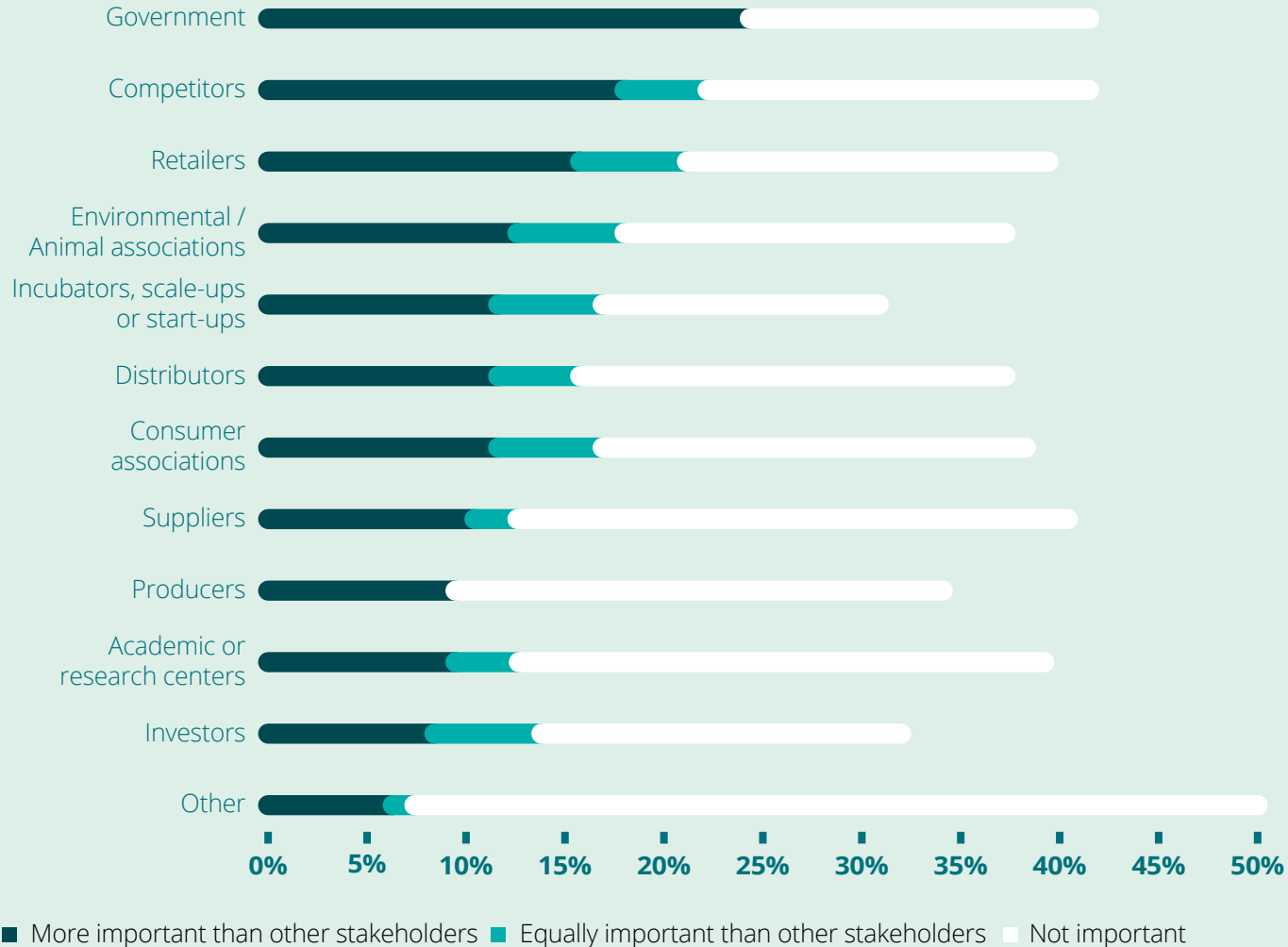


19%
Retailers



11%
Consumer
associations

Relative importance of food ecosystem players



However, it is interesting to note that companies don't always walk the talk. They collaborate extensively with stakeholders they consider among the least influential in putting forward the Future of Food agenda: suppliers, producers and academia. Meanwhile, they have limited interactions with stakeholders seen as among the most important: competitors, retailers and environmental associations.

Ecosystem orchestration

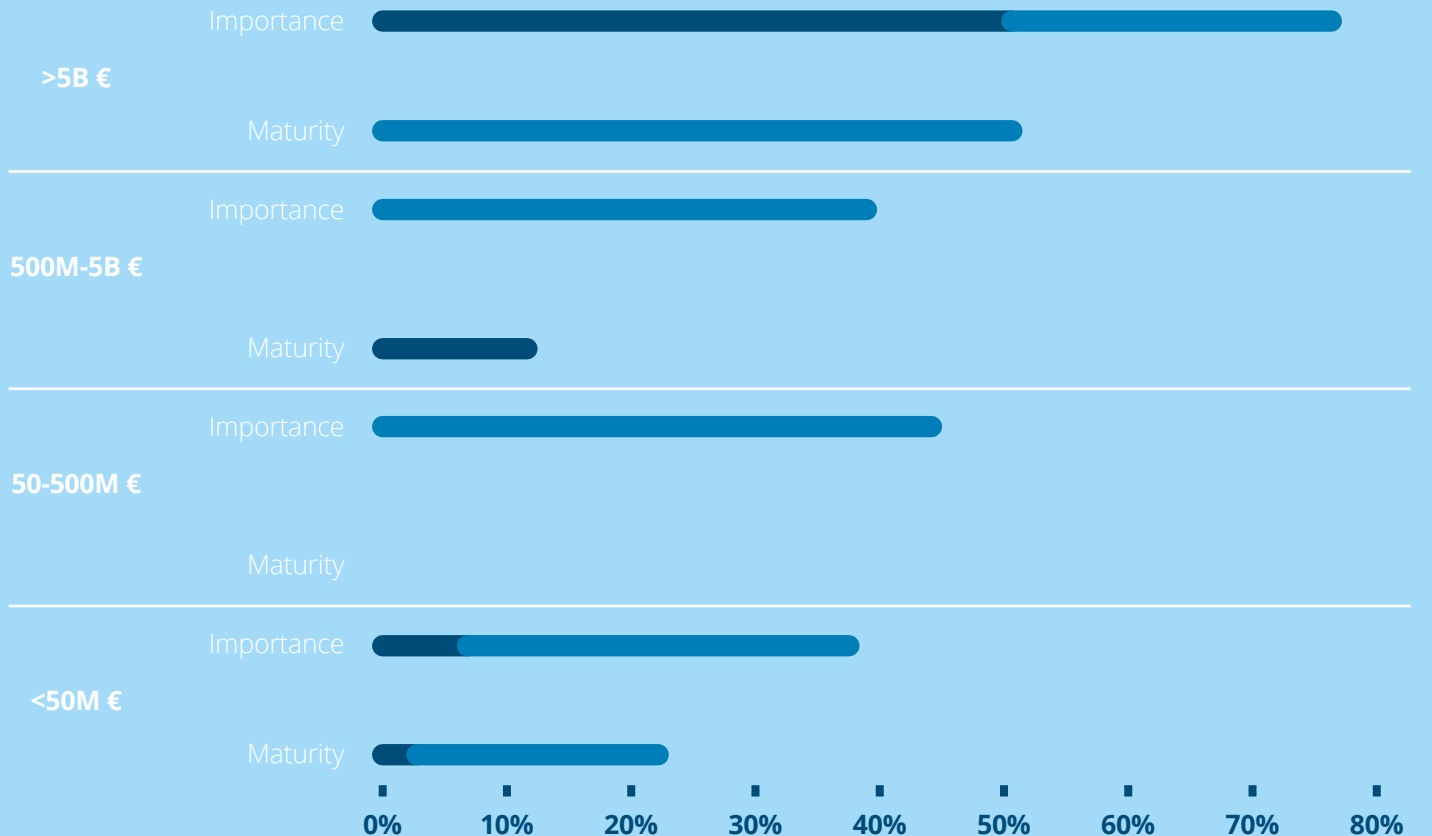
Although ecosystem orchestration already exists to a certain extent, only a minority of survey respondents consider themselves to have achieved maturity in the domain. Strikingly, apart from companies valued above €5 billion, most don't rate this area as very important.

Nevertheless, overall our survey demonstrates that companies think that partnerships and collaborations are enablers for achieving Future of Food targets faster.

The government and industry organisations like Fevia or Agoria play important roles in raising awareness about the importance of building collaboration, creating a trusted environment for companies to share information, and eventually helping them increase their collaboration with influential industry players.

Food ecosystem orchestration: level of importance/maturity (% of companies)

Revenue



■ Extremely High ■ Somewhat high

Industry 4.0

In addition to collaboration, Industry 4.0 is a key part of the Future of Food agenda. It's about implementing digitisation and intelligent automation to develop industry standards and practices that can be established across the food value chain.

This potentially covers a very wide range of technologies, including artificial intelligence, blockchain, sensors (in the supply chain as well as on human bodies), robotics, cloud, 3D printing, satellites, biotech, vertical farming, etc. These are starting to be applied in the food sector to boost crop yields using less land and resources, increase production efficiency, and reduce food waste.

“

Agriland use remote sensing solutions such as satellite imagery to monitor fields.

Robert de l'Escaille, Director of Development & Innovation, Agriland

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Südzucker wants to connect farming in a transparent way with customers and consumers by showing a.o. how local farmers apply innovative techniques to improve soil quality and biodiversity.

Geert Van Aelst, Head of Sustainability, Südzucker

Companies are aware of the importance of Industry 4.0 as an enabler of increased production efficiency, respondents acknowledge. Almost half (47%) consider Industry 4.0 technologies as either fairly or very important for strategically aligning their business model to Future of Food trends.

Almost half of the companies consider Industry 4.0 technologies as either fairly important or very important when strategically aligning their business model to the Future of Food trends.

30%



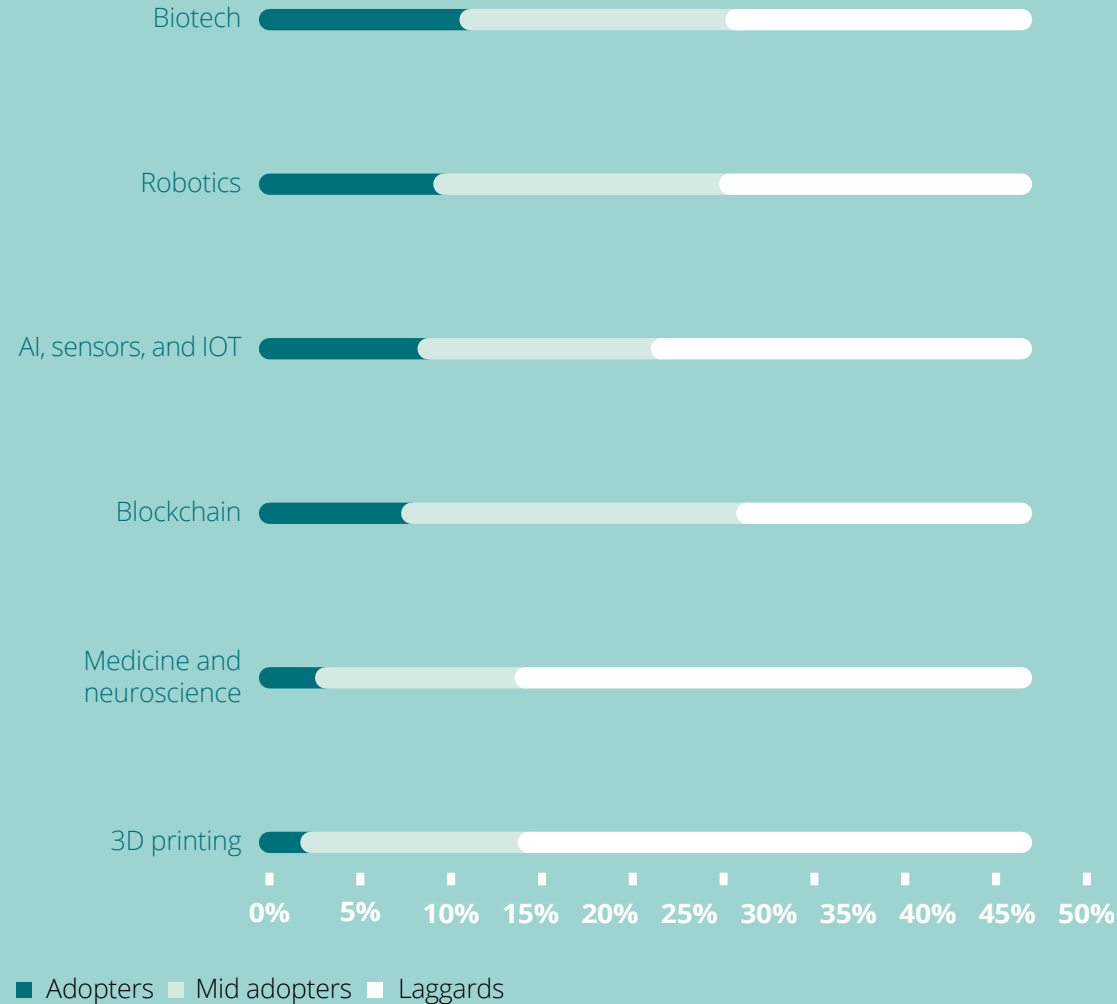
Fairly important

17%



Very important

Adoption of Industry 4.0 technologies in addressing the future of food trends



However, the food sector is lagging behind industries such as tech and life science. For example, players have yet to adopt any common 4.0 technology across the food ecosystem.

Many respondents acknowledge the current lack of maturity in this area, pointing out that it's largely because the food industry doesn't possess the necessary 4.0 financial and human resources.

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Even though different terms such as Industry 4.0, artificial intelligence and blockchain are becoming increasingly popular, the knowledge around them and their potential applications is still limited. Agoria observes that food companies are increasingly investing in this area. And if we can step up in the development of the right digital skills and talents, we can speed up the process.

Brecht de Roo, Sustainability Manager, Agoria

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There are not enough employees sufficiently skilled in Industry 4.0. and the talent pool is scarce. Fevia highlights that the food industry is a high-tech, innovative and dynamic business, but has to compete in this war for talent with industries that are more financially attractive.

Bart Buysse, CEO, Fevia (Federation of the Belgian food industry)

Conclusion

The Future of Food is a future we will create together. It is up to us whether this future will be equitable or inequitable, healthy or unhealthy, sustainable or unsustainable.



Conclusion

As this report has shown, there are already many encouraging signs that we are moving in the right direction. But much more needs to be done to achieve the needed massive transformation of our systems of food production, distribution and consumption.

While this transition must be made with urgency, it must take a considered step-by-step approach to avoid the risk of drastic socio-economic impacts. Above all, it will require the participation of all relevant stakeholders in the food ecosystem, including companies, consumers and governments.

Huge opportunities

Having sketched out the formidable challenge ahead of us, it is important to remember that this endeavour also brings along huge opportunities, with potential benefits that outweigh the challenge itself.

To capture the value behind these opportunities, companies need to provide the right choices to consumers, and governments must make sure that citizens are granted affordability and a willingness to pay.

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