The road to net-zero

How financial firms are approaching—and accelerating—the transition to a low-carbon future

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Introduction

The latest assessment from the United Nation's (UN) Intergovernmental Panel on Climate Change (IPCC)[1] warns that if we want to limit global warming to 1.5 degrees Celsius—and avoid the worst impacts of climate change—greenhouse gas (GHGs) emissions must peak before 2025, which is 24 months from the date of this report (or eight financial quarters). In the five years following, GHGs need to fall by over 40% and reach net-zero by 2050. The less ambitious objective of limiting warming to 2C (linked to significantly higher climate risk) still depends on GHG emissions peaking before 2025, then dropping by a quarter before 2030.[2]

To have any hope of meeting these targets, financial services firms need to be at the forefront of a whole economy transition. The industry faces increasingly high expectations for progress on decarbonization—both within their own operations (Scope 1 and Scope 2 GHGs) and with regard to the activities they finance, facilitate, and insure (Scope 3). To put this in context, most of the world's largest publicly traded companies have yet to announce net-zero targets—and among those that have, nearly two-thirds have yet to fully specify how they plan to reach these goals.[3]

However, global financial firms are moving ahead at speed. Many leaders of financial firms have already shown their appetite to meet this challenge, with rapid growth in net-zero commitments—notably via the Glasgow Financial Alliance for Net zero (GFANZ), which now has over 550 members. Ground-breaking work on carbon accounting and transition planning is enabling the investment we need to support net-zero goals.

But committing to a target is one thing.

What happens after you commit? What practical steps are financial institutions taking on the road to net-zero? Are there lessons we can draw from their initial experiences? Are best practices beginning to emerge? These are the questions that Deloitte and the Institute of International Finance (IIF) set out to answer. Together, we surveyed 135 executives in over 40 countries, and across all sectors of finance. To enrich our understanding, we also sat down for in-depth discussions with over 30 executives running teams in sustainability, strategy, risk, finance, and data management.

This report summarizes the findings from that research. Aiming to be maximally useful, we include many first-hand accounts from sustainability professionals, acceleration tips for firms who want to learn from others' experience, and a four-stage maturity model that shows how different firms organize, structure, and prioritize their efforts.

Within financial services, industry leaders express an awareness of time drawing short to mobilize the business into action. One response has been a shift in the way many banks are managing net-zero internally. Our survey finds that 45% of firms now have a chief sustainability officer (CSO)—that's triple the 15% we found in our last survey, just two years ago.[4] Moreover, the role of CSOs is changing at the same pace. While many still devote much of their time orchestrating change and raising awareness among colleagues, we now see more and more business functions assuming ownership for specific net-zero tasks (with support, if needed, from their CSOs).

This is a nod to the enormity of getting to net-zero, of course, but it goes deeper than that. It's a recognition that the road to net-zero will require large-scale business transformation, affecting the breadth of business functions as well as a firm's broader engagement with the external ecosystem of clients, peers, and rule-setters.[5]

We hope the insights that financial services executives generously share in our survey inform you as you progress along your own journey to a low-carbon future.

Sincerely,

Tim Adams
President and CEO, IIF

Sharon Thorne
Global Chair, Deloitte

Our 10 key findings

A commitment to net-zero requires financial firms to transform themselves and manage down their risks—in so doing, they drive real-world change by engaging with customers and markets, and ultimately enabling entire economies to transition to a low-carbon future. This unique position in the global economy makes it incumbent on financial firms to design credible decarbonization strategies, with everything that entails.

1. **Net-zero commitment**
   A commitment makes a difference. Firms that commit show much greater readiness to meet the climate challenge. Our research confirms the effects are pervasive—from higher levels of product innovation, to enterprise-wide engagement, and faster progress on sourcing data. A commitment **adds impetus and keeps up momentum** when inevitable challenges arise.

2. **Strategy**
   Net-zero means changing the ways a firm develops its products, and targets, interacts with customers, designs its operating model, attracts talent, and measures success. For three out of four firms in our survey, it's the CEO who is ultimately responsible for delivering the net-zero strategy. That's only as it should be, and why the **tone from the top is essential**.

3. **Governance and execution**
   Firms are establishing governance structures equal to the scale of their ambitions. A net-zero strategy ultimately requires sign-off by the board because it alters the way a firm allocates capital and balances short and long-term returns. As a **multi-year endeavor across multiple divisions and operating layers**, tight program management is vital.

4. **Organizational design**
   Our research finds that over 70% of firms now have a CSO or equivalent (up from 31%, two years ago). Increasingly, CSOs report directly to their CEOs. **CSOs need to be agile agents of change**—engaging with every part of business, equipping them with new ways of thinking, and supporting each function to embed net-zero into business as usual (BAU).

5. **Talent**
   Ideally qualified candidates are rare, but that isn't stopping firms from hiring. Over 50% say they have **added headcount or created new roles** to deliver on their net-zero strategy. Client-facing teams must understand not only climate science but also the transition pathways of specific sectors so they can seize opportunities for business growth.

6. **Products and services**
   Net-zero is shifting firms' focus to **new value drivers and opportunities**. Firms are launching new products to accelerate their clients' transitions. Understanding value chains and underserved markets has never been more important. A quarter of firms surveyed have already launched products (or services) for power, oil and gas, real estate, and transport industries (or sectors).

7. **Risk**
   From modelling climate scenarios to evaluating customer transition plans, **risk skillsets are in high demand and constant evolution**. Modelling methodologies are maturing rapidly as workarounds for data gaps emerge. But risk departments still have a long way to go. Only 3% of firms are confident they can assess the climates risks of individual customers.

8. **Data**
   No one has data that is fully complete, accurate or sufficiently understood. The goal (for now) is to generate directional targets that are **proxies for the firm's ambitions** and act as **meaningful guides to action**. The firms that report the most progress exploit external data sources and learn how to cope with the persistent fragmentation of the sustainable data universe.

9. **Communication**
   We face a glass half full—nearly half the firms in our survey say their CEO's internal messaging on net-zero is clear, consistent, and forceful (only 50% more to go, then). External communications are more challenging, not least because the definition of 'greenwashing' is so unclear. The keys to effective **net[1] zero communications are to be transparent, accountable, and authentic**..

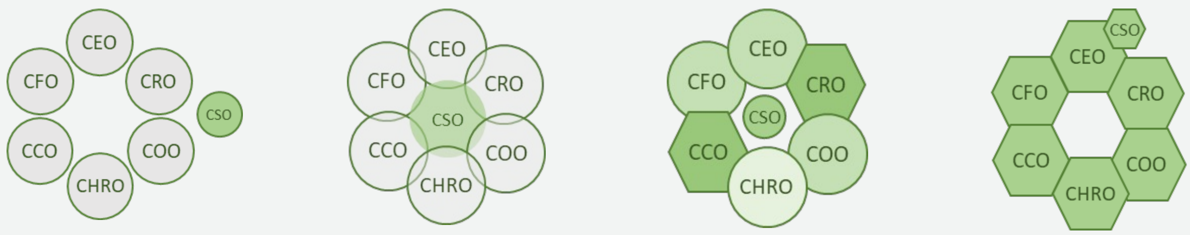
10. **Ecosystem**
    The only way to meet the unique nature of the climate challenge is through **extensive collaboration across the entire ecosystem** of peers, clients, scientists, non-governmental organizations (NGOs), governments, and regulators. Encouragingly, nine out of ten firms say the industry working groups they've joined—such as GFANZ, PCAF and trade bodies—are effective at finding joint solutions. Collaboration evidently works. Let's do it more.

The Net-zero Maturity Model

Our Net-zero Maturity Model offers practical guidance to help firms drive toward net-zero. For each of the nine business dimensions in our study, the model shows what progress looks like so financial institutions can assess where they are and plan the next steps.

Table 1: Net-zero Maturity Model[6]

Reactive	Engaged	Equipped	Embedded



1. Strategy: Transforming corporate strategy to integrate net-zero strategy

Reactive	Expanded	Connected	Embedded
Largely disconnected from corporate strategy, with touchpoints limited to marketing, compliance, reporting, and disclosure	Clear connections forged between net-zero and corporate strategy, strengthening awareness of the implications for business lines and functions	Well-connected workstreams ensure businesses and central functions understand the strategic implications of net-zero for their targets and ways of doing business	The firm is now running with net-zero and accountability for execution spread across multiple functions, and in harmony with incentives and organizational culture

2. Governance: Setting up governance and oversight for net-zero

Disjointed	Established	Defined	Mature
Limited governance structure, with poorly defined roles and responsibilities; limited connection with functional areas	Established governance structure, with a central team providing direction to functional areas—but with roles and responsibilities still sometimes unclear	Operational governance structure, with defined processes, policies, and procedures; a central team hands over responsibilities to functional areas	Effective governance structure, with shared accountability across business functions; a central team ensures effective oversight of governance activities

3. Organizational design: Configuring teams to drive net-zero and defining roles and responsibilities

Detached	Coordinated	Equipped	Synchronized
Owned and independently managed by the sustainability team, but largely detached from core business functions	Centrally coordinated by the sustainability team, which engages across multiple business functions (in the absence of more clearly defined roles)	Integrated into core business activities, with the business functions taking more of a lead, supported by the sustainability team	Fully embedded into core business activities, with responsibility for sustainability wholly owned by business functions

4. Talent: Inspiring people and enhancing the climate competency of the workforce

Discovering	Constructing	Embedding	Optimizing
Limited understanding of which climate skills will be needed where, and little change so far to rewards or remuneration	Building a blueprint for future climate skills aligned with the needs and strategy of the organization and incentivized to deliver	Actively upskilling the workforce in pursuit of strategic objectives; embeds technical training in learning and development plans for specific roles	Applies short and long-term incentives to a well-skilled and knowledgeable workforce to fully internalize net-zero in organizational culture

5. Products and services: Taking practical steps to innovate, develop, and promote net-zero products			
Exploring	**Beginning**	**Developing**	**Maturing**
Considering development of climate friendly products, but none launched so far	Launched two or three sustainable finance products, but not widely used or promoted and may not be designed with the biggest impact in mind	Actively promoting notable range of sustainable finance products covering most major business lines and designed for maximum decarbonization impact	Meeting clients' needs with a broad suite of sustainable products and services under continual development, designed for maximum impact and supported by promotions
6. Risk: Embedding net-zero into identifying, measuring, and managing risk			
Unquantified	**Directional**	**Integrated**	**Strategic**
Little or no quantification of the firm's exposure to physical or transition climate risks	Key sectors are risk-assessed, and net-zero implications are partially integrated in policies and risk appetite	Net-zero embedded into risk quantification, portfolio management, and the major tools of risk management frameworks, such as stress testing	Authoritative risk insights into transitions, scenarios and counterparties help the firm develop and implement its short, medium, and long-term strategy
7. Data: Deploying pragmatic trade-offs to create metrics or targets that drive real-world behaviors			
Patchy	**Fragmented**	**Integrated**	**Optimized**
Captured in spreadsheets and often inconsistently updated while being poorly understood	Captured in some formalized tools but fragmented across different functions, with no overarching data strategy	Captured in a centralized catalog (e.g., data lake), accessible to multiple business lines, and generally well understood	Robust, credible data is pushed into multiple platforms and decision-making software; full data governance rules apply, and firms can analyze their data for proprietary insights
8. Communication: Externally communicating net-zero commitments			
Reactive	**Resolved**	**Accountable**	**Transparent**
Adheres to narrowly defined compliance obligations; yet to formally recognize that climate change presents material new challenges	Publishes a time-bound commitment to achieving net-zero (Scope 1-3), plans GHG reduction initiatives, and publicly discloses approach	Publishes organizational and portfolio objectives and targets on climate change, and reports on progress against them	Discloses quantitative and qualitative details of interim net-zero strategy, targets, and short, medium, and long-term actions with regular progress reports
9. Ecosystem: Engaging and influencing different stakeholders within the net-zero ecosystem			
Passive	**Supportive**	**Collaborative**	**Directive**
Attends some climate conferences, events and working groups	Supports collective initiatives that encourage better governance, management, and disclosure of GHG emissions and climate risks	Actively engages with collective initiatives and consultations which help companies establish and deliver business strategies aligned with 1.5 degrees	Leads collaborative initiatives that encourage firms to establish and deliver 1.5 degrees aligned business strategies; shares insight and promotes best practices

Finding 1:

Commitment matters

Why making a commitment makes a difference

Key insights

- Our survey finds that financial institutions that make a public net-zero commitment show consistently higher levels of preparedness to meet the climate challenge
- The effects we see are pervasive and range from greater integration of net-zero in strategy to better progress on sourcing and disclosing ESG data
- These results are backed up by our interviews with industry executives, who recount how the commitment to net-zero adds invaluable impetus to a firm's net-zero efforts, helping to sustain momentum when the inevitable challenges arise

For some firms, the road to net-zero begins with a word from their boards—who may well have received presentations distilling the latest science on climate change. Some firms may respond to their peers, having decided that divergence from the 'pack' has become too hard to justify. Still others may be motivated by their corporate mission[7] or by the drive to extend their market share.

Whatever the specific triggers for committing a firm to net-zero, our survey results suggest it makes a far-reaching difference (see Figures 1-6). In almost every question we asked, the same pattern emerged when we analyzed results by whether the firm had made a public commitment to net-zero, was considering making such a commitment, or had no plan to commit. In particular, 'net-zero committed' firms showed:

- Greater integration of net-zero into corporate strategy
- Deeper changes to governance, including revamping committees and terms of references
- Higher participation of the business lines in setting targets related to net-zero
- Faster progress in recruiting new staff and revising job roles
- More extensive product launches and higher rates of product innovation
- Better ability to identify, quantify, and manage climate risks
- Further progress in resolving data issues and finding data workarounds

One reason could be that firms only make a commitment if they are already relatively advanced. While that may be a factor, our interviews with finance executives consistently suggest a different driver. Both the build-up to a public announcement and the aftermath of the commitment are periods of intense change within firms. The board will want to see impact analyses before confirming the move. That creates a demand for data that might not have been present before. And once the CEO goes public, it usually triggers a wave of activity from the executive committee downwards, cascaded through the c-suite and heads of departments.

As one industry leader tells us, "CEOs are used to making big calls. It's like when a CEO says they're going to cut $5 billion from their cost base. They don't know, ahead of time, every last detail of the plan. First, they do some analysis, then they go public—and then they work out how to get it done."

Viewed from the outside, it may seem that not much is happening. But on the inside, firms are changing rapidly (and particularly those who are considering or who have made a net-zero commitment). Our findings go some way to address concerns that such commitments are pointless. In a memorable intervention, Financial Times columnist Stuart Kirk has called banks' approach to net-zero "claptrap," arguing that "the numbers are hokum, the clients are left in the dark and the real-world impact is negligible."[8]

We beg to differ. Our research finds substantial real-world impacts from making a commitment, including on client outreach and overcoming weaknesses in data. In short, making a net-zero commitment can galvanize a firm and mobilize its problem-solving mindset.

Acceleration tips:

- If you have not yet made a net-zero commitment, consider what information your board would need before agreeing to make one
- If you are considering making a commitment, do so; it will catalyze your next steps
- If you've already made a commitment, plan for heightened scrutiny from regulators, NGOs, and customers.[9] Now that you've made a commitment, the real action begins.

Figure 1: Firms making a commitment report a significantly clearer, more forceful and consistent 'tone from the top' on net-zero:

Firms' assessment of executive messaging on net-zero

Figure 2: Making a net zero commitment mobilizes business divisions to be more involved in executing the net-zero strategy:

Firm's assessment of function's roles in setting net-zero strategy

Figure 3: A net-zero commitment helps firms to drive integration of climate across their decision-making processes:

Firms' assessment of how far net-zero has been integrated into key business processes

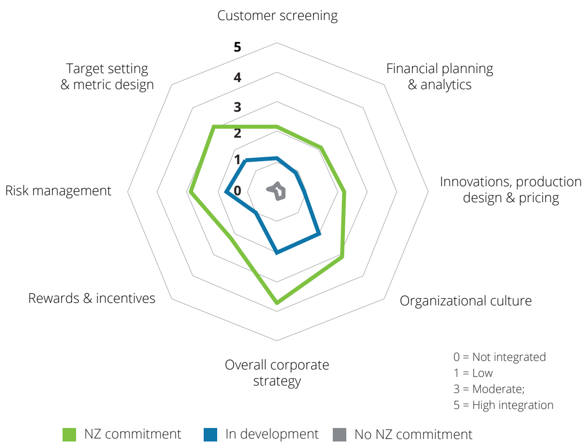


Figure 4: The integration of net-zero in performance KPIs and incentives is notably higher in firms with a commitment:

Percentage of firms using sustainability metrics within incentives

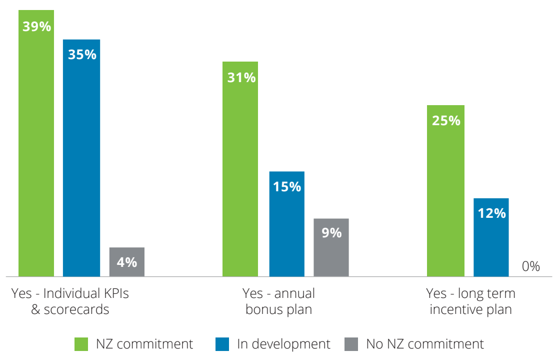


Figure 5: Making a commitment incentivizes firms to improve their abilities to quantify climate risk:

Self-evaluation of risk management capabilities for three different types of risk

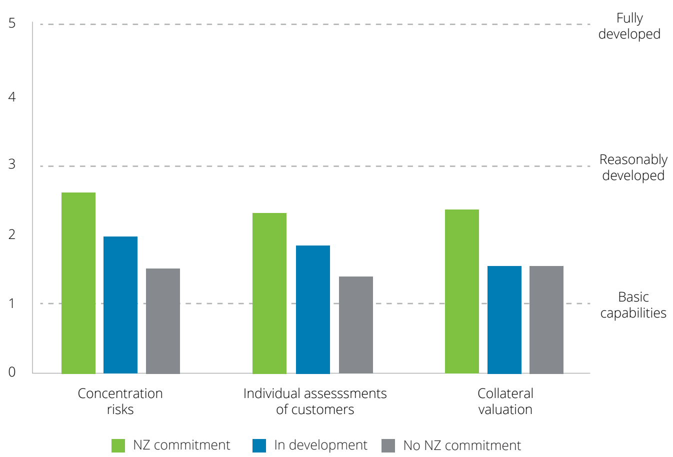
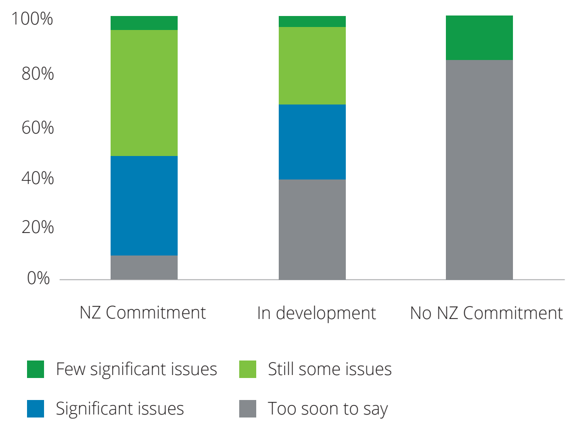


Figure 6: A net-zero commitment pushes firms to define and resolve their data completeness issues:

Firms' assessments of how complete their data is for the purposes of net-zero



Finding 2:

Strategy

How firms integrate their net-zero strategy with corporate strategy

Key insights

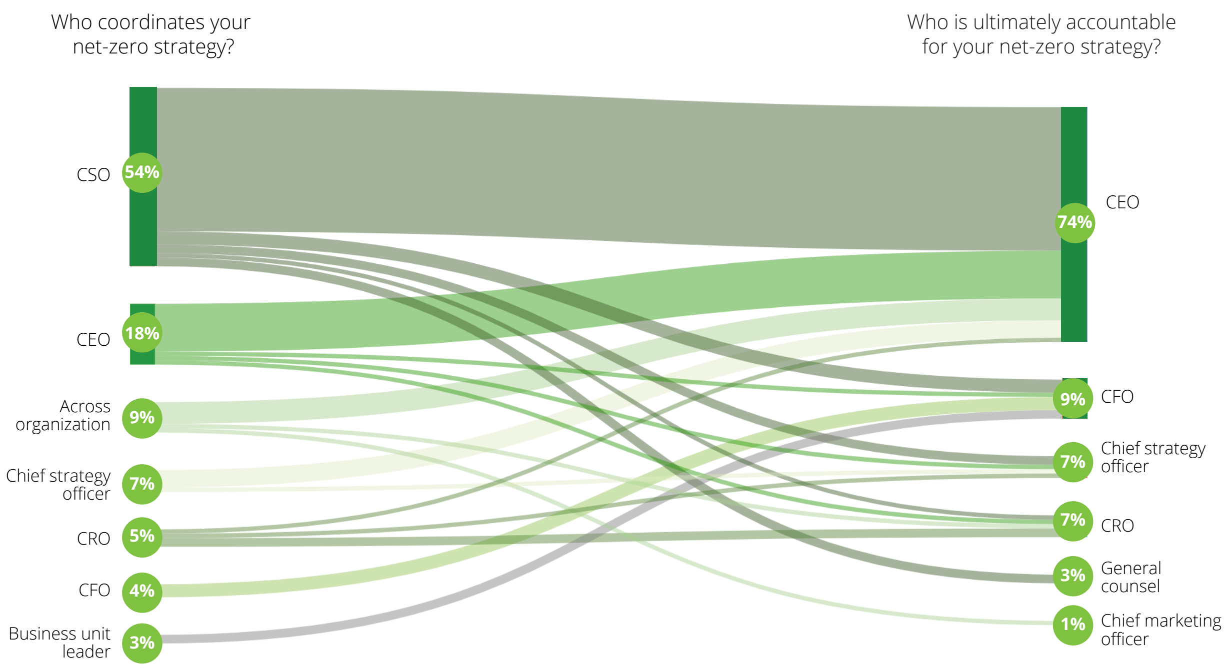
- Financial institutions increasingly realize the scale and complexity of the changes required to get to net-zero
- Day-to-day responsibility for net-zero strategy is typically assigned to the CSO or CSO equivalent (54% in our survey), with ultimate accountability assumed by the CEO (74%)
- Developing and rolling out the strategy appears to happen in waves—initially led by the CSO/CEO, with a second wave bringing in the board, risk teams, and business lines
- Once firms fully grasp what a net-zero strategy implies, they may be looking at a wider transformation of their business

As the financial services industry embraces net-zero, few want to be left behind. As one executive tells us, "Net-zero is no longer a nice to have—it's a must-have." Committing to and integrating net-zero into their corporate strategy is becoming an imperative for firms to exploit the opportunities, manage the risks, and keep up with peers and regulators.

On a day-to-day basis, responsibility for developing and executing the net-zero strategy is most likely to sit with the CSO. The importance of CSOs in financial institutions has grown in recent years, as one banker points out: "Five years ago, I don't think there were any CSOs. Now at least half of the top 20 banks have a CSO and dedicated corporate function." To advance net-zero, CSOs need excellent strategy and influencing skills[10] which may explain why their most common reporting relationship is with the CEO. "You have to have CEO sponsorship," one sustainability leader says.

While many CSOs might lack execution authority (they manage neither P&Ls nor businesses), their strategic position and proximity to the CEO give them the authority to develop and coordinate strategy implementation. In over half of firms we surveyed, it's the CSO who coordinates and executes the net-zero strategy, with ultimate accountability firmly in the hands of the CEO (74% in our survey and likely to rise further over coming years; Figure 7).

Figure 7: Coordination and ultimate accountability for firms' net-zero strategies



However, firms are also acutely aware that developing and executing net-zero strategies is a collective endeavor. That means working with multiple business functions and client-facing front offices to secure buy-in and commitment. The earlier this happens, the better: "We needed to think through the business implications on day one," a respondent notes. Another adds, "It's not just a target-setting exercise. It's also effectively a business strategy exercise." By involving the business, firms can understand client needs and facilitate innovation in new products and services.

Our research suggests this typically happens in waves, with the CSO and CEO leading the first wave, followed soon after by risk teams, the board and business lines—before subsequent waves bring in finance functions, marketing, and public policy (with human resources and internal audit among the last to become involved; see Figure 8). We saw the same pattern emerge regardless of region, sector, or net-zero commitment.

Figure 8: Typical involvement of business lines and functions in developing and executing a net-zero strategy (all respondents)

1 = Low involvement; 3 = Moderate involvement; 5 = High involvement

Three findings from our research suggest that implementing a net-zero strategy implies a wider, business transformation. First, a wide range of business and functions need to (and do) own specific roles and targets. Second, net-zero has implications for almost all business processes and operations. And finally, the strategy is typically so far reaching that only the CEO can assume meaningful accountability.

Acceleration tips:

- Connect net-zero strategy with the corporate strategy across risk management, financial planning, and analytics
- Connect the net-zero strategy to multiple functions, backed up by a clear operating model and with formal accountability for the business functions
- Use the net-zero strategy to explore innovation and product opportunities
- Ensure the strategy is disclosed in line with best-practice reporting frameworks

A bank creates its climate policy for an emerging market

Africa is disproportionately affected by climate change. Although the region contributes just 3.8% of global emissions, a warming planet puts 50% of Africa's gross domestic product at risk. However, less than half of the population of Sub-Saharan Africa have access to electricity[11]. Faced with many other priorities, financial firms in emerging markets may struggle to bring net-zero to the top of the agenda.

We spoke with the CSO of an emerging-market bank in Sub-Saharan Africa, who explained how—encouraged by large institutional investors—the bank developed a climate policy to help it manage climate risk exposure. Here are the tips the bank's CSO has for other firms facing the same challenge.

Increasing numbers of firms have Chief Sustainability Officers coordinating the execution of their net-zero strategy

To get the ball moving and overcome early inertia, this CSO counsels pragmatism.

"Go ahead and soften the targets and commitments if that's what it takes to get to an agreement on a climate policy. Sacrifice ambition for buy-in and get everyone on board. Once you do, you'll have the support you need to pursue ever more ambitious goals."

Finding 3:

Governance

How firms set up governance and oversight for net-zero

Key insights

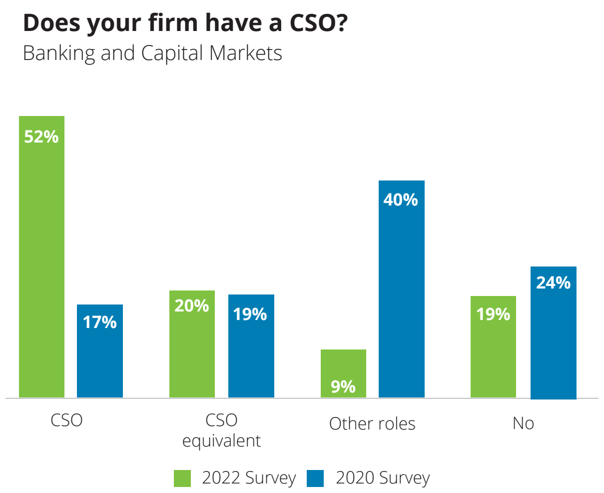
- Responsibility for net-zero ultimately sits with the board of directors and senior management—nobody else has the authority to take these kinds of far-reaching decisions
- Mature net-zero governance models rely on well-defined roles and responsibilities as well as scrutiny of delivery and decision-making across all levels of the firm
- More than seven in 10 firms report having a CSO or equivalent while over half of all CSOs now report directly to their CEO
- Although CSOs often chair net-zero steering committees, we also see that role played by CFOs and CROs

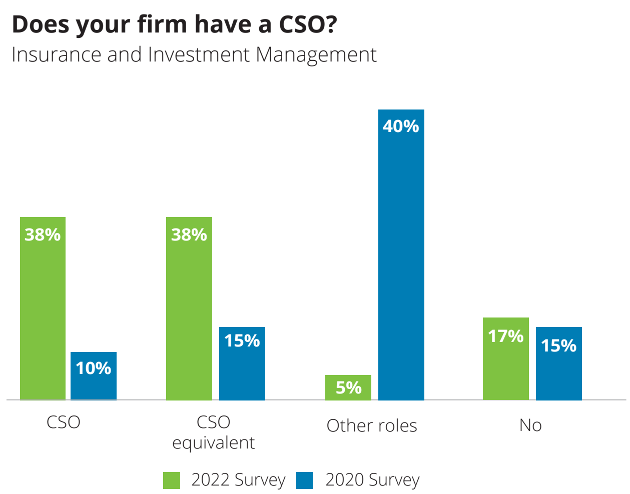
Responsibility for net-zero sits with the board of directors (who need to know enough about climate-related threats and opportunities to provide effective oversight) and senior management (who need to incorporate net-zero commitments into the company's strategy). "It was the board chairman and the CEO who said we have to do this and put pressure on internally," a respondent says about the net-zero effort in their firm.

Boards of directors are increasingly engaging with the sustainability agenda, revising their own structures and agenda to include oversight of net-zero implementation—supported by detailed reporting. However, our survey and conversations with firms indicate that many have yet to fully update their governance structures to deliver the changes required for net-zero.

However, we're seeing a significant formalization of net-zero roles and responsibilities. Compared with two years ago, far more firms report having a CSO. Overall, 45% of respondents now have a CSO while 26% indicate they have a CSO equivalent (Figure 9 gives the breakdown by industry segment). Their role is to build teams, provide guidance, orchestrate net-zero strategy, and shape the sustainability agenda across functional areas.

Figure 9: Financial services firms increasingly have a designated chief sustainability officer



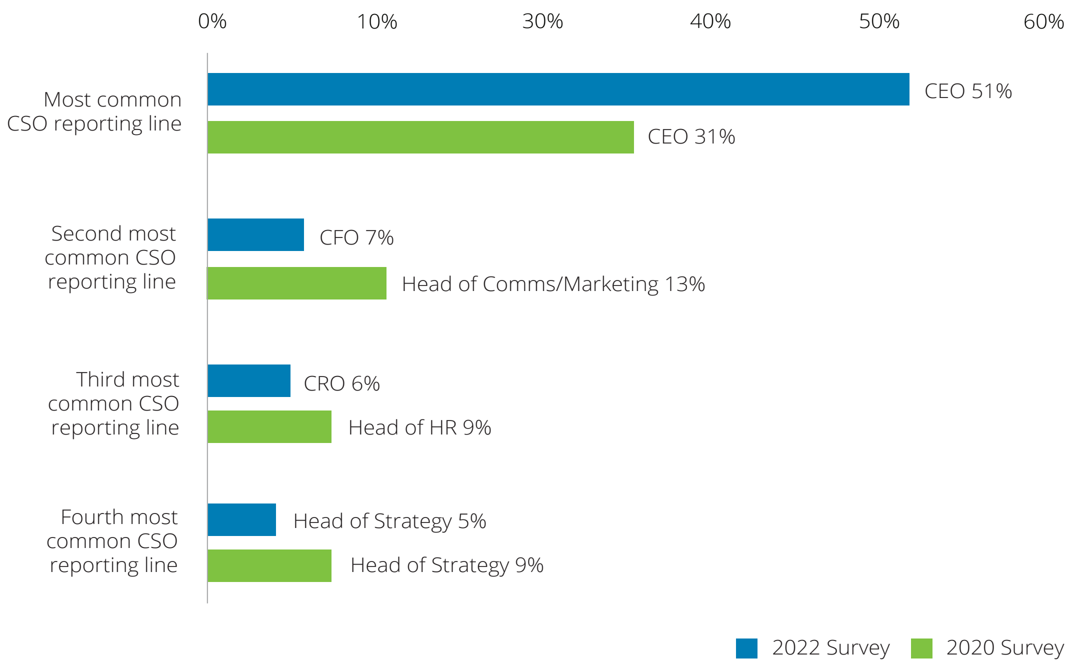


Not only are firms increasingly appointing CSOs, but they are more and more likely to be plugged into the C-Suite by direct reporting lines. In our survey two years ago, fewer than a third of CSOs (or equivalents) reported to their CEO; now it's over half. Moreover, it is now uncommon for a CSO to report to the heads of marketing or human resources (see Figure 10).

CSOs commonly play a central role in the governance of net-zero programs: advising the board, carving out business line roles and responsibilities, or chairing committees and participating in external task forces. At one firm, the CSO chairs a net-zero steering committee staffed with business leaders from key functions such as risk, legal, compliance, and the front office. However, at other firms we spoke to, it's the CFO or CRO who chairs the equivalent steering committees. It's fair to say, then, that net-zero governance arrangements have yet to converge.

Although it starts at the top, accountability for net-zero extends throughout the organization and is most effective when it meaningfully involves the business' commercial functions. "Business lines play a critical role" in working toward net-zero commitments, one executive tells us. "They own the development of targets and strategies." Businesses also play a critical role in designing new products and solutions for their clients. They understand the challenges of the individual clients and the sectors in which they operate, which gives them insights into opportunities to finance new technologies or innovative ways to support their clients' decarbonization efforts.

Figure 10: Who does your CSO report to?



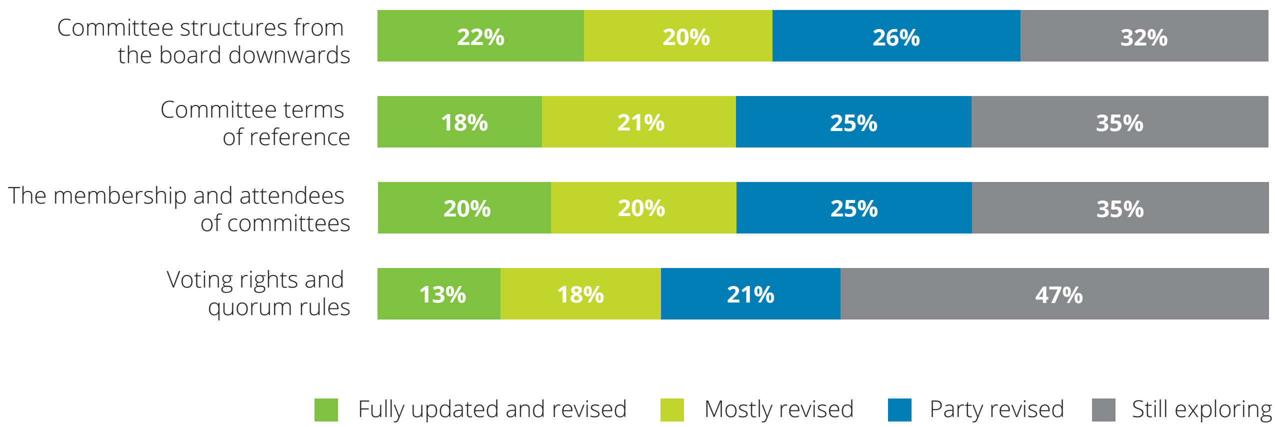
That philosophy of ownership has prompted some firms to take a program-led approach to governance. "Net-zero is a multi-year journey just in terms of making the commitments and really getting the operationalization bedded in," says one sustainability executive. "So, we've created a new governance structure that oversees the whole net-zero work—budget and everything else. It's a significant investment in terms of money, people, and time."

These governance structures typically seek to work with the grain of existing arrangements, with new forums or steering committees kept to the minimum required to ensure detailed, effective oversight. One exception to that trend was a major European bank in our survey, whose head of sustainability has established a Climate and Sustainable Finance Council, chaired by the CEO. "We have all the parts of the business from retail bank up to markets. The idea is to accelerate innovation, share ideas and good practice, and look for unserved or underserved client needs. What can we do, thinking horizontally not just vertically?"

Over two-thirds of firms have revised their systems of governance to reflect net-zero, with the most common changes being to committee structures, terms of reference, and membership/attendee arrangements (Figure 11). That said, only a fifth have fully done so, suggesting further revisions will be needed before governance has been truly embedded.

"I wouldn't anticipate these governance structures staying forever, but equally it's not a one-year governance structure," said one sustainability chief who has worked across different continents. "It's robust, it's got minutes, reporting lines, delegations, and authorities. It's got group, functional and business dimensions—it's clearly a bank wide structure."

Figure 11: Governance committees are beginning to be revised to reflect net-zero goals



Acceleration tips:

- Establish a governance and management structure commensurate with the scale and complexity of your net-zero ambitions
- Set up a central team to provide direction and advice to functional and business areas
- Use existing governance structures and committees where possible to reinforce the point that net-zero is now BAU
- Ensure your governance team reviews and challenges the ambition, scope, delivery, and timelines of your net-zero goals—as well as your approach to the data that is needed to support the transition
- Establish clear accountability for outcomes and establish clear escalation routes

Finding 4:

Organizational design

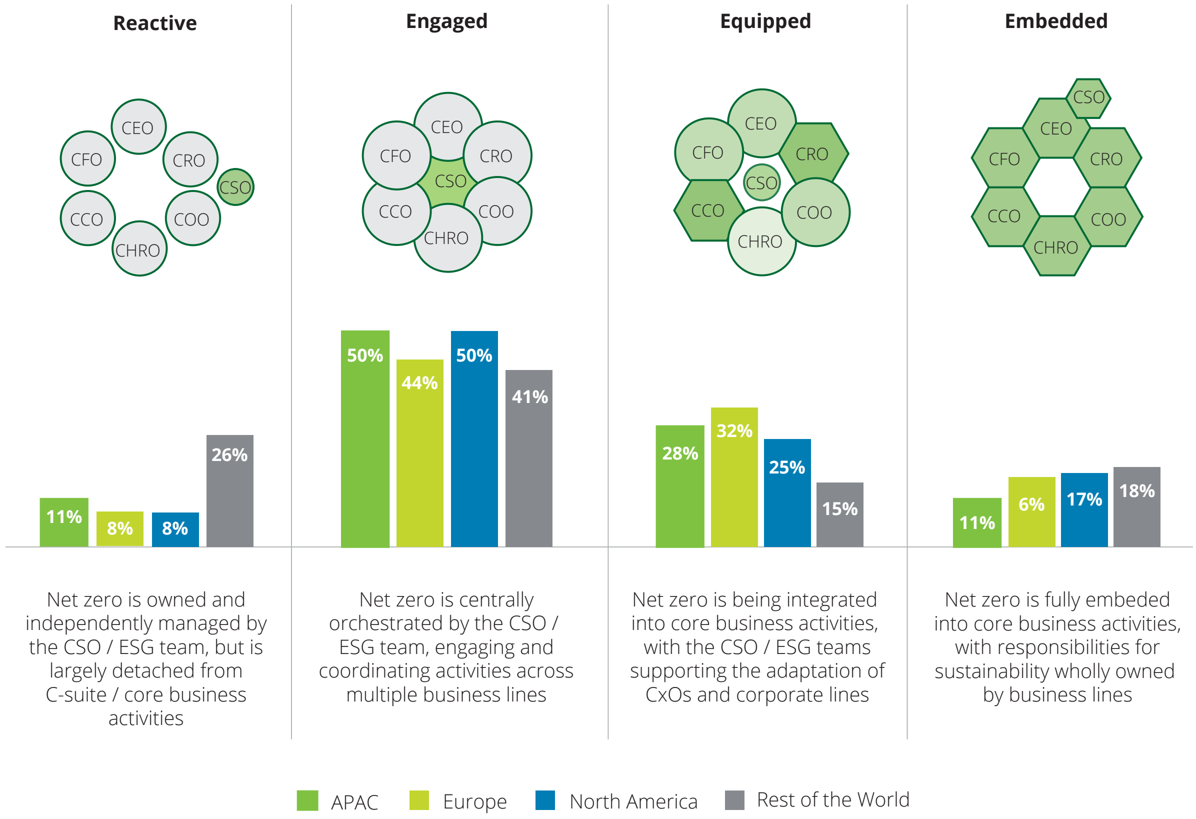
How firms define roles and responsibilities in driving forward net-zero

Key insights

- We are starting to see the integration of net-zero inside organizations
- Over half of the firms in our survey have hired new staff or created new roles to deliver their net-zero commitments
- More firms are standing up project management offices to lead the business transformation and appointing senior leaders to newly created roles such as sustainability CFO, CRO, or chief data officer (CDO)
- Sustainability and strategy functions are most commonly involved in developing and coordinating execution of the net-zero strategy, while businesses and control functions drive the changes required within their teams
- Sustainability teams, meanwhile, are staying lean and working to embed net-zero within other functions' BAU

Looked at from the outside, progress might seem slow—but inside firms, our research finds widespread changes in organizational design. It's not that we are seeing entirely new business functions spring up. Firms are generally adapting existing structures and teams. To assess the state of the industry, we asked firms which stage they thought they belonged to on our maturity spectrum—beginning with a 'Reactive' state in which the CSO's work is detached from other functions, then moving through 'Engaged' and 'Equipped' stages, before ending with net-zero being 'Embedded' in all business units that work in unison.

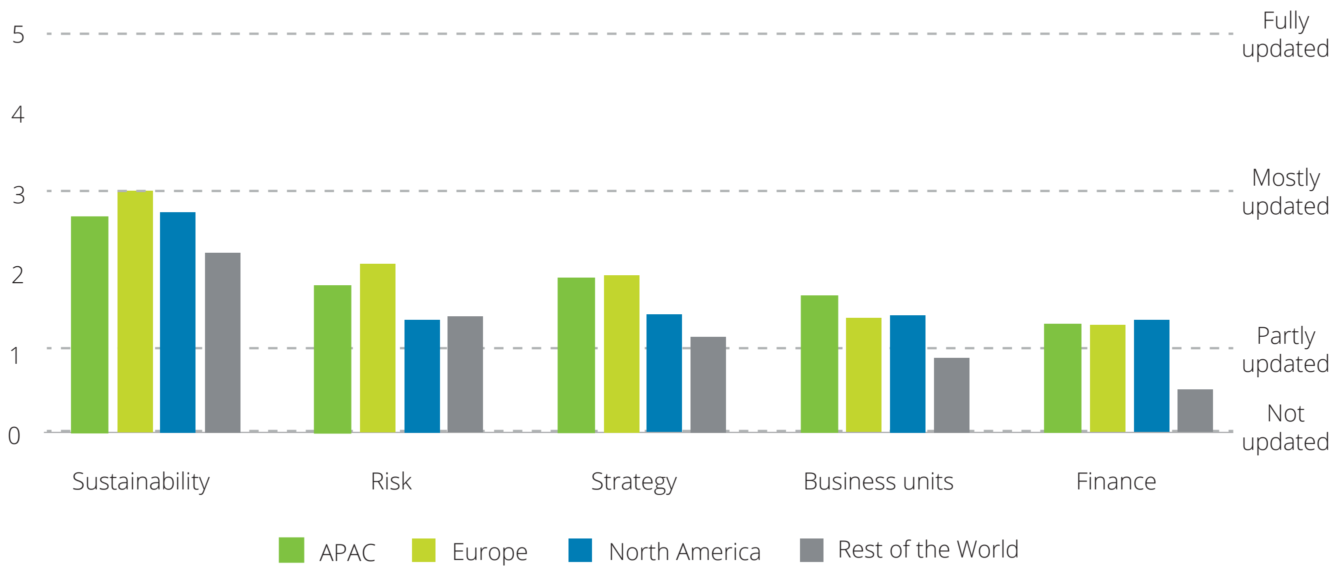
Figure 12: Integration of net-zero across business lines is beginning to take place



Encouragingly, half of firms surveyed say they're at the 'Engaged' phase of our maturity spectrum, where the sustainability team centrally coordinates activities across business functions. Nearly four out of 10 have progressed to the 'Equipped' or 'Embedded' stages, where net-zero tools and working practices are increasingly integrated into core business activities (Figure 12).

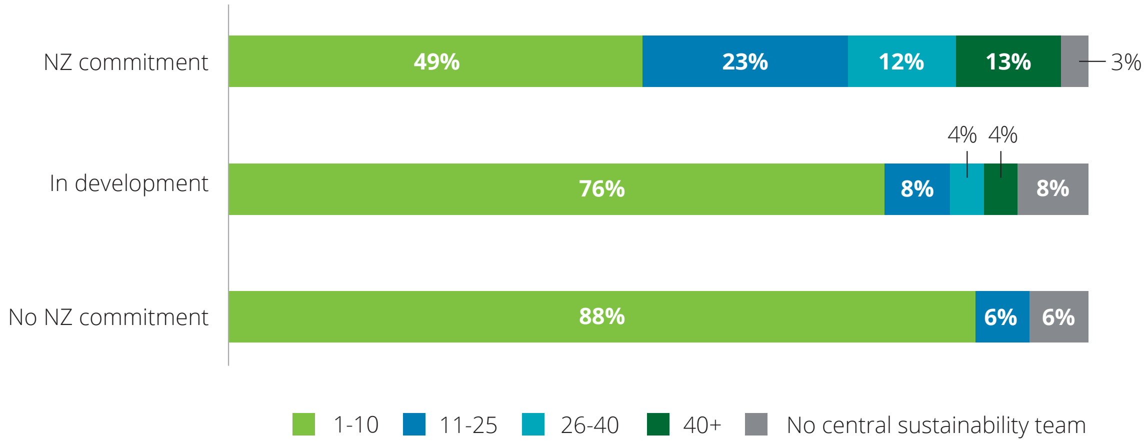
As a result, firms are re-evaluating how they need to be organized and building up net-zero headcount within their standard business functions. Over half of the firms say they have hired new staff or created new roles to deliver on their net-zero commitments (though there are regional variations).[12] Firms are also updating what they expect of particular teams. Here, progress is more mixed. While most sustainability teams have substantially formally updated their roles in response to net-zero, that's not true for the four key functions who will ultimately drive net-zero: the business units, risk, strategy, and finance.

Figure 13: How far have you updated the roles and responsibilities of specific functions for net-zero?



In contrast to hiring patterns elsewhere, sustainability teams are relatively lean. Even in firms which have made a net-zero commitment, half of all sustainability teams have no more than 10 people. As one CSO puts it, "Our goal is to embed this in business as usual everywhere else. So, over the past few months we've worked with finance, risk, compliance, even audit—and they've now agreed to set up their own teams dedicated to net-zero."

Figure 14: How many people work in your central sustainability team?



As more firms progress to the "Equipped" stage and beyond, some sustainability teams are beginning to resemble a classic support function. They are keeping their finger on the pulse on emerging sustainability topics (in particular, biodiversity), reimagining what these mean for the business, and overseeing standards and policies. "Sustainability teams need be futurists," one CSO tells us. "We're a bit like a research and development unit, re-imagining how customer expectations or the regulatory landscape will change."

Acceleration tips:

- Use cross-function steering committees to get things done—supported by your firm's experts in enterprise-wide program management
- Integrate net-zero across functional areas and business lines, leaving a clear oversight role for the central stainability team
- Equip the businesses and functions to take greater ownership and responsibility for net-zero activities
- Use our maturity model to identify the gaps between where you are and where you want to be

Finding 5:

Talent

How firms inspire their people and enhance climate competency across the workforce

Key insights

- Executing net-zero requires novel blends of traditional business function skills (risk, finance, or sales) combined with sustainability
- While ideal candidates are rare, firms are certainly hiring—over 50% say they've either recruited extra staff or created new roles to deliver on their net-zero goals
- Priority skillsets are shifting from general sustainability to business and transformational expertise with an aptitude or interest in sustainability
- Widespread upskilling programs are underway and nine out of 10 firms have an internal net-zero communications strategy
- More mature firms are exploring how to incentivize net-zero—mostly limited to senior management

As we've seen, sustainability teams are staying lean, and yet many firms are recruiting new staff or creating new roles for net-zero. So where are these new people working? "Rather than hire into the sustainability team, we're looking to strengthen sustainability expertise within key functions," says one CSO. "This is the only way to truly embed sustainability."

However, ideal candidates remain elusive. As one CSO puts it, "We'd love to bring in people who've done this all before. But the truth is, no one has." Faced with a trade-off between sustainability or business knowhow, most of the executives we spoke to said they would opt for the latter. "We've set up a dedicated climate data group under finance," one CSO tells us. "We do need deep sustainability skills, but we also recognize the importance of numeracy, financial literacy, and control awareness." As one executive says, "You can teach sustainability. It's much harder to teach business sense."

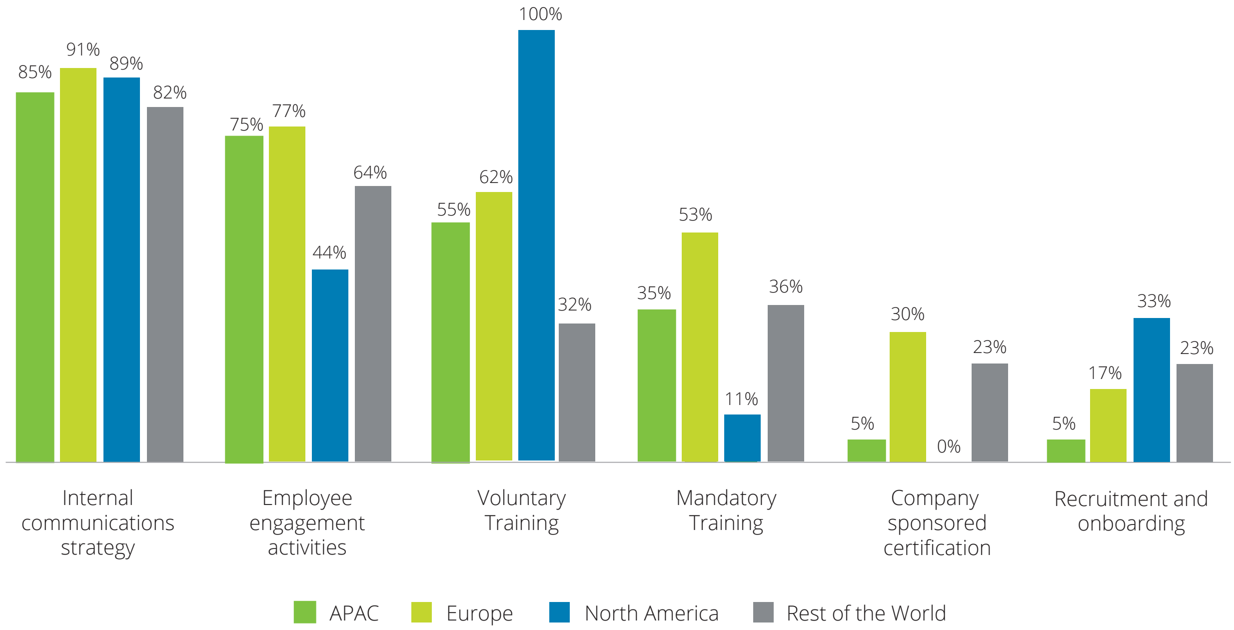
But that doesn't apply universally. Larger firms can afford to run teams housing particular subject matter experts. And one bank we surveyed has even hired a team of environmental engineers who offer walk-in audits to clients. After assessing building efficiency, the bank offers loans to refit the customer's premises and cut energy bills.[13]

As well as industry executives, we also spoke to recruitment agencies and head-hunters. Here are the net-zero skillsets they most commonly mention as sought after:

- Risk and finance professionals with sustainability experience
- Sustainability program managers experienced in enterprise-wide transformation (including from outside financial services)
- Climate risk modelers and climate data specialists
- AI and machine learning specialists
- ESG data analysts and architects
- Transition plan analysts
- New climate technology experts (e.g., hydrogen, carbon capture, material science, value chains, and sector-domain knowledge)

To support internal upskilling and embed net-zero as part of the culture, firms are deploying a wide range of strategies, mostly starting with internal communication (see Figure 15). However, few firms use all of their options, and there are wide regional differences. Firms in North America have a strong preference for voluntary courses over mandatory training. Meanwhile, their counterparts in Europe make far more use of sponsored certifications, under which a company funds employees to study for external sustainability qualifications. Overall, though, only 12% of firms have fully updated job descriptions so that individual members of staff are aware of their net-zero roles.

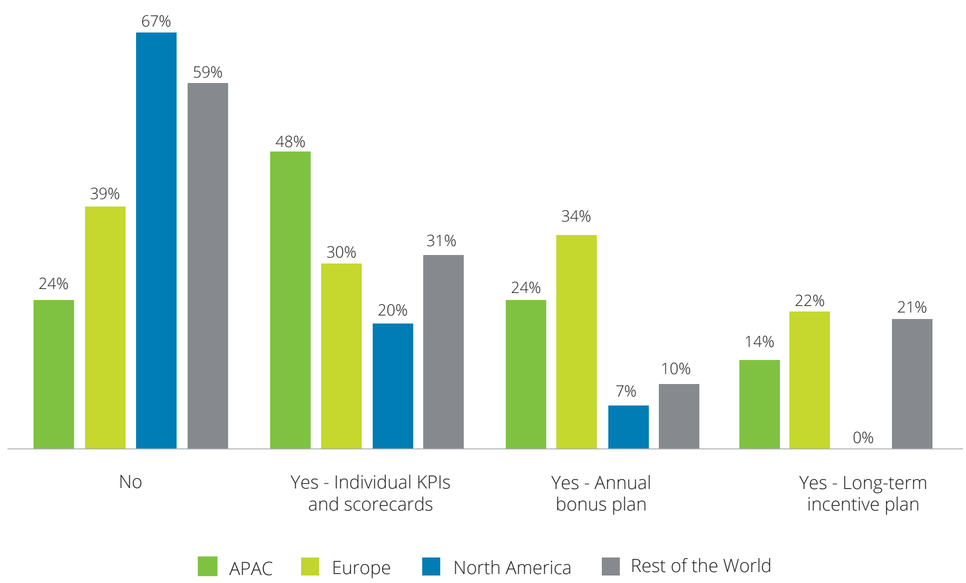
Figure 15: How does your firm integrate net-zero into its culture?



One HR executive we spoke to cautioned that one-off training programs "can be a tick-box exercise that's short-lived in its impact on employees' skills." Instead, firms need to engage and tailor training so employees understand the broader implications of net-zero, which helps employers develop a map of the competencies needed to 'run with net-zero.'

Meanwhile, more ambitious firms are experimenting with ways to incentivize senior leaders and hold them accountable for delivering net-zero. "Currently, KPIs (key performance indicators) are at the functional level," says one respondent. "But the next ambition will be to create KPIs at the individual performance level." Most firms aren't there yet. Only a quarter of respondents to our survey make net-zero or performance metrics part of the annual bonus plan, while just 18% are building them into long-term incentive plans (Figure 16).

Figure 16: Does your organization include net-zero or sustainability performance metrics in remuneration and incentive plans?



What's holding things back? One Head of Sustainability points to the gap between the firm's goals and the things it can influence. "Culturally, it's quite challenging to be setting targets way out into the future over things that we don't control. Very often, we're dependent on our clients' willingness and ability to transform their business models."

Even so, over half of respondents report that some form of sustainability incentives apply to their executive leadership. "I anticipate that over time, formal integration into performance targets goes further down the organization," says another executive. "But it's already implicit in objectives because the CEO and the CFO can't deliver on their targets if the business isn't pointing in that direction."

Some of the ways we have seen sustainability calibrated within incentive plans include:

- A long-term incentive plan (LTIP) with 25% weighting focused on carbon reduction and sustainable financing
- An LTIP with 10% weighting on alignment of financing activities with Paris agreement goals
- A group performance scorecard that includes a 7.5% weighting based on reducing carbon emissions

Acceleration tips:

- Assess the gap between the skills you have and the blended competencies you'll need to deliver your net-zero strategy—then focus on filling high-priority gaps
- Devise continuous, specialized training for functional and business areas beyond the sustainability team
- Introduce net-zero-related targets, directional KPIs, and incentives—starting with the leaders who have leverage over critical teams
- Consider whether net-zero requires changes to your target culture (you'll likely need to promote collaboration and discourage siloed thinking)
- Ensure front office teams and relationship managers have enough people who fully understand emerging technologies and net-zero transitions (versus pure climate specialists)

Finding 6:

Products and services

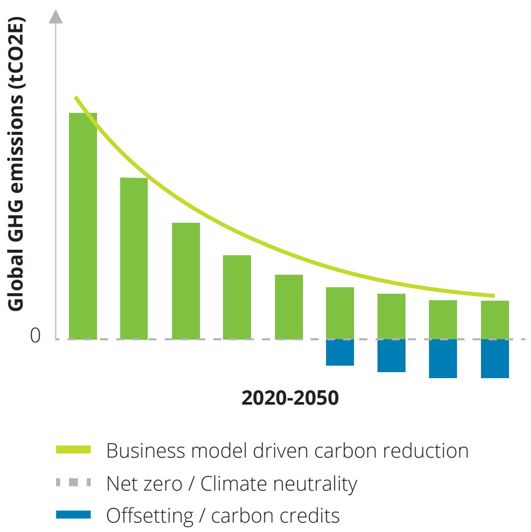
How firms innovate, research, develop, and promote net-zero products

Key insights

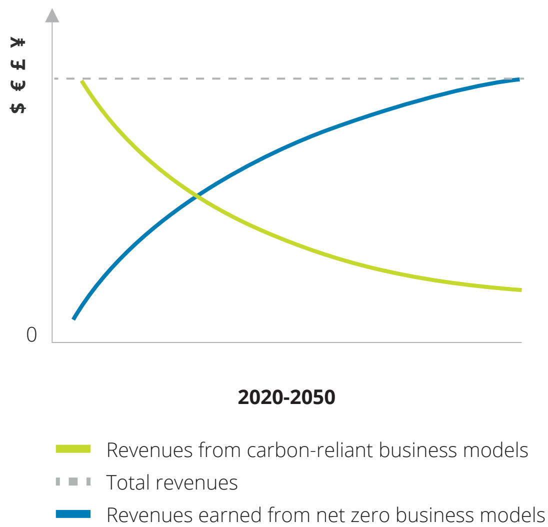
- Facing a decline in revenues from carbon-intensive sectors, financial institutions are increasingly developing net-zero products
- A quarter of firms surveyed have already launched products for power, oil and gas, real estate, and transport industries (or sectors)
- More advanced firms are branching out into services, based on their detailed understanding of entire value chains
- The biggest drivers for product innovation are: a clear net-zero strategy (including a commitment and interim targets); active participation from the front line; and a cutting-edge appreciation of emerging net-zero technologies

Figure 17: Two ways of looking at decarbonization

The transition to climate neutrality



The transition to climate neutral revenues



Financial services firms are increasingly developing and launching products designed to help the transition to net-zero. A quick look at the two charts below helps explain why (Figure 17). To transition to climate neutrality, we know that global GHG emissions need to fall sharply to a level no higher than our collective ability to capture and permanently remove carbon from the atmosphere.[14] The same basic trajectory applies to revenues earned from customers whose business models depend on emitting GHGs. Those revenues need replacing "In the near term there's a lot of give-up," admits one investment banking CSO, "so you need to plan for an inflection where the crossover takes place. How do you ramp up the revenues from the opportunities, from the upside? What you want to avoid is a huge dip due to a large lag in time. Solving that challenge helps to focus minds on the here and now, because you need to root out those opportunities—immediately." Our research finds five big drivers for successful net-zero product innovation.

#1 Make a net-zero commitment
Firms that have made a net-zero commitment report notably higher levels of climate product innovation. "By setting a very hard target," a respondent says, "you're basically shaping your business strategy going forward. And that has consequences for product development which everyone around the firm can see."

#2 Let your client-facing teams drive product design
By bringing the front office onboard, one CSO notes how their attitude to net-zero shifted from "those risk guys are taking stuff away from me again," to "seizing this moment could ensure my sustainable future as a banker." Front office teams are also critical for market research. They best understand the needs of clients and the incentives to which brokers respond.

#3 Build teams with the specialist knowledge to evaluate emerging technologies
To capture the market opportunity, firms are upskilling their relationship management teams to increase their knowledge of new types of net-zero products and technologies. As one sustainability executive tells us, "We're setting up a transition finance team which has expertise in all the new technologies, from hydrogen to the next-wave technology that's coming through."

#4 Focus on value chains

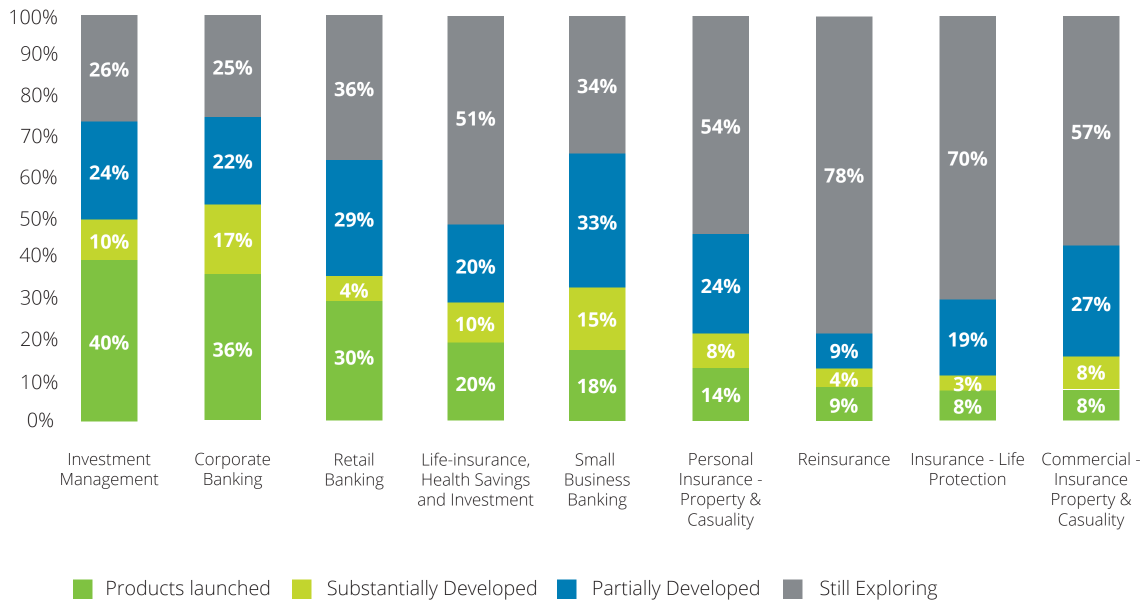
Clients don't operate in bubbles, they're part of complex value chains. We spoke to some sustainability managers who have realized in order to help their clients, they needed to bring together suppliers, customers and innovators:

- A Dutch bank has brought together stakeholders in the dairy value chain to reduce the use of nitrogen fertilizer;
- An Egyptian bank is helping farmers and textile companies decarbonize the cotton value chain and use drought-resistant strains;
- Banks across the United States, Asia and Europe have pooled efforts to set standards for net-zero steel.

#5 Consider services as well as products

Several banks we spoke with have set up ESG advisory and transition teams, advising clients on how to decarbonize. "We have a lot of centers of excellence advising clients in different aspects of green and sustainable finance, including bonds, capital markets, and sustainable impact," one CSO explains. "We cover venture capital, growth companies, right up to capital markets."

Figure 18: How far have you developed net-zero products for particular client segments?



So far, product innovation is proving easier for some than others (see Figure 18). Investment management and corporate banking have the benefits of scale. But net-zero product development is gaining pace across the industry. Encouragingly, around half of all firms in our survey have either launched or substantially developed products for the hardest to abate sectors.[15] As net-zero product solutions come in as many shapes as there are problems, we end this section with a taste of the net-zero innovations we have seen.

- A sustainable finance unit within the investment banking business that sells green bonds, social bonds, and performance-based lending facilities linked to ESG and sustainability performance
- An ESG fund for life insurance that rewards customers if they buy electric vehicles (EVs)
- Reinsurance for renewable energy projects exposed to physical climate risk
- Reforestation loans for farmers that capture carbon and protect soils
- Personal travel insurance linked to options for carbon offsetting
- Green upgrade home loans, with lower interest rates for customers improving the efficiency of their homes
- Insurance policies that encourage 'repair over replace' for damaged windscreens and car parts
- A service to help small and medium-sized enterprises (SMEs) decarbonize where they can (and access quality offsets where they can't)
- Warranty insolvency protection to lower the cost of capital for large solar power plants

And remember, if you don't help your clients transition, somebody else will.

Acceleration tips:

- Ensure your new product design processes reflect your net-zero goals and targets
- Harness the knowledge and incentives of market-facing colleagues
- Use net-zero as an opportunity for client outreach
- Understand the value chain and which technologies can help

Finding 7:

Risk

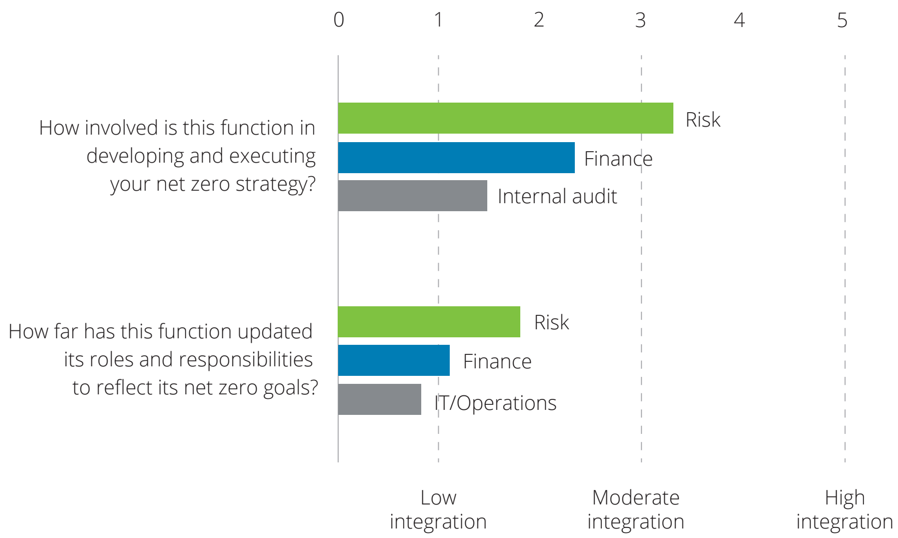
How firms embed net-zero into key risk management decisions

Key insights

- Risk functions are the forefront of translating net-zero goals into actions—and are currently far more involved than their counterparts in finance or compliance (though we expect that to change soon)
- Risk skill sets are in high demand—from modelling climate scenarios to assessing customer transition plans
- That said, risk functions still have much work to do to identify, quantify, mitigate, and manage the risks of climate change and transition
- Only 3% of firms rate as 'fully developed' their ability to assess net-zero risks for individual customers

As we've seen, delivering net-zero is an enterprise-wide endeavor. And CSOs are just as likely to report to a CFO as a CRO. So, it may seem surprising that risk teams report far higher engagement in net-zero than colleagues in finance, audit, or IT (see Figure 19).

Figure 19: Engagement with net-zero (selected functions)



Our research suggests three main reasons.

#1 Risk skill sets are in demand
From running different climate scenarios to validating climate risk models, firms are turning to risk teams for insight on what might happen next. What's our exposure to physical risk? When should we worry about stranded assets? Which methodology should we use to measure carbon intensity? And how can we compare and aggregate our customer's aggregate transition risk? If that wasn't enough to keep them busy, many of the data headaches have been given to risk teams to solve (see next section).

#2 Risk already has to deliver
The demands from stakeholders have been coming thick and fast. Risk teams have been charged with updating policies and standards (covering exclusion, divestment, and due diligence), folding in climate to their matrices and registers of risks, and calibrating risk appetite limits for escalation to the board. Externally, the Taskforce for Climate-related Financial Disclosure (TCFD) has established benchmarks for reporting that often fall on risk teams to produce. Regulators are pushing firms to improve their climate risk stress testing,[16] disclose their climate risk drivers, and contribute to voluntary studies. These days, most firms' annual reports contain detailed descriptions of how climate risk is managed in that institution.

#3 The big net-zero asks for finance teams are just around the corner
Over the next few years, we expect finance teams to become much more involved in managing the transition to net-zero. Their strategic role in allocating capital will become increasingly apparent. They'll be responsible for setting and tracking interim and longer-term targets for reducing Scope 1-3 emissions. The revenue and cost implications of transitioning will be so material, they'll need proper budgeting and forecasting. And if that's not enough to keep finance teams busy, there are shadow carbon approaches to consider,[17] while each new net-zero product launch will need approval from someone in finance. These developments help explain why some larger financial services firms have appointed sustainability CFOs. However, our research also finds that some finance teams are waiting to fully engage. As one CFO tells us, "Sustainability is not at the same maturity level as finance. You cannot simply copy-paste financial reporting, as the underlying data is still unsound."

To address that issue, global standard setters are finalizing new rules for sustainable financial disclosures. New disclosure drafts are coming in 2023 from the International Sustainability Standards Board (ISSB).[18] And there are rapidly evolving new requirements regarding firms' transition plans. The UK's Transition Plan Taskforce (TPT) recently announced its framework for mandatory disclosures,[19] which it hopes will inspire comparable disclosures in jurisdictions across the world. Much of the work required to comply with these rules will sit squarely on finance's shoulders.

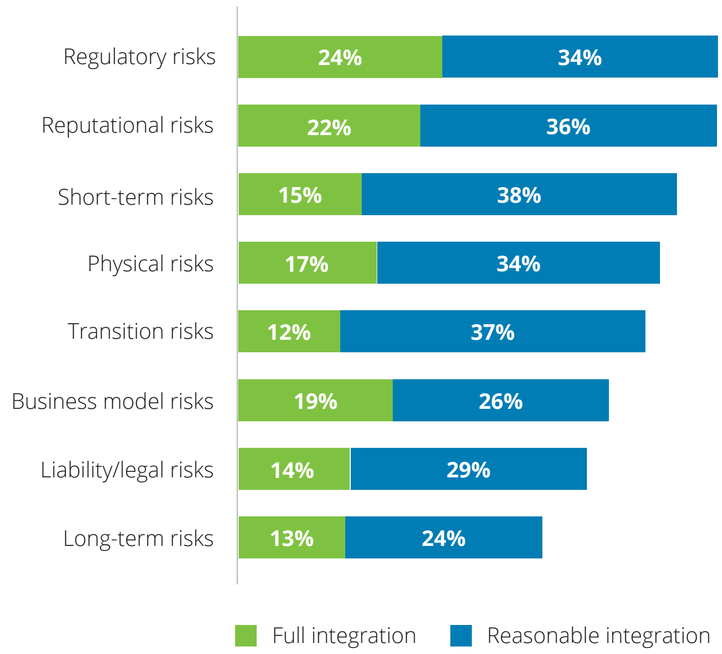
The state of play for risk

While risk teams might be more involved than finance, that doesn't mean their work is done. Far from it. To understand the gaps, we asked executives how well they had integrated net-zero across four broad themes: risk identification, risk quantification, core risk management activities, and key risk management tools. Our findings are clear.

- Size helps—large firms are more advanced than small and medium firms but still have much work to do
- The drivers for better risk management are global—firms in Asia-Pacific (APAC), Europe and North America all report similar levels of integration, suggesting the calls for better risk management are being heard around the world
- Insurers and asset managers are ahead of banks and capital markets—climate risks are not so new for the former
- Identifying risks is the (relatively) easy part—firms report lower abilities in measuring and managing risk

Being able to identify novel risks (or novel drivers of existing risks) is the cornerstone of risk management. Our research suggests that financial services firms are generally comfortable with their abilities to identify some of the risks that are evolving due to climate change. For regulatory and reputational risks, nearly 60% of respondents report reasonable or full integration. But confidence levels drop as firms consider longer-term transformation and business model risks. And only 15% of firms express full confidence in their ability to identify liability and legal risks, reflecting the unpredictable nature of recent greenwashing cases. Since the financial services industry has yet to formally define 'greenwashing,' it's unsurprising risk managers are unsure of the risks they run.[20] Until the controls and assurance process for net-zero data improves—and until definitions are clear-cut and standardized—legal and litigation risks for financial institutions may remain elevated.

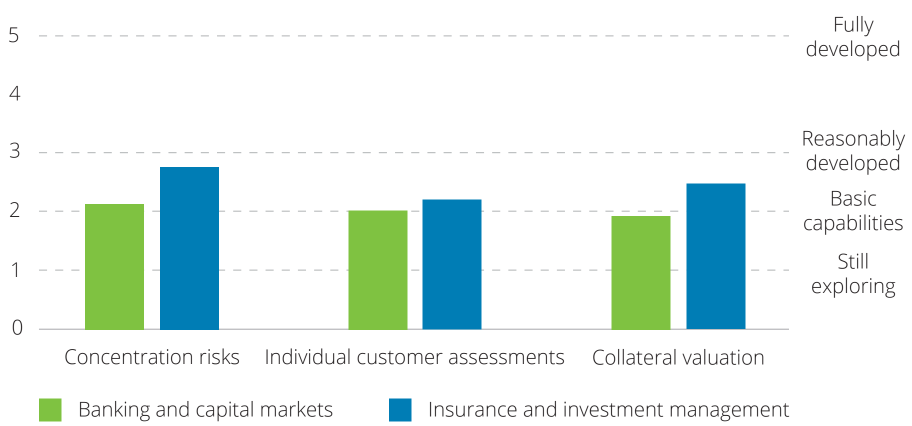
Figure 20: Risk identification process—net-zero related risks where firms report reasonable or full integration



The average bank in our survey rates its ability to quantify climate risks as generally 'basic' for customers, concentrations, and collateral (Figure 21). The average insurer is nudging toward the 'reasonable' mark. The biggest factor holding back quantification is lack of data (see next section). But the lack of consensus methodologies also plays a part. Thankfully, both these problems are being addressed on multiple fronts. In the next two years, initiatives to standardize corporate disclosures on transition plans should give financial services firms a much clearer picture of their Scope 3 emissions. And a recent Deloitte survey suggests that over 80% of banks are using TCFD guidance and Partnership for Carbon Accounting in Finance (PCAF) methodologies as building blocks for quantification.[21,22]

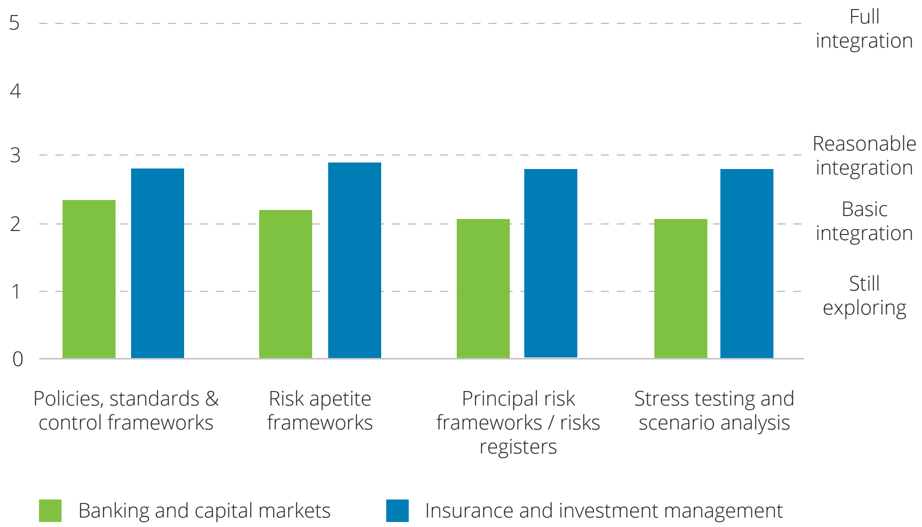
There's also a talent dimension. As one banking executive tells us, "Ideally you need a team of people who have real skills in different parts of climate that understand the methodology as well as understand credit risk, portfolio risk management, stress testing, and climate science."

Figure 21: Risk quantification—firms' abilities to quantify climate-related risks



Firms are dependent on workable solutions to identify and measure risks before they can embed net-zero into BAU processes and tools. Across the industry, progress has been easier for banks in policies and standards than in scenario analysis and stress testing. However, our research suggests that banks are playing catch-up with their cousins in insurance and investment management (Figure 22).[23]

Figure 22: Risk management tools—firms' integration of climate risk in key risk management tools



Acceleration tips:

- Use the emerging industry consensus on how to categorize and measure climate risk drivers—then adapt as needed for your firm
- Anticipate the data that will soon be coming from your customers' transition plan disclosures
- Build a team with the skills and headcount to evaluate all that information (not all transition plans will be robust or reassuring; it's in your interests to be able to discriminate)
- Be agile in how you embed net-zero data into your firm's risk management tools; data quality will improve over time, so plan for iterations and improvements
- Make sure the insights of your risk department's insights properly inform your firm's strategic thinking

Finding 8:

Data

How firms create metrics and targets to support good decisions

Key insights

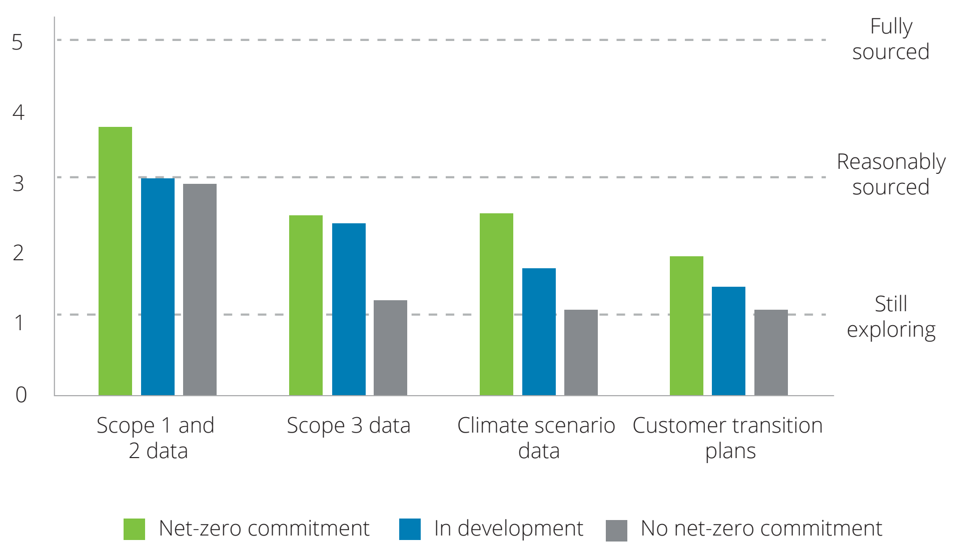
- Financial institutions face significant challenges to secure the net-zero data they need—only 5% of firms think their data is fully accurate or complete
- Scope 3 emissions are particularly troublesome and are by far the largest source of firms' emissions, but firms also struggle to source useful transition plans from clients
- However, workarounds abound—as long as we remember the point of having data in the first place: to incentivize and track progress toward an agreed goal

No one should underestimate the challenge of equipping financial institutions with the data they need for net-zero. As a CSO who had recently completed a net-zero benchmark tells us, "It's like an onion. You keep peeling layers—there's another layer and then another layer, and you're crying the whole time." Which scenarios do you use? How do you calculate financed emissions? What about absolute emissions versus carbon intensity? How do you capture methane or nitrous oxide? How do you define a coal company? Must half of its revenue come from coal? Or is it 25% or 60%?

"It's a big area where we have to improve," another executive admits. "The entire organization needs data to comply and deliver." But as the CSO in one emerging market remarks, "There's no incentive for clients to measure emissions. And it's a cost, so why would they if policy environments don't require them to?"

On top of that, respondents often say the data they have is hard to use. Some firms report serious mismatches between the data received from customers, data compiled in-house, and data from third-party providers. Our research confirms the significant data gaps faced by financial institutions trying to deliver on net-zero commitments.[24] The problem is not with Scope 1 or 2. Across all regions and subsectors, almost 80% of survey respondents indicate reasonable to full sourcing of Scope 1 and 2 emissions data. Even firms without any plan to make a net-zero commitment report reasonable data availability for Scopes 1 and 2 (Figure 23).

Figure 23: Has your firm sourced the data needed for its net-zero/climate objectives?



The thornier problems begin with Scope 3 data and get steadily more difficult for climate scenarios and customer transition plans (only 1% have fully sourced the data they need for the latter). The lack of Scope 3 data is particularly challenging since it makes up the bulk of financial service firms' emissions. In the longer run, firms need more efficient ways to collate the same information from the same customers. "Regulators have a crucial role in setting interoperable standards," an executive notes. Industry initiatives, such as the GFANZ open data set, are also beginning to help (see sidebar 'Minding the gaps').

Faced with a lack of decent data, it's tempting to conclude that nothing very useful can be done. But even as we wait for such initiatives to bear fruit, determined firms are finding workarounds and facing down the trade-offs (see Table 2 for a summary of the most common challenges and workarounds).

Our research suggests trying a baseline study. This may foster the art of the possible around your firm. Without some form of current state assessment, it is very hard to convince a board to commit to net-zero. Several sustainability officers we spoke to described their painstaking work in gathering up enough analysis to take a proposition to their boards. Assumptions had to be made. Proxies had to be used. And impacts on profits had to be gauged under a range of climate scenarios.

By finding workable solutions to these problems, firms discovered where their data issues lay (and, also, where they did not). Delivering a workable baseline helped to kickstart more advanced work. "We had to use proxy data for about half of the baseline," says one respondent, who works for a global bank. They've since filled in many of the gaps.

Firms also need to accept that data trade-offs will have to be struck:

- Robustness versus refresh rate (sometimes the best data comes with a lag, once a year)
- Materiality versus coverage (use proxies if you want full coverage, but don't dilute data quality on your priority portfolios)

A guiding principle mentioned by several of our interviewees is to keep sight of the purpose of the data. Precise Scope 3 data may not be available, but that doesn't mean firms are unable to set workable business targets. "We've tried to use KPIs that are proxies of our ambitions," explains one CSO. "They indicate the direction in which each of those sectors needs to move."

Another CSO gives the example of the real estate sector, where reliable Scope 3 data tends to be thin on the ground. The proxy target given to the business is for 30% of the portfolio to be aligned to the EU taxonomy by 2025. "We know if we do that, the quality of the assets in our portfolio will improve. We do that kind of thing for each sector: define KPIs that make sense and incentivize the right behaviors. It helps tremendously if the front office has a clear direction."

Data is not only critical for measuring net-zero progress. It can also be a key differentiator for product innovation and customer engagement—and ultimately a driver of potential competitive advantage. One head of product development told us how relationship managers had recently reached out to the firm's top 2,000 clients. "We said, 'this is our view of your emission impact, transition, and physical risks. Do you agree, and can we help?'" That data outreach effort has potentially sparked 2,000 conversations with clients about how to decarbonize.

Data integrity and transparent governance are also key mitigants of greenwashing and litigation risks. On this front, our research suggests that firms still have some way to go. Only 5% of respondents report full integration of net-zero data within their firm's data governance and architecture. While some firms use internal carbon prices to address data gaps, our research suggests adoption is limited. Only 12% of firms make some use of internal carbon prices—and just 1% apply it widely.

Minding the gaps

Many companies aren't obliged to report their GHG emissions. What data there is can often be patchy or inconsistent. Without reliable data, financial institutions will struggle to measure their Scope 3 emissions. To tackle this, the Glasgow Financial Alliance for Net Zero (GFANZ) is creating an open-data utility[25] that will include:

- Company and financial institution-level data for Scope 1, 2 and 3
- Transparently reported net-zero targets including actions intended to reach net zero, including reliance on carbon credits
- Openly accessible statistical classifications
- An accessible user interface

Table 2: Potential solutions and workarounds for net-zero data challenges

Data challenges	Potential solutions and possible workarounds
Lack of detailed geolocation data showing vulnerability to physical risks (e.g., cyclones; flooding, heat, water or soil stress; wildfires; rising sea levels; biodiversity)	• Buy third-party data from vendors who specialize in geo-spatial mapping to the major physical risk factors • Use publicly available data sets from global initiatives or research institutes • Ensure you understand transmission channels so you can interpret the data
Patchy understanding of transition risk exposure	• Use the emerging guidance on transition plans to set expectations for clients • Check that plans reference a science-based transition and have credible interim targets
Potentially limitless scenarios of unknown probability	• Choose a subset of scenarios based on three or four pathways to keep the modelling demands within manageable limits • Align with the most common approaches used
Aggregation and classification of exposures	• Focus on creating a baseline for your most material portfolios (and accept it will be hard work, and—likely— provisional) • Use proxies, backfills, or averages for missing data • Look out for 'wrong-way risk'[26]
Calculation of Scope 3 emissions depends on novel and untested methodologies	• Adopt an industry standard approach (such as PCAF) but accept you will still need a substantial one-off exercise to apply it to your firm • Adapt one of the methodologies that larger firms use
Data (especially proxy data) may not meet the standards of audited financial accounts	• Document your approach for full transparency and replicability • Focus on the usability of the data used in your baseline data: is it directionally accurate? Can it be used to set interim targets that incentivize the business? • Acknowledge trade-offs between coverage, frequency, granularity, and accuracy • Consider ranges and confidence intervals when using probabilistic data
Internal carbon budgeting and carbon pricing are sensitive to assumptions	• Build in flexibility • Advocate governments and regulators to speed up decisions on the big calls
Models are often calibrated over one to five years—but climate dynamics play out over 20 to 50 years	• Develop your ability through iterated versions, acknowledging you may need to break new ground—but the ability will stand you in good stead when modeling the next wave of risk factors, such as nature and biodiversity.

Additional acceleration tips
(beyond the suggestions in Table 2):

- Commit to a baseline study and start with your most material portfolios
- Join forces with like-minded firms and use industry initiatives for data and carbon accounting methodologies
- Document your processes—so that later on, they can be justified and repeated
- Develop KPIs to track if you're moving in the right direction, at the right speed, and in line with your ambitions
- Plan to create a data lake that's accessible to business lines and can be used in different applications on multiple platforms

Finding 9:

Communication

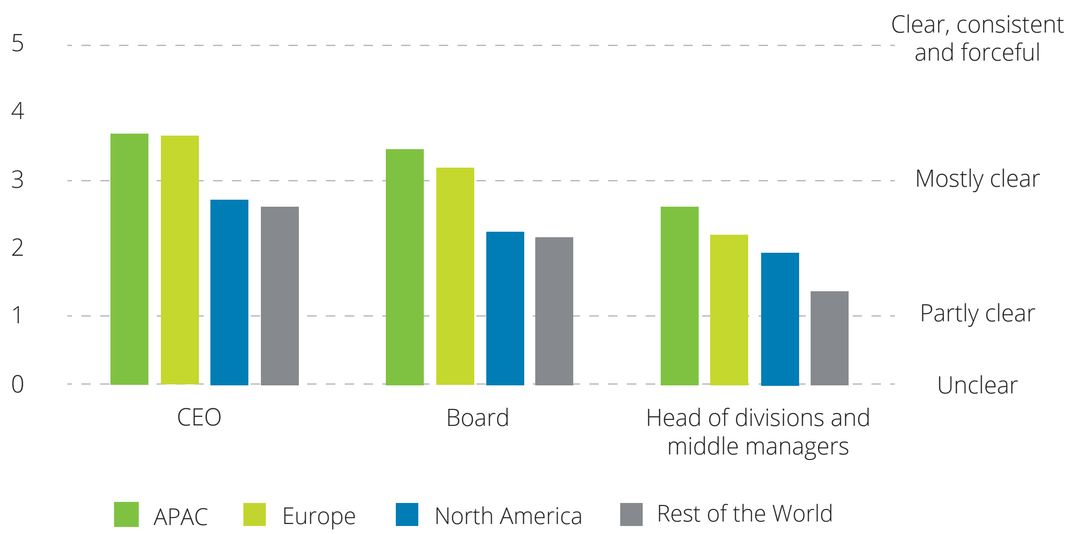
How firms communicate their net-zero commitment externally

Key insights

- Nearly half of all firms in our survey say the tone from their CEOs on net-zero is clear, consistent, and forceful
- Communicating on net-zero is increasingly complex as firms express growing concern about greenwashing
- Transparency, accountability, and authenticity are among the essential tools for effective net-zero communications
- Trust among different stakeholders will be critical to alleviate risks and build broad-based support

Let's face the challenge head on. Transitioning to net-zero requires substantial investments of time and effort. Old ways of working will need to evolve. Tempting opportunities for short-term profit may need to be foregone. These are just three reasons why tone from the top is essential. CEOs, boards, and mid-tier managers have a vital role in persuading their firms to pivot. Our research findings are encouraging. Nearly half of all firms surveyed say the tone on net-zero from their CEOs is clear, consistent, and forceful. There are, however, wide disparities between regions and firms (Figure 24).

Figure 24: How clear is the tone from top on net-zero in your organization?



At one end of the scale is the activist CEO. One CSO we spoke to explained how their firm's chief executive convened a management council meeting and gave "a masterclass about climate" to 200 senior managers. "I was not expecting such involvement. For most of the people in the room, it was a discovery and it really triggered something. As a result, we've had an amazing amount of follow-up and education sessions—because everyone is now asking for that. It's going to help us accelerate tremendously."

At the other end of the scale are the firms where the messaging is murky or missing. At a quarter of the firms we surveyed, the CEO's tone on net-zero is still rated as unclear. It's hard to imagine such firms making speedy progress in decarbonizing their revenue streams and seizing the opportunities of transition. Moreover, even where the CEO's stance is clear, most firms still have more to do in cascading the message through middle managers and getting their boards to reinforce it.

Spreading the message externally

A single word sums up the challenges of communicating externally on net-zero: greenwashing. Unfortunately, defining that word is a far harder task, which is partly why firms are grappling with how to mitigate the risk. A recent call from EU regulators for evidence on greenwashing asks for feedback on this definition:

- Claims an entity makes about itself, its products, and its services
- Ways those claims can be misleading (including selective disclosure, hidden trade-offs, exaggeration, ambiguity, or poor advice)
- Channels of communication (regulatory documents, ratings, labels, product information, or marketing)
- Vectors of communication (making a claim or passing it on)

Final guidance on a single definition is still some way off. Lawmakers around the world are unlikely to agree on one any time soon. This matters, because the market for 'green' financial products is global and most of the capital needed for the energy transition needs to flow to emerging markets and developing countries (EMDC).[27] As one Head of Sustainability in Asia Pacific tells us, "If you can't have consistent approaches, you at least need coordination among different markets and regulators, or at the very least dialogue. What happens if someone has been entitled to call an asset 'green' in China and then sells it to a firm in Europe on the secondary market? Could that count as greenwashing? Unless you think about how to make capital move easily move across borders, you haven't really solved the problem."

Our research highlights the chilling effect from uncertainty around greenwashing rules: "We're seeing firms pulling back from disclosures and becoming less vocal about hard-earned achievements out of fear of being labeled as greenwashing." One CSO puts it even more starkly: "When you see banks being raided because of greenwashing claims, my team and I start freaking out. Are we going to be arrested because in good faith we put information into the public domain based on a best effort?"

Table 3: Mapping net-zero stakeholders

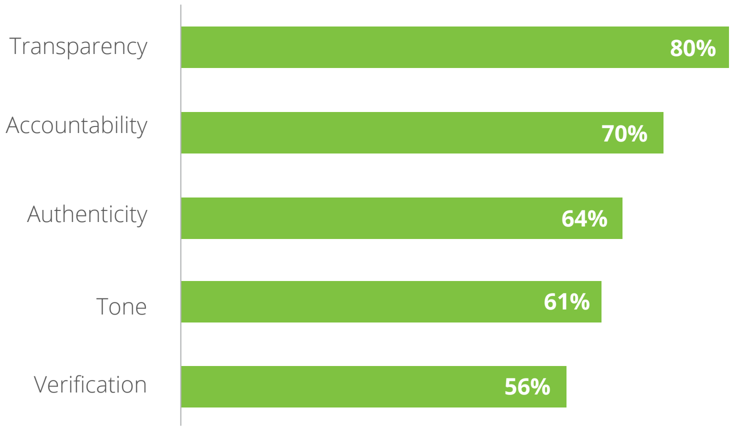
Stakeholder	Communication considerations
Regulators	Rule-makers have tools to encourage relevant disclosures. The introduction of the EU Green Taxonomy regulation in 2021 is one example of how governments and regulators are working to establish new rules for which financial investments can be considered environmentally sustainable. Similarly, the US Securities and Exchange Commission's proposed rule on climate disclosure aims to provide investors material information about climate-related risks and counter greenwashing from registered companies.
Investors	Before they can make informed decisions, investors need credible information about a firm's climate commitments. They demand transparent and consistent reporting on the company's commitment and progress.
Customers	Customers are increasingly aware of financial institutions' net-zero commitments—and the scope for greenwashing; They're likely to respond badly to gaps between reality and rhetoric (but with scope for polarized reactions in different parts of the world).
Employees	Employees are an increasingly vocal and demanding stakeholder group. Firms are seeing more employee petitions and, in some instances, threats of walkouts over inaction on climate. Employees need leaders to communicate and demonstrate the climate action they're taking.
NGOs and Activists	NGOs and activists are responsible for raising expectations and critiquing existing approaches. Some NGOs partner with firms to drive more effective climate action. Others take a more confrontational approach, or use legal action to effect change. These stakeholders are demanding more transparency in firms' financing and lobbying activities.

To find out how financial services firms are tackling the risk of greenwashing, we asked them to rate the following strategies:

- Accountability—including honest updates on progress
- Authenticity—aligning communications with brand identity
- Tone—enlisting the CEO to spread the message from the top
- Transparency—using data to back up commitments
- Verification—ensuring data is independently audited

Four out of five firms say transparency is their primary tool, with accountability and authenticity also widely used means. So far, though, only a little over half say they verify their net-zero claims through independent audit (Figure 25).

Figure 25: How does your organization avoid greenwashing



Stakeholders have widely differing frameworks for evaluating a firm's credentials (see Table 3). "There are different layers and channels in this," one executive observes. "ESG reporting is talking very specifically to a group of stakeholders that are interested in that information, whether it's investors or other stakeholders who think in those terms. We need to reconsider how we communicate to a broader set of stakeholders."

Firms are becoming more effective at tailoring their communications to reach these different stakeholders. "There is a danger of over communicating at the moment," one Head of Sustainability tells us. "The focus should be on determining what information stakeholders really need to know." While most rely on their own reports and websites to get their messages across, more than half the firms in our survey (53%) emphasize the role of alliances and partnerships. That finding aligns with what we hear from many sustainability executives: Trade associations can play a useful role in collating industry opinions and communicating a trusted, single view.

Acceleration tips:

- Invest in the tone from the top; it's a potent—and cost effective—catalyst for change
- Be transparent by publishing time-bound commitments to achieving your net-zero strategy and publicly disclose your reduction approach (including interim targets and progress reports that explain variance and attribute causation)
- Be accountable by explaining who in your organization is responsible for net-zero strategy and execution (including how they are incentivized)
- Be authentic and consistent, with upfront messaging about the challenges and trade-offs, based on your best understanding of the scientific consensus

Finding 10:

Ecosystem

How firms engage and influence different stakeholders in the net-zero ecosystem

Key insights

- Financial institutions realize they need to shape the environment in which they operate
- Firms are making increasing use of partnerships and alliances to tackle industry-wide issues
- Over nine in 10 firms say engaging with net-zero working groups is effective
- Peer dynamics play a significant role in synchronizing actions and commitments

Financial services firms can't live up to the expectations that wider society has placed on them unless they reach out and collaborate. They certainly can't transition to net-zero by themselves. Deep-pocketed governments need to fund research and development. Regulators need to set out and clarify the rules of engagement for all. And the industries served by financial service firms all have their own net-zero pathway.[28]

What financial services firms can do is communicate their views on the pain-points and bottlenecks. What's their view on carbon pricing or subsidies for photovoltaics? No one has the inside view of finance like they do. "Multiple parties are needed to transform an industry," as one executive puts it. "We need to establish a clear ecosystem support network." If government actions could speed up the transition, the sector needs to speak up. Suggestions for unlocking capital flows should be clear, consistent, and loud. Feedback on the unintended consequences of poorly drafted rules needs passing on. Trade-offs required by firms (as they engage with emitters or divest) should take place within frameworks that are public and well understood.

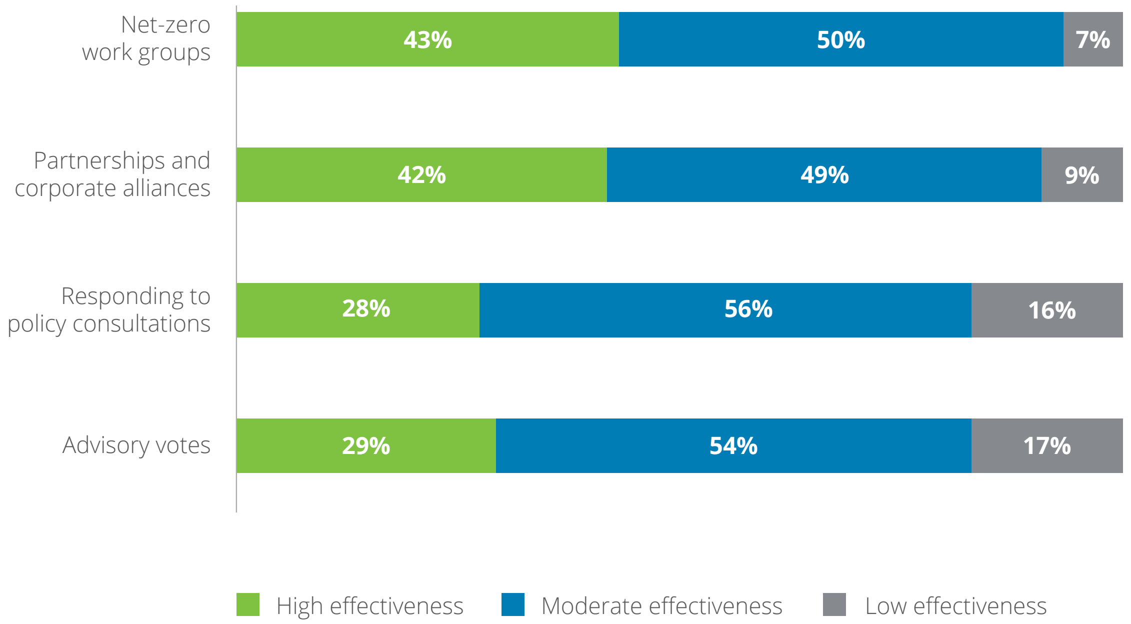
The encouraging finding from our research is that engaging with the wider ecosystem really does seem to work.

We asked our participants how effective they found four different forms of engagement:

- Net-zero working groups—participating in forums such as the PRB, PRI, GFANZ or NZBA[29]
- Partnerships and corporate alliances—collaborating with industry networks like ClimateWise[30] or advocacy groups such as the IIF
- Responding to policy consultations—sending feedback on draft regulation
- Advisory votes—engaging with NGOs in setting up advisory shareholder resolutions

By a substantial majority, all four strategies were rated highly or moderately effective (Figure 26), with the highest ratings for participating in net-zero working groups and partnering in corporate alliances. But ecosystem engagement does require keen skills in stakeholder management. "It's important to evaluate which NGOs you chose for a partnership," explains one sustainability manager, who bases the decision on NGOs' geographic presence, reputation, and values. "If you can find common interests, NGOs can help with subject matter expertise. They can also be a good representative for society at large."

Figure 26: How effective are these stakeholder collaboration strategies?

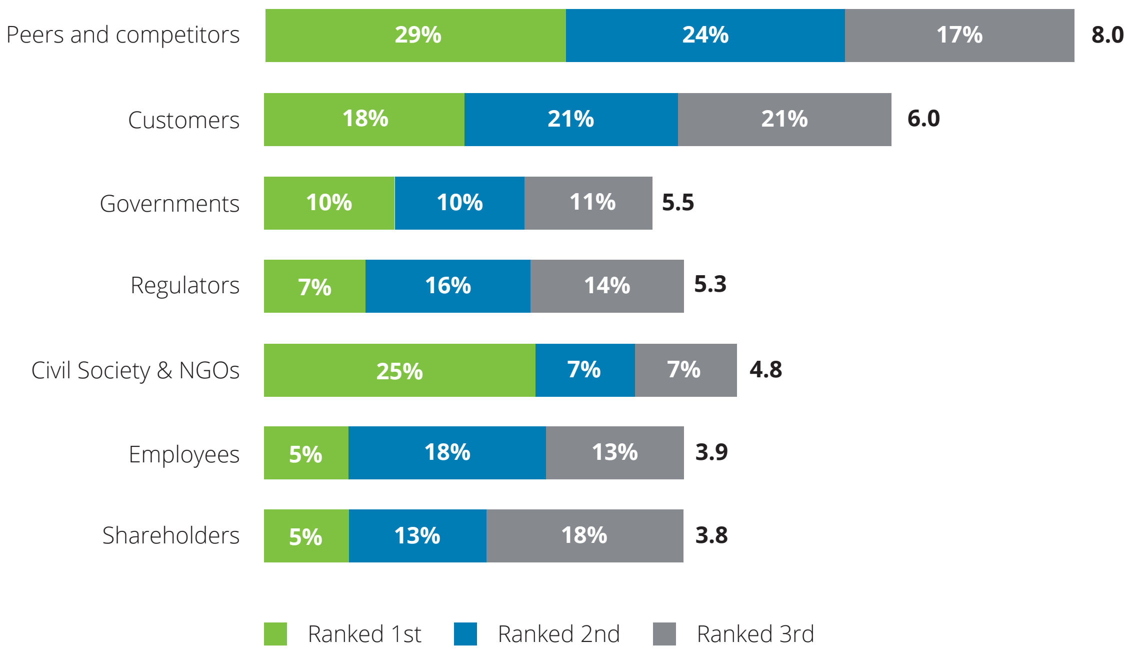


One Swiss respondent highlights the important role of the Swiss Bankers Association in forging a consensus view and taking it to lawmakers and regulators. Another respondent from the Netherlands emphasized the value of public-private partnerships (PPPs) in funding open-source research that industry can access at large. "A PPP also helps to ensure that research is independent. We've found that independent research creates a strong opportunity to engage clients about their business model."

Our final finding is one of the most surprising. We wanted to know who was influencing firms in deciding whether or not to commit to net-zero. Our hypothesis was that regulators and shareholders would top the list (they did when we asked a similar question in our previous survey two years ago; times have changed).

Firms now tell us that peers and competitors have the most influence over their firm's net-zero stance (Figure 27). The finding is robust for geography (APAC, Europe, and North America) as well as industry sector (banking, insurance, and asset management). Customers came second, some way back, followed by governments regulators and NGOs. As one North American CSO recalls, "As COP26 approached, it just became screamingly obvious that our peers were all doing it and our clients were all doing it. You saw the clusters of corporate commitments and there was a much greater awareness across the organization that this was coming. That's when the dialogue shifted a lot from 'Okay, I know I need to get this done' to 'Where's the opportunity?'"

Figure 27: Which stakeholders most influence your firm's net-zero commitments? *(Percentage of first, second, and third-place positions; average score out of 10)*



Acceleration tips:

- Speak up about the pain-points and bottlenecks until governments fully understand them
- Collaborate in net-zero working groups in pursuit of common goals
- Participate in local and international trade bodies so they can better aggregate and amplify the voice of the financial sector in the ecosystem
- Contribute your firm's perspectives to policy consultations
- Consider public-private partnerships to sponsor independent scientific research
- Advocate consistently—and in line with your publicly stated views and priorities on climate

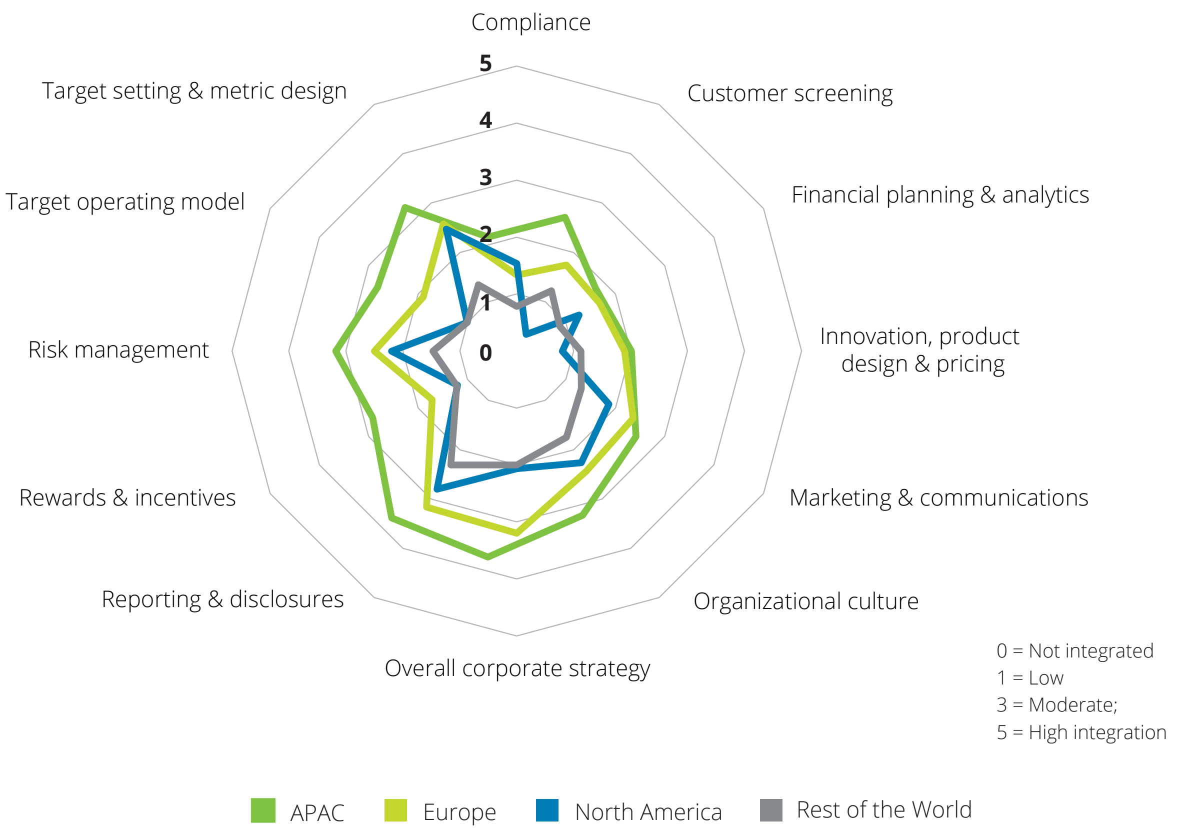
Additional regional insights

While there's much agreement for many questions in our survey from participants around the globe, there are also some notable differences, which we summarize below. Interviews with sustainability executives suggest that some of this variation comes from the emphasis on different drivers for adopting and executing a net-zero commitment. Very broadly speaking, European respondents are more likely to cite societal expectations and the need to comply with emerging regulations, while respondents in North America emphasized the scale of the market opportunity.[31] Several respondents in Asia-Pacific point to physical climate risk drivers. And some (but by no means all) interviewees in emerging markets and developing countries note the need to respond to the concerns of large international investors.

Strategy

Firms across different regions generally show the same pattern of integration, with few regions extending beyond 'moderate' on any of the dimensions we surveyed. North American respondents report relatively low integration of net-zero strategy within overall corporate strategy, customer screening, and product innovation (with the divergence being driven more by firms from the United States than Canada).

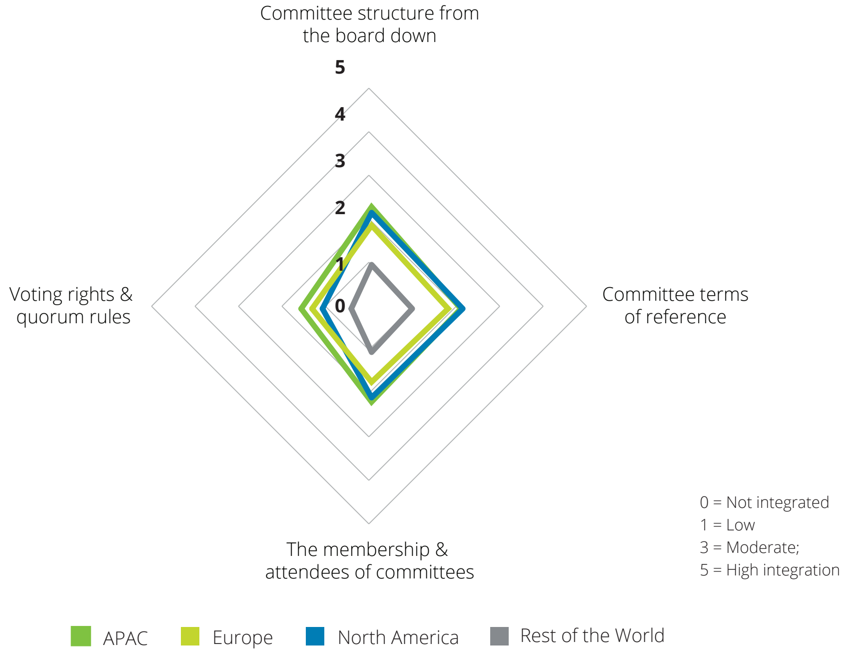
Figure 28: How far has your firm integrated net-zero into the following components?



Governance

Firms across all regions are in broad agreement that they have yet to reflect their net-zero goals within their wider systems of governance, with firms in North America reporting the fewest revisions or updates. Our survey suggests that committee structures, terms of reference, memberships, and voting rules have been partially updated, with very few respondents anywhere reporting that they have been fully updated.

Figure 29: How far has your firm revised governance committees to reflect net-zero goals?

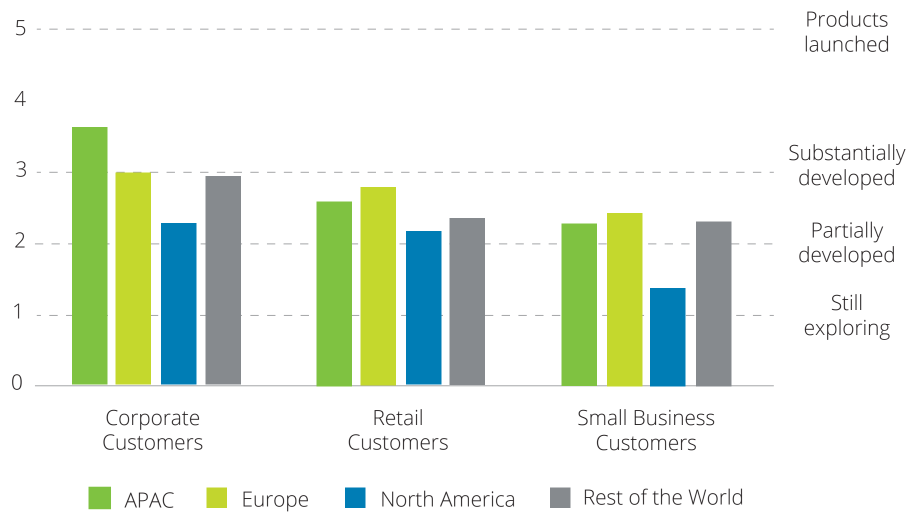


Products and services

Firms in Asia Pacific report the most progress in developing products and services for corporate banking customers (see Figure 30), followed by Europe and the rest of the world, with North America some way behind. A similar regional distribution emerges when looking at:

- product development in asset management and insurance
- products to target the highest emitting sectors
- the promotion of customers' sustainable behavior
- promoting net zero products and using price incentives

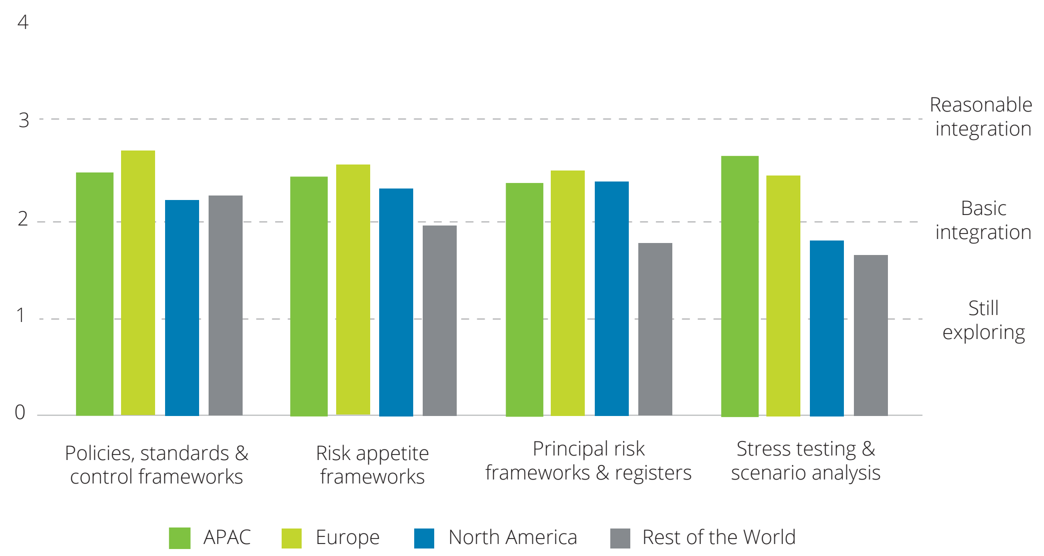
Figure 30: How far have you developed net-zero products for particular banking clients?



Risk

When we analyzed how well firms in different regions identify, quantify, and manage climate risks, two broad findings emerged. Firstly, responses were broadly the same across regions. Secondly, most respondents reported basic (and occasionally) reasonable integration of net-zero into their established risk management practices. Where regional divergences did emerge was when we asked how well net-zero was integrated into particular risk management tools such as policies, risk appetite, and stress testing. In these areas, firms in APAC and Europe report basic to reasonable integration—ahead of firms in North American and the rest of the world.

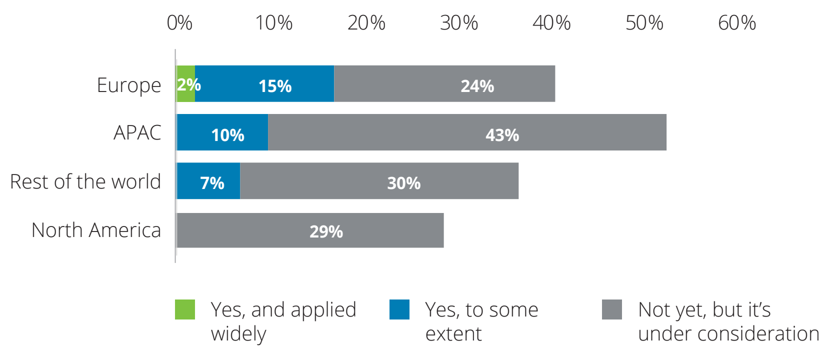
Figure 31: How well is your firm's net-zero approach embedded in risk management tools?



Data

All regions report being reasonably confident about their Scope 1 and 2 emissions data. They find it harder to source Scope 3 data and hardest of all to source counterparty transition plans. Confidence in data accuracy and completeness is generally modest across regions, as is the extent to which firms have integrated net-zero data within their formal frameworks for data governance and data architecture. One area where regional differences does emerge in our survey is the use of shadow carbon pricing, where firms in Europe and APAC report greater application of shadow carbon pricing.

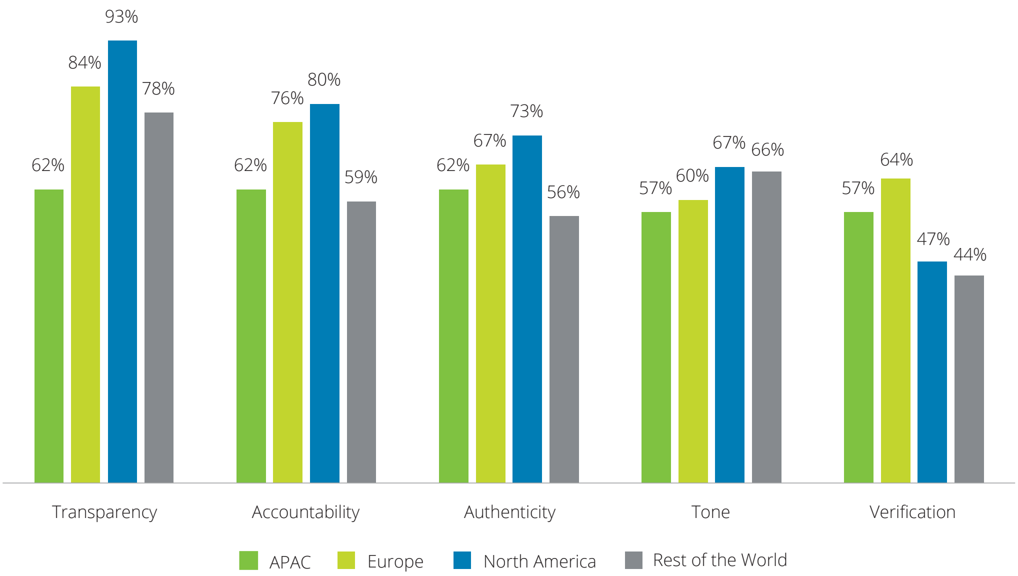
Figure 32: Does your organization make use of shadow carbon pricing?



Communications

To address the risk of greenwashing, firms in North America report the highest use of the following methods: transparency, accountability, authenticity, and tone—with a lesser emphasis on verification. Firms in Europe also report widespread use of efforts to avoid greenwashing. APAC firms make use of all methods relatively evenly (though less commonly). Firms in the rest of the world make least use of verification (independent auditing of data).

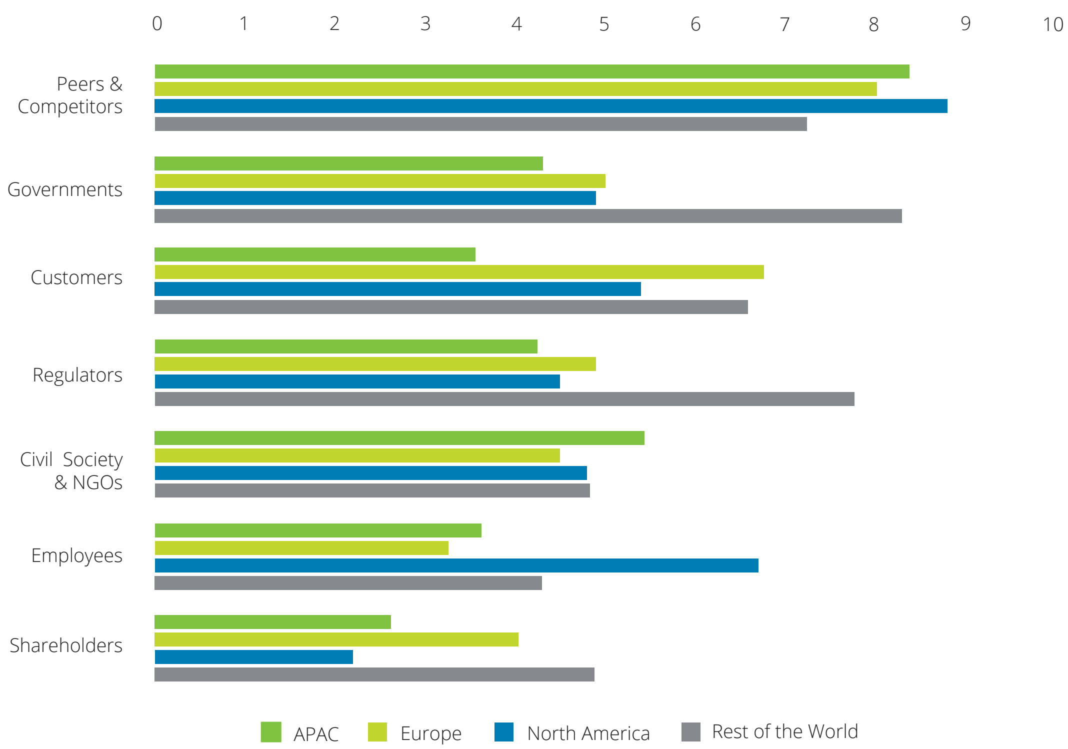
Figure 33: How does your organization avoid greenwashing?



Ecosystem

Firms across different regions tend to agree that their peers and competitors have a high degree of influence over their own net-zero commitments. There's also broad consensus on the moderate influence of NGOs. However, apart from those two aspects, we see a wide disparity of answers across different regions. Firms in North America are far more likely to cite their employees as a significant influence, firms in Europe cite their customers, while firms in the Rest of the World cite governments, regulators, and shareholders.

Figure 34: Which stakeholders most influence your firm's net-zero commitments?



Average score from 0 to 10 where 0 = minimal influence and 10 = maximum influence

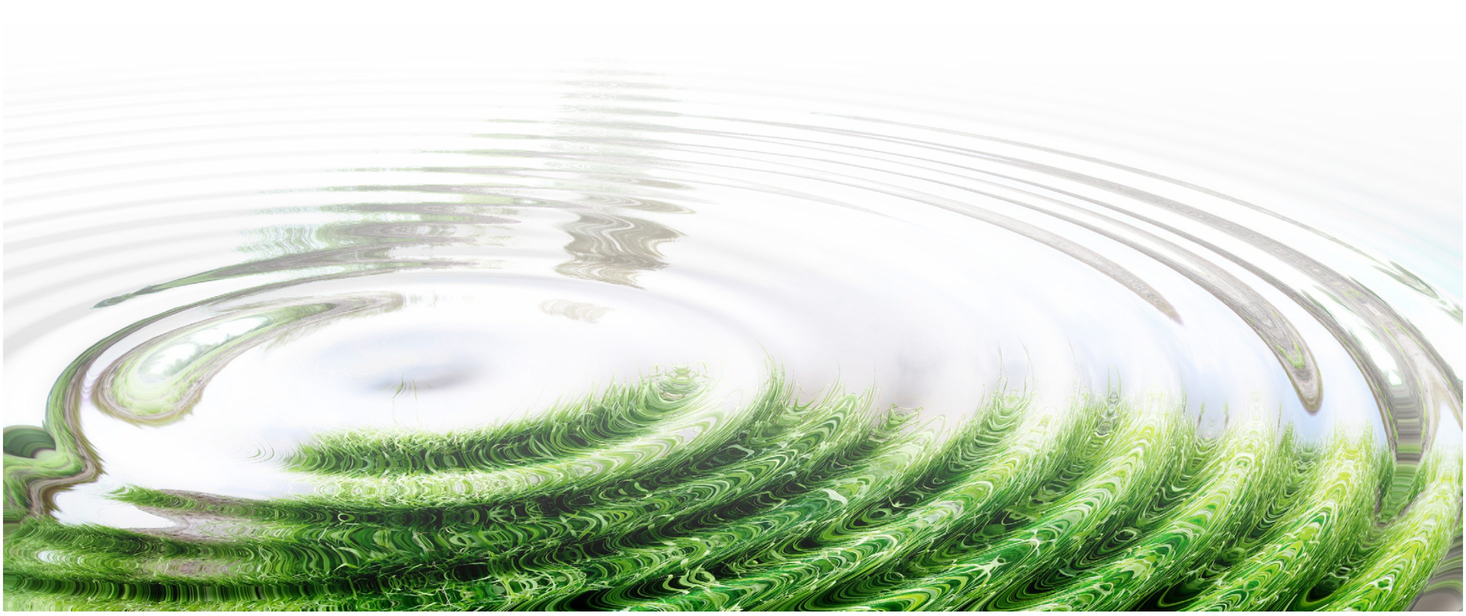
Concluding thoughts

Climate change is affecting all sectors of the financial services industry. It's also impacting all aspects of an organization's functions, from day-to-day operations to financing activities. By committing to a net-zero target, financial services firms may discover they have signed on to wholesale business transformation.

At the same time, achieving those net-zero targets depends on organizations in the real economy achieving their own targets. That's what makes collaboration with governments and public institutions so critical to the financial sector's ability to finance, insure, and enable the energy transition.

The Net-zero Maturity Model outlined at the start of this report is designed to support financial services firms on the road to net-zero by laying out the steps that firms can take to transform key parts of their business. Consider it a tool to identify current strengths and improvement opportunities as you move along the journey to getting your organization's GHG emissions as close to zero as possible.

We welcome your questions and ideas, and invite you to reach out to any of us by email. We also recommend that financial institutions engage the wider ecosystem around them, taking advantage of organizations such as the IIF as a safe space to share, learn, and advocate.



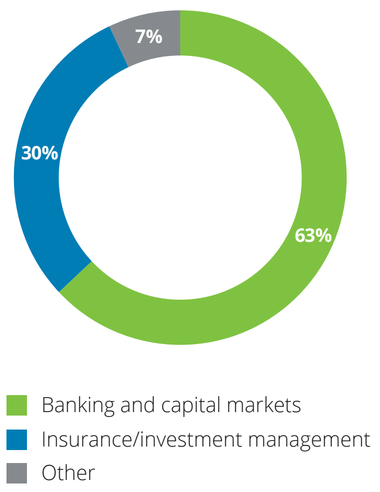
Research methodology

This research from Deloitte and IIF incorporates insights from over 30 in-depth interviews with financial services executives working in a range of functional areas including sustainability, risk, strategy, finance, compliance, and human resources, as well as with senior executives and board members at a wide variety of firms. Additional interviews were conducted with recruitment agencies specializing in financial services and sustainability. Interview participants were located in Asia Pacific, Europe, North America, Latin America, the Middle East, and Africa.

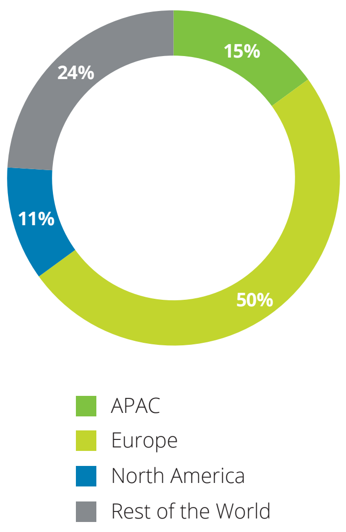
The observations in this report build on the deep relationships the IIF has globally with financial services firms and the work Deloitte has performed for clients around the world. The report also draws on findings from Deloitte and IIF's survey of 135 industry professionals in 42 countries across Europe, North America, Asia Pacific, Latin America, the Middle East, and Africa between 1 July 2022 and 15 September 2022. Survey respondents represent all dimensions of the financial services industry, including banking and capital markets, investment management, and insurance. The "other" category includes a range of smaller organizations, including pension funds/administration, agriculture and infrastructure development, consumer finance, and real estate companies.

In total, the financial institutions who responded to our survey employ over 3.3m people, with a combined market valuation of $1.8tn and assets under management of $19.8tn.

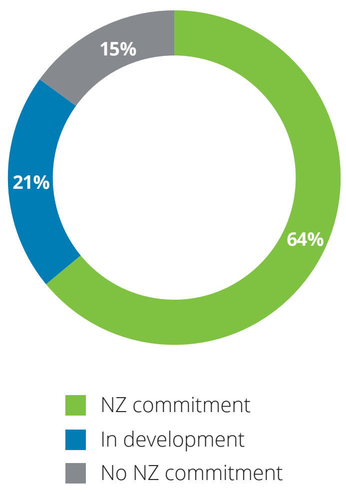
Insurance and investment management



Respondents by geography



Respondents by net-zero commitment



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Endnotes

1. The Evidence Is Clear: We can halve emissions by 2030, Intergovernmental Panel on Climate Change, April 2022.
2. A Beginner's Guide To Climate Neutrality, United Nations Framework Convention on Climate Change, February 2021.
3. Net Zero Stocktake 2022, Net Zero Tracker, June 2022.
4. The Future of the CSO, Deloitte/IIF, January 2020.
5. This report focuses on climate risk management and efforts to reduce anthropogenic GHG emissions to an amount the planet can naturally absorb. However, the climate system does not exist in isolation and that tackling nature related risks is also imperative (see Green Weekly Insight: Tackling Nature-Related Risks, IIF, June 2022). Our research finds that CSOs' mandates almost always cover both climate and biodiversity.
6. In this simplified representation of the C-Suite, CEO = Chief Executive Officer, CFO = Chief Financial Officer, CRO = Chief Risk Officer, CCO = Chief Commercial Officer/Business Lines, COO = Chief Operations Officer, and CHRO = Chief Human Resources Officer.
7. Banking on climate neutrality: The global banking industry's role in transitioning to a low-carbon economy, December 2022. In a recent study, the most popular reason to support climate neutrality given by banks was that addressing the transition aligned with their mission.
8. The banking approach to net zero is just claptrap, Financial Times, November 2022.
9. Integrity Matters: Net Zero Commitments by Businesses, Financial Institutions, Cities, and Regions, United Nations Expert Group on the Net Zero Commitments of Non-State Entities, November 2022.
10. Two years ago, when we surveyed the skills needed to be an effective CSO, the two most common answers were: (1) strategy; and (2) influencing. The same two skills also topped our survey this time round.
11. Electricity Access in Africa, Brookings Institute, March 2019
12. Percentage of firms saying they have hired extra staff or created new roles to deliver on their net-zero commitments: North America (67%), Europe (63%), Asia-Pacific (57%), and rest of the world (31%).
13. Safeguards around conflicts of interests need to be carefully factored into environmental assessments. For more on the potential conduct risk aspects of net-zero, see Emerging Climate-Related Risks, Deloitte, November 2022.
14. How does carbon offsetting work?, Deloitte; ICVCM: Build integrity and scale will follow
15. Around 50% of survey respondents said they have either launched or substantially developed products for the following hard to abate sectors: Power & Utilities (53%), Real Estate (51%), Coal (50%), Oil & Gas (47%), Transport (39%), and Agriculture (37%).
16. In its latest assessment, the European Central Bank found that only 41% of banks have a framework for climate risk stress testing (CRST). Among those that do, more than half admit they lack granular location data for corporate counterparties (meaning if river flooding affects a region, the banks do not know which premises of their counterparties will be hit). Roughly 40% of banks with a CRST say they do not use its insights when implementing business strategy, and more than 80% don't use it to inform their loan granting process. Moreover, three-quarters do not ensure independent validation of their climate models (an area attracting growing regulatory scrutiny). 2022 Climate Risk Stress Test, European Central Bank, July 2022.
17. Internal Carbon Pricing, Deloitte discussion paper on the key factors firms should bear in mind when considering an internal or 'shadow' carbon price.
18. The ISSB is working closely with the International Financial Reporting Standards (IFRS) Federation, the Carbon Disclosure Project (CDP) and the International Organization of Securities Commissions (IOSCO) to draw up two common standards for sustainable financial disclosures.
19. TPT-Disclosure-Framework, November 2022.
20. A recent consultation paper by European regulators asks whether the definition of greenwashing should cover "misleading/ suggestive non-textual imagery and sounds (including the use of specific colours like green)." ESAs Call for Evidence on Greenwashing, November 2022.
21. For more on Partnership for Carbon Accounting in Finance (PCAF) see PCAF: Enabling financial institutions to assess GHG emissions
22. Banking on climate neutrality: The global banking industry's role in transitioning to a low-carbon economy
23. The reasons for this divergence are unclear, but anecdotal evidence from survey participants with experience in both banking and insurance suggests the following: Iinsurers tend to track a flexible, open-ended, and ever-changing set of risks, rather than the more stable set of risks classes used by banks; insurers are used to tracking both the assets and liabilities side of the balance sheet (through investment risk
24. Regulatory expectations are also a driver of reporting; for example, the principles outlined in BCBS 239; Principles for effective risk data aggregation and risk reporting.
25. Recommendations for Publicly Accessible Climate Data Utility, GFANZ, September 2022.

Endnotes

26. In general terms, wrong way risk occurs when the risk of the collateral is correlated with the risk of the counterparty. Physical and transition risks that both affect a counterparty at the same time could raise default risk while lowering the value of collateral.
27. A report commissioned by the Presidencies of COP26 and COP27 finds that the net-zero transition depends on EMDCs (outside China) receiving $1trillion a year in external finance by 2030. Independent High-Level Expert Group on Climate Finance, November 2022.
28. The Sustainable Markets Initiative has published its "Transition Taskforce Summaries" for 16 priority sectors, summarizing developments in each (including two for financial services and asset managers and owners. SMI Task Forces, October 2022
29. Principles for Responsible Banking, Principles for Responsible Investment, Glasgow Financial Alliance for Net-zero, Net-zero Banking Alliance
30. ClimateWise: Cambridge Institute for Sustainability Leadership
31. As one commentator put it (pithily if somewhat simplistically), "The EU has rules and the US has cash." The green tech tussle where America has cash and Europe has rules, Financial Times, November 2022.

Deloitte.