Action amid uncertainty
The business response to climate change
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Three hundred global executives speak out

*Action amid uncertainty* is the third installment in Ernst & Young’s series, *The business response to climate change*. In these white papers, we explore how organizations are responding to the complexities associated with climate change risks and opportunities within their businesses.

This paper summarizes the results of an independent, third-party survey of 300 global executives, representing companies with revenues of more than US$1b annually. They span 16 countries and 18 industry sectors.

We commissioned this survey to provide a status update on corporate responses to climate change issues in 2010 – the half-way point in the First Commitment Period of the Kyoto Protocol. The findings will provide useful insights for senior executives responsible for managing their business response to climate change.

For each of the global themes uncovered through the survey, we have provided our point of view regarding the actions companies should consider when formulating their business response to climate change.
Taking action amid uncertainty
While the responses indicate some variations across industry sectors and geographies, our survey reveals five consistent global themes:

1. Executive leadership is critical to good governance
   Leading companies have a strong sense of the potential impacts of climate change on their bottom-line performance. More than 90% of executives surveyed indicate that climate change governance rests with C-suite executives or board members.
   Respondents identify that the complexity of climate change issues demands strong governance, as well as executive leadership. Executive leadership is critical to realizing the full potential of the business response to climate change. Strong governance practices will also ensure that responsible officers throughout the organization understand the climate change strategy, goals and decision-making processes, are managing risks and are empowered to act accordingly. Accountability can be embedded more broadly into the corporate culture by including climate change key performance indicators (KPIs) in performance metrics.

2. Business drivers dominated by top-line and bottom-line impacts, creating a race to innovate
   In the survey, nearly 40% of respondents indicate they are climate change leaders in their industry. A further 43% state they have a pragmatic approach to investing.
   Two-thirds have already launched an enterprise-wide climate change program and a further 16% expect to do so in the next two years.
   According to 92% of respondents, energy costs will be a very important or important driver in the coming 12 months. Focusing on energy-efficiency initiatives provides a strong driver to embed innovation within businesses, for example process innovations or deploying innovative products or solutions. Targeting energy savings can also be used to achieve buy-in from across the organization, as it provides a strong financial platform for the broader investment in climate change initiatives.
   Another strong driver of climate change initiatives is the desire to meet changes in customer demand. On average, 89% of respondents identify changing customer expectations or demands as very important or important in their thinking.
   New revenue opportunities were identified as another key driver, for example developing a line of more efficient products or building a portfolio of carbon assets. Viewing climate change activities as an investment rather than an expense can open doors to hidden opportunities.

3. Despite regulatory uncertainty, climate change investment is on the rise
   Investing in energy efficiency tops the list (82% of respondents) of climate change initiatives senior executives plan to undertake in the next 12 months. Other top priorities for investment include developing new products and services and improving transparency in corporate reporting.
   Reflecting the growing level of interest in revenue-generating climate change initiatives, nearly half the executives say they would explore new ventures this year.
   A substantial majority (70%) of survey respondents plan to increase their spend between 2010 and 2012. Nearly half say they will spend in the range from 0.5% to more than 5% of their revenue on climate change initiatives. As our respondents are from companies with revenues of US$1b or more, this represents anticipated spends of between US$5m to US$50m annually.

4. Execution is challenging but executives are committed to action
   We heard from the 300 global executives in the survey that while they have firmly committed to action on climate change business issues, the journey ahead is complex and challenging. The global reach of many companies presents specific challenges for effective execution of an enterprise-wide strategy. Approximately three out of every four respondents say it will be either very challenging or challenging to execute on their goals in the next two years.
   Within this context, product development poses the biggest functional challenge, according to respondents. In specific countries, such as Australia, Canada, Japan, France, Germany and the US, companies say it will also be challenging to succeed in meeting regulatory compliance. In addition, Australian and French respondents highlight finance as a key factor in achieving their climate change goals, which is a tension given that 44% of Australian and 64% of French respondents expect to increase investment.
   Executives also identify two separate HR issues. A number of the companies offer specific comments on the challenge of equipping employees with the necessary skills to manage the expected accelerated ramp-up of their climate change initiatives. They plan to recruit, build internal capacity with targeted training and meet...
additional skills gaps with external resourcing to deliver on their goals. In addition to the skills shortage, companies highlight the importance of raising awareness of climate change imperatives as they impact on business strategy. Employee buy-in, to embrace change management programs and drive behavioral changes, is a critical ingredient for success.

5. Transparent reporting gains momentum

Executives and boards are acutely aware of the growing demand for more transparent reporting of climate change business strategies, initiatives and performance. Creating an effective monitoring, reporting and verification system (MRV) for climate change initiatives is becoming increasingly important, particularly with increasing regulatory requirements and stakeholder expectations.

In our survey, 64% of respondents provide transparent reporting of their greenhouse gas (GHG) emissions data in an annual corporate social responsibility (CSR) report or a sustainability report. Nearly two-thirds of those who do report have their data verified by an independent third party. Increased stakeholder expectations and regulatory requirements are likely to drive an increase both in the number of companies reporting and the use of independent assurance providers.

Having a consistent global framework for reporting GHG emissions data and metrics for climate change initiatives can also help organizations manage these initiatives against internal objectives as well as benchmark their efforts against peers. To better understand current practices, we asked companies how they compare their climate change initiatives relative to peer organizations.

Of those companies that actively rate themselves externally, 56% of the respondents are split in their approach. One group of respondents formally benchmark their initiatives, while the other group compares metrics on a more informal basis. A further 20% of the companies plan to compare their initiatives but have not done so yet.

A framework for action

Three hundred global executives are clear – climate change strategies can make money, save money and mitigate risk as businesses transform to a low-carbon economy. Despite facing regulatory uncertainty, these executives are taking action. These are strong messages to give to internal and external stakeholders as companies seek long-term competitiveness.
Executive leadership is critical to good governance

“We need leadership and direction. We also need a common direction ....”

Survey respondent

The success of any enterprise-wide strategy usually depends on a clearly defined governance structure and effective leadership. The business response to climate change is evolving rapidly. However, impacts differ across countries and sectors. Specific risks, incentives and levels of preparedness drive action at a variable pace for individual companies.

Rather than just affecting single companies in isolation, climate change impacts often can have repercussions across complex supply chains. This creates an inter-connectedness that offers both risks and opportunities in an uncertain working environment. Respondents identify that the complexity of climate change issues demands strong governance and executive leadership.

In our survey, 55% of respondents indicate a board member or C-suite executive is the most senior person directly responsible and accountable for climate change within the organization. Most respondents said the responsible climate change executive reports to the CEO or directly to a board member. With greater than 90% of the companies ensuring that climate governance rests with C-suite executives or board members, it is clear there is a strong sense of the potential impacts of climate change on a company’s overall performance.

A successful climate change agenda requires a holistic approach that breaks down silos and embeds climate change into every facet of the business. Survey respondents highlight that their climate change strategy requires competencies that cross all functions, operations and geographies.

Question: What is the job title of the most senior person directly responsible and accountable for climate change in your organization?

<table>
<thead>
<tr>
<th>Job Title</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEO</td>
<td>36%</td>
</tr>
<tr>
<td>VP/Director/Head Sustainability/Environment/CSR</td>
<td>18%</td>
</tr>
<tr>
<td>VP/Director/Head (Other)</td>
<td>11%</td>
</tr>
<tr>
<td>Chief Sustainability/Environment/CSR Officer</td>
<td>10%</td>
</tr>
<tr>
<td>Manager</td>
<td>9%</td>
</tr>
<tr>
<td>Board/Committee member/Chairman</td>
<td>5%</td>
</tr>
<tr>
<td>Clevel executive (other)</td>
<td>4%</td>
</tr>
<tr>
<td>External affairs</td>
<td>3%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>4%</td>
</tr>
</tbody>
</table>

“Los acciones que se toman en medio de incertidumbre: la respuesta empresarial al cambio climático

El liderazgo ejecutivo es crítico para una buena gobernanza.

“Necesitamos liderazgo y dirección. También necesitamos un objetivo común ....”

Respondiente de la encuesta

El éxito de cualquier estrategia de empresa depende de una estructura de gobernanza claramente definida y de un liderazgo efectivo. La respuesta empresarial al cambio climático está evolucionando rápidamente. Sin embargo, los impactos varían en diferentes países y sectores. Los riesgos específicos, incentivos y niveles de preparación conducen a acciones a un ritmo variable para las empresas individuales.

En cambio de no afectar solo a las empresas en aislamiento, los impactos del cambio climático pueden tener repercusiones en cadenas de suministro complejas. Esto crea un interconectado que ofrece tanto riesgos como oportunidades en un entorno laboral incierto. Los encuestados identifican que la complejidad de los problemas del cambio climático requiere una fuerte gobernanza y liderazgo ejecutivo.

En nuestro estudio, 55% de los encuestados indican que un miembro del consejo o un ejecutivo del C-level es el más alto que está directamente responsable y a cargo del cambio climático dentro de la organización. La mayoría de los encuestados dijeron que el ejecutivo responsable por el cambio climático informa al CEO o directamente a un miembro del consejo. Con más de 90% de las empresas asegurando que la gobernanza del cambio climático recae en ejecutivos del C-level o miembros del consejo, es claro que hay una fuerte sensación de las potenciales implicaciones del cambio climático en el desempeño de una empresa en su conjunto.

Un programa exitoso de cambio climático requiere un enfoque holístico que rompa los silos y embele el cambio climático en cada aspecto de la empresa. Los encuestados resaltan que su estrategia de cambio climático requiere competencias que atraviesan todas las funciones, operaciones y geografías.

Pregunta: ¿Cuál es el título de la persona más alta que está directamente responsable y a cargo del cambio climático en su organización?

<table>
<thead>
<tr>
<th>Título</th>
<th>Porcentaje</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEO</td>
<td>36%</td>
</tr>
<tr>
<td>VP/Director/Encargado de Sustentabilidad/Entorno/CSR</td>
<td>18%</td>
</tr>
<tr>
<td>VP/Director/Encargado (Otro)</td>
<td>11%</td>
</tr>
<tr>
<td>Encargado de Sustentabilidad/Entorno/CSR Oficial</td>
<td>10%</td>
</tr>
<tr>
<td>Gerente</td>
<td>9%</td>
</tr>
<tr>
<td>Miembro del Consejo/Presidente</td>
<td>5%</td>
</tr>
<tr>
<td>Ejecutivo (Otro)</td>
<td>4%</td>
</tr>
<tr>
<td>Asuntos Externos</td>
<td>3%</td>
</tr>
<tr>
<td>No saben</td>
<td>4%</td>
</tr>
</tbody>
</table>
Climate change requires a collaborative effort

For 30% of the organizations we interviewed, climate change is someone’s full-time job. For the remainder, it is one of the many responsibilities they juggle in their role. Senior executives who are committed to supporting climate change initiatives and strong governance practices will help to ensure that responsible officers throughout the organization understand the goals and decision-making processes. Senior executives will also help to ensure the responsible officers are managing risks and are empowered to act accordingly and are held accountable for performance through effective remuneration strategies. And part of empowerment is having the support and sponsorship of the senior executives.

The survey data suggest that taking action around climate change requires a collaborative effort among a wide range of internal stakeholders – one person cannot do it alone. Key stakeholders will need to reach beyond energy and facilities management to include risk and internal audit, tax, finance, operations, IT, legal, HR and other functions, where relevant. To foster good governance, companies should consider establishing an internal climate change steering committee that comprises key organizational representatives. Such a steering committee will be a vital vehicle for successful execution.
“I believe the main problem is that organizations do not necessarily recognize or understand the link between climate change-related issues and the future fitness of the organization. At a very senior level it is given importance. However, at lower levels there is (a lack of knowledge) of the issue.”

Survey respondent

Elements of effective governance

A strong governance framework with senior executive support from central and functional areas through a steering committee will be important in finding the appropriate balance between central controls and timely local responsiveness. Strong governance can also help balance effective risk management and the enduring need for innovation, as well as the cost of climate change responses versus the potential value that can be unlocked by identifying and investing in opportunities.

Key elements for effective governance include:

- A board-level climate change committee operating effectively with clear responsibility
- External stakeholder engagement to respond to increasing demands for transparency in reporting
- Robust processes to identify risks to business objectives and a timely and appropriate risk management response
- Focused policies and procedures that respond to these risks
- Clear communication from the CEO to all employees regarding the risks, opportunities, strategies and goals
- An appropriate system of delegated authorities at each level of the organization
- A proven system of internal control reporting through to the CEO/CFO, linking GHG emissions data and other non-financial data to the financial systems
- KPIs to benchmark performance and accountability against goals; programs to recognize achievement and to reward through performance-based compensation
- An effective process for reporting and disclosure, and broader stakeholder communications

Actions to consider

- Establish a climate change governance framework
- Form a climate change steering committee with key functional management representatives to balance central controls and fast local responsiveness
- Build robust processes to identify risks and opportunities and to measure the cost of climate change responses versus the potential value
- Communication from the CEO to all employees on the risks and opportunities, strategies and goals
- Delegate authority at each level of the organization
- Assign KPIs to benchmark performance against goals
Business drivers dominated by top-line and bottom-line impacts, creating a race to innovate

In the survey, nearly 40% of respondents indicate they are climate change leaders in their industry; a further 43% stated they have a pragmatic approach to investing and are prepared to follow it, while 15% have adopted a compliance-only strategy.

Some respondents also acknowledge they have modified their strategies to reflect increased awareness of the issues, risks and challenges that come with implementing a climate change strategy, particularly in certain industries and geographies. Two-thirds have already launched an enterprise-wide climate change program and a further 16% expect to do so in the next two years.

Executives are clear that climate change strategies can deliver energy savings, grow new revenue opportunities and mitigate risks as their companies transform to a low-carbon economy. As one respondent notes: “We anticipate that some sectors will grow and some could be transformed. Whatever the result, climate change issues are strategically important and we have to be able to cope with the changes that are likely to affect all businesses to some degree.”

When asked what factors will be important in driving their climate change initiatives in the coming 12 months, executives rank energy costs, changes in customer demands, new revenue opportunities and increasing stakeholder expectations as key business drivers — reflecting both opportunities and risks.

Question: In the next 12 months, how important will the following factors be in driving your climate change initiatives?

<table>
<thead>
<tr>
<th>Factor</th>
<th>Very important</th>
<th>Important</th>
<th>Not important</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy costs</td>
<td>51%</td>
<td>41%</td>
<td>7%</td>
<td>1%</td>
</tr>
<tr>
<td>Changes in customer demand</td>
<td>44%</td>
<td>45%</td>
<td>11%</td>
<td>0%</td>
</tr>
<tr>
<td>New revenue opportunities</td>
<td>43%</td>
<td>42%</td>
<td>15%</td>
<td>0%</td>
</tr>
<tr>
<td>Carbon costs</td>
<td>30%</td>
<td>47%</td>
<td>20%</td>
<td>3%</td>
</tr>
<tr>
<td>Brand risks</td>
<td>27%</td>
<td>47%</td>
<td>24%</td>
<td>2%</td>
</tr>
<tr>
<td>Increased stakeholder expectations</td>
<td>26%</td>
<td>58%</td>
<td>14%</td>
<td>2%</td>
</tr>
<tr>
<td>Competitive threats</td>
<td>25%</td>
<td>53%</td>
<td>21%</td>
<td>1%</td>
</tr>
<tr>
<td>Fines/penalties from regulatory compliance</td>
<td>24%</td>
<td>39%</td>
<td>33%</td>
<td>4%</td>
</tr>
</tbody>
</table>
In energy intensive sectors, where companies may expect to be liable in a carbon-constrained regulatory market, respondents rate carbon costs as another very strong driver impacting their climate change initiatives.

**Reducing energy costs**

When asked what factors will be important in driving their climate change initiatives in the coming 12 months, 92% of respondents consider energy costs to be a very important or important driver over this period. Energy-intensive companies trend closer to 100%, but all sectors rate this as a key factor.

Given the impacts of the global financial crisis and the consequent focus on cutting costs, this result is understandable – particularly as energy costs are rising in many countries. Targeting energy savings can also be an effective strategy to achieve buy-in from across the organization as it can provide a strong financial platform for the broader investment in climate change initiatives.

Focusing on energy-efficiency initiatives can provide a strong driver to embed innovation within businesses. Some executives report they have adopted integrated strategies whereby they are acting now to reduce energy costs and evaluating alternative supplies for future use. Both initiatives may be effective risk mitigation strategies against regulatory requirements, such as greenhouse gas emissions reduction targets or energy standards. Some respondents also report they are deploying clean technology solutions as part of their energy-efficiency initiatives.

**IT as an enabler**

The use of new technology is expected to revolutionize some industries and provide direct opportunities to reduce energy consumption and greenhouse gas emissions. One of the participants said: “As a communications company, we need to take energy conservation as a responsibility and a challenge. This will require us to develop new, green technology to satisfy the demands of society. We can use green technology in our video communications business.”

**Changes in customer demand**

Another strong driver of climate change initiatives is meeting changes in customer demand – 89% of respondents identify changing customer sentiments as very important or important in their thinking. In some sectors, including automotive, consumer products and technology, the response is unanimous that this is an imperative for action.

One executive said: “Climate change has a great impact on customer demand. Most of our customers now care about the climate aspect of our products. We will have to develop new products which cause fewer emissions.”

**New revenue opportunities**

In our survey, 85% of respondents rank new revenue opportunities as very important or important. Five sectors indicate an above-average interest in new revenue opportunities: 1. oil and gas; 2. power and utilities; 3. technology; 4. telecom; and 5. real estate.

Viewing climate change activities as an investment rather than an expense can open doors to hidden opportunities. Examples of some new revenue opportunities include: developing a line of more efficient products; building a portfolio of carbon assets; investing in the Clean Development Mechanism; and investing in clean technology and innovative IT solutions.

**Increasing stakeholder expectations**

Our survey results highlight that executives and boards are acutely aware of the growing demand for more transparent reporting of climate change strategies, initiatives and performance. We heard that executives are supportive of engagement and dialogue with stakeholders to enhance the economic value of their businesses.

We have noted some variations across industry sectors and geographies. However, there are consistent messages that equity analysts and institutional investors are key stakeholders. Increasingly, they are highlighting climate change as a strategic business issue.

“Climate change is going to drive an increase in energy efficiency and more innovation. The companies that have not yet developed a strategy and are not yet taking action will find it difficult to catch up and will be penalized by customers in the next two to three years.”

Survey respondent
Equity analysts

Analysts have been strongly focused on economic and credit issues. However, the impact of structural issues, such as climate change, will continue irrespective of economic cycles. Analysts are increasingly incorporating climate change into their valuations of companies. As the value of a company is an essential factor in determining access to vital capital, executives and boards are working to ensure the financial markets are suitably informed of their company’s management of climate change business risks and opportunities. Accordingly, it is important that companies provide information on why and how they are affected by climate change and what actions they are taking.

In our survey, 43% of respondents believe equity analysts are currently including climate change-related factors in the valuation of their company. A further 30% believe analysts will incorporate climate change factors within the next five years.

A 2008 report published by Verdantix, an independent analyst organization, found that 88% of equity analysts surveyed consider climate change to now be an important business issue that has an impact on company valuation. The Verdantix report found most analysts are still on the learning curve and need more information from firms on how they are accounting for climate change factors to assist in their own financial forecasting.¹

Analysts tend to rely on externally reported information to form their assessments such as company websites, sustainability reports, indices and financial filings. And these external sources are expanding. For example, Bloomberg is teaming with the Carbon Disclosure Project so that climate change information appears on Bloomberg terminals. The range of sustainability indices is growing to meet market demand. These now include: Dow Jones Sustainability Index (DJSI), FTSE4Good and NASDAQ OMX CRD Global Sustainability 50 Index.

Question: When do you think equity analysts will include climate change-related factors in their valuation of your company?

Currently considered/already do 43%
In the next 12 months 6%
In the next 2 to 3 years 15%
In the next 4 to 5 years 9%
More than 5 years 5%
Never 3%
Don’t know 19%
Institutional investors

In an effort to induce greater transparency, investors are also taking a role in establishing disclosure guidelines. In March 2010, for example, investor organizations from the US, UK and Australia joined forces to develop new climate disclosure guidelines for the oil and gas sector. They are calling on oil and gas companies to strengthen their reporting on climate change and sustainability risks and opportunities, as well as any impact from evolving regulation.

Regulatory uncertainty is not a barrier to taking action

2010 is a very interesting time in the development of climate change regulation. We are half-way through the First Commitment Period of the Kyoto Protocol (2008-2012), but there is no consensus on the international regulatory landscape for post-2012. The Copenhagen Accord is a working document that enshrines many positive measures to support mitigation and adaptation. However, there is still uncertainty as to how it will transition to a workable arrangement beyond 2012.

Considerable progress has been achieved on climate change measures at a national government level. To date, a minimum of 119 countries have now formally associated with the Copenhagen Accord. More than 70 countries have submitted to the United Nations their national pledges to limit or reduce their emissions by 2020. This represents about 80% of global emissions and nearly 90% of the global economy. Each of these countries has communicated some level of detail on its targets, measures and regulations. For the first time, the US and the major developing countries of China, Brazil, South Africa, India and Indonesia have committed to such goals.

The companies interviewed in this survey indicate a strong preference for more regulatory certainty, but to a large extent, they are not waiting for clarity and are positioning their businesses accordingly.

When we asked what their organizations will do as a result of the 2009 Copenhagen conference, the respondents confirm there is no slow-down. Two-thirds of executives indicate their companies are committed to continuing with their existing strategies. Over 30% have decided to increase their investments in climate change initiatives following the Copenhagen meeting.

The individual country responses highlight that 70% of the Chinese companies in the survey will increase their investments post-Copenhagen. Overall, companies acknowledge that international policies are important; however, they are able to manage the current uncertainty.

The majority of companies rank national policies as most important in shaping their climate change strategies. For multinational organizations, there is an absolute need to know and understand climate change regulations for every jurisdiction in which they operate to identify and manage compliance and brand risks as well as capture opportunities.

Seventy-five percent of the respondents state they have reasonable or complete certainty with respect to their national climate change regulations over the next two years. Perhaps this sense of certainty is a factor in their rating of the importance of national regulations for their strategies. If there are further changes in regulations – as might be expected with a number of national government elections planned in the coming two years – then companies will need to review their strategies accordingly.

When asked how important it is to have complete certainty on national regulations and global climate change policies to increase spending on climate change initiatives, respondents make it clear they want certainty globally (81%) and nationally (94%). Yet nearly 70% are committed to increasing their spend on climate change initiatives in the 2010-2012 period.

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2 “Investors globally call for greater transparency on climate change exposure from oil and gas companies,” Institutional Investors Group on Climate Change (IIGCC) and Ceres, 18 March 2010.

“The new ambitious programs that the government is contemplating, especially after the Copenhagen Summit, will put pressure on the industry to minimize emissions. I think it requires a tremendous amount of thinking. Implementing the policies requires a huge amount of resources to successfully execute and this is challenging.”

Survey respondent

**Question:** During 2010, what will your organization do as a result of the current Copenhagen climate change conference?

- **Continue with existing strategy:** 66%
- **Increase investments in climate change initiatives:** 31%
- **Slow down climate change initiatives:** 2%
- **Other:** 1%

**Actions to consider**
- Explore cost reduction initiatives including energy efficiency measures
- Evaluate opportunities to embed innovation in the business
- Consider the role of IT as an enabler of new and changed business processes and practices
- Analyze trends in customer demand to ensure a timely response to market impacts
- Review options for new revenue generation opportunities
- Increase transparency of reporting and disclosure to meet stakeholder expectations
- Know and understand climate change regulations for each operating jurisdiction to identify and manage compliance and brand risks and to capture opportunities
Despite regulatory uncertainty, climate change investment is on the rise

A substantial majority (70%) of respondents plan to increase their climate change spend between 2010 and 2012. Nearly 50% say that they will spend in the range from 0.5% to more than 5% of their revenue on climate change initiatives. With revenues of US$1b or more, at a minimum, this represents anticipated spends of US$5m to US$50m annually.

**Identifying areas of spend**

In assessing investment opportunities in climate change initiatives, our survey results indicate a focus on reducing costs, generating new revenue streams and reducing risk:

- 82% of executives plan to spend on energy efficiency
- 65% have plans to invest in the development of new products and services
- 64% plan to ensure transparency in corporate reporting

Priorities also reflect a mix of short- and medium-term business goals.

**Question:** In the next 12 months, which of the following climate change opportunities will your organization pursue?

<table>
<thead>
<tr>
<th>Opportunity</th>
<th>Yes (%)</th>
<th>No (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invest in energy efficiency initiatives</td>
<td>82%</td>
<td>18%</td>
</tr>
<tr>
<td>Develop new products and services</td>
<td>65%</td>
<td>35%</td>
</tr>
<tr>
<td>Ensure transparency in corporate reporting</td>
<td>63%</td>
<td>37%</td>
</tr>
<tr>
<td>Implement employee engagement program</td>
<td>58%</td>
<td>42%</td>
</tr>
<tr>
<td>Create competitive differentiation</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>Take advantage of tax incentives, credits or stimulus</td>
<td>49%</td>
<td>51%</td>
</tr>
<tr>
<td>Explore new ventures (e.g., spin-off or start-up)</td>
<td>48%</td>
<td>52%</td>
</tr>
<tr>
<td>Explore M&amp;A opportunities</td>
<td>34%</td>
<td>66%</td>
</tr>
</tbody>
</table>
New products and services

Viewing climate change activities as an investment rather than an expense can open doors to hidden opportunities. One executive supports the need for innovation: “I believe investing in new product lines is one way to resolve some of these challenges.”

On average, 65% of respondents say they would direct some of their climate change investment to developing new products and services. Six sectors indicate an above-average interest in new revenue opportunities – consumer products, power and utilities, real estate, technology, diversified industrial products and professional services. The strongest investment focus on new products and services from a geographic basis was in the Nordic countries where 95% of respondents say they would make this a priority for new revenue opportunities.

It is clear from the survey that climate change can be a strong driver to incorporate innovation within the organization. One executive said: “We need to assign climate change issues a higher priority and invest more in innovative strategies and low carbon solutions.” In addition to the high level of investment targeted toward the development of new products and services, about half of our respondents confirm an interest in investing in new ventures, such as spin-offs or start-up businesses. German executives indicate a significantly higher interest than the global average in exploring new ventures, with 77% of executives confirming this as a priority investment area, compared with 48% of total respondents.

From two respondents, we heard: “The corporation’s focus on research and development will significantly increase,” and “for our industry, there will be a drastic change in the way we operate and we have to look for new and efficient technologies to measure the impact of climate change.” The use of new technology may revolutionize some industries and provide direct opportunities to reduce energy consumption and GHG emissions.

The majority of companies surveyed say they are committed to investing in climate change initiatives in 2010, and they are interested in adopting innovative approaches to product and service development. However, some are still experiencing the impact of the global financial crisis. One respondent noted that “there is a lack of internal expertise and some financing difficulties.”

**Actions to consider**

- Develop a marginal abatement cost curve (MACC) as a means to prioritize projects
- Use portfolio optimization tools to refine project options by considering a range of risk factors impacting the projects
- Agree on a portfolio of climate change initiatives that are aligned with the overall business strategy and goals
- Use energy efficiency measures to support broader investments
- Consider tax incentives available for product development opportunities
Execution is challenging but executives are committed to action

“We need to increase funds available for the initiatives we wish to pursue. We also need to engage more experts in our climate change efforts.”

Survey respondent

We heard from the 300 global executives in the survey that while they have firmly committed to action on climate change business issues, the journey ahead is likely to be complex and challenging. Finding innovative ways to reduce emissions, and to simultaneously reduce costs while increasing return on investment, is not easy. More than 70% of the respondents say they expect it to be either very challenging or challenging to execute on the following goals in the next two years:

- Climate change strategy
- Goals and objectives for climate change
- Opportunity assessment for new products, services and (or) markets
- Governance of climate change initiatives
- Climate change risk identification, assessment and mitigation

Within the context of executing on these business goals, we asked executives where the challenges are likely to emerge within their organizations. Concerns ranged from compliance with regulations, to driving organizational efficiencies, to behavioral change. Among certain industries, the biggest concern globally is in product development, where 79% of respondents indicate they see this as a barrier for success in the next two years.

Question: How challenging will it be for your organization to successfully execute on the following business goals in the next two years?

<table>
<thead>
<tr>
<th>Business Goal</th>
<th>Very Challenging</th>
<th>Challenging</th>
<th>Not Challenging</th>
<th>Don’t know</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opportunity assessment for new products, services and (or) markets</td>
<td>24%</td>
<td>50%</td>
<td>25%</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>Climate change strategy</td>
<td>22%</td>
<td>52%</td>
<td>24%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Governance of climate change initiatives</td>
<td>21%</td>
<td>51%</td>
<td>27%</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>Climate change risk identification, assessment and mitigation</td>
<td>21%</td>
<td>50%</td>
<td>26%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Goals and objectives for climate change</td>
<td>16%</td>
<td>58%</td>
<td>23%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Project management of your portfolio or climate change initiatives</td>
<td>13%</td>
<td>51%</td>
<td>33%</td>
<td>2%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Very challenging  | Challenging  | Not challenging  | Don’t know  | N/A

0%  | 100%

“We need to increase funds available for the initiatives we wish to pursue. We also need to engage more experts in our climate change efforts.”

Survey respondent
In China and India, executives rank product development as the overwhelming challenge to achieving their goals (97% and 72%, respectively). An analysis of country-specific responses also indicates that regulatory and compliance issues will be challenging in the next two years – specifically in Australia, Canada, Japan, Germany, France and the US. Australian and French companies in the survey also highlight finance as a significant challenge to their success in the short term.

**Everyone is part of someone else’s supply chain**

Some of the biggest climate change-related risks and opportunities for companies exist within their supply chains. Many of the companies interviewed are already driving their climate change strategies and GHG reduction goals through the supply chain.

In our survey, 36% of respondents indicate they are working directly with their suppliers to reduce their carbon footprint. Another 30% state they have started discussing climate change initiatives with their suppliers and it is a work in progress. In the automotive sector, 70% of respondents are working with their suppliers to reduce carbon emissions throughout their supply chain.

Incorporating the supply chain into a climate change program has the dual effect of reducing costs as well as overall GHG emissions. In addition, identifying supply chain risks and opportunities that arise from climate change can help:

- Mitigate risks to supply continuity
- Get products and services to market more efficiently
- Align brand value with changing customer demand
- Enhance the overall customer experience

**Focus on talent**

Executives we interviewed identified two separate HR issues that impact successful execution of their climate change initiatives: a skills shortage and a lack of awareness.

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**Question: How challenging will it be for your organization’s climate change initiatives to succeed in the following areas in the next two years?**

<table>
<thead>
<tr>
<th>Category</th>
<th>Very challenging</th>
<th>Challenging</th>
<th>Not challenging</th>
<th>Don’t know</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product development</td>
<td>33%</td>
<td>46%</td>
<td>18%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Regulatory and compliance</td>
<td>25%</td>
<td>43%</td>
<td>29%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Supply chain and procurement</td>
<td>23%</td>
<td>43%</td>
<td>30%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>Finance</td>
<td>22%</td>
<td>46%</td>
<td>26%</td>
<td>5%</td>
<td>1%</td>
</tr>
<tr>
<td>Human resources</td>
<td>16%</td>
<td>49%</td>
<td>31%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>Marketing and communications</td>
<td>14%</td>
<td>48%</td>
<td>36%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Information technology</td>
<td>14%</td>
<td>44%</td>
<td>38%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>Manufacturing operations</td>
<td>14%</td>
<td>41%</td>
<td>34%</td>
<td>10%</td>
<td>1%</td>
</tr>
<tr>
<td>Facilities management</td>
<td>11%</td>
<td>45%</td>
<td>41%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Tax optimization</td>
<td>9%</td>
<td>38%</td>
<td>44%</td>
<td>8%</td>
<td>1%</td>
</tr>
</tbody>
</table>

"Climate change will impact the supply chain more in the future, especially production from raw materials, energy costs and greater investment and development of new products.”

Survey respondent
A number of respondents offer specific comments on the challenge of equipping employees with the necessary skills and expect to both recruit and to build internal capacity with targeted training. Given the accelerated focus on executing many of the climate change initiatives, some respondents expect to fill the skills gaps with external resources in the short term, but recognize the need to focus on internal development programs if the business strategy is to be sustainable over the longer term.

In addition to the skills shortage, many of the executives interviewed highlight the importance of raising awareness of climate change imperatives. These imperatives impact the business strategy and the ability to build an effective culture that will support the priority initiatives, minimize risk and ensure regulatory compliance. Employee buy-in, to embrace change management programs and drive behavioral changes, is a critical ingredient for success. One executive said: “[We] plan to resolve these challenges by opening the dialogue, creating the communication channel and having senior management buy-in.”
Integration is essential for successful execution

Successfully implementing a climate change strategy depends on an integrated, comprehensive approach to execution. An important first step is to get enterprise-wide stakeholders around the table to talk to each other. For global companies with multiple business units in different countries, it can be very challenging to achieve the integration critical for success. Strong governance can help. Organizations should consider establishing an advisory board or climate change steering committee that comprises key organizational stakeholders as part of the climate change governance model.

Key stakeholders will need to reach beyond energy and facilities management to include risk and internal audit, tax, finance, operations, IT, legal and HR, as well as other relevant functions. This is particularly important when implementing energy efficiency strategies, which require the involvement of multiple business functions.

“...we are a huge organization spread across 40 geographies in the world. So, having a uniform strategy revolving around needs in accordance with the different geographies is a challenge.”

Survey respondent

Actions to consider

- Drive enterprise-wide engagement through a climate change steering committee
- Develop necessary in-house skills through employee awareness building, training and development
- Recruit to meet new and additional skill sets
- Analyze supply chains and meet with suppliers and customers to identify risks and opportunities
- Explore incentive programs to facilitate funding initiatives
- Liaise closely with stakeholders to understand expectations and to identify market trends ahead of competitors
- Adopt IT solutions to manage the logistical challenges of managing initiatives across complex organizations
- Review leading practices to businesses in other sectors

Change management

A successful climate change strategy requires innovative enterprise-wide approaches:

- Effective executive leadership and strong corporate governance to engage relevant stakeholders
- A climate change steering committee, comprising key organizational representatives, to foster good governance
- Designated climate change champions in key business areas to promote and drive climate change initiatives
- Robust program management to assure the climate change initiatives portfolio has enterprise-wide buy-in
- Ongoing training and skill development to enhance organizational awareness and expertise
- Customized project management models and tools to facilitate effective execution and deliver expected outcomes on time and on budget
- Multi-level communication across business units — perhaps in different geographies — to develop a shared vision
- Collaborative technologies for innovative dialogue across the organization to share leading practices in an efficient manner
- Compensation considerations to motivate employees to achieve the company’s objectives
- Pilot programs to test initiatives before launching them company-wide
Transparent reporting gains momentum

“The main factors are lack of information and data transparency. We need reliable information. It is very difficult to get the actual pragmatic measurable numbers to be able to articulate goals and objectives in climate change. So, there is still a need for a good framework that we can use to get the true measurement.”

Survey respondent

Executives and boards are acutely aware of the growing demand for more transparent reporting of climate change business strategies, initiatives and performance.

There are many voluntary reporting channels companies are now using, including external sustainability reports, annual reports, external websites, the Carbon Disclosure Project and the Climate Registry.

In our survey, 64% of respondents currently communicate GHG or carbon emissions data in an annual corporate social responsibility report or a sustainability report. Nearly a third have not yet communicated this data publicly. The risk for those not communicating their climate change data is that stakeholders will seek this information from potentially less reliable third-party sources.

For those companies that do report, there are challenges in ensuring the report is an effective communication tool. The information needs to be relevant, complete and meet the expectations of stakeholders. Done well, it provides a company with the opportunity to present a clear picture of the measures it is taking to meet the challenges and opportunities of climate change. Some leading organizations are beginning to integrate financial and non-financial data in a single report, which helps readers to get a better understanding of the full financial implications of the organization’s business strategy.

How can a company ensure stakeholders have confidence in the information reported? In our survey, 62% of respondents who report have their data verified by an independent third party. The publication of an assurance statement with the sustainability report is an increasingly common approach to enhance a company’s credibility and meet growing stakeholder demand for transparency.

Regulation raises the importance of reporting

Country-specific reporting requirements

In Australia, the National Greenhouse and Energy Reporting Act was passed in 2007, and companies are coming to the end of the second year of compliance reporting. In the 2008-2009 financial year, approximately 235 organizations exceeded the annual thresholds (corporation – 125kt4 5; facility – 25kt) and reported their GHG emissions and energy consumption. The corporate threshold reduces over two years down to 50kt, so the number of entities reporting will increase over this period.

The US Environmental Protection Agency (EPA) requires companies with facilities that trigger the threshold of 25kt in specified industry sectors to begin monitoring now. The first reports will be due on 31 March 2011.

In the UK, the Carbon Reduction Commitment (CRC) Energy Efficiency Scheme, a mandatory emissions trading scheme, came into effect in April 2010 and applies to large but non-energy-intensive companies – approximately 5,000 of the UK’s largest organizations.


5 125kt refers to 125,000 tons of GHG emissions per year, measured on a carbon dioxide equivalent (CO2e) basis.
Each company is required to report GHG emissions from energy use. The companies will be ranked against all others based on their success.

In India, the Perform, Achieve and Trade (PAT) scheme under the National Mission for Enhanced Energy Efficiency (NMEEE) becomes effective in April 2011. The PAT scheme establishes consumption targets for energy-intensive industries, as well as a cap-and-trade structure. These industries will be required to report their energy consumption and have those results verified by a third party.

In some countries, companies are required to report their emissions for installations covered under specific legislation (e.g., emissions trading schemes). This is the case for liable parties under the European Union Emissions Trading Scheme.

**Mandatory regulations generate opportunities**

The introduction of these mandatory regulations has required businesses, for the first time, to integrate systems, processes and reporting across the business. Buy-in from finance, operations, IT, environment, facilities, energy, trading, legal and external affairs as well as the C-suite is essential for most companies to effectively meet regulatory requirements. Although this can represent a challenge initially, such a driver can also deliver opportunities across the business by highlighting potential efficiencies. It may also lead to increased management focus and broader awareness of risks and opportunities.

**Question:** Which of the following best describes how you compare your climate change initiatives relative to peer organizations?

- We benchmark our initiatives: 28%
- We compare key metrics: 28%
- We plan to compare our initiatives, but have not done so to date: 20%
- We do not compare our initiatives: 20%
- Not applicable: 1%
- Don't know: 3%
Benchmarking as a basis for measuring performance

Creating an effective MRV system for climate change initiatives requires: setting effective KPIs; optimizing and standardizing processes and data controls; and assuring the accuracy and consistency of the reported information. This is particularly the case for companies that report across multiple jurisdictions that have different standards and protocols. Given the high profile of these reports and the scrutiny by stakeholders, executive and board oversight is critical.

The lack of a consistent global framework for reporting GHG emissions data and metrics for climate change initiatives can make it difficult for organizations to compare their efforts against peers. To better understand current practices, we asked companies how they compare their climate change initiatives relative to peer organizations.

Of those companies that actively rate themselves externally, 56% of the respondents are split in their approach. One group formally benchmarks its initiatives, while the other compares metrics on a more informal basis. A further 20% plan to compare their initiatives but have not done so yet.

There are many reasons for benchmarking. Apart from forming a view of performance relative to competitors’, benchmarking can also provide a benefit if used to educate and encourage employees.

Actions to consider

- Update MRV systems and align with stakeholder expectations
- Analyze regulatory trends for reporting and disclosure across multiple jurisdictions and prepare in a timely manner
- Use the climate change steering committee to drive cost-effective compliance reporting
- Review internal metrics to ensure alignment with goals and objectives
- Agree on a framework for benchmarking against peers and leading practice organizations in different sectors

“One of the prime focus areas for us in the coming year is to educate our own organization by doing some benchmarking. We need to understand not only the competitors’ environment but also need to understand the benefits that can be gained from these initiatives.”

Survey respondent
Question: Does your organization communicate its GHG or carbon emissions data in an annual corporate social responsibility or sustainability report?

- Yes: 64%
- No: 31%
- Don't know: 5%

Question: If you communicate your results publicly, do you have the GHG or carbon data verified by an independent third party?

- Yes: 62%
- No: 34%
- Don't know: 4%
In our work with clients across industry sectors and geographies, Ernst & Young has observed that climate change drives fundamental transformation in the way businesses operate.

Leading organizations find the path to transformation is made easier by starting with a framework for action. A framework enables organizations to link their climate change activities to their broader climate change strategy.

The framework below illustrates how the top layer of vision, direction, goals and planning links to the lower layers of execution, monitoring and measurement through overall program management and continuous improvement.
Vision, direction, goals and planning

Embedding climate change throughout any organization requires time, leadership and potentially a shift in culture. Leading companies view these issues as a transformational activity that crosses all business units, functions and geographies rather than as a niche or isolated business issue.

As an important first step, organizations should have a clearly defined vision and direction for their climate change strategy. Goals should be set that are specific enough to be measured and directly linked to business unit initiatives. An overall governance structure should be put in place that includes all organizational stakeholders who are held accountable for progress.

Execution

The survey clearly tells us that executing on climate change goals, while sustaining growth and performance, can be a challenge. Bringing all relevant stakeholders together in an integrated and holistic manner can strengthen an organization and may position it for future growth and success. For this reason, it is important to have management buy-in across business units and functions, and to have the key executives at the table to develop and execute on a common climate change strategy.

Monitor, measure and report

Climate change is a new reporting area for many organizations, driven by stakeholder demand for information as well as by regulation. Companies worldwide are using a variety of reporting channels, including external sustainability reports, the Carbon Disclosure Project, the Climate Registry, their annual reports, external websites and more.

Creating an effective tracking and monitoring system for climate change requires setting effective KPIs, optimizing and standardizing systems, processes and controls around this data, and assuring the accuracy and consistency of the reported information. This is particularly the case for companies reporting across multiple formats, as this may create a new reporting risk that should be managed up to the board level.
Conclusion

Facing the challenges, moving ahead

In our survey, we heard that climate change issues are complex and give rise to significant business risks and opportunities across a wide range of sectors.

Respondents spoke candidly about their strategies and priorities, as well as the implementation challenges within their complex organizations, many of which are multinational corporations with multiple business units.

What we found are engaged senior executives and board members who have already begun the process of transforming their organizations in response to multiple market drivers. They have set aside regulatory uncertainty, and instead have taken their cues from the market. These executives are acting because their customers expect it and because they believe they can make money, save money and manage risk.

Overwhelmingly, the senior executives in our global survey are acting now because they understand transforming their key processes makes good business sense. Rather than stand on the sidelines waiting for clarity, they are seizing the opportunity to serve their markets and to create long-term competitive value.
About this report

Ernst & Young commissioned Verdantix, an independent analyst research firm focused on sustainable business, to conduct the global survey of 300 executives. Respondents were drawn from across 16 countries and 18 industry sectors.

**Countries**

<table>
<thead>
<tr>
<th>Country</th>
<th>Country</th>
<th>Country</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Finland</td>
<td>India</td>
<td>Sweden</td>
</tr>
<tr>
<td>Canada</td>
<td>France</td>
<td>Japan</td>
<td>Switzerland</td>
</tr>
<tr>
<td>China</td>
<td>Germany</td>
<td>Norway</td>
<td>UK</td>
</tr>
<tr>
<td>Denmark</td>
<td>Iceland</td>
<td>South Africa</td>
<td>USA</td>
</tr>
</tbody>
</table>

**Industry sectors**

- Airlines
- Automotive
- Banking and capital markets
- Biotechnology and pharmaceutical
- Chemicals
- Consumer products
- Diversified industrial products
- Insurance
- Media and entertainment
- Mining and metals
- Oil and gas
- Power and utilities
- Professional firms and services
- Real estate
- Retail and wholesale
- Technology
- Telecommunications
- Transportation

All executives interviewed work for companies with an annual global revenue in excess of US$1b.

The survey followed an anonymous methodology – therefore, comments and quotes used in this report have not been attributed.

To download a copy of the report, please visit www.ey.com/ccassexecutivesurvey.
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