LLamasoft®

Sustainability

The missing link

Written by:

The Economist INTELLIGENCE UNIT

Contents

About this report

Sustainability: The missing link is a report written by The Economist Intelligence Unit and sponsored by LLamasoft. It explores how sustainability considerations are spurring companies to think differently about managing supply chains. We investigate how companies are balancing traditional priorities such as cost reduction, stock efficiencies and profitability with ethical provenance and environmental impact, as well as taking action on sustainability by building stronger relationships with suppliers.

In September 2018 The Economist Intelligence Unit surveyed 250 senior executives. The survey focused on executives from large, multinational businesses (with revenues in excess of US$500m) in the retail and manufacturing industries, based in Europe (United Kingdom and Germany), North America (United States and Canada), APAC (China, India, Singapore and Australia) and Latin America (Brazil, Argentina and Mexico).

We supplemented the results with secondary research and in-depth interviews. We would like to thank participants for their time and insights. Those interviewed were:

- **Paolo Angelucci,**
  Head of Sourcing, Kone
- **Sonya Bhonsle,**
  Global Head, Supply Chain, CDP
- **Lori Chao,**
  Director of International Corporate Affairs, JD.com
- **Hugh Jones,**
  Managing Director, Business Services, Carbon Trust

The findings and views expressed in this report are those of The Economist Intelligence Unit and do not necessarily reflect the views of the sponsor.

November 2018

LLamasoft foreword

The Earth's average land temperature has increased by nearly 1°C in the past 50 years because of human activity, with the UN Intergovernmental Panel on Climate Change warning policy-makers that there is a high risk of catastrophic climate change if warming is not limited to 1.5°C.

As highlighted by Marks & Spencer's 'Plan A' sustainability initiative, there really is no Plan B.

Of course, sustainability is about more than just climate change. Business sustainability is often defined as managing a triple bottom line of financial, social and environmental risks, obligations and opportunities, sometimes referred to as "profits, people and planet". Failure to do this can be devastating.

In 2013 the horrific Rana Plaza factory fire claimed the lives of 1,138 people, causing the public to question the true cost of fast fashion, driving dozens of brands, including Bonmarche, Matalan and Primark, to sign up to a new legally binding agreement on worker safety.

Equally momentous was The BBC's Blue Planet II series which marked the beginning of the end for single use plastics, showing the world the shocking effects of dumping 12.7 tonnes of disposable plastic into our oceans.

Such high-profile events have lodged sustainability firmly in the public consciousness, which, in turn, is influencing consumers' behaviour.

A survey by Unilever revealed that 33% of respondents were actively choosing to buy from brands they believed were doing environmental or social good, while 21% said they would be more likely to pick brands that made their sustainability credentials clear on their packaging and in their marketing.

Sustainability is both a human and a commercial imperative, and companies that ignore or merely pay lip-service to the concept risk fatal reputational damage.

The good news is that sustainable business usually means profitable business—as well as currying favour with consumers, removing waste and emissions from the supply chain generally goes hand in hand with efficiency improvements, and both boost the bottom line.

But while there are dozens of steps companies can take to make supply chains leaner and greener, for organisations with potentially hundreds of suppliers, thousands of products and millions of customers, determining the best alternatives is far from straightforward. In these highly complex, global supply chains, the most obvious solutions may not be the right ones, with a small improvement in one area often driving disproportionate cost and waste in another.

Making the right decisions, while accounting for trade-offs and constraints, requires both a big-picture view of the end-to-end supply chain and a granular understanding of product flows, assets, customers and the mechanisms by which their requirements are met. To achieve this, many global organisations are turning to technology to build 'digital twins' of their real-world supply chain, providing a risk-free environment in which to test infinite scenarios, from the expected to the unlikely. This supports evidence-based decision making and allows them to embark on both supply chain optimisation and strategic transformation programmes with confidence that the changes they make will deliver the desired and expected outcomes.

The planet is at a crucial moment. According to some, we have just 12 years in which to limit a climate change catastrophe. This will not 'just happen'—it requires a radical change in the way we think, live and do business.

Reimagining the supply chain will be crucial part of that transition.

Razat Gaurav

Chief Executive Officer, LLamasoft, Inc.

"Sustainability is about more than just climate change. Business sustainability is often defined as managing a triple bottom line of financial, social and environmental risks, obligations and opportunities... Failure to do this can be devastating."

Introduction

A growing concern for sustainability is changing how companies do business. Whether motivated by consumer demand, moral virtue or business opportunity, traditional priorities such as product quality, operational efficiency and price now regularly compete for attention with concerns such as working conditions and environmental impact.

Traditionally, most businesses have sought to become more sustainable by making changes within the bounds of their direct operational control—they might switch to renewable energy sources or hybrid vehicles, or reduce paper or electricity use. Today, however, companies increasingly find that the biggest improvements can be made within their extended supply chains. This could entail setting sustainability standards, adopting new technologies to increase accountability or helping suppliers to become more sustainable. The effect of such efforts is not contained within the boundary of one company, but ripples outwards to affect many.

This ripple effect is significant. McKinsey, a consultancy, estimates that more than 90% of companies' environmental impact comes from their supply chains. Retail firms' supply chains typically account for 11.5 times each company's impact. For personal and household goods companies, that figure is 19 times, and for food and beverage companies, it is 24 times.[1]

Carbon emissions are a case in point. "Typically, the carbon emissions from a company's value chain are between 65% and 95% of the total emissions triggered by whatever it is a company does," says Hugh Jones, MD of Business Services at the Carbon Trust, an environmental consultancy. In other words, a typical company triggers emissions levels of up to twenty times higher from its suppliers (and customers) than from within its own organisation. This effect is particularly large in the IT, retail, telecoms, healthcare and finance sectors.[2]

But to what extent are companies pushing suppliers to become more sustainable? And how? To what extent are firms choosing suppliers based on these issues, and prioritising such concerns over others? This paper explores how companies think about sustainability in their supply chains and describes how some of the biggest firms are beginning to work with suppliers to become more sustainable.

McKinsey estimates that more than 90% of companies' environmental impact comes from their supply chains.

Sustainability defined

In this report, "sustainability" is taken to mean **an organisation's ability to operate without violating ethical norms, compromising social structures or depleting natural resources for future generations.** It is, in other words, the ability to do business without causing economic, societal or environmental damage.

Economic longevity and social and environmental responsibility increasingly go hand-in-hand, as sustainability has proven business advantages: consumers are willing to pay more for sustainable products and services, and businesses with leading environmental and social sustainability policies tend to see higher stock valuations.[3]

This report draws on a survey of 250 senior executives from global retail and manufacturing firms, existing research in the field and in-depth interviews with experts. It finds that:

The majority (60%) of survey respondents see sustainability and profitability as equally important. The remainder are more likely to see sustainability as more important than less important. However, supply chain sustainability, such as environmental impact along supply chains, ranked relatively low among businesses' corporate sustainability priorities.

Businesses' exploration of supply chain sustainability is in its infancy. Although improving sustainability through supply chains remains unexplored by most SMEs, a significant minority of large firms do measure their impact, and a subsection of these encourage suppliers to become more sustainable.

Executives anticipate a greater focus on working conditions across supply chains. Growth in the perceived importance of working conditions is largely driven by the retail sector, where it has shifted from being a low priority over the past five years (a top priority in that period for just 2% of firms surveyed) to a concern ranked about as highly as reducing operating costs (a priority for 17% of firms) in the next five years.

Popular approaches to improving supply chain sustainability include scoring suppliers on relevant metrics and linking these scores to purchasing decisions, developing public supplier sustainability awards, and advising suppliers on technology and approaches.

The overwhelming majority of respondents (94%) participate in industry-wide initiatives on sustainability. Most have started doing so in the last three years.

Companies increasingly use technology to help improve supplier sustainability. About three-quarters of respondents use data analytics, with higher rates of large-scale use reported in large companies. Use of the Internet of Things (IoT) is also remarkably strong: 30% of respondents' firms widely use the IoT in supply chains. Blockchain and artificial intelligence (AI) are less commonly used; exploring these could be valuable in helping companies achieve their supply chain sustainability strategies.

Despite some being held back by a perception that improving supplier sustainability can be expensive, others recognise that it can cut costs: 38% of respondents believe that increased costs are the largest impediment to supply chain sustainability, while at the same time a third (34%) expect a more sustainable supply chain to cut costs.

Reputation and growth also provide powerful motivators for the emerging wave of supplier sustainability initiatives. North American respondents were most swayed by economic motivations around the issue.

Supply chain sustainability, such as environmental impact along supply chains, ranked relatively low among businesses' corporate sustainability priorities.

Popular approaches to improving supply chain sustainability include scoring suppliers on relevant metrics and linking these scores to purchasing decisions.

1

People, planet and profit

The number of companies concerned about sustainability is growing. In our survey, 60% of businesses reported that they take sustainability as seriously as economic performance

The number pushing suppliers to become more sustainable is growing too: 88% incentivise supplier sustainability through rewards and 93% have supply chain sustainability initiatives of some kind. Asked to choose two key motivations from a choice of nine, the three drivers that emerged most strongly were growth opportunities, cost savings and the need for responsible business practices; each were selected by around a third of respondents.

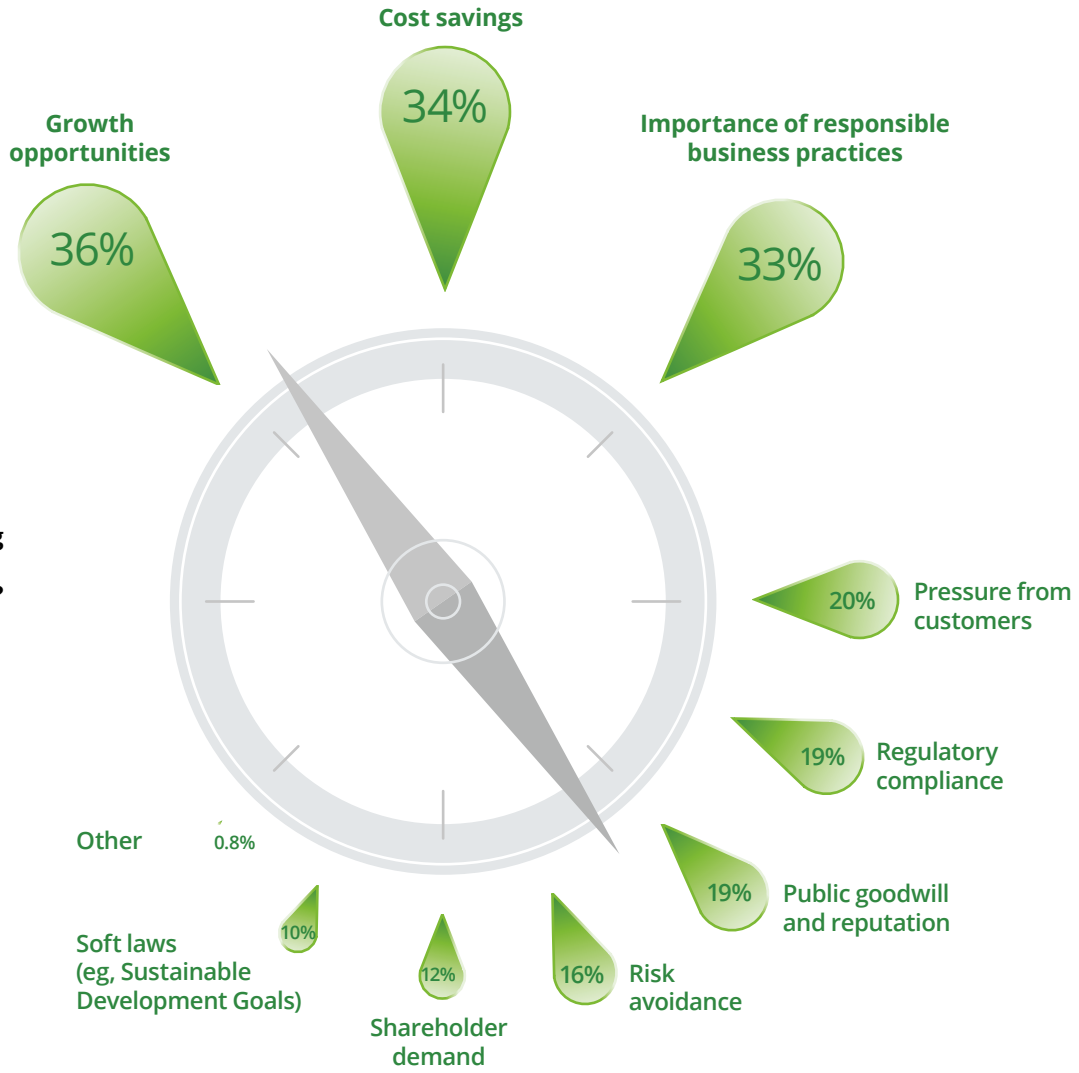

FIGURE 1

More companies are adopting sustainable supply chain strategies. What drives them?

(Percentage of respondents. Respondents chose all that apply)

Cost

Sonya Bhonsle, Global Head of Supply Chain at CDP, a non-profit organisation that promotes the disclosure of environmental impact data, argues that businesses should expect that more sustainable supply chains reduce costs. "Reducing emissions means spending less on petrol, less on electricity, and so on," she explains. CDP estimates that the suppliers in their network collectively saved US$14bn in 2017 by reducing their carbon footprint. Given the ripple effects of supply chain decisions across transport networks, energy suppliers, employees and contractors, the economy-wide savings are likely to be greater.

"In some cases, sustainability means cost savings, in some cases not," says Paolo Angelucci, head of sourcing at Kone, a global leader in the elevator and escalator industry. "In logistics, there is often a correlation between sustainable practices and costs."

Reputation

Twenty percent of responses mentioned pressure from customers as a motivator of supply chain sustainability strategies, while 19% pointed to the desire to improve their company's reputation. Overall, these reputational concerns rank highly when it comes to motivations for improving sustainability. Some executives are explicit about this. Paul Polman, chief executive of Unilever, articulates the results of his company's Sustainable Living Plan in terms of the firm's increased attractiveness to graduates and investors.[4] When he says "we've done more damage to this planet in the last fifty years than in its five billion years of existence. I don't want to be a part of that," it is a pitch rather than a protest.[5] "Reputation is no longer measured by your own operation," Ms Bhonsle says. "If your suppliers are doing things that are seen by the media or activist NGOs to harm environmental or social aspects of communities, they'll hold you accountable."

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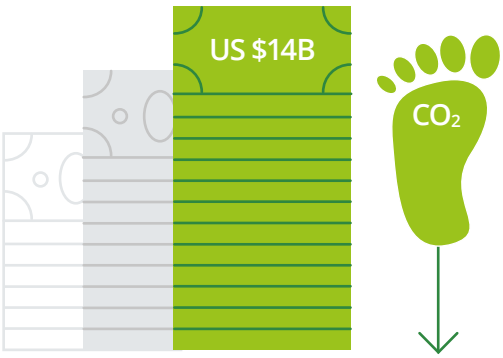

CDP estimates that the suppliers in their network collectively saved US$14bn in 2017 by reducing their carbon footprint.

Regulations

Nineteen percent of respondents cited regulatory compliance as one of their top reasons for adopting a strategy around supply-chain sustainability. As Mr Jones points out, this is not always just about current legislation—it sometimes reflects a desire to prepare early for policy action that might rewrite a sector's rules. "Any sensible competitor will know that we're moving into a carbon-constrained world," he says. "Most likely through an increase in the cost of carbon, whether through increased regulation, cap and trade, or tax."

"Any sensible competitor will know that we're moving into a carbon-constrained world."

Hugh Jones, Managing Director, Business Services, Carbon Trust

Company value

There is increasing evidence that a good reputation for sustainability can contribute to a company's overall value. One study found that a firm's reputation for 'good corporate citizenship' accounts for up to 11% of its value.[6] Another found that 85% of consumers are more likely to buy from a company with a reputation for sustainability than from a neutral company, if their prices were equal. A reputation for sustainability can be a shortcut to market power.[7]

Lori Chao, Director of International Corporate Affairs for JD.com, China's largest retailer, says her company's experience bears this out. "Green goods, using eco-friendly materials and produced with non-toxic and low-emissions techniques, do command a higher premium than ordinary products," she says. "Consumers have shown they are willing to pay a premium for those benefits."

The financial value of improved sustainability is likely to increase in the coming years too. Reputation Dividend, a company that analyses the contribution of reputation to company value, estimates that 40% of the FTSE 350's market capitalisation is attributable to reputation—twice the level it was ten years ago.[8] If that trend holds, the financial returns due to sustainability programmes may rise.

85% of consumers are more likely to buy from a company with a reputation for sustainability than from a neutral company, if their prices were equal.

2

How are companies responding?

Companies are working to achieve a more sustainable supply chain through a variety of means

Most of the companies taking the strongest action to drive improved supplier sustainability are larger multinationals—the majority of firms to have received top marks from CDP, which scores organisations on sustainability issues, are household names.[9] British supermarket chain Tesco, for example, aims to reduce carbon emissions in its supply chain by 17% below 2015 levels by 2030. Kellogg's wants to halve its supply chain's emissions by 2050, and Walmart is working to reduce its emissions from 'scope 3' sources—covering all indirect emissions—by 1bn tonnes by 2030.[10]

The number of companies submitting to public audits is growing. CDP says participation in its audits on transparency and environmental action has grown by a third since 2013. The companies that now report represent 56% of global market capitalisation.[11] Of those, 23% say that they are reducing emissions by engaging with suppliers. And that number is likely to increase.

Our survey respondents are clear that they expect reducing environmental impact to remain a priority in the next five years, and that their engagement with suppliers on sustainability issues will increase. This expectation is particularly marked with regards to monitoring supplier working conditions, especially for retailers, who say they intend to focus on this much more in the next five years (17%) than they have in the past five (2%). This might be driven by consumer pressure—retailers are more likely than those working in manufacturing to say that their customers care about human rights—and by the recent rise of anti-slavery legislation.[12]

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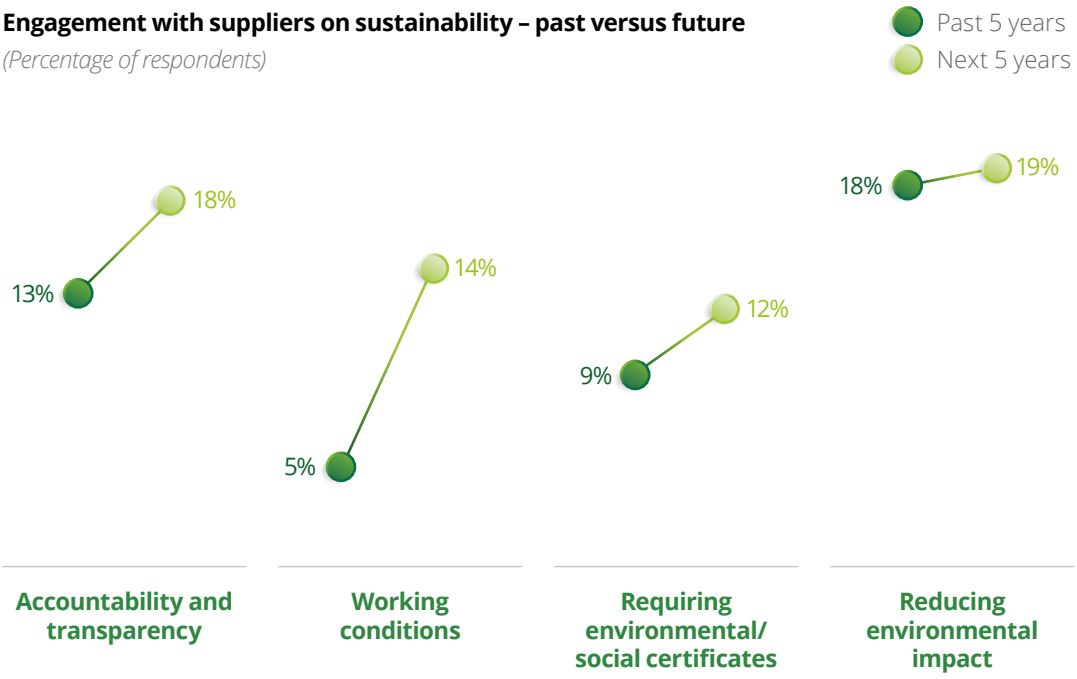
FIGURE 2

Engagement with suppliers on sustainability – past versus future

(Percentage of respondents)

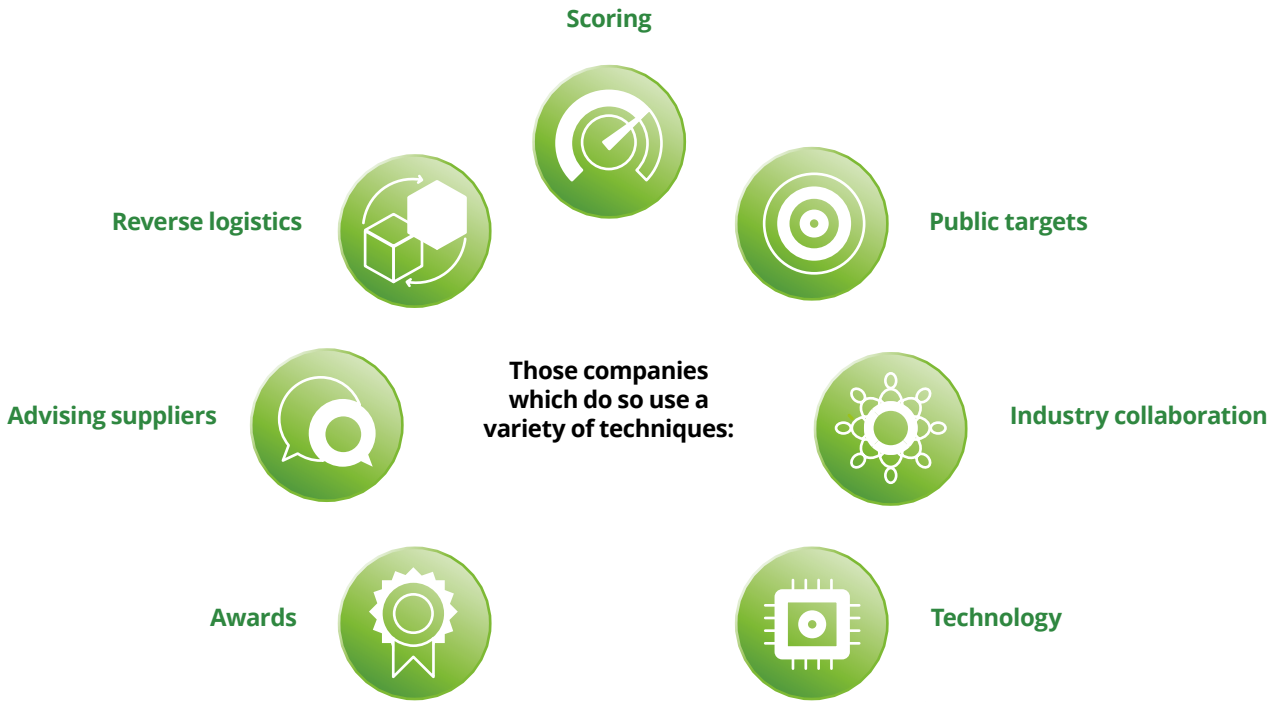


Working more closely with suppliers has many benefits

Research suggests that Germany's relatively high productivity can be accounted for in part by the way larger German companies tend to work with their supply chains: being at once more demanding and more collaborative, they exact efficiency gains while sharing best practice.[13]

When working with suppliers to improve supplier accountability, the first priority, according to Mr Jones, is to get good information. "Ten years ago people might have said 'I'm going to speak to my top ten suppliers by size'" he says, "now they're more likely to do a high-level analysis of supply chain by carbon footprint, to see which suppliers are responsible for the most emissions. When you know where the impacts are, you know who to engage with."

The next priority is to establish how to hold suppliers accountable



Scoring

"Dell and Vodafone have integrated sustainability scores into a supplier scorecard," reports Ms Bhonsle. "That enables them to say that if two suppliers are offering comparable quality at comparable cost, the supplier taking action on sustainability will win the business. Walmart's product buyers evaluate life-cycle performance and sustainability when deciding what to stock. Signify [formerly Philips Lighting] does something similar. Its CEO stated publicly last year that they stop working with suppliers which are not addressing environmental issues. She was clear that investors and customers take it seriously."

Often scoring systems are most effective when the future of the relationship with the supplier is at stake. "We conduct an annual supplier survey and assess their performance with the strict criteria of our Supplier Excellence Certification Program," says Mr Angelucci of Kone. "This serves as the basis for the level of future cooperation. Our Supplier Code of Conduct sets out our expectations regarding ethical and sustainable conduct, and we reserve the right to stop working with suppliers who don't meet these standards."

Public targets

Some companies set public targets for suppliers. Hewlett Packard Enterprise, for example, has made a public commitment that 80% of its suppliers must set science-based targets by 2025.[14] Some companies have demanded commitments on shifts in transport and fleet replacement, others have persuaded suppliers to use lower carbon technologies in construction or reduce their waste.

Some firms have simply made suppliers set emissions reductions targets and left them to decide how to meet them. This approach is particularly popular in the automotive sector in Japan: Nissan, Honda and Mitsubishi engage hundreds of suppliers on their climate change commitments.[15] Another area which has been particularly successful has been encouraging suppliers to switch to renewable electricity. It is becoming common to see co-investment or financing for generating renewable energy onsite.

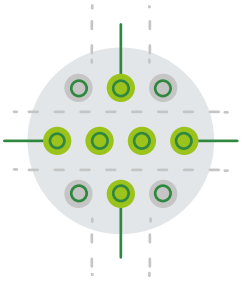
Industry collaboration

In other industries, the nature of the supply chain means collaborative approaches are a better fit. Cotton is one such example. Its production is vulnerable to environmental degradation, substandard labour conditions and instability. But it is also relatively sensitive to large-scale collaboration between multiple stakeholders. In 2005 several farms, civil society organisations, and fashion and textile brands launched a global standard, the Better Cotton Initiative, to improve the industry. Today, 14% of global cotton production, encompassing 1.3m farmers, is grown to these standards of sustainable agricultural practices.[16]

Packaging provides major opportunities for collaboration. JD.com, for instance, is working with other firms to reduce the number of boxes used in supply chains. It has a target of 10bn fewer boxes used by 2020. "We expect that 80% of packaging materials will be recyclable, with over 50% of plastic packages replaced by biodegradable material and 100% of logistics packaging materials to be composed of recyclable or reusable materials," says Ms Chao. "In the long term, these packaging innovations will help reduce costs in the supply chain for everyone."

Another example of industry-wide collaboration is the Sustainable Natural Rubber initiative—initiated by global agribusiness Olam—which works towards international guidelines on rubber quality, water management and improving forest sustainability in the industry.[17]

Technology



Supply chains can be extraordinarily complex—a small apparel company might have a personal relationship with 200 to 500 suppliers.[18] Technology can help with data collection, monitoring, and accountability. Use of the IoT—for instance, tracking goods by equipping them with RFID and GPS sensors, or connecting shipments to mobile networks—is common. Thirty-percent of our survey respondents report that they widely use the IoT in their supply chains, and a further 34% use it in some parts. Three quarters say they use data analytics across their supply chains in whole or in part, with large-scale use more common among large companies. A smaller but still significant number (59%) say the same about their use of artificial intelligence.

Blockchains—open, decentralised, digital ledgers seen as a means of making records of transactions more secure and accountable—can also be used to hold suppliers accountable on sustainability. Half of all respondents (51%) say they use blockchain technology either widely or in some parts of their supply chain. Everledger, for example, is a blockchain-powered platform to track diamonds. The company claims to have logged over a million diamonds, engaging miners, dealers, manufacturers, retailers and consumers.[19] De Beers, one of the world's largest diamond companies, has announced a similar system.[20]

Olam is also initiating a dashboard of data for sustainability metrics from its cocoa, cashew, coffee, onion and garlic suppliers in four countries, and has announced that it intends its 4.7m supplier farmers to be covered by 2025.[21]

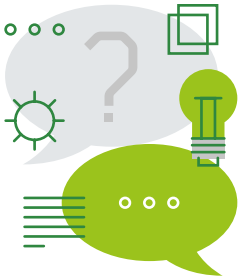
Some initiatives are public. The Green Supply Chain Map, for example, is an online tool enabling anyone to find the names, addresses and locations of apparel brands' suppliers in China, as well as information about their resource use and carbon emissions. Participating brands include Levi's, Tesco, and Nike, and information is collated both from the Chinese government and the brands themselves.

Awards

Some companies incentivise supplier sustainability using awards. AT&T, for example, has awarded two of its suppliers, Steelcase Inc, an office furniture provider, and Oldcastle Recast, a manufacturer of precast concrete, praising them for helping the company make its buildings more efficient and sustainable.[22] Go Ahead, a British bus company, gave its first ever Sustainable Supplier Award to Greenergy, a fuel company, for developing diesel derived from waste products.[23]

Awards to incentivise behaviour change are particularly popular in retail. "We see a lot of retailers publicly rewarding organisations in their supply chain who come up with new ideas for becoming more sustainable," Mr Jones explains. Nearly all (94%) respondents in the retail industry we surveyed have incentives in place to reward suppliers' sustainability efforts. They were most likely to have adopted these measures in the past three years.

Advising suppliers



Companies are increasingly advising suppliers how to improve sustainability. Sky, an entertainment and telecommunications company, for example, was able to ensure that half of the electricity needed to manufacture its products was provided by renewable energy by working with one of its key Chinese manufacturing suppliers, Zinwell, to install solar power.[24] The Campbell Soup Company helps its farmer suppliers with technology, advice and products to conserve soil and use fertiliser more efficiently. Unilever offers farmers software to monitor their sustainability.[25]

For Kone, the communication is not just one-way. "Our channels of dialogue with our suppliers include continuous one-to-one dialogue, annual supplier days, trade fairs, steering group meetings, and supplier workshops," says Mr Angelucci. "We actively encourage our suppliers to communicate their challenges so that we can work on them together."

Reverse logistics

Sophisticated reverse logistics processes reduce waste and so improve sustainability. "JD has developed boxes made of polypropylene, which can be melted and made into new boxes when broken down," explains Ms Chao. The company has also agreed with some of its branded suppliers to send back the packaging they receive to be reused.

A growing number of companies are involving suppliers in the return, recycle and reuse of their products. Thirty-six percent of respondents already incorporate some level of reverse logistics into their supply chains, while 18% say it is fully incorporated into their business model. Only one-fifth said that their companies were not taking steps to do so.

3

Overcoming barriers

Future progress is not guaranteed

While there are ever more incentives for firms to focus on sustainability across supply chains, success is hard fought. Asked about barriers to greater supplier sustainability, respondents point to cost (38%), difficulty in monitoring complex supply chains (29%) and 24% mention the sense that their organisation is not well structured to do so.

FIGURE 3

From the perspective of your organisation, what are the main barriers to adopting a strategy around supply-chain sustainability and responsibility? Select all that apply.

(Percentage of respondents)

Regional differences emerge. In contrast to the global trend, companies based in the Asia Pacific region name cost, lack of expertise and customer disinterest as top barriers to progress. Barriers which rank more highly globally, such as lack of support from management or government, or insufficient guidance from NGOs or multilateral organisations, are less of a concern in this region. This could represent either greater availability of such support, or lower expectations of it.

Respondents in Latin America were concerned at a higher rate about lack of support from government (26%), inadequate organisational structures (26%) and lack of support from top management (21%) than respondents in other regions, although the difficulty of monitoring complex supply chains remains the prime concern.

More broadly, our results show that respondents are generally divided over whether cost is a motivator or a barrier: thirty-eight percent believe that increased costs are the largest impediment to supply-chain sustainability, yet a third of respondents cited cost savings as a top reason for adopting supply-chain sustainability strategies, and just over a third cited growth opportunities.

This may be because these considerations often take the form of an inherently uncertain investment in the short term. Finding the expertise to reassess supply chains, conducting the assessment and setting new standards all use resources, even if yielding longer-term savings. Reputation and growth provide powerful motivators for the emerging wave of supplier sustainability initiatives, potentially counterbalancing upfront cost concerns.

Reputation and growth provide powerful motivators for the emerging wave of supplier sustainability initiatives, potentially counterbalancing upfront cost concerns.

Conclusion

For most companies, particularly in the US and Europe, the idea of improving sustainability is familiar and increasingly embedded into management thinking. Asked to rank profitability or sustainability, most of our survey respondents said the two are equally important; more opted for sustainability alone (25%) over profit (14%).

However, the idea of improving sustainability by looking outwards, to the supply chain, is not yet a mature one. It is familiar for large European and North American companies, but has not yet been taken up by most SMEs in these regions, or by large companies in Asia and Latin America.

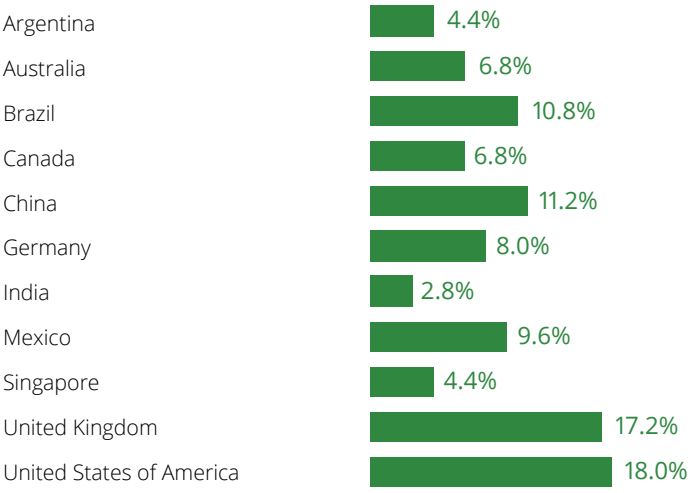
There is, however, evidence of a flurry of innovative ideas emerging internationally on how supply chain sustainability can and should be achieved. Whether through a British bus company like Go Ahead publicly awarding its most innovative supplier, an American soup firm like Campbell's helping its farmer suppliers look after their soil, or Singaporean agribusiness Olam pushing for international sustainability standards for rubber, examples are being set globally.

Ms Bhonsle is confident that businesses will remain committed to improving supplier sustainability. "Ten years ago, we were working with fourteen companies who wanted to engage with their suppliers on this. Today, it is 115, and they are the world's largest," she says. "They're all engaging with suppliers because it is improving both their efficiency and their reputation." We may have only seen the start of what can be achieved.

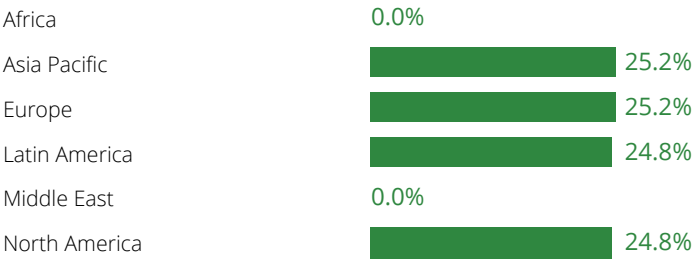
There is evidence of a flurry of innovative ideas emerging internationally on how supply chain sustainability can and should be achieved.

Appendix

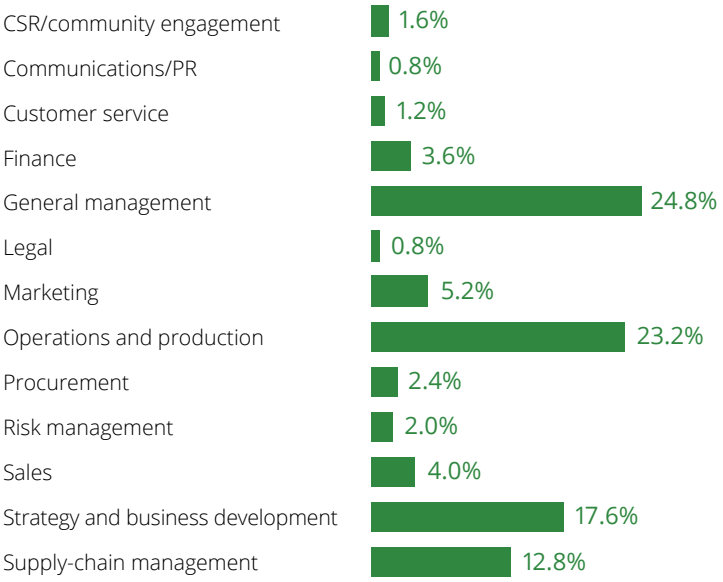
QD1. In which country are you personally located? Select one.



QD1. In which country are you personally located? Select one.



QD2. What is your main functional role? Select one.



QD3. Which of the following best describes your title? Select one.

Board member/Chairperson/Chair	1.6%
CEO/President	10.4%
CFO/Head of finance/ Treasurer/Comptroller	6.0%
COO/Head of operations	12.0%
CIO/CTO/Head of technology/IT	14.8%
CSO (Chief strategy officer)/ Head of strategy	5.6%
CRO (Chief risk officer)	0.4%
Other C-level executive	2.0%
Managing director	11.2%
EVP/SVP/VP	16.8%
Director	19.2%
Head of business unit	0.0%
Head of department	0.0%
Senior manager	0.0%

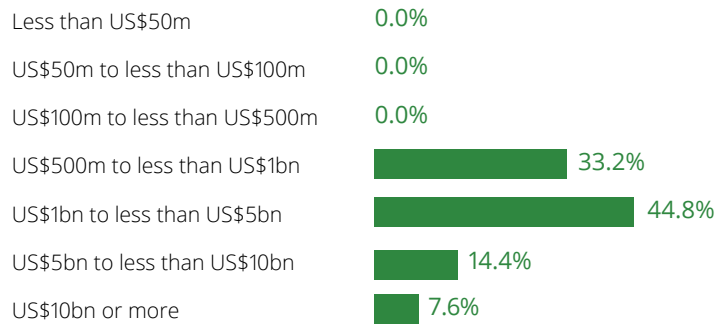
QD3. Which of the following best describes your title? Select one.

QD4. Which of the following best represents your company's primary sector? Select one.

Construction and real estate	0.0%
Education	0.0%
Energy, utilities and natural resources	0.0%
Entertainment, media and publishing	0.0%
Financial services	0.0%
Government/public sector	0.0%
Healthcare	0.0%
Manufacturing: chemical	8.0%
Manufacturing: consumer goods	20.0%
Manufacturing: food and beverage	5.2%
Manufacturing: pharmaceuticals/ medical devices	4.0%
Manufacturing: vehicles/ transport equipment	12.8%
Professional services	0.0%
Retail	50.0%
Technology/IT	0.0%
Telecommunications	0.0%
Travel and tourism	0.0%

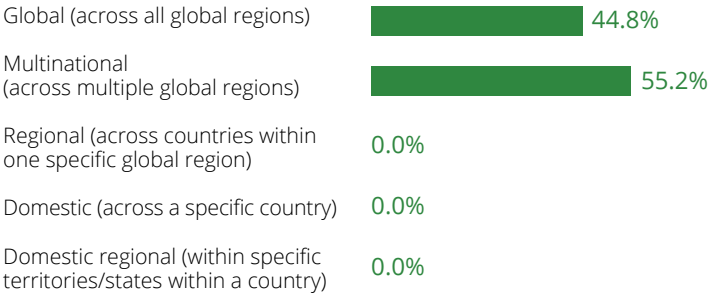
QD4. Which of the following best represents your company's primary sector? Select one.

QD5. What is your organisation's annual global revenue? Select one.

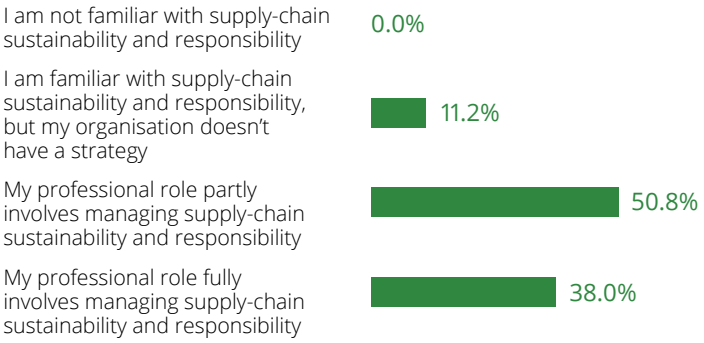


QD5. What is your organisation's annual global revenue? Select one.

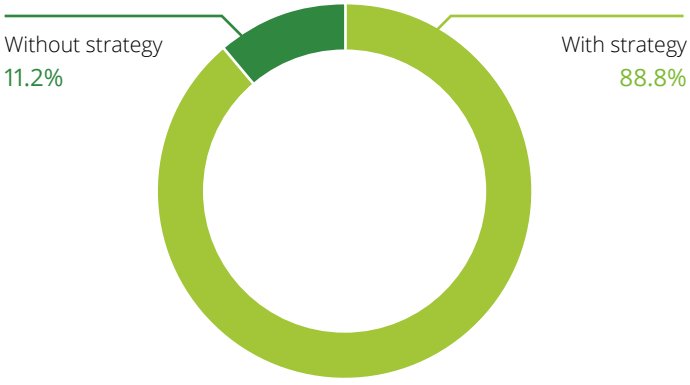
QS1. Which of the following best describes your organisation's business/operational footprint? Select one.



QS2. Which of the following best describes you? Select one.

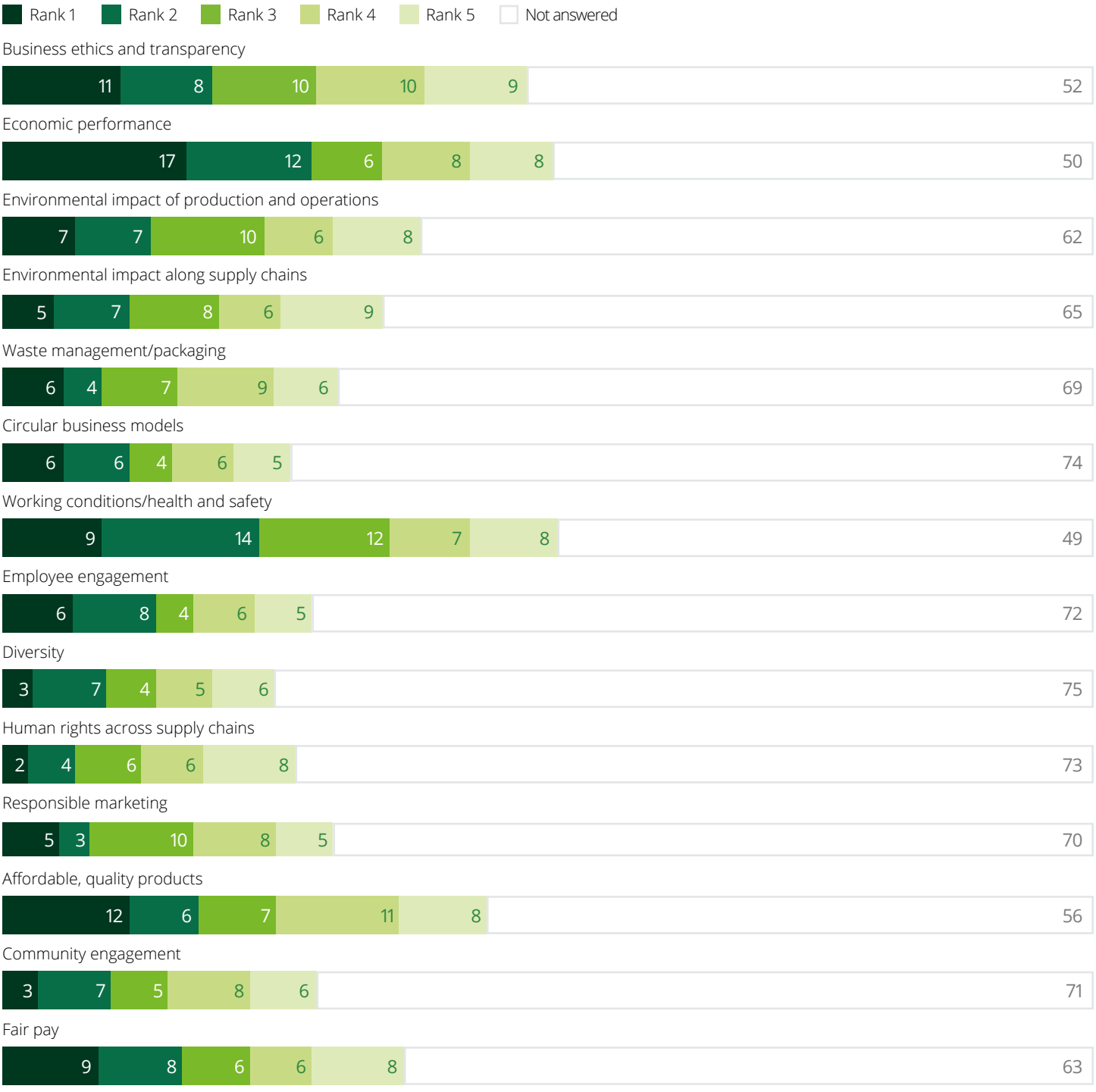


QS2. Which of the following best describes you? Select one.



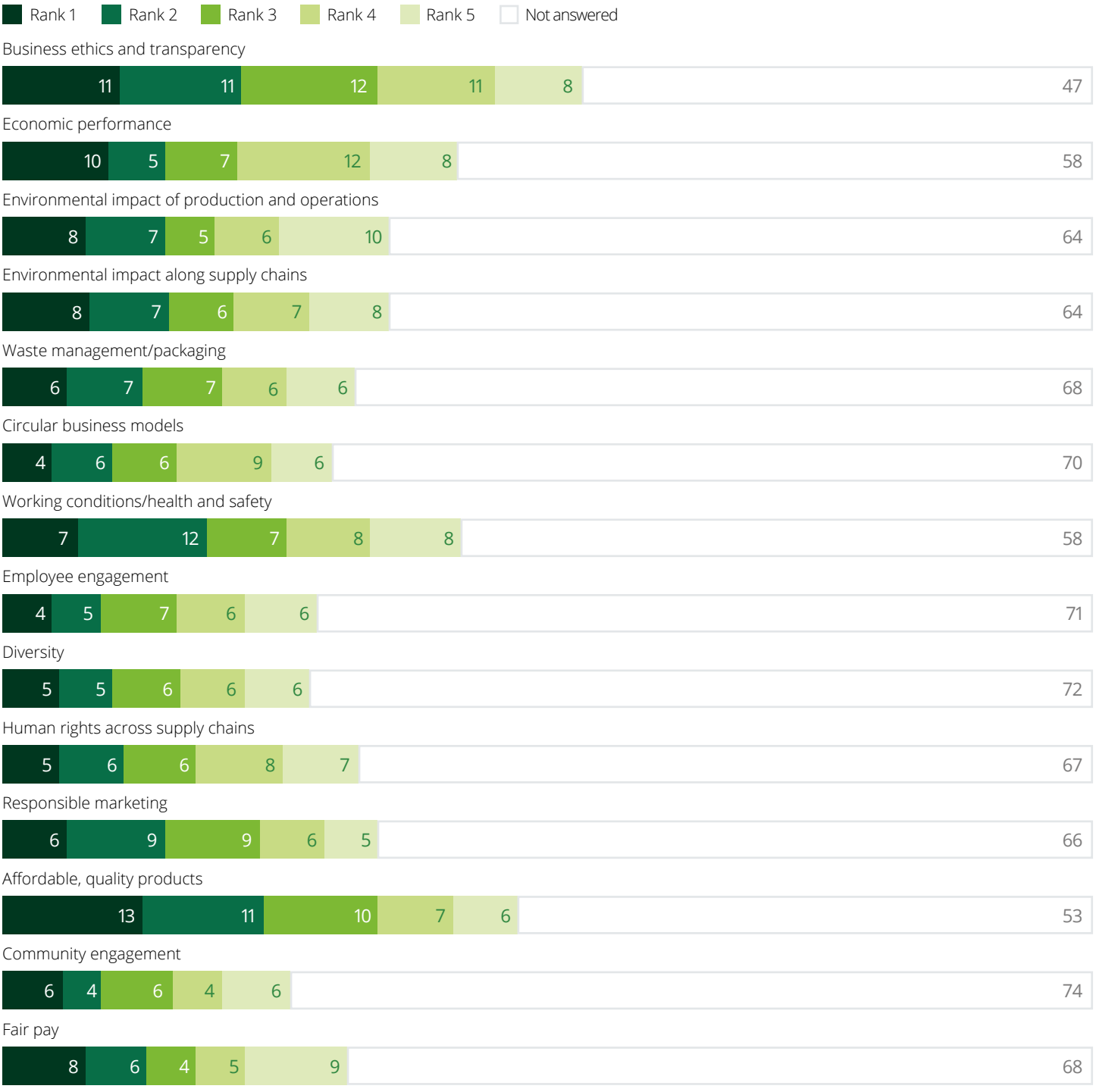
Q1a. How would you rank the following corporate sustainability priorities, from the perspective of your organisation? Select one for each row.

(Percentage respondents)



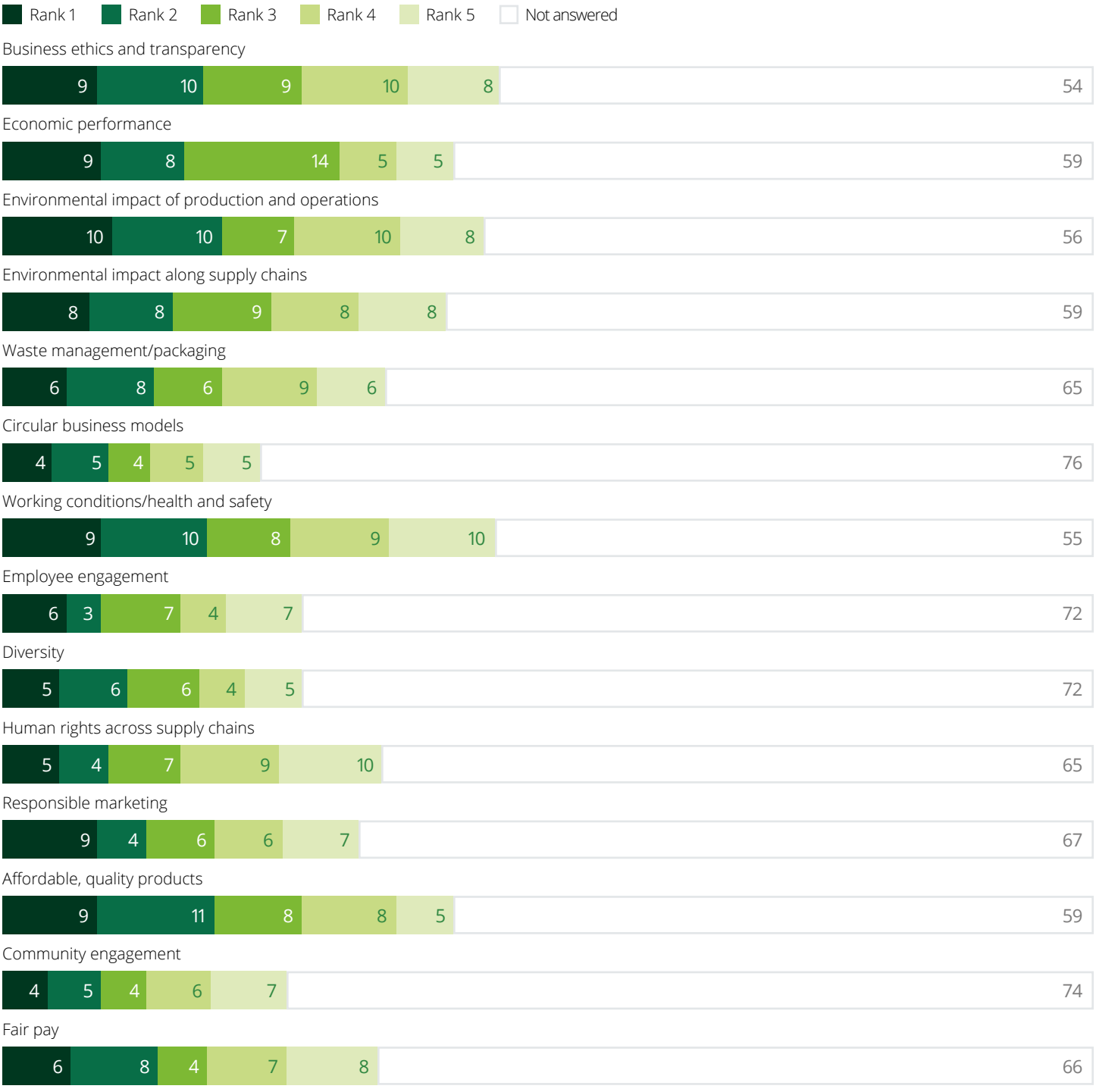
Q1b. How would you rank the following corporate sustainability priorities, from the perspective of your customers? Select one for each row.

(Percentage respondents)

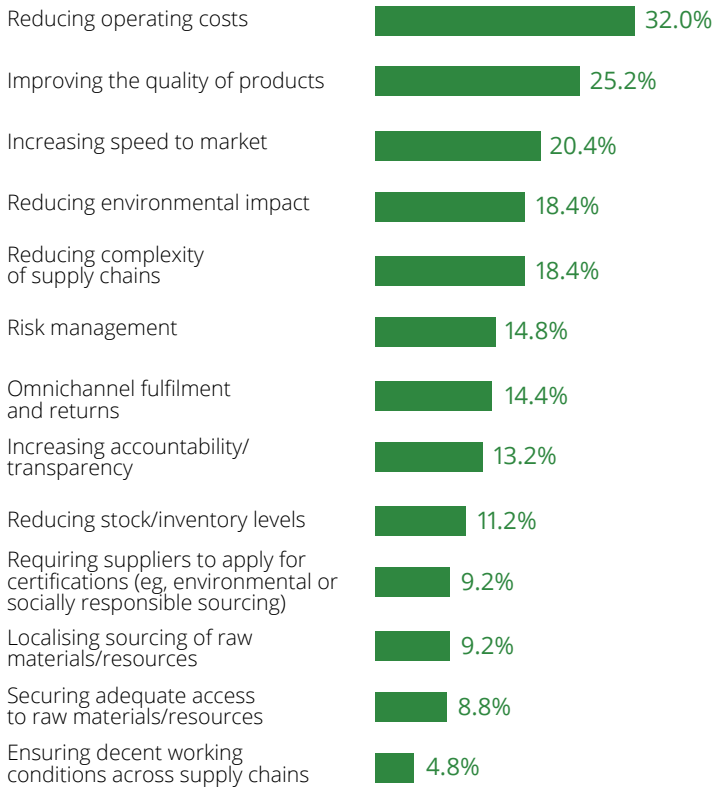


Q1c. How would you rank the following corporate sustainability priorities, from the perspective of your suppliers? Select one for each row.

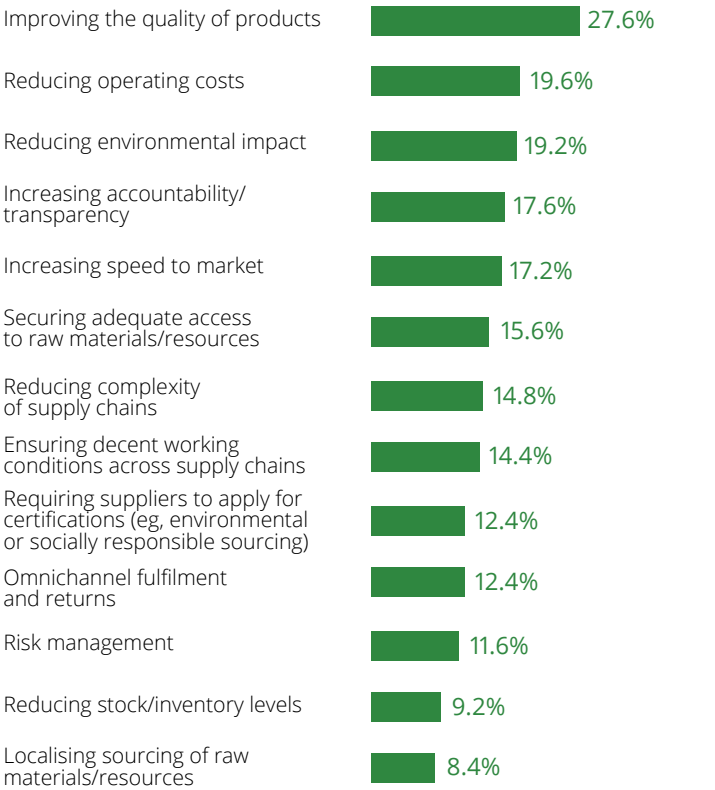
(Percentage respondents)



Q2a. What would you say have been your business' top priorities when it comes to supply-chain management in the past five years? Select all that apply.



Q2b. What would you say have been your business' top priorities when it comes to supply-chain management in the next five years? Select all that apply.

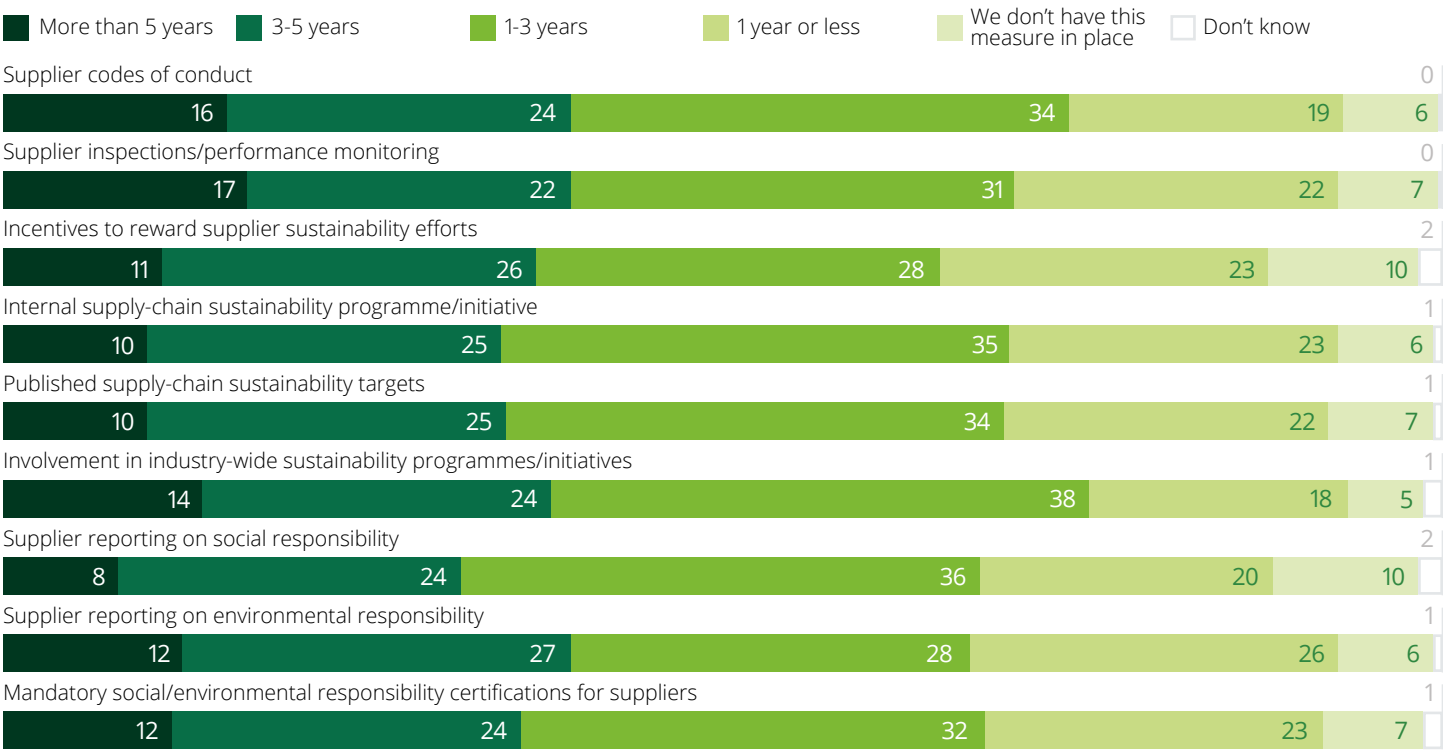


Q3. From the perspective of your organisation, what are the top reasons for adopting a strategy around supply-chain sustainability and responsibility? Select all that apply.

Q4. From the perspective of your organisation, what are the main barriers to adopting a strategy around supply-chain sustainability and responsibility? Select all that apply.

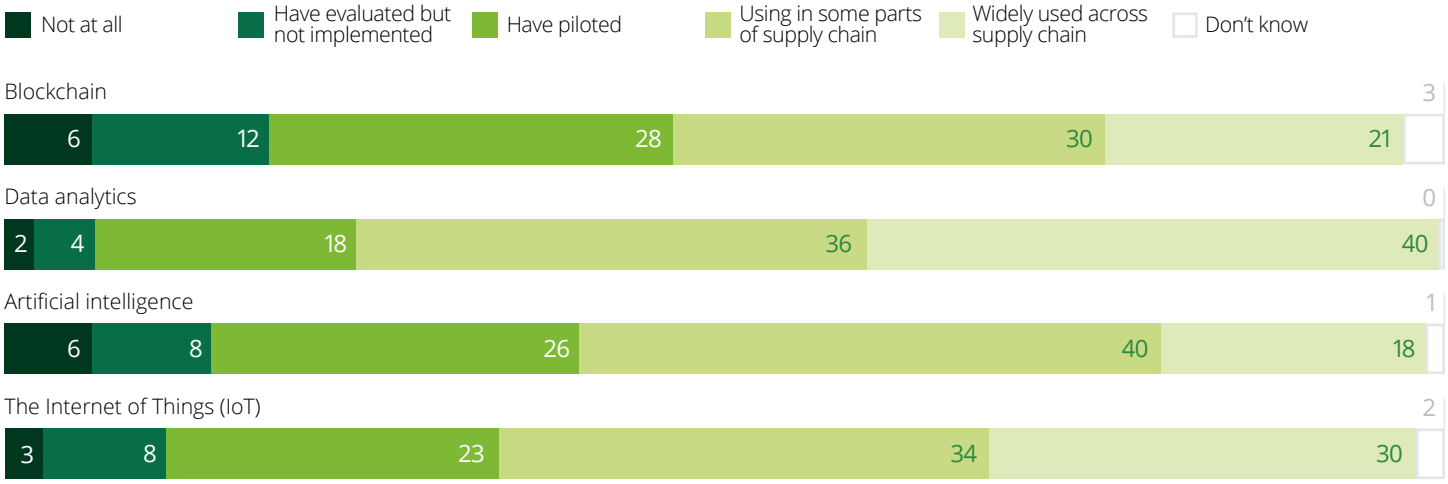
Q5. How long has your organisation had the following measures in place, if at all? Select one for each row.

(Percentage respondents)

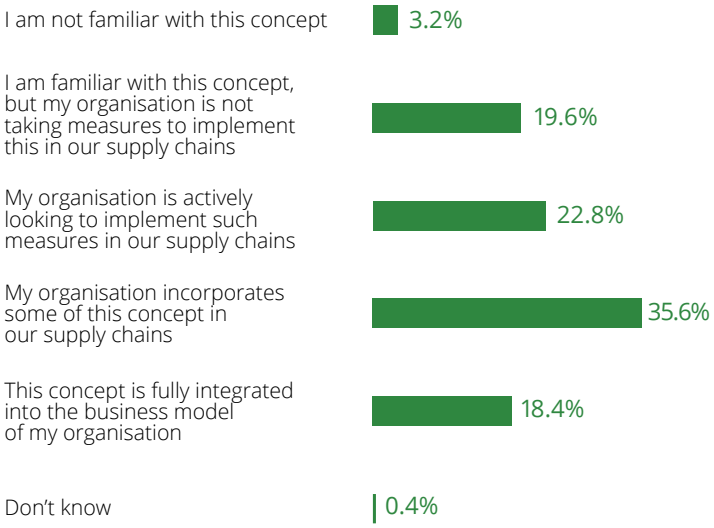


Q6. To what extent have you adopted each of the following technologies to ensure supply-chain sustainability and responsibility, if at all? Select one for each row.

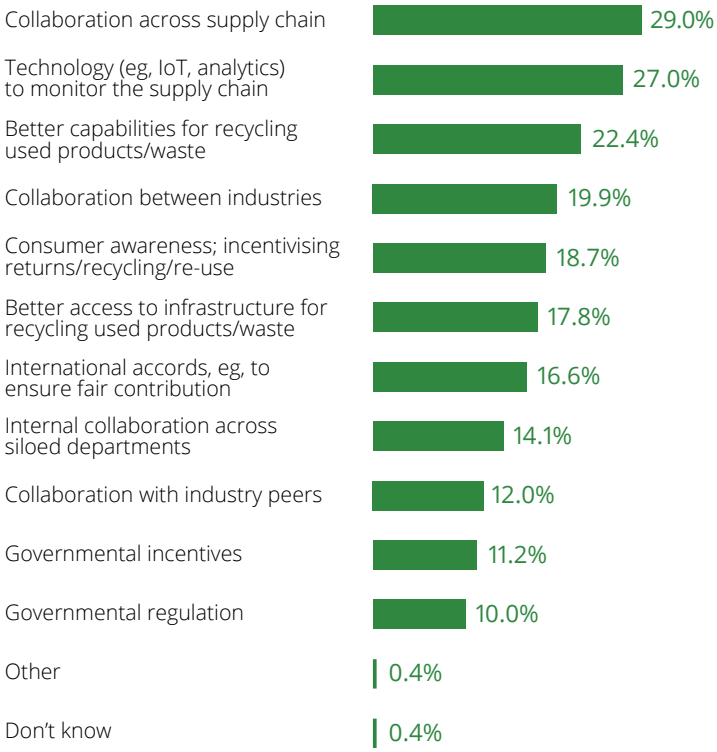
(Percentage respondents)



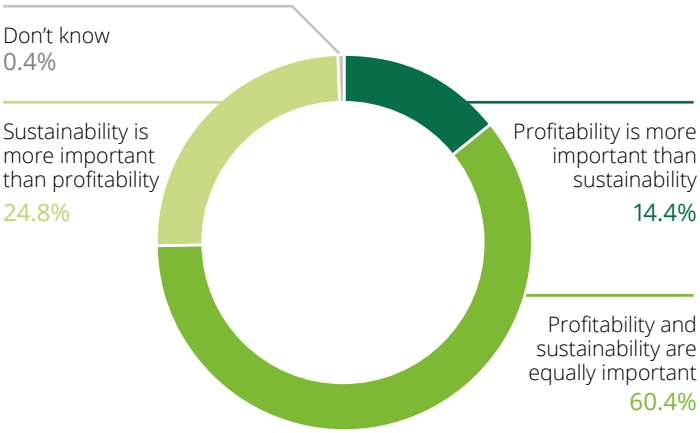
Q7. Which of the following best describes you when it comes to reverse logistics? This is also often described as circular production and consumption. Select one.



Q8. Which of the following would you say is most important to the successful application of reverse logistics/circularity in supply chains? Select all that apply.



Q9. When it comes to your business, which of the following statement best represents your view? Select one.



Endnotes

1. https://www.mckinsey.com/business-functions/sustainability-and-resource-productivity/our-insights/starting-at-the-source-sustainability-in-supply-chains
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