



Thailand Business Transition
for Future Energy Ambition
Survey 2023



Executive Summary

To assess the current state of energy ambition, Deloitte surveyed 57 Thai company.

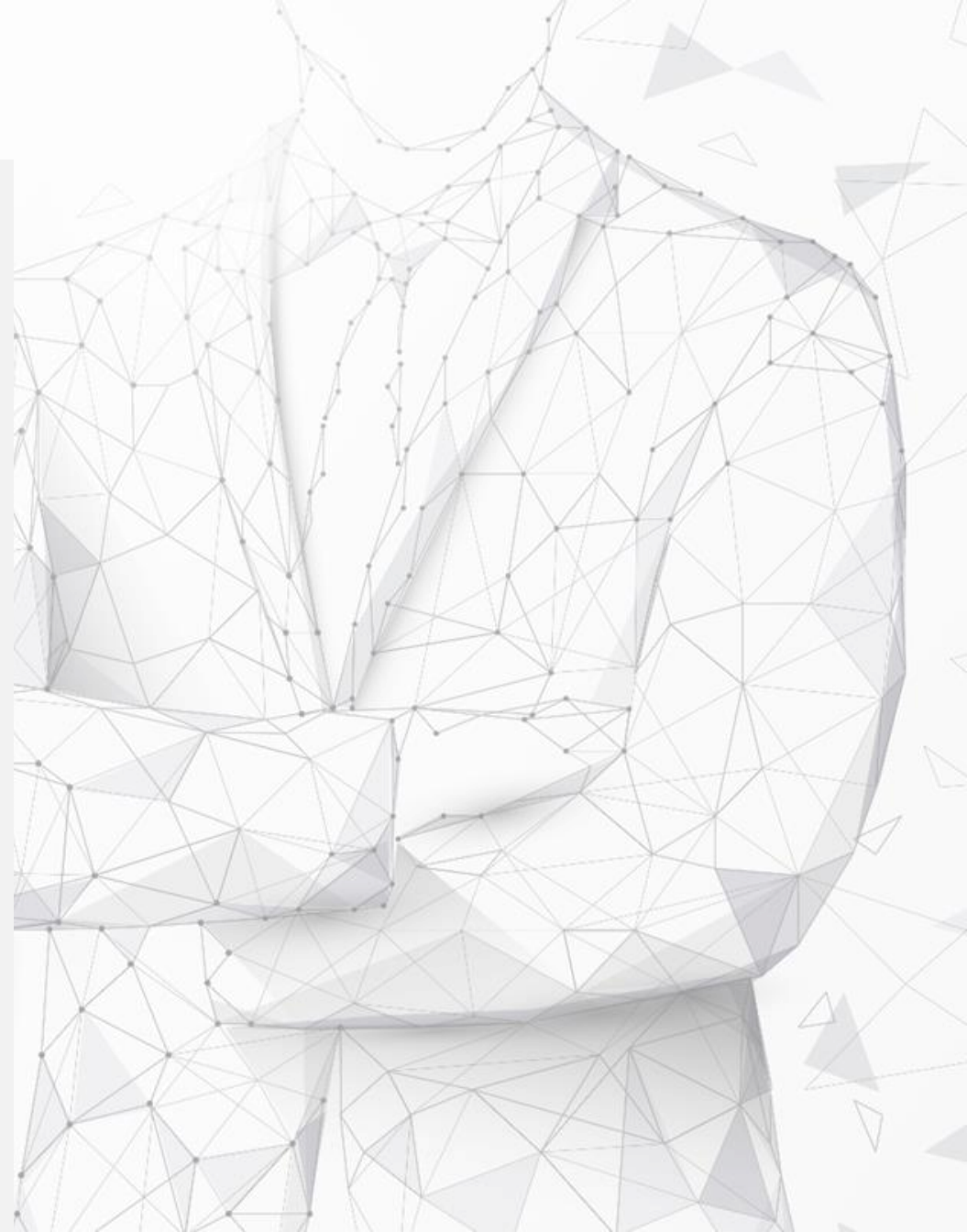
In analyzing the key drivers for companies' sustainability and climate action, regulatory and compliance factors, driven by international and national policies, emerge as the primary force. Following this, business considerations, which include elements of competitiveness, operational efficiencies, and identified business opportunities, closely follow.

Notably, alignment with COP26 agreements has led many countries to commit to substantial greenhouse gas emission reductions, with "net zero," "greenhouse gas emission reduction," and "carbon neutrality" ranking as the top three targets. High carbon intensity sectors set long-term goals for carbon neutrality by 2050 and net zero by 2065.

However, despite a strong commitment to sustainability, companies encounter challenges, which can be categorized as non-monetary and monetary. Non-monetary challenges, particularly difficulties in collecting and tracking emission data across the supply chain, emerge as the most prominent obstacle. On the monetary front, the substantial investment cost of climate change initiatives poses a significant hurdle.

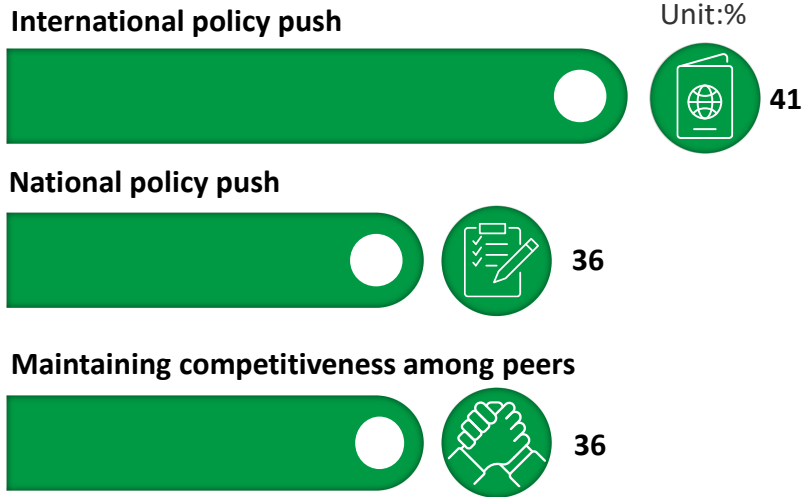
To achieve sustainability and climate targets, companies prioritize actions such as improving operational efficiencies, reducing emissions from transportation and supply chains, and enhancing waste management systems. Moreover, support from the board is a key success factor for decarbonization.

The financial landscape for sustainability and climate mitigation in Thailand reveals government communication of supporting schemes may be ineffective, prompting companies to rely on companies' budgets for initiatives.

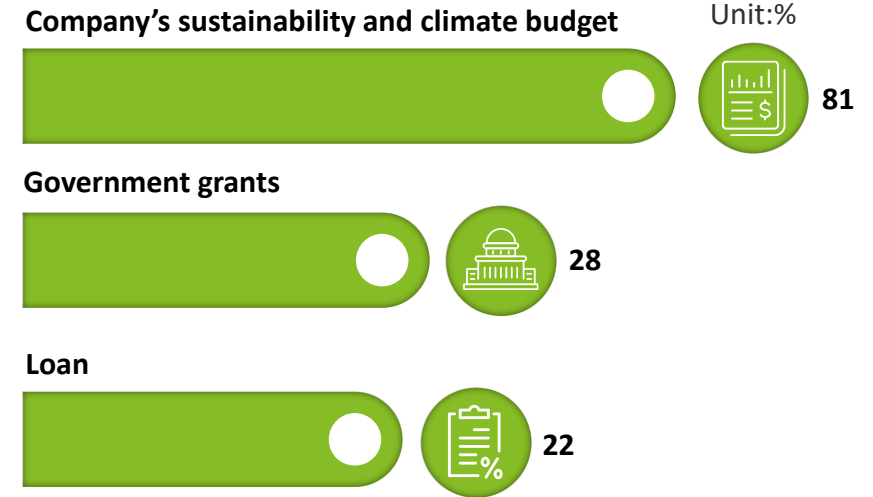




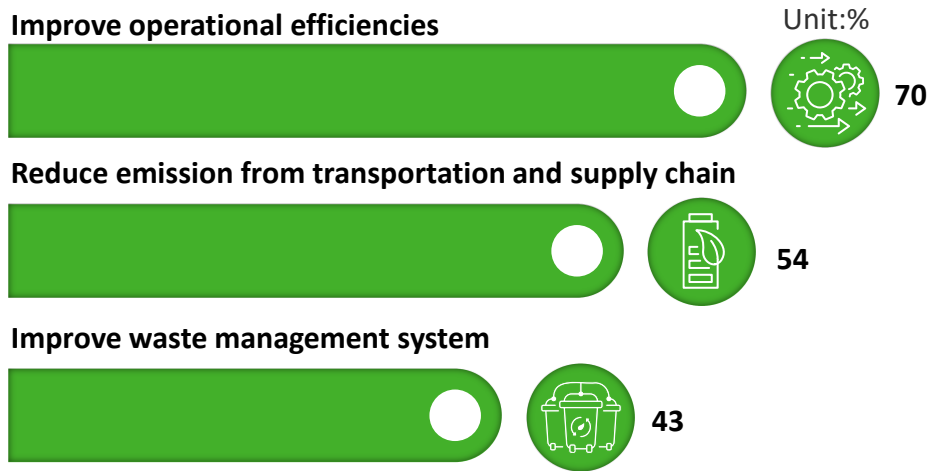
Top driver for company's sustainability and climate action



Top company's financial sources for sustainability and climate mitigation



Top sustainability and climate action





Company information

Role



Board of directors

2.9%

CEO (Chief Executive Officer)

8.8%

CFO (Chief Financial Officer)

14.7%

Executive/management committee

14.7%

Manager

50%

Other

8.8%

Industry



Consumer industry

46.4%

Energy, Resources & Industrials

37.5%

Financial Services

14.3%

Life Sciences & Health Care

1.8%

Company size



Large

82.1%

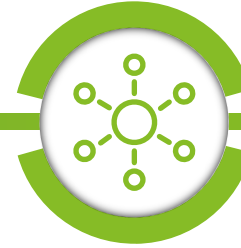
Medium

10.7%

Small

7.1%

Company type



Manufacturer

42.9%

Trader

8.9%

Service

48.2%

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Strategy for Sustainability and Climate Change Targets



Operational Approach for Sustainability and Climate Change Targets

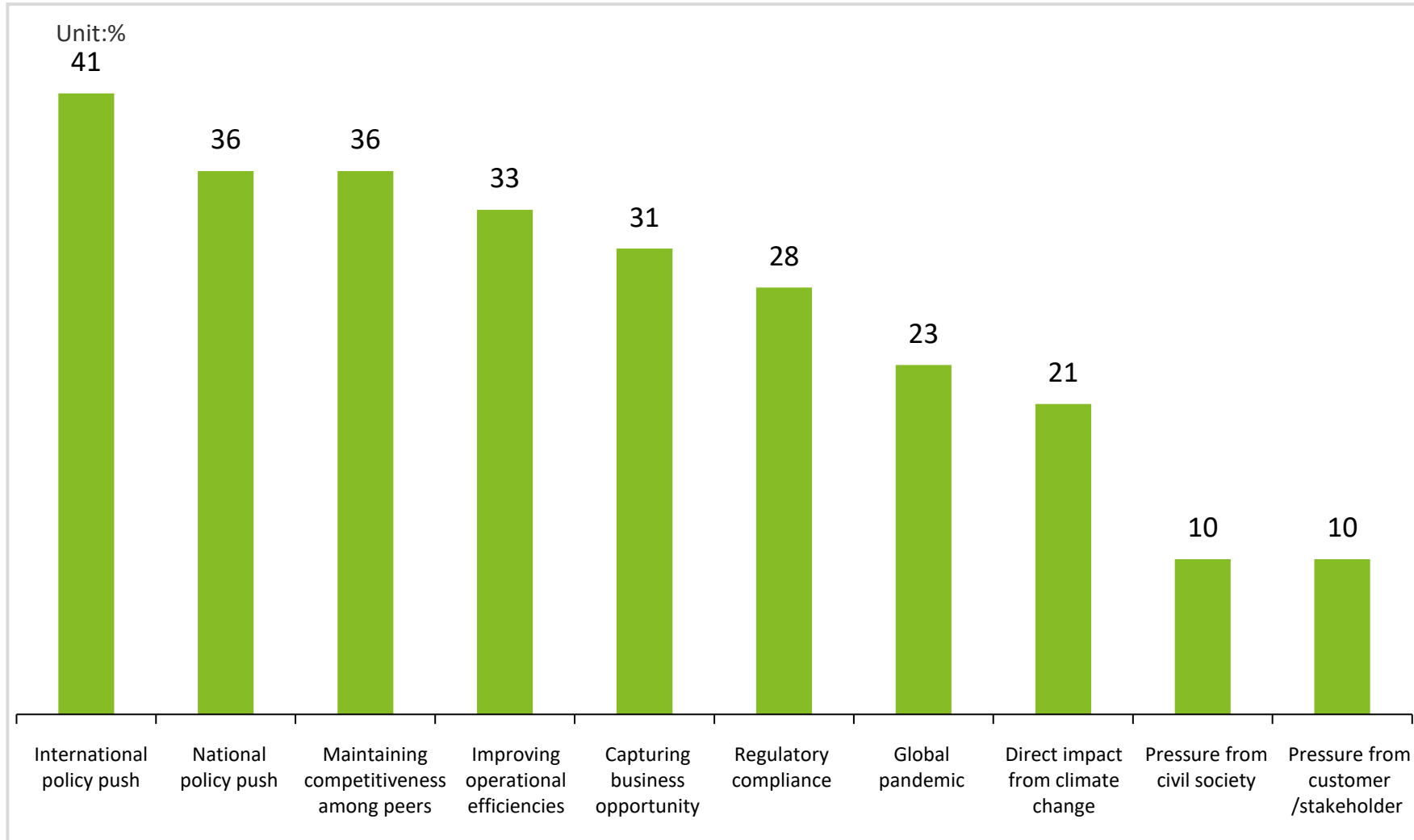


Financial Measures for Sustainability and Climate Mitigation





Key Driver for company's sustainability and climate action



It can be noticed from the result that the regulatory and compliance such as policy push, both international and national policies is major driver for major driver for sustainability and climate action.

Business factors such as competitiveness, operational efficiencies and business opportunity are the second top driver. Pressure from related parties also being a driver part of sustainability and climate action

What are impactful drivers for company's sustainability and climate action? (Please select up to 3 answers)



Top Driver for company's sustainability and climate action

International policy push

Example of international policy

CBAM

- A new carbon border adjustment mechanism (CBAM) will also be introduced, requiring EU importers, as of 2026, to purchase certificates equivalent to the weekly averages of EU ETS allowances auctions.
- This CBAM is initially targeted at imports within six emissions-intensive sectors considered more susceptible to carbon leakage: cement, iron & steel, aluminum, fertilizers, electricity, and hydrogen.
- The CBAM tariff is applicable to imports of these commodities from all third countries not covered by the Emissions Trading System (ETS) or a connected mechanism.



BCG Model



Thailand Taxonomy

National policy push

- **BCG model** has been introduced as responses to global challenges that Thailand is facing, e.g., climate change, pollution, disease outbreak and income inequality.
- BCG model applies the concept of bioeconomy, circular economy and green economy to develop the nation to achieve sustainable development goals (SDGs) by capitalizing on the country's strength in biological and cultural diversity.
- BCG model seeks balanced development within environmental limits, mitigating climate change, and aiming for a two-thirds cut in resource consumption while curbing pollution and environmental impact.

The model will be driven through the following four strategies under close collaboration of the government, industry, academia and the people

- Strategy 1: Promoting sustainability of biological resources through balancing conservation and utilization.
- Strategy 2: Strengthening communities and grassroots economy by employing resource capital, identity, creativity and advanced
- Strategy 3: Upgrading and promoting sustainable competitiveness of Thai BCG industries.
- Strategy 4: Building resilience to global changes.

- The Thailand Taxonomy serves as a guide for categorizing economic activities based on environmental objectives. It is characterized by transparency and is founded on the most recent climate science, aligning closely with the objective of achieving net-zero emissions by 2050, as outlined in the pertinent Paris Agreement, aiming to limit global warming to below 1.5°C.
- The Thailand Taxonomy employs a classification system known as the "traffic light system," which categorizes activities into green, amber (transitional), and red.
- Activities aligned with the taxonomy must adhere to the principles of Do No Significant Harm (DNSH) and Minimum Social Safeguards (MSS).
- Taxonomy Phase 1 is centered on the pursuit of climate change mitigation, concentrating on the energy and transportation sectors. Failure to transition their business practices toward sustainability in these two industries could have substantial repercussions on their future operations and financing.
- Phase 2 is set to pivot its focus towards the Manufacturing sector, Agriculture sector, Real Estate and Construction sector, and the Waste Management sector.
- Currently, the Taxonomy addresses only climate change mitigation among environmental objectives. The remaining five are anticipated to be included in future iterations. Climate change mitigation aims to minimize GHG emissions through actions e.g., generating renewable energy, upgrading technology, and enhancing carbon stock in land-based sinks.

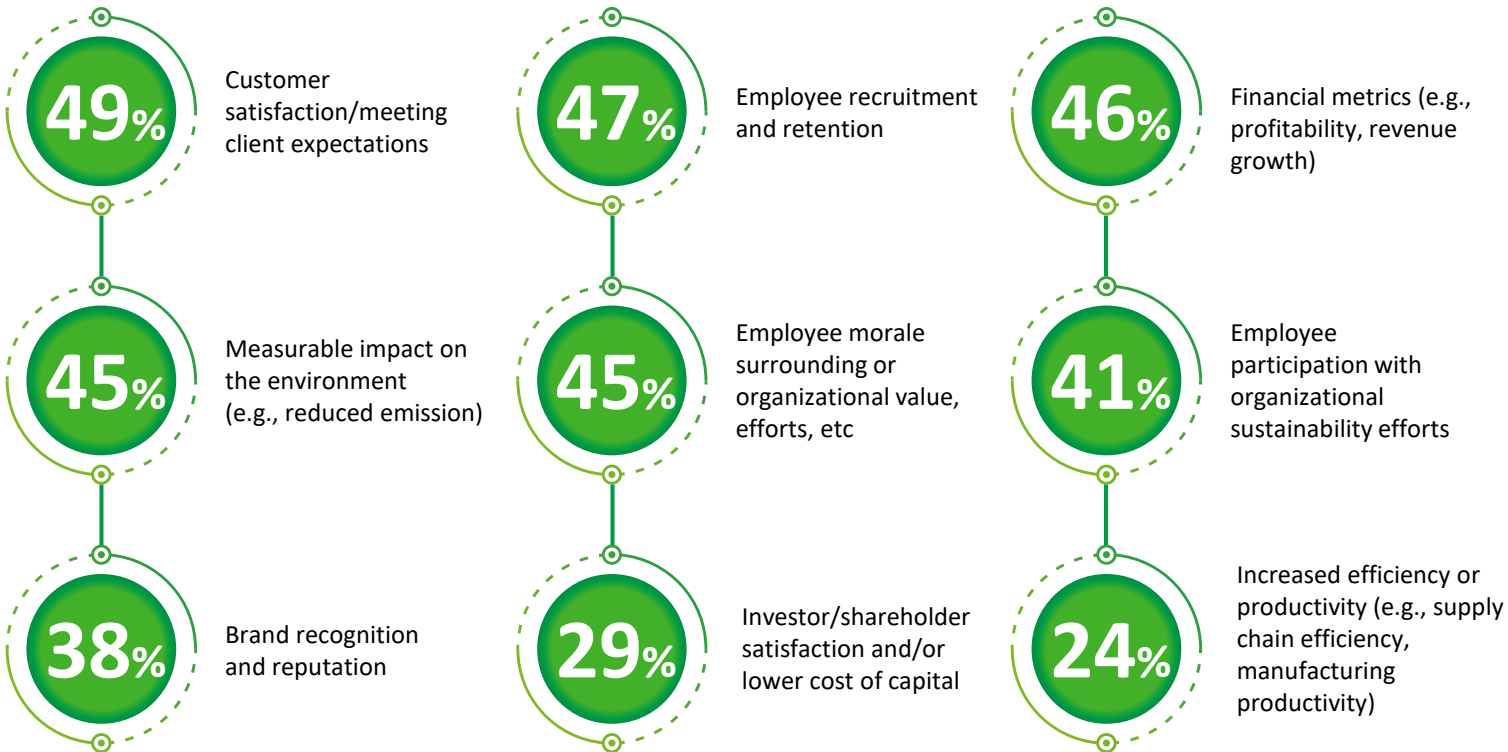


Top Driver for company's sustainability and climate action

Maintaining competitive among peers

Areas organization's environmental sustainability efforts yielded a positive impact

Sustainability and climate activities have become relevant to every aspects of the business including financial, reputation, and stakeholders.



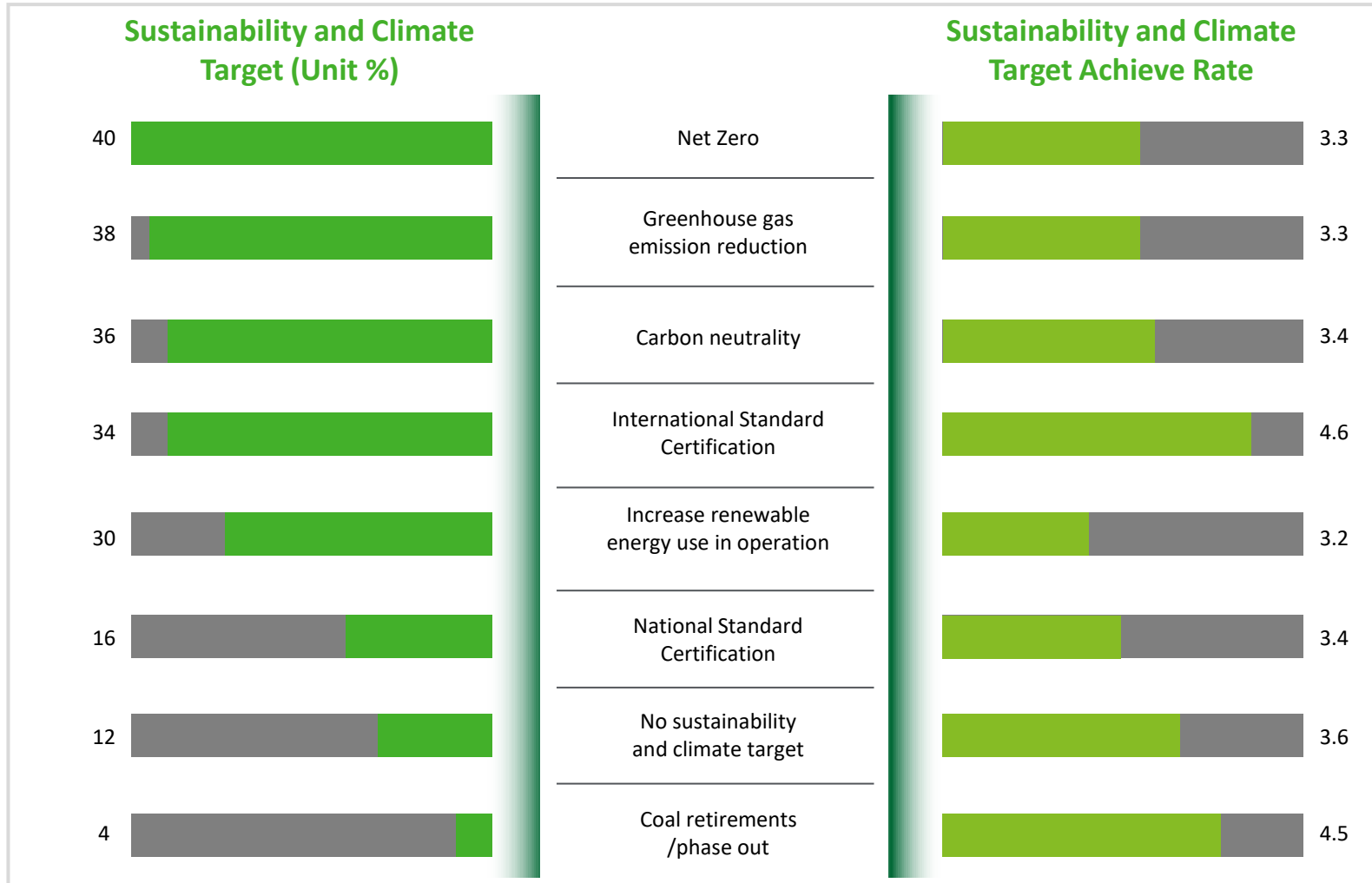
Source: Deloitte: 2021 Climate Check: Business' views on environmental sustainability



- According to survey conducted by Deloitte Global and Forbes Insights on the impact of sustainability efforts of 750 executives worldwide
- Beyond positive financial implications, 49% of respondent companies say their customer satisfaction has improved because of their environmental sustainability efforts
- There also have been noticeable improvements in employee recruitment and morale, indicating that environmental sustainability efforts are becoming core tenets of organizational culture and brand identity.
- These positive trends in customer satisfaction and employee engagement play a pivotal role in bolstering overall competitiveness.
- Furthermore, organizations are reaping significant benefits in terms of profitability and revenue growth due to their sustainability initiatives.



Sustainability and Climate Target and Achievement rate



The survey indicates that "net zero," "greenhouse gas emission reduction," and "carbon neutrality" are the top three targets, chosen by 40%, 38%, and 36% of respondents, respectively.

For long-term goals, companies align with national objectives, aiming for carbon neutrality by 2050 and achieving Net Zero by 2065.

Industries with high carbon intensity, like oil and gas, are especially focused on meeting GHG-related targets in alignment with global initiatives as follows:

- One of the leading energy firm incorporates climate change risks and opportunities in strategic considerations, aligning with Business Growth, New Growth, and Clean Growth targets for 2030. This signifies a commitment to transitioning the business to a low-carbon society with a net-zero greenhouse gas emissions goal by 2050.
- Meanwhile, one of the leading natural gas generating firm is targeting for a carbon neutral target for scope 1 and 2 upstream emissions around **2025** and a net zero target for scope 3 upstream emissions in the 2030.

What are your company's sustainability and climate Target? (Please select up to 3 answers)
Please rate achievement of the company's target answered in 1.1 as of 2022



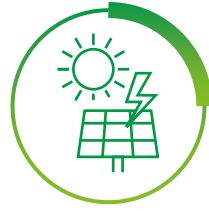
Sustainability and Climate Target



Net Zero



Greenhouse gas
emission reduction



Carbon neutrality

- In line with the COP26 agreements, numerous countries have committed to substantial reductions in their greenhouse gas (GHG) emissions and are actively working towards the Net Zero target. The commitment to Net Zero has emerged as a leading and universally embraced sustainability climate goal.
- COP28, held from November 30 to December 12, reached a global agreement to immediately halt new unabated coal-fired power generation. The accord also underscores the urgency to transition away from the existing coal-fired power generation to align with the goal of limiting the temperature rise to 1.5°C.

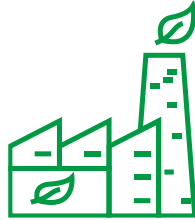
COP28

- **Global Stocktake:** Global Stocktake's first conclusion emphasize aligning efforts for Paris Agreement goals: mitigating GHG emissions, bridging financial gaps for adaptation and mobilizing implementation through finance, capacity building and innovative technologies.
- **Transition Away: Beginning of the end of the fossil fuel era:** Global emissions must be reduced by 43% of 2019 levels by 2030, and NDCs should be strengthened with updated climate action plans by 2025 to transition away from the fossil fuel era, as concluded after the first global stocktake.
- **Five Pillars of Energy Transitions by 2030:** To achieve energy transition by 2030, recommendations are focused on five pillars: Triple renewable power capacity; Double energy efficiency improvements; Phase down coal-fired power and fossil fuel subsidies; Reduce methane emissions by 75 %; and Boost clean energy investments in developing countries.
- **Conservation and System Transformation:** The 2030 Breakthrough Agenda targets Energy, Transportation, Land, Water, Built Infrastructure, and Carbon Removals for transformative changes and provides guidance for developing common nature targets in NAPs, NDCs, and NBSAPs.
- **Operationalizing Loss & Damage Funds:** At COP28, the Loss and Damage Fund was operationalized and over \$700 million was pledged by the UAE and other world leaders to adverse impacts related to climate change in developing countries.
- **Moment of criticality at COP29 and COP30:** At COP29 Azerbaijan, committed parties must deliver progress on new climate finance goals due to the scale and urgency of the climate challenge. At COP30 Brazil, parties must update their NDCs to align with the first stocktake conclusions.

Sources: 1 UNFCCC (2023). [Global Stocktake](#), 2 IRENA (2023). [Tripling renewable power and doubling energy efficiency by 2030](#), 3 COP28 Presidency (2023). [The Global Sustainable Aviation Forum](#), 4 CBD (2023). [Kunming-Montreal Global Biodiversity Framework](#), 5 UNEP (2022). [Adaptation Gap Report 2022](#), 6 UNEP (2023). [Adaptation Gap Report 2023](#), 7 COP28 Presidency (2023). [Ministerial Roundtable on Hydrogen](#), 8 Deloitte (2023). [Can an inclusive COP28 help accelerate climate action?](#)



Sustainability and Climate Target



Coal retirements/Phrase out

- In preparation for the phasing out of coal, companies must synchronize their strategies with the forthcoming implementation of Thailand's and ASEAN taxonomy by 2040. This entails a strategic transition toward cleaner and more sustainable energy sources.
- This taxonomy will classify coal-related activities as "red their incompatibility with achieving Net Zero/activities," signifying Carbon reduction goals.
- Companies are encouraged to adopt alternative energy sources like biomass, biogas, and various renewable energy forms to effectively substitute coal. Anticipate a comprehensive paradigm shift in the classification and promotion of sustainable energy sources, aligning with environmental objectives.



International Standard Certification

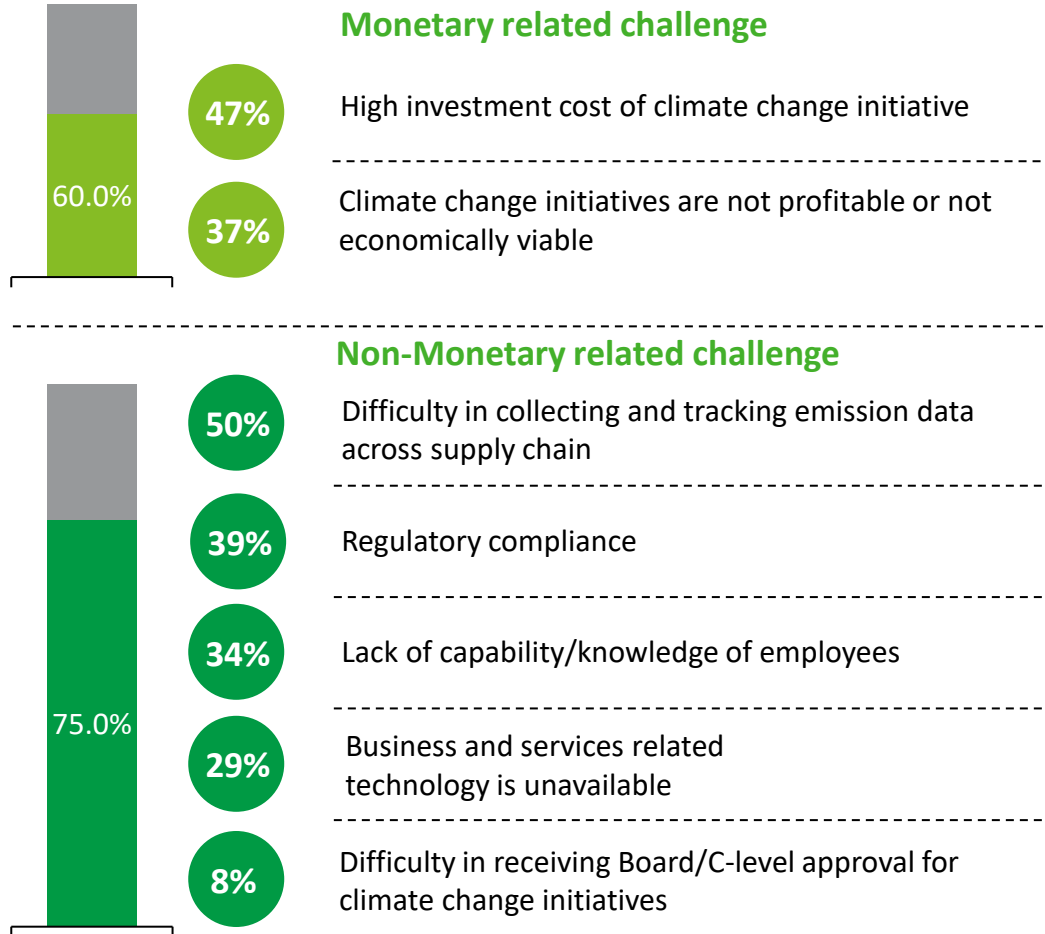
- With international standard, companies would be recognized with positive perception globally especially for ones who runs their business across international boarder.
- Example of international standard for substantiality information disclosure
The IFRS's new ISSB standards
 - The new ISSB standards from IFRS are set to promote consistent disclosure practices, creating a worldwide foundation for reporting on climate and sustainability information. Non-compliance by companies could result in a competitive disadvantage in the global market.
- LEED-certified buildings
 - According to the U.S. Green Building Council (USGBC), green buildings offer notable environmental benefits, with LEED-certified buildings in the United States demonstrating 34% lower emissions, 25% less energy consumption, and 11% less water usage compared to non-certified structures.
 - While Proprietary research from JLL (NYSE: JLL) reveals that occupiers in major Asian cities are willing to pay a rental premium of up to 28% for offices certified as green.



Challenges on sustainability and climate target

Challenges can be grouped into Non-monetary and Monetary challenges. 75% of the respondents noted that they are facing non-monetary challenges which prevent them from achieving sustainability and climate target. Difficulty in collecting and tracking emission data across supply chain is the top Non-monetary challenge companies encounter while High investment cost of climate change initiative is the top Monetary challenge faced by almost half of the respondents.

Challenges to achieve sustainability and climate target



Main concerning areas for data collection

Knowing what needs to be collected

- Selecting a reporting framework and creating a materiality matrix is essential for guiding data collection in reports. However, practical implementation can be challenging due to diverse reporting boundaries linked to different metrics. Reporting boundaries specify where an impact occurs, either from the organization's actions or its interactions with others. Understanding these boundaries is crucial for effective reporting on specific issues.

Knowing who needs to be involved in the process

- While a considerable amount of data required for ESG reporting may already exist within your organization, it is essential to note that much of this data might not be formally collected.

Knowing where the data is in the business

- After identifying the data managers within your organization, it becomes crucial to map the business processes through which they gather the necessary data.

Developing a robust, future-proof data collection process

- Maintaining an evolving document detailing how each indicator is reported ensures the seamless continuity of your reporting process.



Strategy for Sustainability and Climate Change Targets



Operational Approach for Sustainability and Climate Change Targets



Financial Measures for Sustainability and Climate Mitigation





Top sustainability and climate action

Improve operational efficiencies, Reduce emission from transportation and supply chain and Improve waste management system are the top 3 actions to create sustainability and cope with climate change.

Type of carbon emissions

Greenhouse gas emissions are categorised into three scopes



Scope 1

Cover the **Green House Gas (GHG) emissions that a company makes directly** — for example while running its boilers and vehicles.



Scope 2

Cover those that the **company makes indirectly** – like when the electricity it uses, is **produced on its behalf by a different company**.



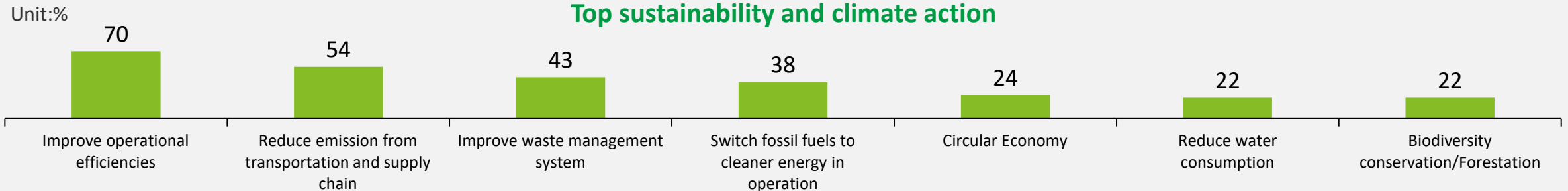
Scope 3

Cover those are not generated by the company itself, but that the organisation is indirectly responsible for, **up and down its value chain**.

Detail

- Companies are most likely to improve their **operational efficiencies (Scope 1 and 2)** and reduce emission from transportation (Scope 1) and supply chain (Scope 3).
- In some cases, the solutions easily exist to deliver net zero for Scope 1 and 2 emissions e.g., a company can source LED lights, electrify its heat demand, or transition to electric vehicle.
- Efficiently reducing Scope 1 and 2 greenhouse gas (GHG) emissions not only addresses climate change contributors but also brings business benefits like cost savings, improved efficiency, increased sales, enhanced customer loyalty, innovation, and stronger stakeholder relationships. A Deloitte survey has shown that 38% of CFOs cite cost reduction as their primary motivation to decarbonize.
- Nevertheless, companies are enhancing their waste management systems, denoted as Scope 3. This category typically constitutes 70% of their carbon footprint, surpassing operational emissions.

Top sustainability and climate action

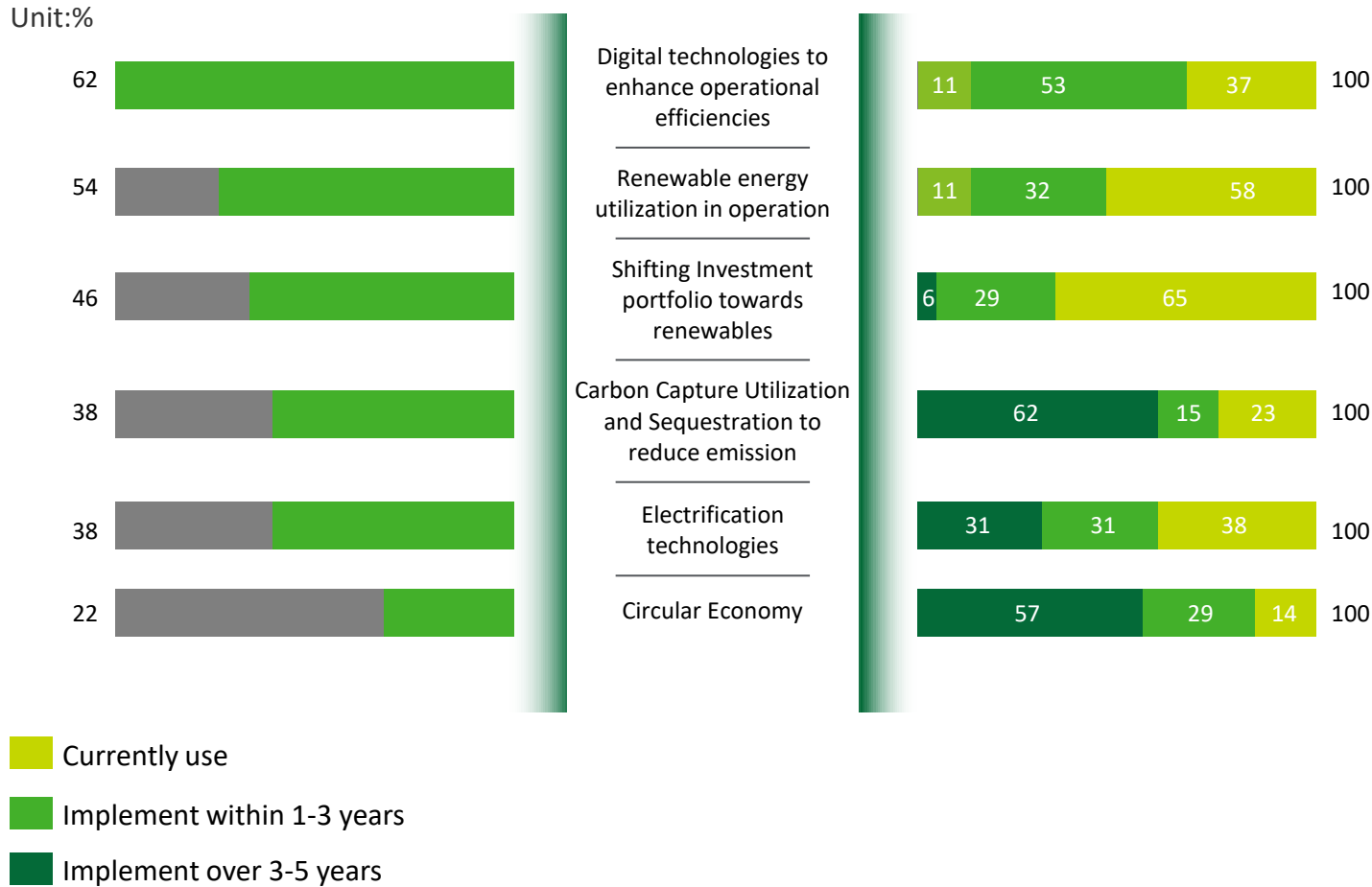


Please prioritize top 5 of sustainability and climate action of your company



Status of Company's Technologies or Actions to Close Decarbonization Gap

Company's Technologies or Actions to Close Decarbonization Gap



Using digital technologies to enhance operational efficiencies is the action companies selected to close decarbonization gap while shifting investment portfolio towards renewables such as solar, wind, hydroelectric, geothermal and green hydrogen is the technologies that most companies currently use

Currently, what are your company's technologies or actions to close decarbonization gap? (please select up to 3 answers)

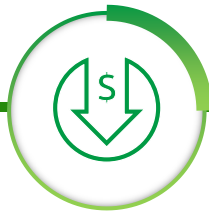


Digital Technologies in Response to Crisis



The COVID-19 pandemic disrupted the ongoing trajectory, introducing unprecedented threats and lockdown measures that forced organizations and leaders into uncharted territories. Swift decisions on digital solutions became imperative to enable a fully remote workforce, shift customer engagement from physical to online platforms, and reduce operational costs in response to declining revenue.

A Paradigm Shift in Mindset and Work Methods



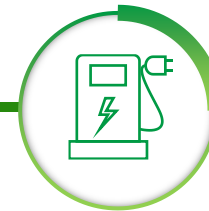
Cut Costs

Enterprises that took a hit in revenue need to radically cut costs from their operations.



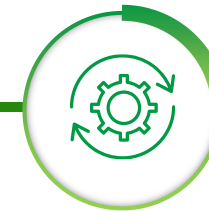
Visualize Real-time Data

Real-time visibility into financial and operational data was crucial during the Covid-19 and continue to be strategically important.



Reduce Energy Consumption

Business continuity depended on digitalised processes when physical locations were not available.



Ensure Business Continuity

The move to online operations, including blockchain technology, is expected to reduce energy consumption, resulting in lower atmospheric emissions.

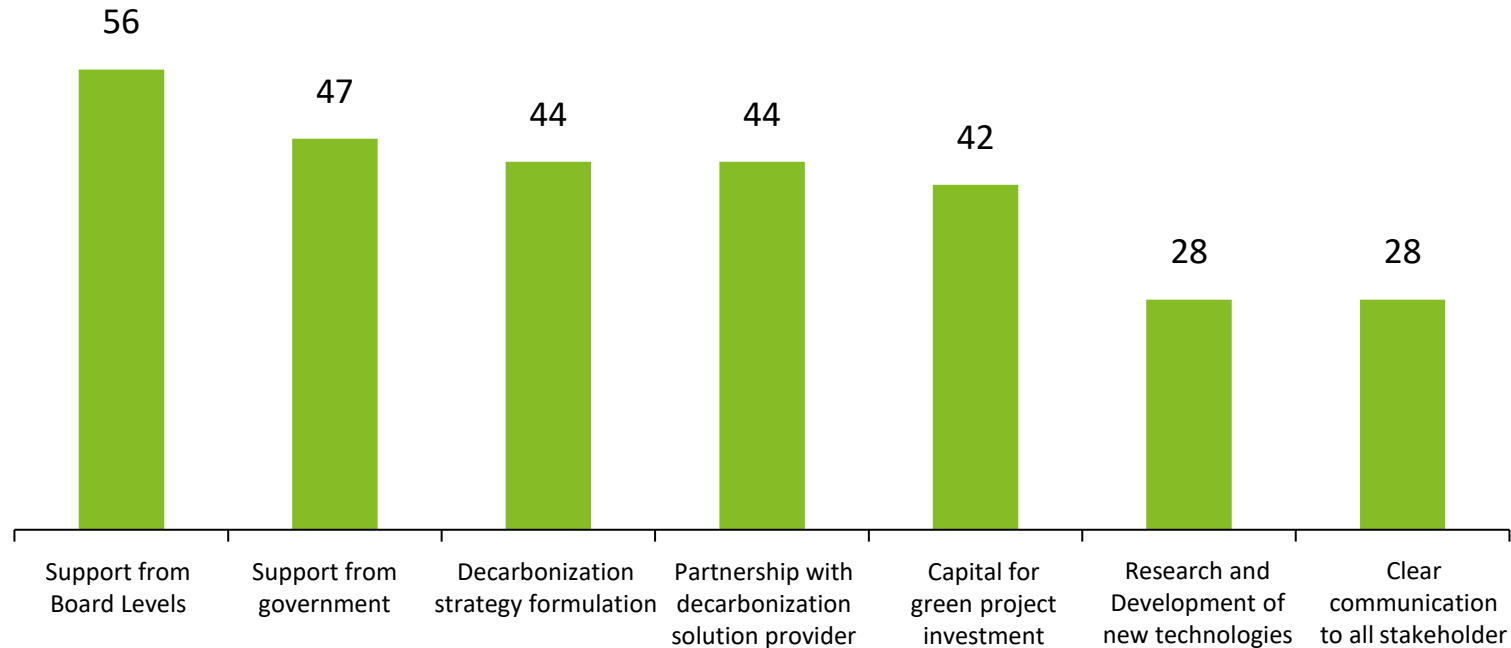
- The survey revealed that the financial services industry is the leading sector in adopting digital technologies to enhance operational efficiencies.
- Mobile banking apps, recognized for their convenience, security, and environmental impact, empower clients to support social causes, reduce their environmental footprint, and make ethical investments by minimizing paper usage, saving transportation time, and more.



Key success factors for decarbonization

Key Success Factors for Decarbonization

Unit:%



Boards play a vital role in guiding businesses and markets towards a more sustainable future. They provide leadership and direction to management, ensuring that long term views are captured in current decision-making

- Business leaders play a pivotal role in facilitating the shift to a net-zero economy, leveraging their resources to foster collaboration and innovation in sustainability solutions across various industries and disciplines.
- Boards are crucial in steering businesses and markets toward a more sustainable future. They offer leadership and guidance to management, ensuring that current decision-making incorporates long-term perspectives.
- To fulfill this role effectively, boards need proper education to pose pertinent questions, understand where to exert influence, and identify robust solutions. The objective is to amalgamate the best practices of chairs leading the charge on climate, perpetuating ambitious goals and elevating the standards for positive action.

Please prioritize key success factors for your company to enhance decarbonization (please select 3 and prioritize)



Decarbonization Guideline for Board of Director



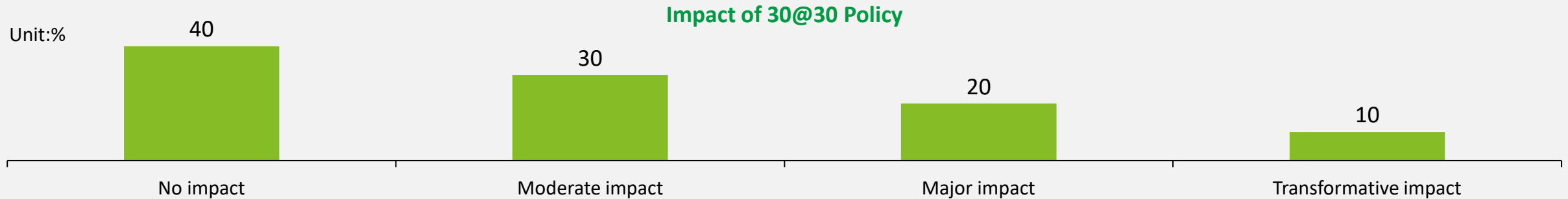
- Climate change and climate action will disrupt every sector of the economy significantly. It's essential to integrate emerging opportunities and risks into strategic planning.
- Board members should recognize their responsibility to promote decarbonization and use their influence to foster the integration of sustainable practices across their entire value chain. This commitment serves both the societal interest and aims to ensure the long-term financial sustainability of the companies under their stewardship.
- Adopt the precautionary principle and initiate immediate transformative measures, as accurately predicting when carbon emissions might drive climate change beyond recoverable stages is impossible.
- Various market opportunities emerge from early engagement in climate action, such as tapping into expanding markets and embracing more efficient technologies.

Decarbonization roadmap and questions for board members

	Understand climate risk	Emissions data & forecasting	Decarbonisation pathways	Value chain solutions	Project Development & Deployment	Communication & disclosures
Key steps	<p>Assess physical, transition and liability risk for all portfolio operations and all stakeholders in the value chain.</p> <p>Use industry-agreed scenarios based on IPCC report scenarios.</p>	<p>Explore detailed and accredited current and forecast emissions data.</p> <p>Data split by Scope 1/2/3, site, fuel type, operation, and place in value chain.</p> <p>Policy analysis/ assessment.</p>	<p>Design abatement pathways including abatement costs curves (plotting potential for abatement against cost).</p> <p>Develop roadmap and targets considering strategic and cost drivers.</p>	<p>Pursuing partnership opportunities across value chains and ecosystems to meet common decarbonisation and resilience needs.</p>	<p>Including:</p> <ul style="list-style-type: none"> - Operational optimisation, and broad policies such as internal carbon pricing - Abatement projects - Supply chain transformation - Traceability and verification frameworks - Financing 	<p>Including:</p> <ul style="list-style-type: none"> - Climate risk reporting and disclosures - Alignment between public statements and activities - Stakeholder engagement and association membership
Questions as a board member	<p>Does the information provided by management assess all the risks along the entire value chain?</p> <p>Should the board assess the risks using relationships with key stakeholders?</p> <p>Do we understand stakeholder's likely reactions in high-impact scenarios?</p> <p>Should we seek legal advice on liability risks for directors given rise in climate litigation?</p>	<p>How climate competent is your board? Is there a good understanding of Scope 1, 2 and 3 emissions?</p> <p>What immediate and continuous education on climate change is required?</p> <p>Consider the impact of changes to the highest emitting sites, fuel types and operations on strategy and results in the long term (10-20-30 years).</p>	<p>Have we considered short and long term impacts of alternate abatement pathways?</p> <p>Does the agreed roadmap build long-term value and strategic advantage?</p> <p>Is the board comfortable that emissions targets are based on scientific principles acceptable to stakeholders?</p> <p>How will the market, and other stakeholders react to a decarbonisation target and roadmap?</p>	<p>What changes to the existing value chain does the board anticipate long term?</p> <p>How can you best partner with other industry players to mitigate the impact on climate?</p> <p>If board debates breadth of responsibility to environment and society, consider legal advice on directors duties to act in best interests of multiple stakeholders.</p>	<p>What standard of governance should we aspire to in assessing projects as sustainable? Does this standard align with our purpose?</p> <p>Against which entities should we benchmark ourselves?</p> <p>What existing transformation is under way that can be leveraged?</p> <p>What projects are underway that might make long term decarbonisation harder?</p> <p>What is the long term cost of taking no action?</p>	<p>Has the impact of climate been adequately translated into financial reporting?</p> <p>What is my sustainability legacy? How does this fit into my role in the collective decision making on the board?</p> <p>Do we aspire to get first mover advantage? Is this embedded in strategy and communicated?</p> <p>Will stakeholders see our reporting as sufficiently transparent and appropriate?</p>

Source: World Economic Forum in collaboration with Deloitte

40% of the company noted that policy to produce 30% of zero emission vehicle from total vehicle production in 2030 has no impact with their operational process modification



Environmental Impact

- The 30@30 policy may not effectively reduce carbon dioxide (CO₂) emissions as much as desired. This is because Thailand's electricity generation still relies on a **limited share of clean energy in the grid**.
- Moreover, the electric energy sector faces a critical need to bolster its preparedness for the projected 26% surge in electricity demand as outlined in the Thailand Power Development Plan 2018-2037 (First Revision).
- Moreover, the absence of clear regulations **governing electric charging stations and related policies, including environmentally friendly measures for the disposal of old cars and batteries, posing significant obstacles to progress in the country's sustainability initiatives**.

Economic and social impact

- The "30@30" policy is anticipated to reduce interest in biofuels over the next decade, with significant repercussions for the agricultural industry, particularly impacting oil palm farmers, who form a significant portion of the sector.
- Moreover, approximately 20% of the workforce in the automotive and parts manufacturing sector may encounter difficulties during the industry's shift towards electric vehicle production, especially if they are unable to acquire new skills through reskilling initiatives.
- Furthermore, there are incentives in place to encourage consumers to transition to electric vehicles, enabling the government to generate revenue through excise taxes.
- Taxes on car interiors and annual vehicle taxes have been reduced. However, when assessing these measures against the monetary value of the benefits derived from reducing environmental pollution, the cost-benefit ratio may still not justify the incentives.

How much does 30@30 policy (produce 30% of zero emission vehicle from total vehicle production in 2030) impact **operational process modification** of your company?

Source: TDRI



Strategy for Sustainability and Climate Change Targets



Operational Approach for Sustainability and Climate Change Targets



Financial Measures for Sustainability and Climate Mitigation



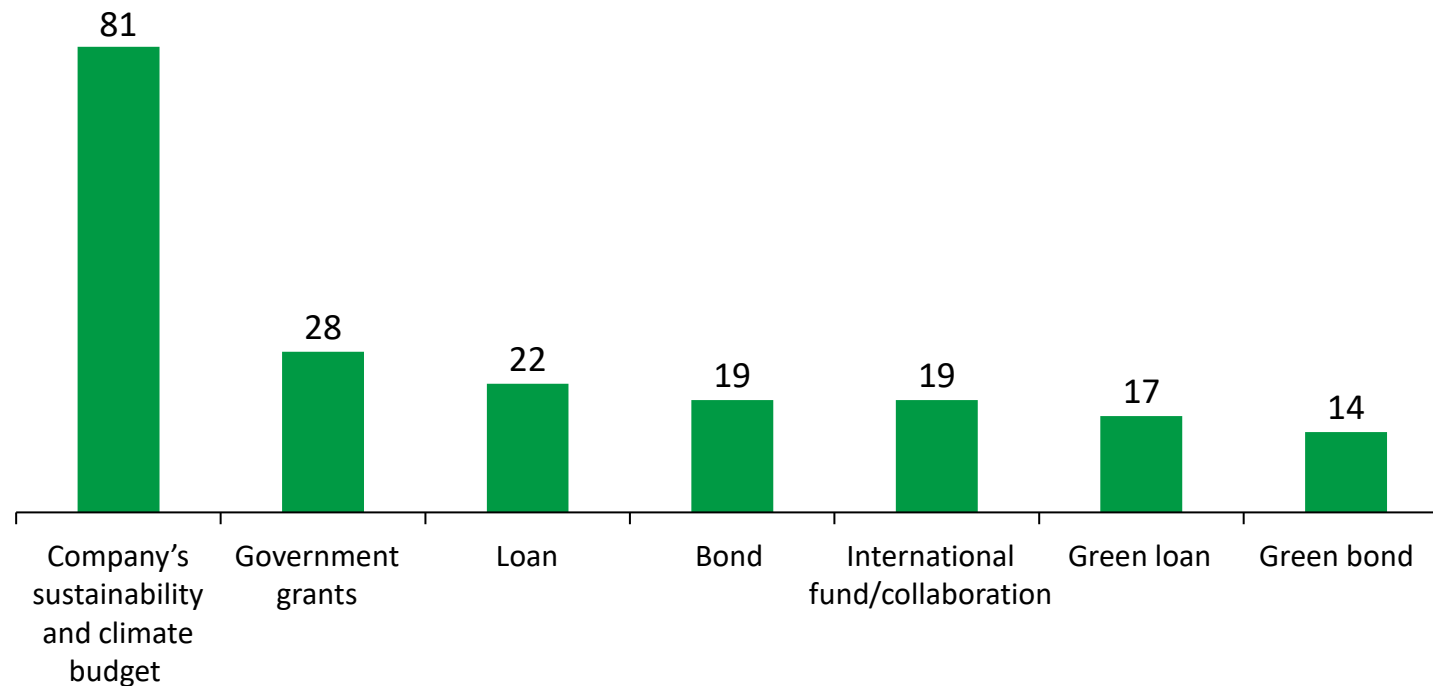


Financial sources for sustainability and climate mitigation

Majority of the company relies on their own financial sources for sustainability and climate mitigation.

Top company's financial sources for sustainability and climate mitigation

Unit: %



- Climate change mitigation involves actions to reduce or prevent the release of greenhouse gases (GHGs) into the atmosphere. In a business context, this means minimizing emissions tied to operations by transitioning to clean energy sources, electrifying processes, improving efficiency, and cutting down on GHG-producing activities. Adaptations in agriculture and the use of carbon capture and storage methods also play a role in the overall mitigation strategy.
- In Thailand, the government's financial support for companies in their mitigation efforts is limited.
- From Deloitte Insights found that many companies have moved farther and more quickly than government agencies in their climate actions and commitments.
- Consequently, many Thai businesses need to use their own budgets to fund and carry out these initiatives.
- Companies are acting in part because their shareholders believe that a company's environmental, social and governance (ESG) practices, and its commitment to addressing climate change, are integral to its overall success and long-term profitability.

What are the main company's financial sources for sustainability and climate mitigation? (Please select top 3 answers)

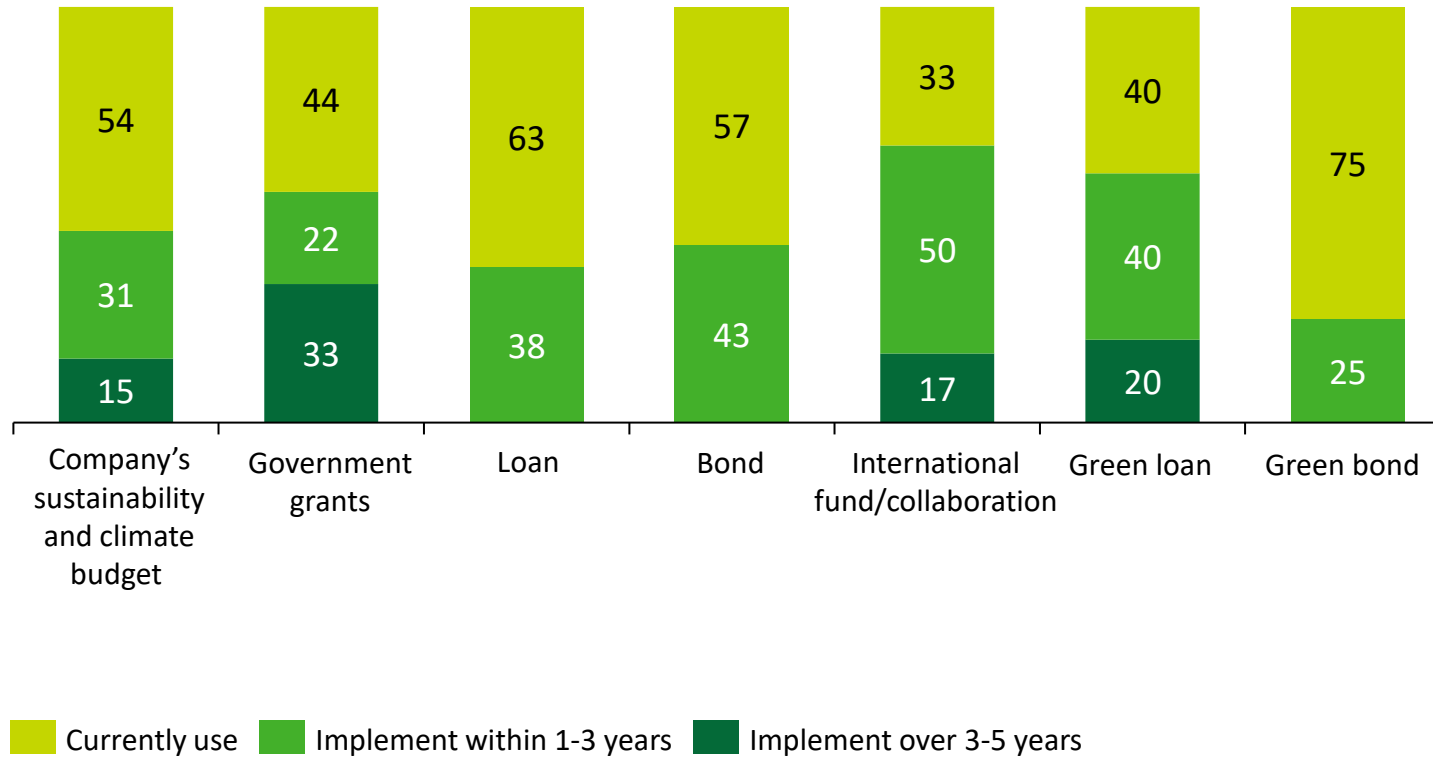
[Corporate climate change and sustainability | Deloitte Insights](#)



Financial supporting schemes

Percentage of Sustainability and climate mitigation financial source breakdown by implement period

Unit:%



- Upon a detailed examination of the implementation period, it was discovered that individuals choosing green bonds, loans, and company budgets as their financial sources indicate that they are presently employing these methods or intend to do so within 1-3 years.
- The rationale behind this choice is the ease with which companies can independently secure financial support, eliminating the complexities associated with external fund applications.
- **A mere 2.8% of the respondents reported having experience in applying for financial support from external agencies.** The majority mentioned reasons for not applying, such as a lack of information about available schemes, the complexity and time-consuming nature of the application process, and a dearth of assistance to facilitate the application.

Have you ever applied for financial supporting schemes from any agencies?



Green Bond

There is a substantial increase in interest in Environmental, Social, and Governance (ESG) financing, encompassing green bonds and sustainability-linked financing facilities. Green bonds represent just one category of ESG financial instruments.

The most common ESG financial instruments

Use-of-proceeds bonds

01

Green bonds finance projects that have clear environmental benefits such as energy, building, or cropland efficiency.

02

Social bonds finance projects that create a positive social benefit such as education, housing, or health.

03

Sustainability bonds finance projects that combine social and environmental benefits—e.g., sustainable development goals or socially responsible investments.

04

Transition bonds finance projects that support the transition to net-zero. They often originate from high-polluting industries like mining, steel, and cement.



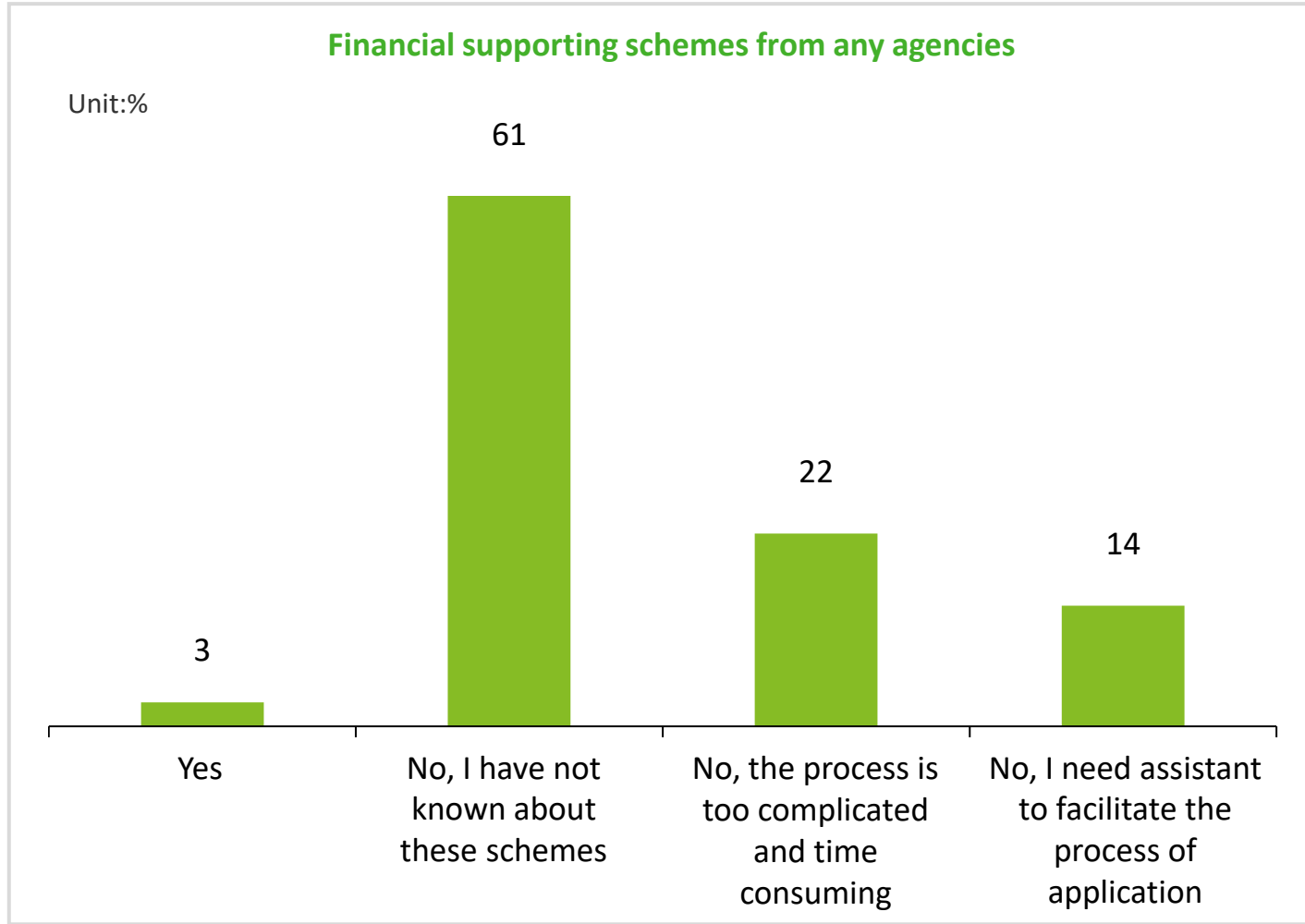
75%

of the respondent currently implement **GREEN BOND**

- Based on the survey, 75 % of the respondent currently implement green bond.
- Green bonds are fixed-income financial instruments used to raise capital to fund projects that benefit the environment.
- These initiatives include projects focused on renewable energy, energy efficiency, clean transportation, and green buildings.
- These activities, directly or indirectly, help support the global energy transition from fossil-based energy sources to renewable energy sources, aiming to restrict the global temperature rise to 1.5 degrees Celsius above pre-industrial levels.



Financial supporting schemes from any agencies



Have you ever applied for financial supporting schemes from any agencies?



- Over half of the respondents, representing a majority, lack awareness of supportive schemes. This suggests that the communication of supporting schemes may be ineffective.
- Furthermore, the complexity of the application process appears to be a significant hurdle, potentially leading some applicants to abandon the process. The survey conducted by the Digital Government Development Agency on Bangkokians' opinions regarding government agency services reveals that over 90% of applications necessitate physical documents, demanding additional preparation time, and the overall application process is deemed excessively intricate.
- Additionally, a survey conducted by the **Digital Government Development Agency** demonstrates the anticipation for more efficient services. Respondents expect streamlined application procedures, emphasizing simplicity and convenience through a reduction in the number of steps in the application process. Furthermore, they desire faster service delivery from officers, coupled with comprehensive and readily available information.
- The results shows the room of improvement for efficient operation in governmental practices and the needs of advisory service/tools or other any to elevate the service to systematic and professional manner.



The 2030 decarbonization challenge



Power Market Study 2030

A new outlook for the energy industry



2024 manufacturing industry outlook

Manufacturers should continue embracing digital transformation to contribute to a competitive and resilient future and to help tackle ongoing manufacturing challenges



2024 chemical industry outlook

The chemical industry should balance short- and long-term goals to weather the uncertainty in the current landscape and position itself for the future.



2023 oil and gas industry outlook

Investing in the future of energy



2023 renewable energy industry outlook

Growth unleashed amid headwinds

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Thailand Business Transition for Future Energy Ambition Survey 2023



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