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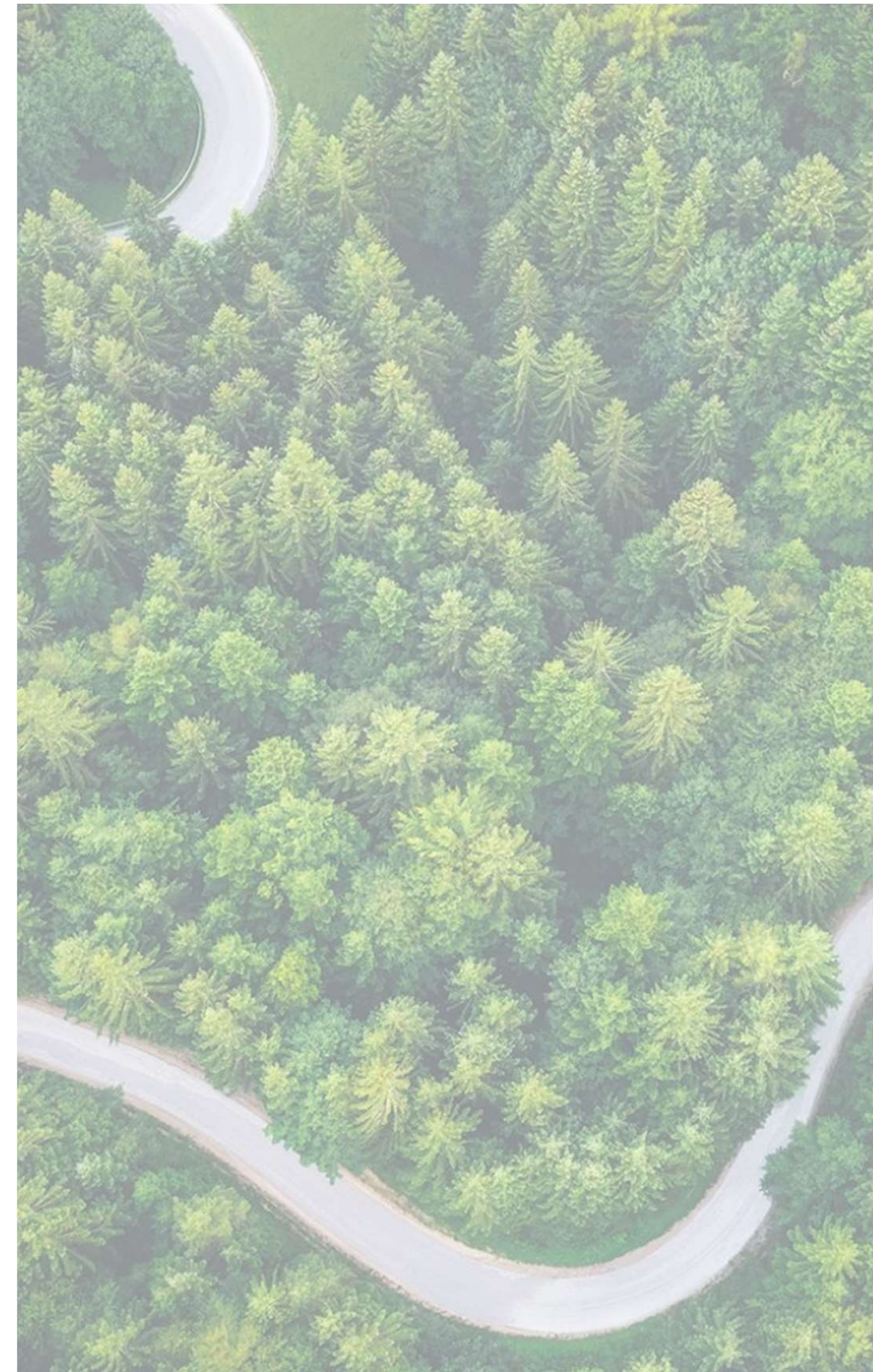
## ESG – Environmental, Social and Governance

DECEMBER 2021



## Our agenda for today

- 1 ESG overview: concepts, evolution, stakeholders' expectations
- 2 COP 26 overview: main results, impacts on carbon markets and emissions trading
- 3 Net Zero commitments and transformation pathway
- 4 Renewable energy transition
- 5 Human Rights, Supply Chain management and the SDGs



# Global Context

## ESG Evolution

The purpose of Organizations is constantly evolving. The long-term success of the business is intrinsically related to the speed of adaptation of its integrated strategy to the relevant ESG themes, meeting the needs of its stakeholders.



### Shareholders Capitalism

**Old:** Focus on **short-term financial** returns to achieve the best social results



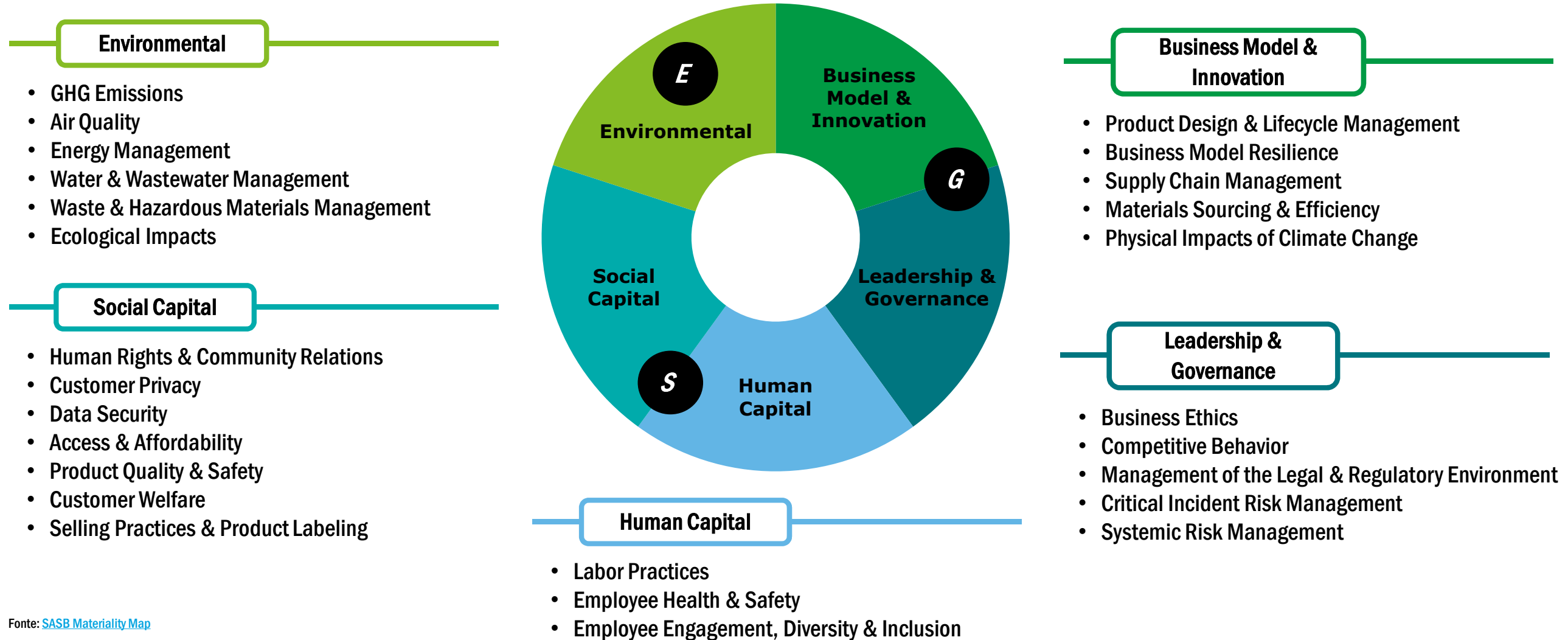
### Stakeholders Capitalism

**New:** Focus on **environmental and social results** to achieve **better long-term** financial returns

# ESG

## Understanding the ESG Term

ESG is the term used to designate market practices that consider environmental, social and governance aspects.

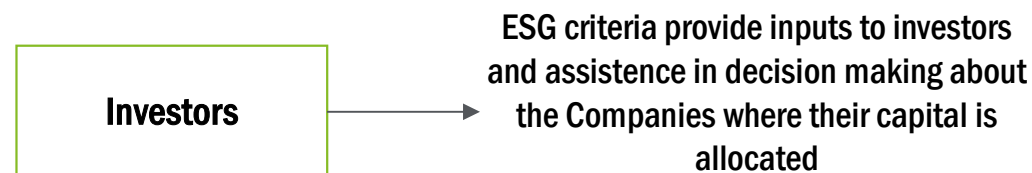




## Investors' Point of View

The inclusion of ESG aspects in companies' internal practices and controls has gained exponential importance, and generate long-term value for shareholders and other stakeholders

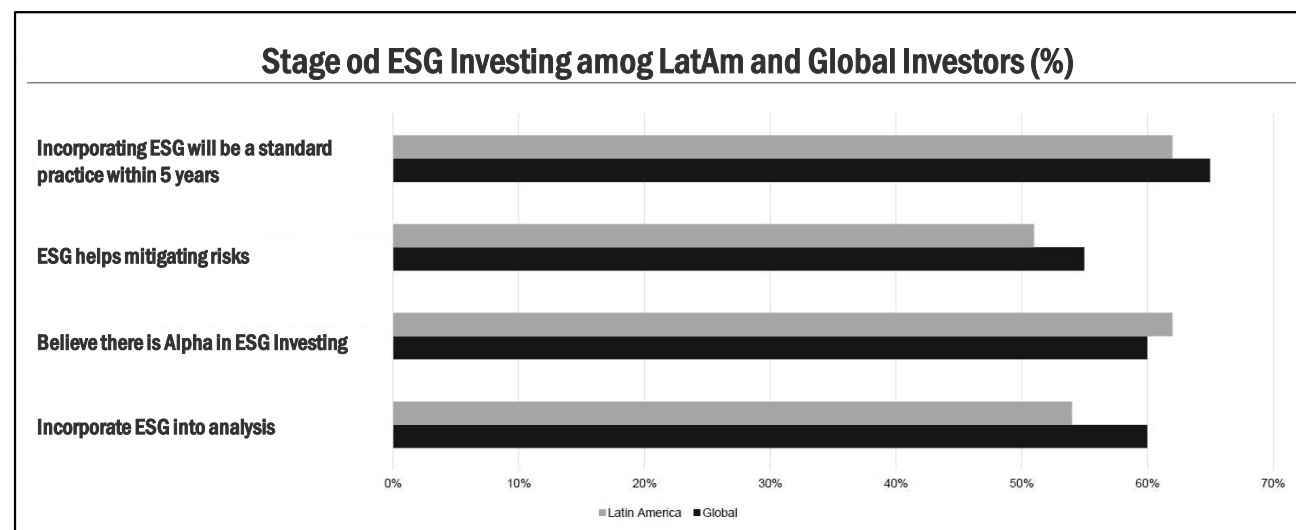
Globally, more than **\$30 trillion in assets under management (AuM)** are managed by funds that have **defined sustainable/ESG strategies**. This represents a **34% increase over 2016**, according to the Global Sustainable Investment Alliance.



### B3 Sustainability Index (ISE)

The current ISE portfolio has **46 shares of 39 Companies** from 15 sectors. Together, the Companies add up to **R\$1.8 trillion in market value, 38% of the total market value** of companies with shares traded on B3, based on the closing date of **11/25/2020**.

Source: [https://www.b3.com.br/pt\\_br/noticias/indice-de-sustentabilidade-empresarial-8AE490C8761BBCDB01761EA822C50302.htm](https://www.b3.com.br/pt_br/noticias/indice-de-sustentabilidade-empresarial-8AE490C8761BBCDB01761EA822C50302.htm)

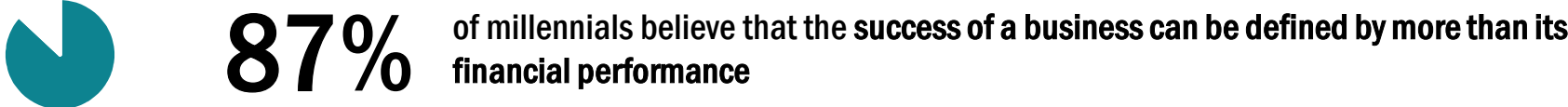


Source: Investing During a Global Pandemic; Brazil the ESG Giant of Tomorrow – Santander Jan 21

# Consumers' Point of View

## Requirements of the current generation

The change in the perception of Sustainability programs has been largely driven by the consumer and company focus on brand resilience



### Opportunities for creating value through Sustainability/ ESG:

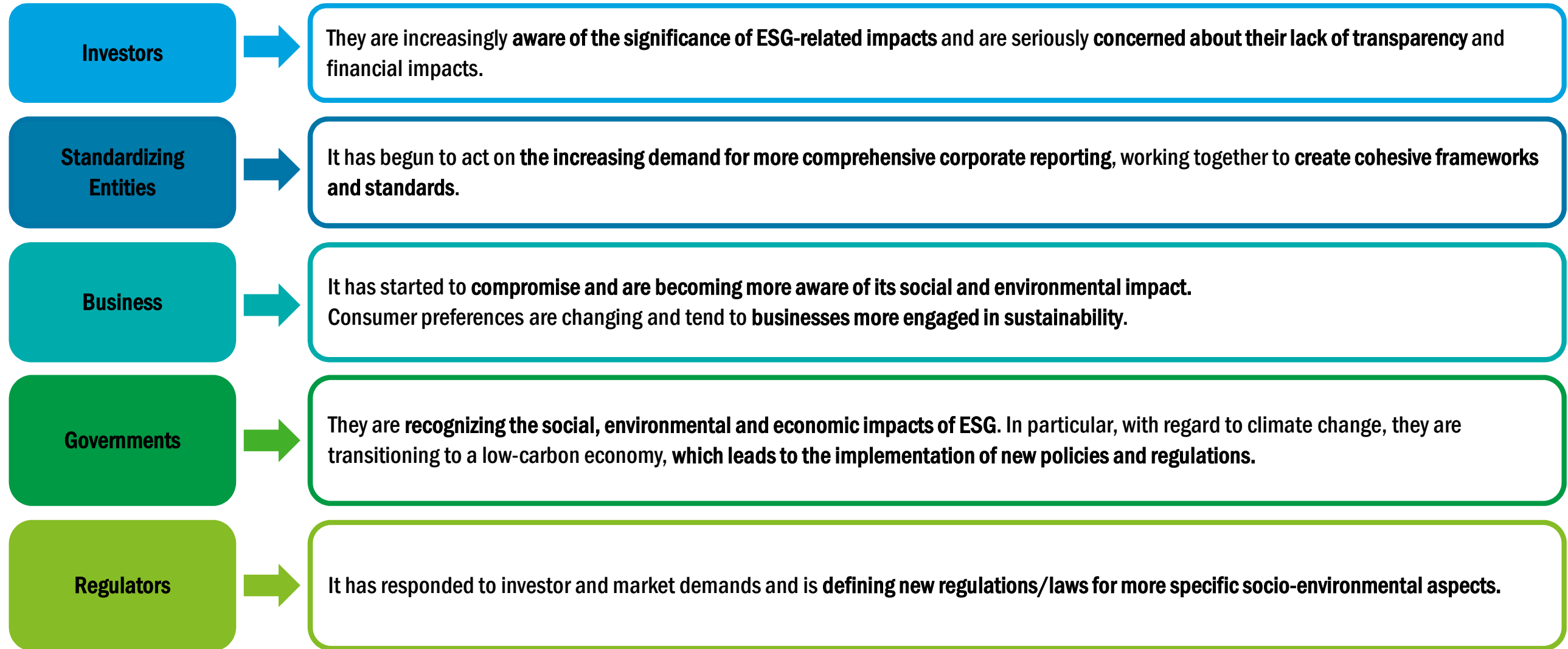
- Creating new market opportunities
- Taking relationships from reactive to proactive
- Inspiring, attracting and retaining the best talent
- Enhancing brand value with key stakeholders
- Building resilient and sustainable supply chains

Source: Pesquisa realizada pela Deloitte Global em 2019.

# ESG

## External pressures

There are external pressures for companies to be increasingly aware of the implications of ESG issues in their operations.



# ESG

## Perceptions and Risks

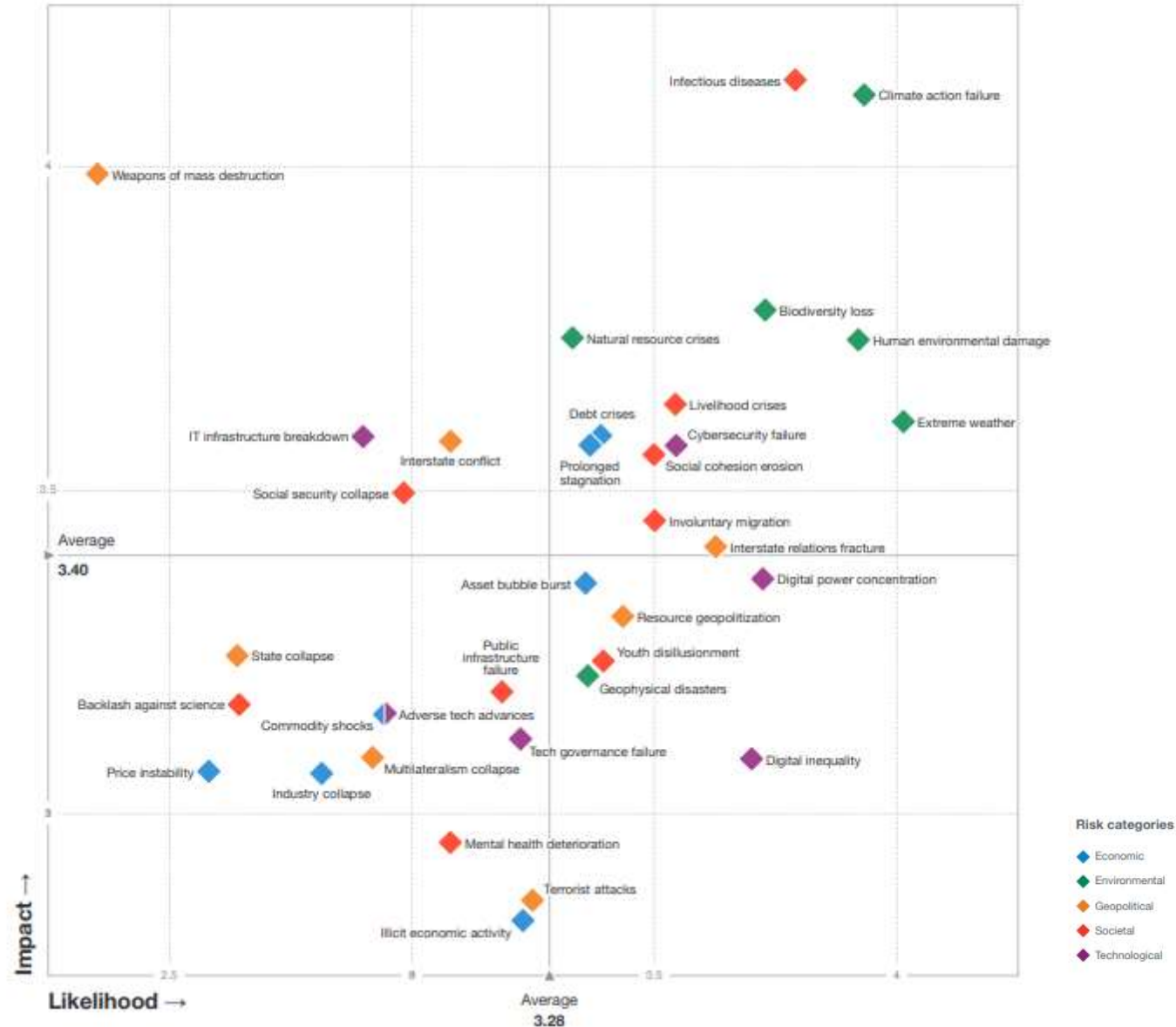
Organizations are facing an increasing set of **uncertainties and with a high degree of dynamism as they strive to create value and improve their performance.**

These uncertainties can be caused by changes in social, political, environmental, technological, volatile and/or highly regulated markets, people's behavior and culture.

Uncertainties are occurring **faster and faster, in increasingly unpredictable ways and with the potential to quickly change a risk into an opportunity or a crisis.**

## Global Risks Landscape

How do respondents perceive the impact ↑ and likelihood → of global risks?

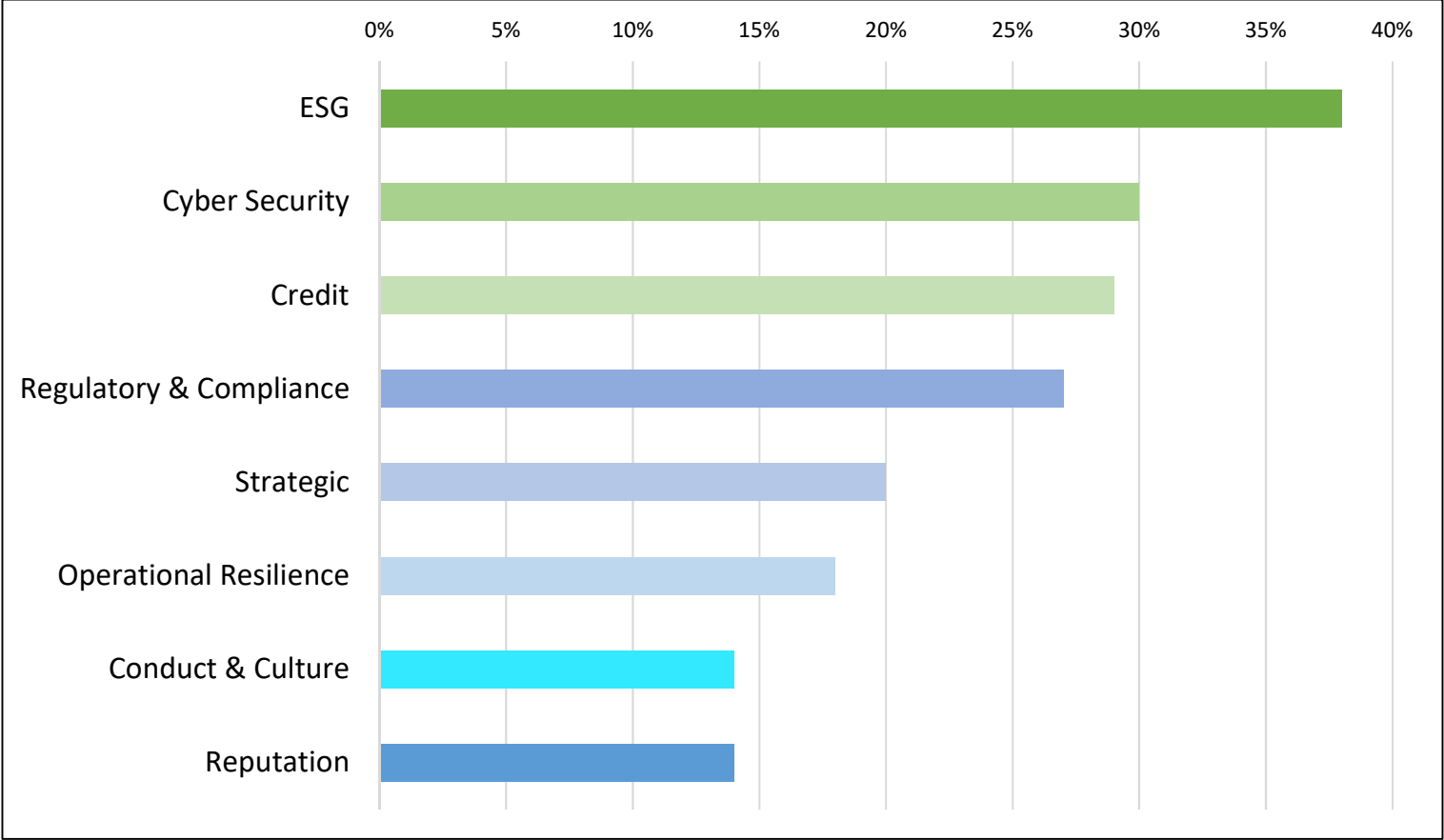




# ESG

## Challenges in adopting ESG practices

In the next 2 years, which Risks should be given more importance?



Global Risk Management Survey

Deloitte Feb 21

Summary in Japanese

# Some highlights from COP26

Main Targets

## Secure global net zero by mid-century and keep 1.5 degrees within reach:

- Accelerate the phase-out of coal
- Curtail deforestation
- Speed up the switch to electric vehicles
- encourage investment in renewables.

## Adapt to protect communities and natural habitats:

- Protect and restore ecosystems
- Resilient infrastructure and agriculture to avoid loss of homes, livelihoods and even lives

## Mobilize finance:

- Developed countries must mobilize at least \$100bn in climate finance per year by 2020

## Work together to deliver:

- Finalize the Paris Rulebook (the detailed rules that make the Paris Agreement operational)
- Collaboration between governments, businesses and civil society

### Final Declaration Draft



- It calls for stepping up **efforts to phase out coal-burning** and phase out fossil fuel subsidies.
- It suggests a new **deadline for achieving the reducing targets levels** of greenhouse gas emissions to **2022** instead of 2025.
- It suggests that countries' **decarbonization targets** (known as NDCs - Nationally Determined Contribution) be **reviewed annually**.
- Mentions of the **need for financing for adaptation in developing countries**.

### Global Commitments



- More than 100 countries have pledged to end and **reverse deforestation and land degradation by 2030**.
- 105 world leaders signed the Global Methane Pledge, a joint US-EU **initiative to reduce methane emissions by 30% by 2030**.
- 24 countries and a group of **car manufacturers** have **pledged to end the era of fossil fuel vehicles by 2040**.
- 25 countries have joined an effort to **end foreign public funding of oil, gas and coal projects** by the end of 2022.

### Highlights and Statements



- Formation of the **International Sustainability Standards Board (ISSB)** which will **consolidate the dissemination practices** related to the assessment of the impact of climate change on companies.
- Launch of the Breakthrough **Agenda that commits countries to work together to make clean technologies and sustainable solutions the most affordable**, economically viable and attractive options in each emitter sector globally before 2030.

### Commitments of Brazil



- NDC review: aims to achieve **zero net emissions by 2050 (no more in 2060)**; cut from 43% to 50% compared to 2030 emissions, based on the year 2005. With the change in the calculation basis, this represents a ceiling of 1.2 gigatonnes of CO2 emitted.
- Adherence to the **commitment to end deforestation by 2030**.
- Agreement to **reduce methane emissions** that aims to reduce methane emissions by **30% by 2030**.

# Some highlights from COP26 - Emissions trading

## What are the main types of market systems?



### Regulated Market

- Emissions trading schemes may be established as **climate policy instruments** at the **national level and the regional level**.
- Under such schemes, **governments set emissions obligations** to be reached by the participating entities.
- **The European Union emissions trading scheme (ETS) is the largest in operation.**
- **The Regulator decides on a proportion of this limit** to be allocated free of charge, and **the remainder is sold through auctions.**
- **A regulated installation can buy rights from another** and, annually, it needs to reconcile its emissions with the equivalent in emission rights.
- **Unlike taxation**, it allows the **flow of resources between regulated agents** and not just the government.
- Allows for **more regulatory and institutional freedom** to protect competitiveness with differentiated allocation of emission rights.



### Voluntary Market

- Emissions reduction trading in voluntary markets **between companies and individuals** fulfills a **voluntary corporate or individual goal** through **credits generated by other companies and individuals**.
- **These credits**, in turn, are **certified by third parties** endowed with principles that vary among themselves.
- **Transactions in this market do not follow a common regulatory framework** with mandatory targets and **do not follow the rules of the Paris Agreement.**
- In 2019, the **volume traded in the voluntary market represented 1% of the total traded in regulated markets** around the world in the same year.

# Some highlights from COP26 - Emissions trading

## Article 6 of the Paris Agreement and COP26:



Kyoto Protocol (2005) - Clean Development Mechanism (CDM), between countries with targets and countries without targets, and the Joint Implementation Mechanism (Joint Implementation - JI) between countries with targets.

Paris Agreement instruments changed their design, as all countries have targets (Nationally Determined Contributions - NDC).



Article 6 of the Paris Agreement creates market-based instruments for a cooperative approach with the aim of making NDCs more ambitious, by:

- Encouraging international collaboration to reduce countries' global greenhouse gas emissions, through mechanisms that allow the exchange of carbon credits;
- Providing solutions for that countries can voluntarily cooperate to fight climate change, generate investment, and achieve sustainable development.



After six years of negotiations, agreement was reached on the fundamental norms related to Article 6 on carbon markets.

This will give certainty, transparency and predictability in support of mitigation as well as adaptation.

Governments will be responsible for imposing rules in their own countries and establishing targets for reducing greenhouse gases for the different economic actors in society

## Brazil and the Carbon Market

Brazil needs to regulate its own national carbon credit market - The Bill of the Brazilian Market for the Reduction of Carbon Emissions (MBRE), PL 528 of 2021 still has not been approved.

Brazil could be one of the countries with the greatest potential for the sale of carbon credits: Revenues of US\$16 billion to US\$72 billion by 2030\*



# Emissions trading

## Carbon Market in numbers



19%

The total value of global carbon markets grew **19 percent** in 2020.

That marks the **fourth consecutive year of record growth** and more than five times the value in 2017.



€229 billion

Traded volume reached **10.3 billion tones of CO<sub>2</sub>e**

An estimative of the value of these transactions is at around **€229 billion**.

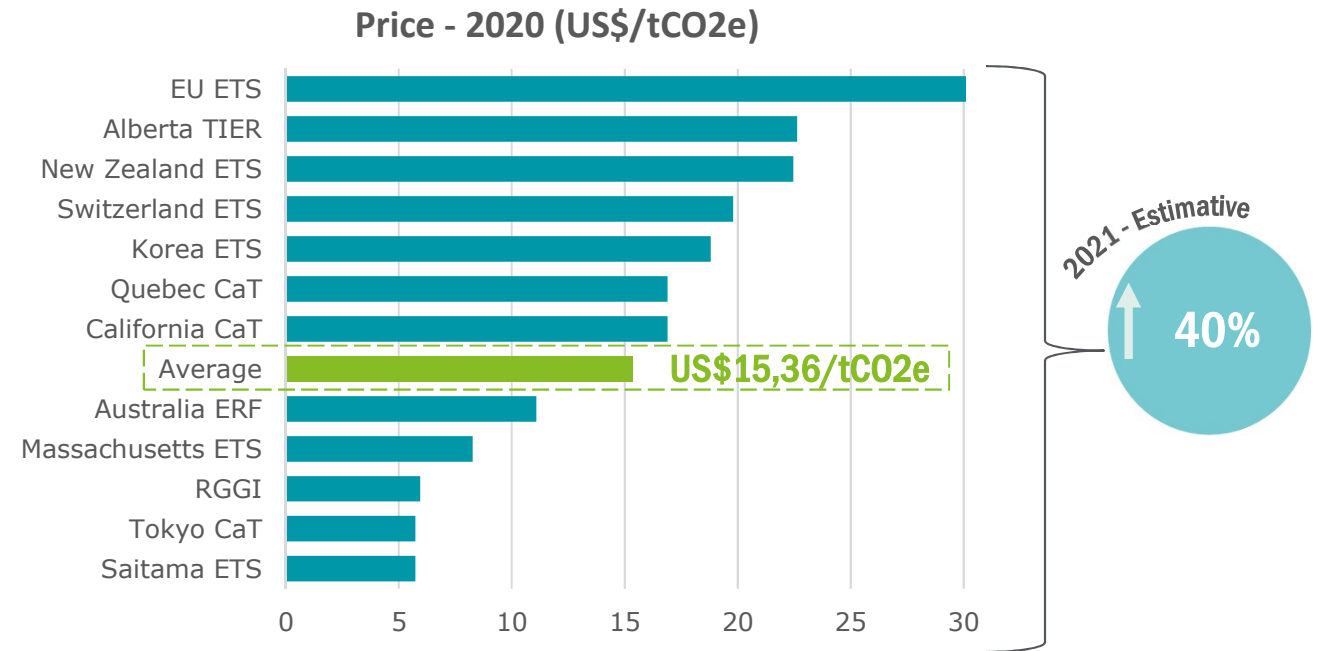


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Carbon pricing initiatives implemented/scheduled, covering **22% of global emissions**

**31 ETS**  
**30 Carbon Taxes**

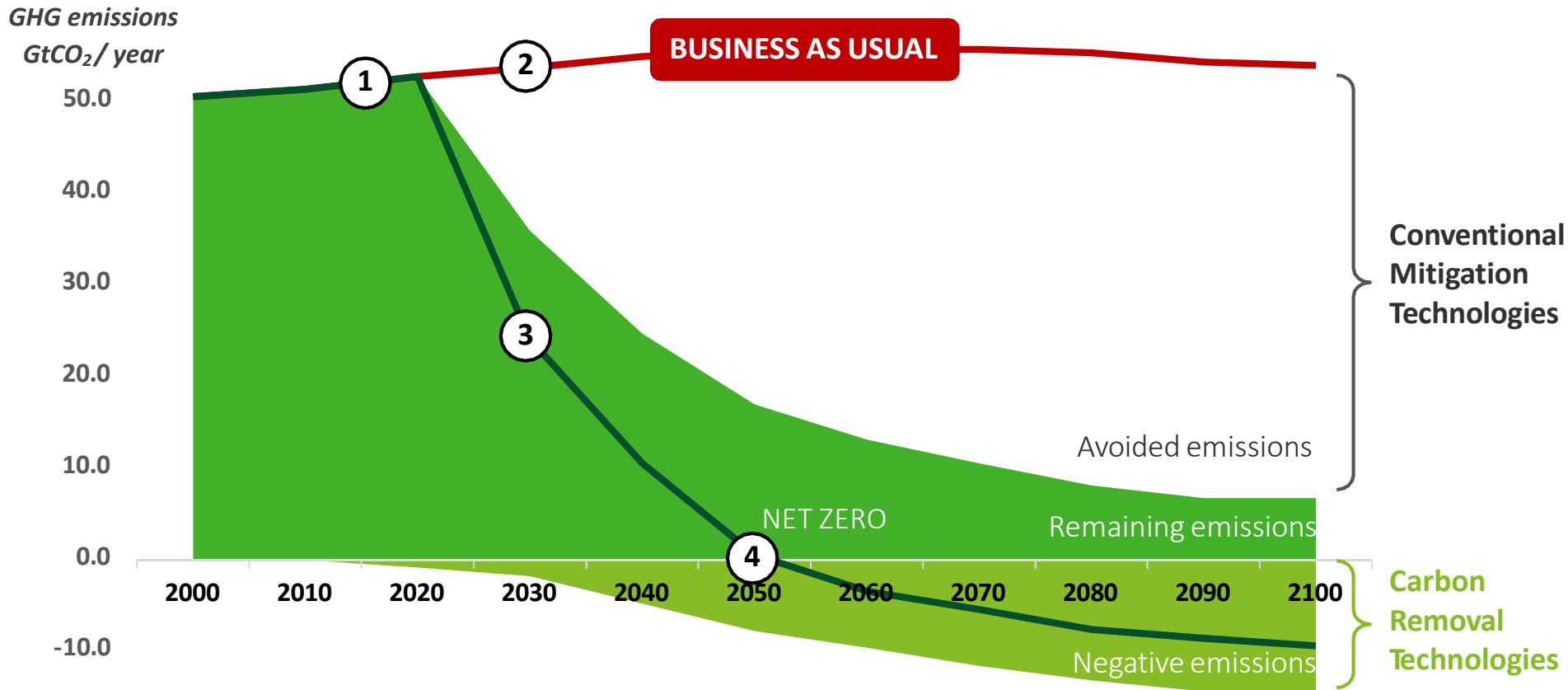
According to The World Bank, considering all implemented ETS initiatives, carbon pricing was on average estimated in 2020 at **USD 15,36/tCO<sub>2</sub>e**



\*Sources: "World Bank - State and Trends of Carbon Pricing"; "Climate Action 100+ - 2020 Progress Report"; "Refinitiv - Carbon market year in review 2020".

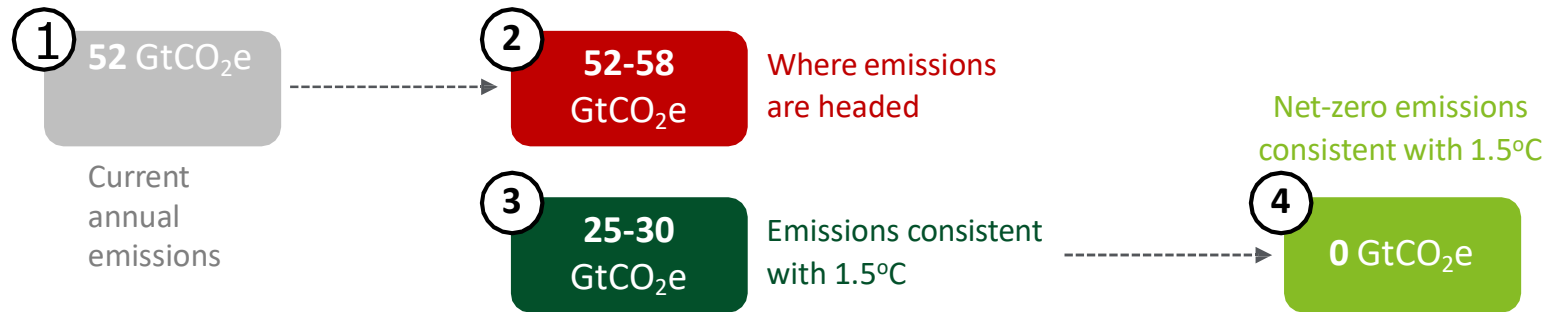
# Summary in Japanese

# Carbon Neutral - What is required to do to mitigate climate change? By when?



Net-zero would mean cutting global GHG emissions by roughly 50% by 2030 (from 2010 levels) and reaching “net-zero” emissions—releasing no more carbon into the atmosphere than is removed—

Achieving net-zero carbon emission by 2050 would require a radical, top-to-bottom transformation of the global economic system, especially transportation, energy and agriculture practices.



**The best-case scenario is that we limit to 1.5 C; an increase to 2 C or beyond is likely**

# Carbon Neutral - Net Zero Ambitions - Overview

## Climate Action 100+

Largest investor engagement initiative on climate change:

- **160 global companies** that have significant GHG emissions and are **critical to the net-zero emissions transition**
- Responsible for an estimated **80% of global industrial emissions**
- **Total market cap of \$8.4 trillion**

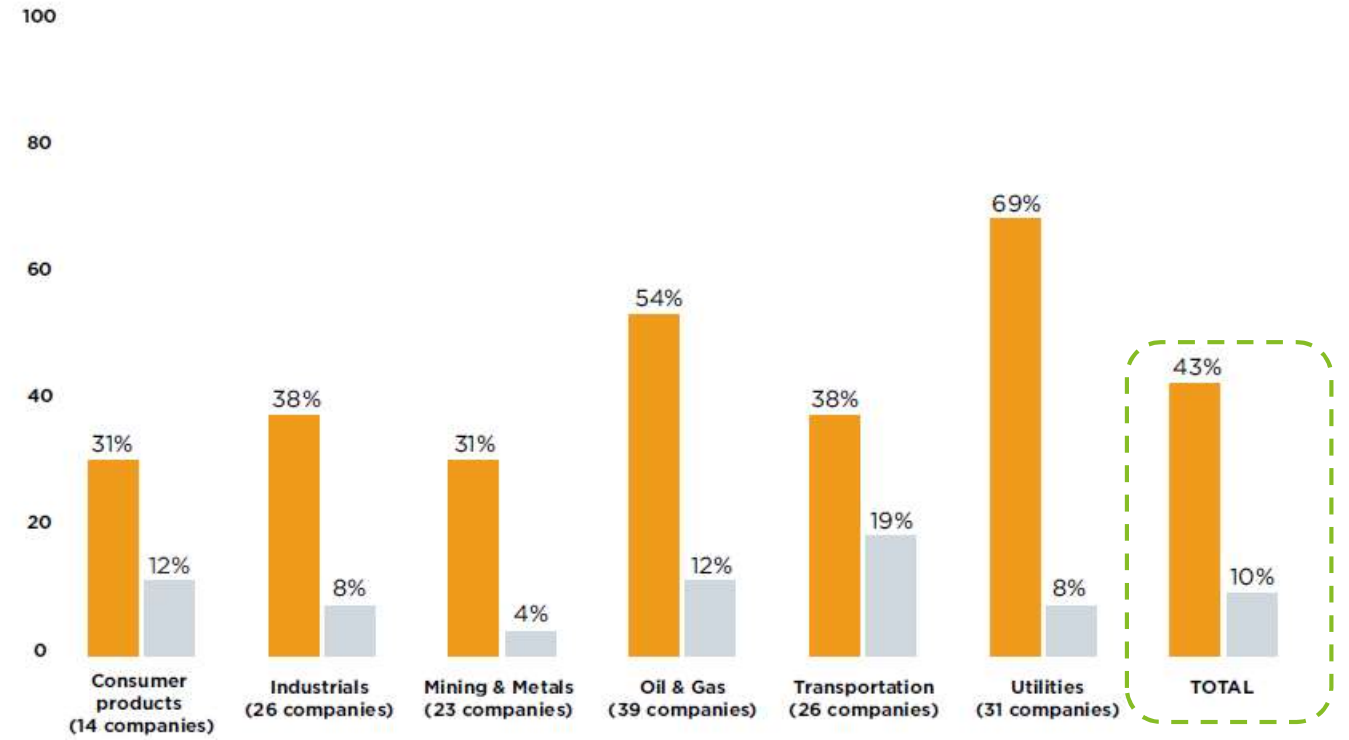
### Companies by sector



However, **corporate net-zero targets are being approached inconsistently**, making it difficult to assess these targets' contribution to the global net-zero goal.

Without a common understanding, today's varied net-zero target setting makes it difficult for stakeholders to compare goals and to assess consistency with the action needed to meet global climate goals.

The company has set a target or ambition to reduce its GHG emissions to net-zero by 2050



Company has set a net-zero by 2050 target or ambition that covers its scope 1 and 2 emissions  
 Company has set a net-zero by 2050 target or ambition that covers its most material scope 3 emissions

- **43% of focus companies** engaged by the initiative **have set a net-zero target**
- **Only 10% of focus companies** engaged by the initiative **have set a net-zero by 2050 target** that covers the company's most material **scope 3 emissions**.

## Carbon Neutral - Net Zero Ambitions - Overview

After COP26, approximately 87% of the world's greenhouse gas emissions and 89% of its economy are now covered by net zero targets, although with differing time frames.

More than 2,000 businesses and financial institutions are working with the Science Based Targets initiative (SBTi) to reduce their emissions in line with climate science.

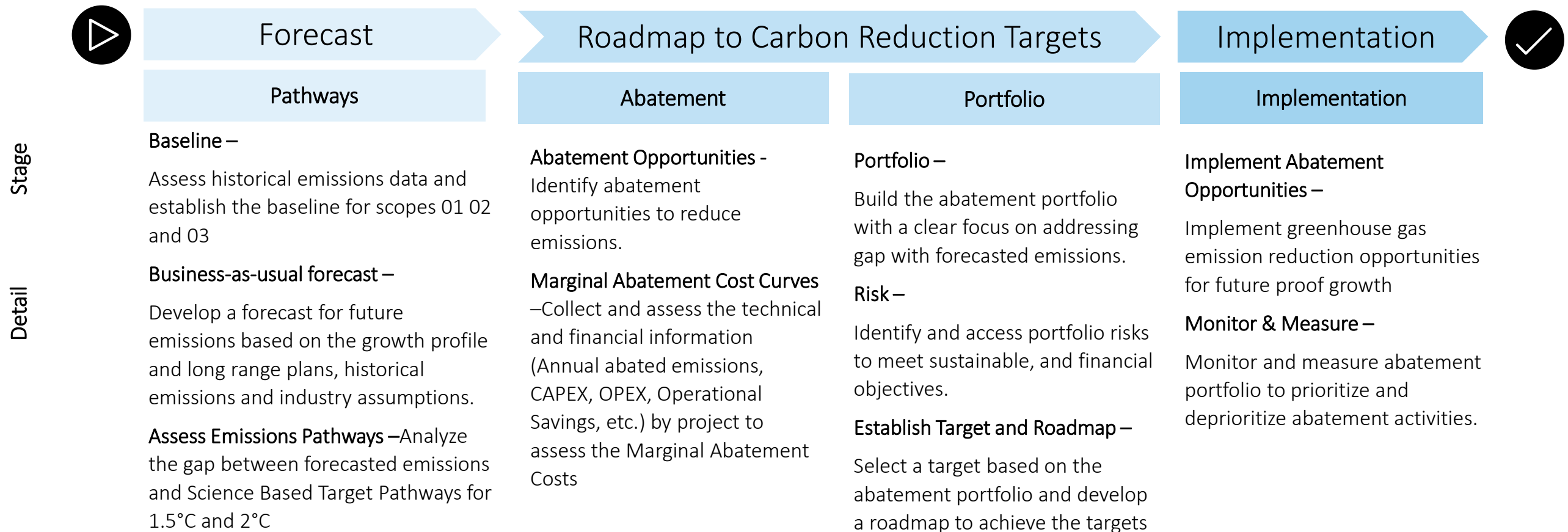
In Brazil, only 15 companies have officially committed to reaching Net-Zero in the SBTi.

Company	Klabin	Suzano	Malwee Group	Vale
<b>Sector</b>	Forest and Paper Product	Forest and Paper Product	Textiles, Apparel	Diversified Mining
<b>Target</b>	Reduce GHG emissions (scopes 1 and 2) per ton of pulp, paper and packaging by 25% by 2025 and by 49% by 2035, with 2019 as the base year	15% reduction in scope 1 and 2 emissions per ton of production; Net removal of 40 million tons of carbon from the atmosphere	By 2030, an additional 50% reduction in emissions in operations and 58% in the supply chain, towards the NET Zero commitment by 2050 with innovation	Cut 15% of the emissions from value chain by 2035; Invest up to US\$6 Billion to reduce direct and indirect emissions; Reduce by 33% the carbon footprint by 2030
<b>Main actions on the way</b>	Through numerous initiatives to decarbonize its production processes, the company has reduced its specific emissions (CO2 eq/t product) by 64% over the last 16 years	Implement initiatives to reduce consumption of fossil fuels in its operations	First Brazilian company to have scientific goals approved by an international verification body (SBTi) to reduce carbon emissions; Through a series of investments, they have reduced 75% of greenhouse gas emissions in the last 5 years	Replace diesel with renewable sources of electric energy in mining and transport activities; Self-generate 100% of electric power from clean sources globally



# Carbon Neutral - Zero Carbon transformation pathway

The following **systematic approach** has been implemented to **help organizations reach carbon reduction targets** in their portfolios, **bring clarity to the decarbonisation strategy**, realising the **climate action ambitions** and driving **broader success for the business**.



# Summary in Japanese

# Renewable energy transition

## Energy Transition remains a priority for companies



Company plans for a lower-carbon future are well established across the power, oil and gas, chemicals, and manufacturing sectors.

**Eighty-nine percent** of executives surveyed reported that their companies either already had a plan in place or were developing a strategy to reduce reliance on fossil fuels. **Thirty percent** of those executives said that their company already had a fully developed plan in place.



The top benefits cited of transitioning to lower-carbon operations were gaining a competitive edge, reducing costs, and improving the environment.

While environmental benefits will likely be deemphasized as companies regain their footing through the economic crisis, reducing costs and maintaining a competitive position remain important even in the downturn.



Digital technologies and customer support were cited as key drivers of company plans for a lower-carbon future.

**Nearly 70 percent** of executives who reported that their company has a sustainability strategy in place cited digital technologies supporting sustainability and energy efficiency as the key driver. The second key driver cited was customer support for reducing carbon emissions.

Source: Deloitte analysis

Deloitte began work on the energy transitions study in 2020. Deloitte and Wakefield Research surveyed 600 C-suite executives and other corporate leaders from around the world in March 2020.

## Technologies that can enable the energy transition

### Digital Technologies

Deploy digital technologies that enhance operational efficiencies across the power; oil, gas and chemicals; and industrial products value chains to help enable the energy transition.

### Renewables

Invest in next-gen technologies for harnessing the energy from wind, solar, biomass/biofuels, geothermal, hydroelectric, marine (wave, tidal), and green hydrogen

### Energy storage

Scale and reduce costs for energy storage technologies, particularly long-duration and seasonal storage of electricity generated by renewables.

### Circular Economy

Improve recycling technologies to reduce energy/greenhouse gas emissions from industrial production; convert excess heat from industrial processes to power (CHP).

### Carbon capture, utilization, and storage

Reduce carbon emissions with technologies to capture, store, and utilize carbon emissions. This is currently most economically viable in the oil and gas industry.

### Electrification technologies

Improve technologies to help electrify transportation (electric vehicles), buildings (space and water heating and cooling), and industrial processes—and power them with cleaner sources.



# Renewable energy transition

**Brazil's situation in the energy:** low-carbon energy matrix and expansion options that are both low-emission and economically competitive.

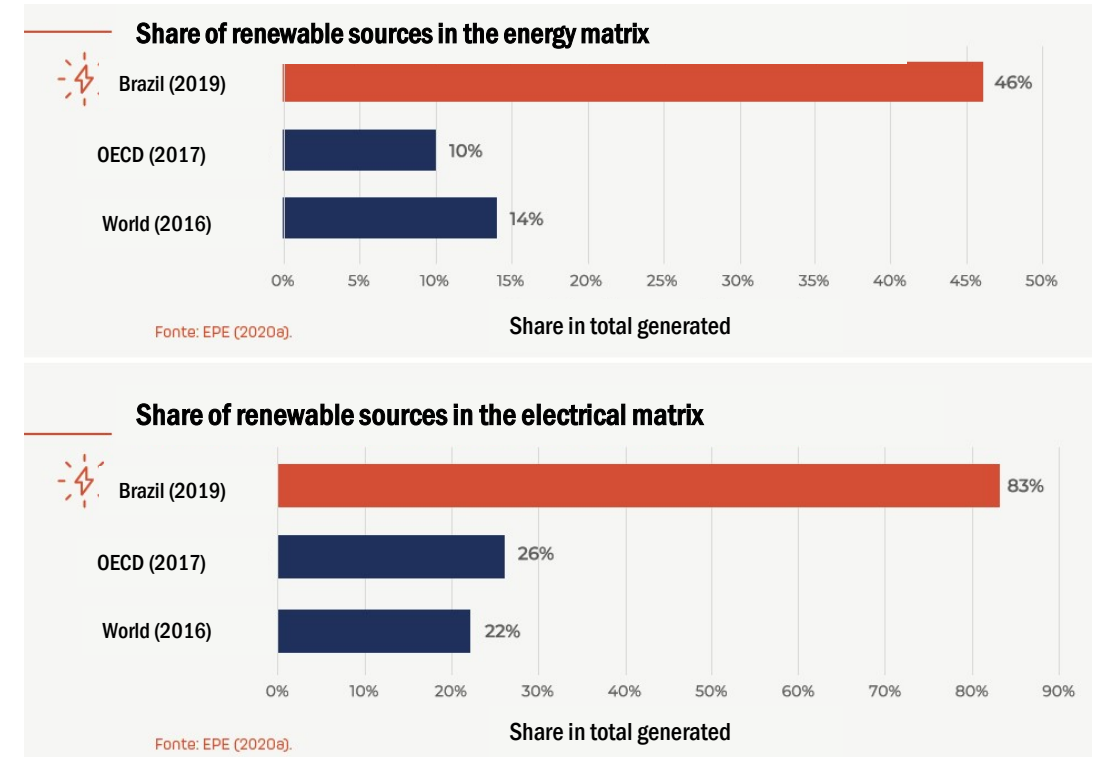
The energy matrix is well suited for decarbonizing other sectors, such as transport: ethanol, biodiesel, clean electricity for electric vehicles and the production of “green” hydrogen.

Even though transport can count on the expansion of biofuels and fleet electrification, there is an excessive concentration in the road mode for a continental country like Brazil. As a result, diesel oil continues to represent almost 40% of GHG emissions over the next decade

On the other hand, the significant participation of hydroelectricity in the energy matrix is a component of vulnerability to the effects of climate change.

## Green Hydrogen

Produced from green hydrogen, electrofuels are considered on the European market as a mean of carbon neutralization of its matrix. Although storage and transport may bring challenges to its widespread use, the possibility of converting it into synthetic fuels has given hydrogen a status of “missing link” for the transition energy, allowing the decarbonization of sectors that cannot be directly electrified



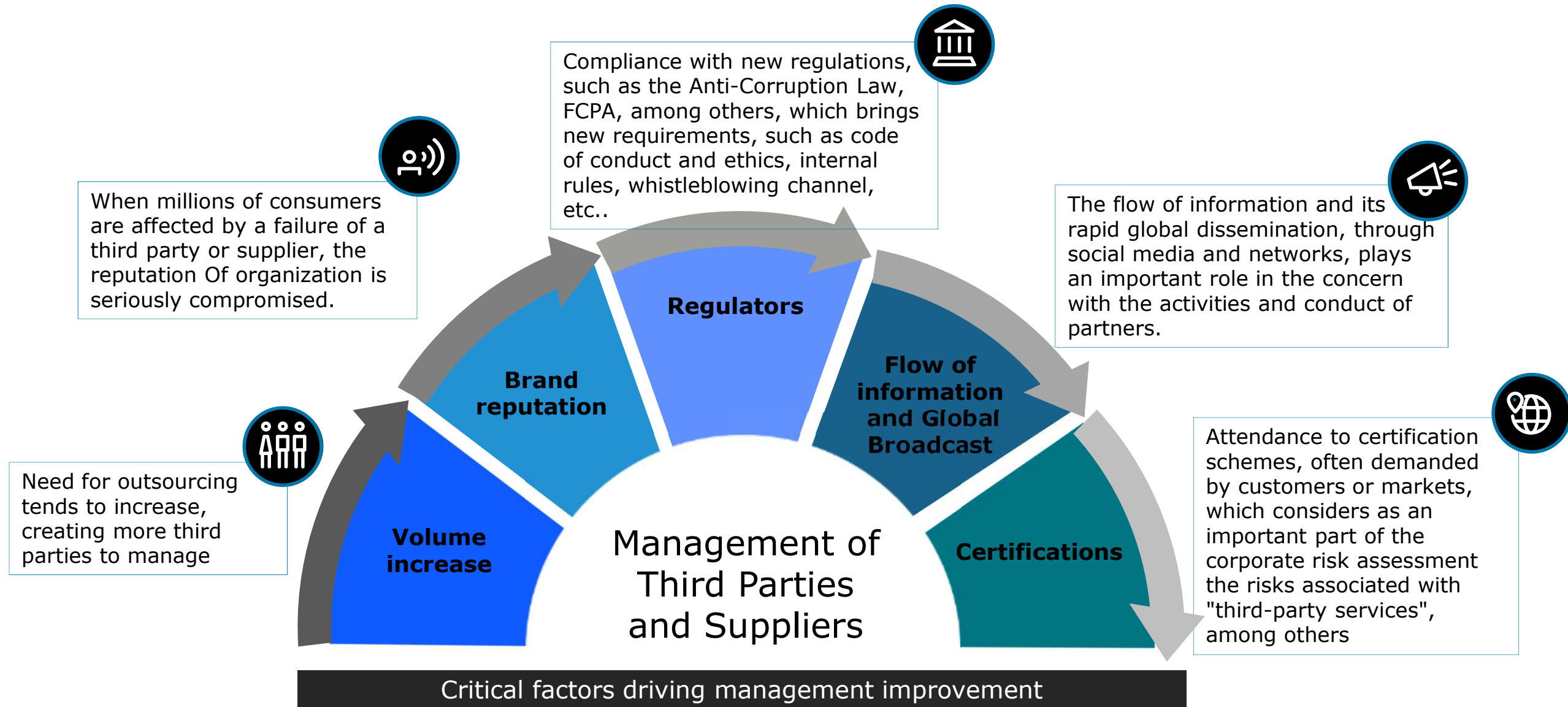
Sources: EPE (Empresa de Pesquisa Energética) - Plano Decenal de Expansão de Energia (PDE) 2030; EPE (Empresa de Pesquisa Energética) - Balanço Energético Nacional (BEN) 2020 - Relatório Síntese Instituto E+ Transição Energética (2021): Rumo a uma proposta de maior contribuição do setor de energia à NDC brasileira. Rio de Janeiro/RJ - Brasil

# Summary in Japanese










# Supply Chain

## Drivers for supply chain management



## Supply Chain

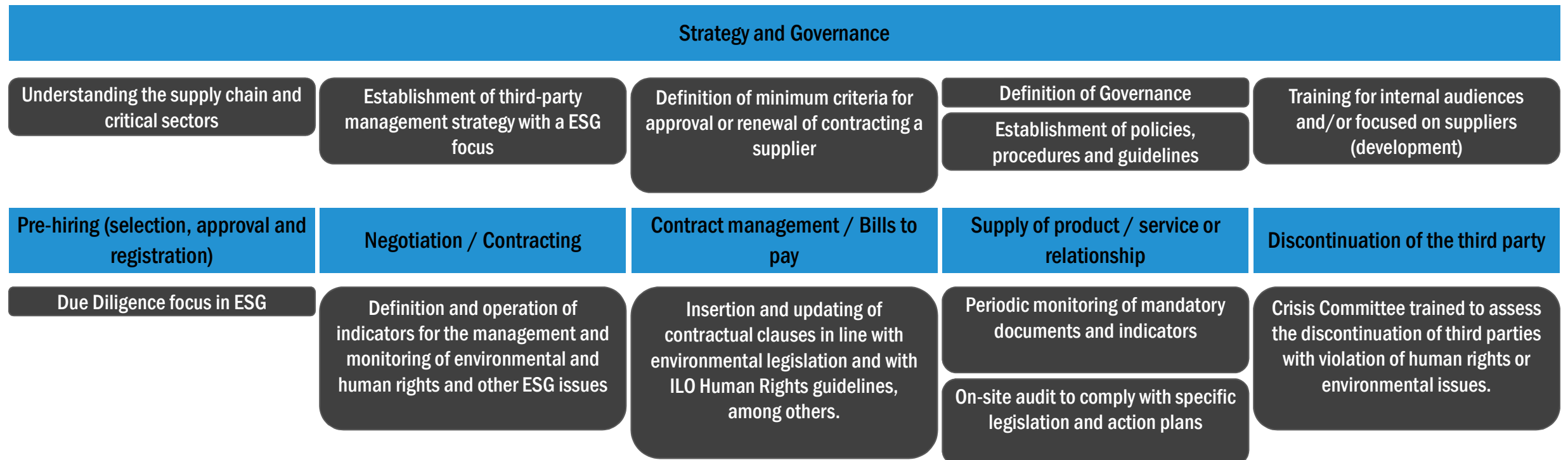
Some key challenges for a sustainable supply chain

-  Align purchasing practices with the company's strategies.
-  Involvement of senior management.
-  Different levels of maturity of suppliers.
-  Difficulty in establishing calculation methodologies for measuring social and environmental benefits.
-  Costs associated with the implementation of a policy, procedure and management activities of suppliers focusing on social and environmental criteria.
-  Short-term goals associated with hiring suppliers, usually focused on cost reduction.
-  Difficulty in integrating between the areas of purchasing, risks, sustainability and legal.

# Supply Chain

## How to manage the supply chain considering the ESG aspects

Companies are paying more attention to sustainability/ESG related risks in their supply chains, considering that most of the environmental, social and governance (ESG) impacts are outside the “walls” of the company itself.



# Summary in Japanese

# Human Rights

## Labor Analogous to Slavery



# Human Rights

## Labor Analogous to Slavery

For the beginning of a great journey of respect for human rights within companies, some important actions can be highlighted:



Define structured governance with appropriate policies and procedures to address human rights.



Establish a continuous audit process (due diligence) of risk situations that may impact the protection and guarantee of Human Rights, not only for its internal operations but also for its entire value chain.

**Legislation**



**Decreto nº 9.571 de 2018**  
Brazilian National Guidelines on Business and Human Rights



**UK Modern Slavery Act**

**Initiatives**



**GRI** Empowering Sustainable Decisions



**Voluntary guidelines**



**Guiding Principles on Business and Human Rights**



**Universal Principles of the Global Compact**



**Sustainable Development Goals**



**Voluntary Principles on Security and Human Rights**



**The Danish Institute for Human Rights**



**OCDE**




**Corporate Human Rights Benchmark**

# Summary in Japanese



# Initiatives, Ratings and Indicators

## Sustainable Development Goals (SDGs)

In 2015, the UN proposed to its member countries a new sustainable development agenda for the next 15 years, the 2030 Agenda, comprising **17 Sustainable Development Goals (SDGs)**, which unfolded into 169 goals.

### Objectives Sustainable Development Goals (SDGs):

Ensure Human Rights

End poverty

Fight for equality and justice

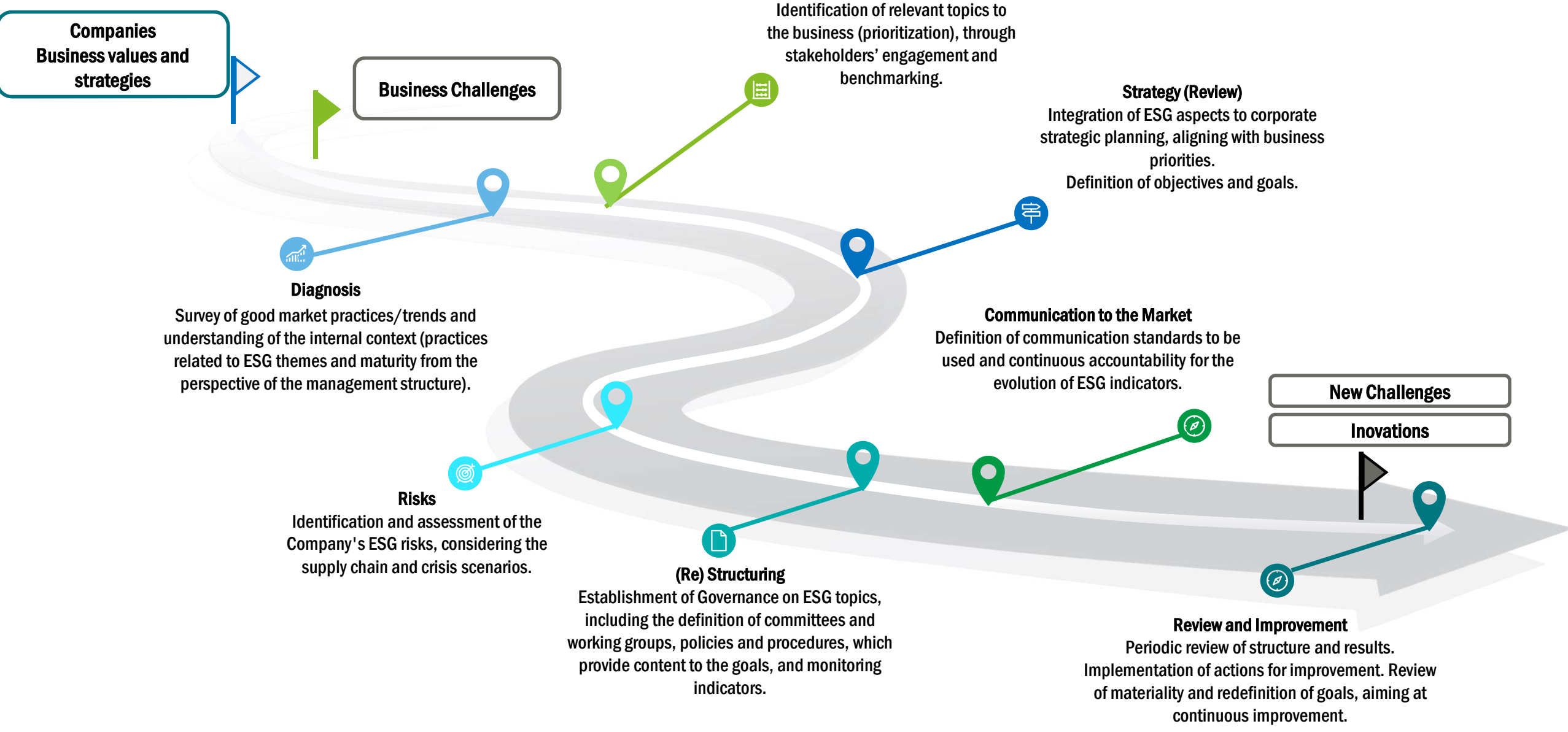
Achieving gender equality and the empowerment of women and girls

Acting against climate change as well as facing other of the greatest challenges of our times



Private sector companies play an essential role in achieving the SDGs, as they are great holders of economic power, drivers of influencing innovations and technologies, as well as engaging governments, suppliers, employees and consumers.

# The ESG Journey - The path towards continuous improvement



# Market Overview

The most diverse sectors with ESG agenda



## Safra lança seu primeiro fundo de investimento na temática ESG

Carteira do Safra Impacto ASG é composta por empresas com políticas sustentáveis, buscando gerar reflexos positivos para a sociedade

Por Naiara Bertão, Valor Investe — São Paulo  
11/01/2021 14h40 - Atualizado há uma semana



ESG

## TIM cria comitê estratégico de ESG no Brasil

Por Lucas Simões | 13/01/2021 - 7:54



## Adepta do ESG, Braskem neutralizará emissões de carbono até 2050

Ações refletem o compromisso da Braskem com a Economia Circular de Carbono Neutro, essencial para a sustentabilidade de todo o ciclo de produção e consumo

Por MoneyLab  
13 Jan 2021 13h43 - Atualizado 4 dias atrás



Estratégia

## Diversidade deve estar no planejamento estratégico das empresas, diz Luiza Helena Trajano

Em painel na Expert ESG, empresária e outras executivas debateram ações – como cotas em conselhos – para promover equidade de gênero nas empresas



ALIMENTAR A MUDANÇA É O NOSSO COMPROMISSO.

REVISTA EXAME

## Suzano bate recorde histórico de vendas com foco em ESG e diversidade

A Suzano celebra o recorde em plena pandemia com metas de diversidade e de descarbonização e bate na tecla dos compromissos ESG

Por Rodrigo Caetano  
Publicado em: 20/10/2021 às 22h00  
Alterado em: 10/11/2021 às 09h49



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**Ana Touse**

Diretora de  
Soluções  
Sustentáveis/  
ESG

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