Advantages and challenges of applying AI to achieve sustainable corporations

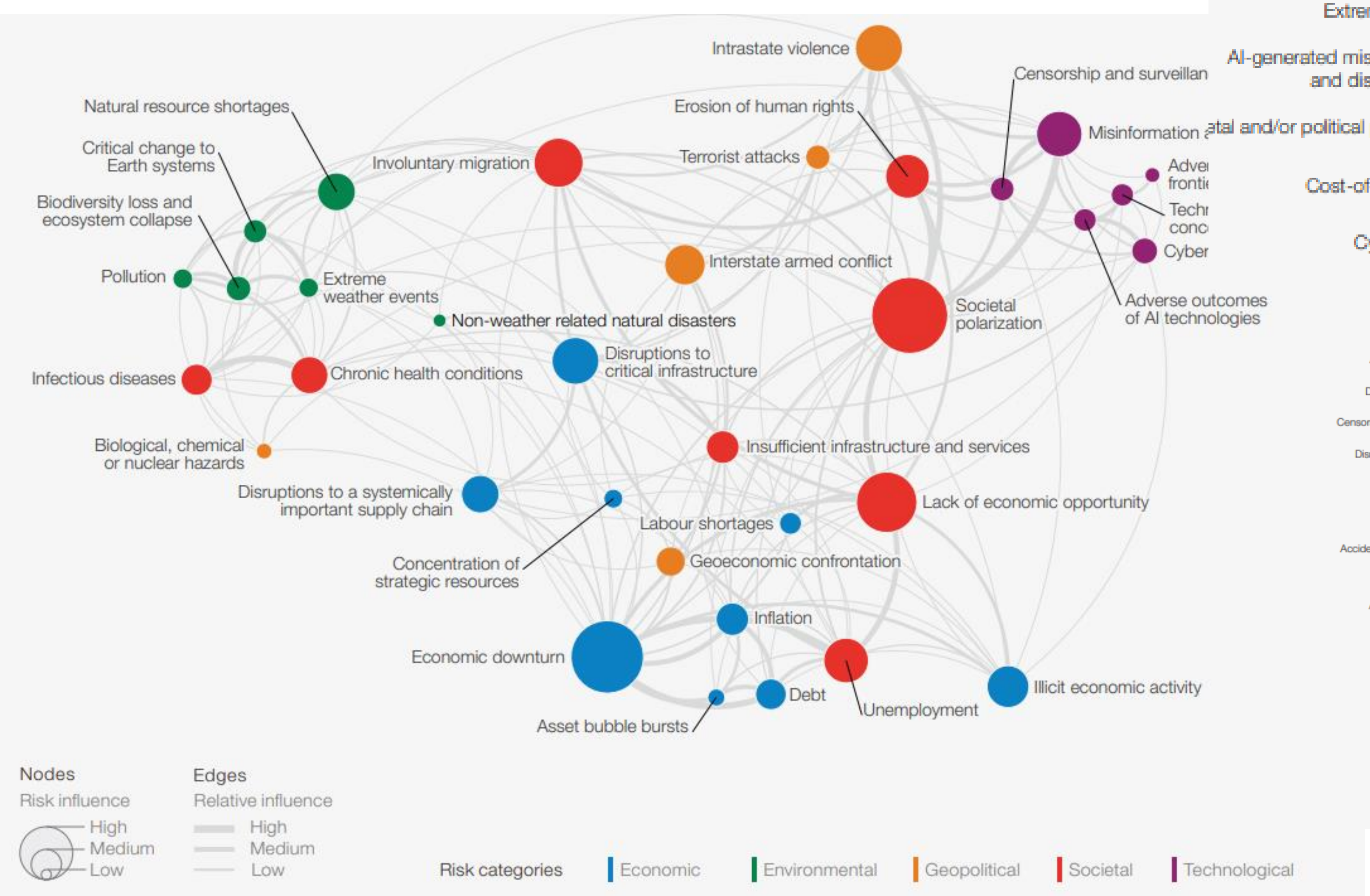
20 & 21st June 2024, Porto, Portugal.

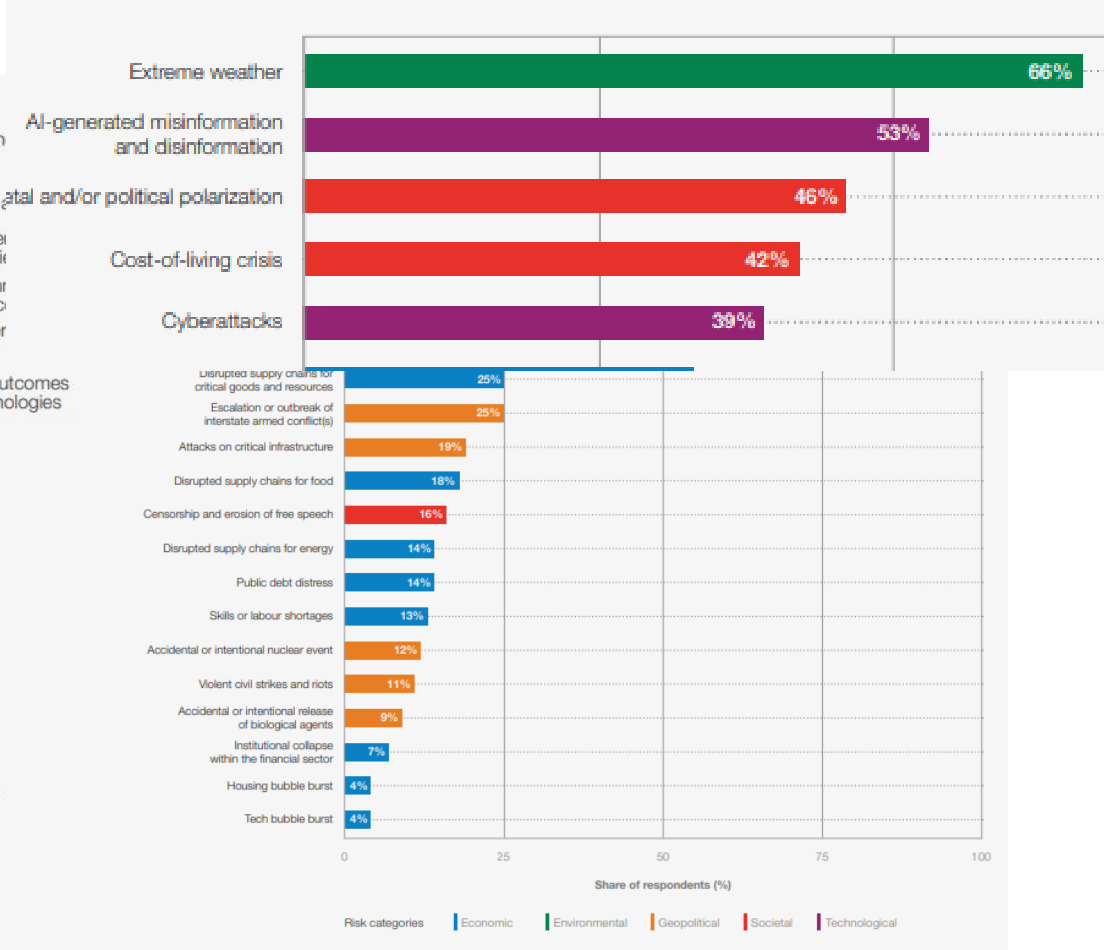
"The world is in a state of flux. It's not an under-statement to describe the challenges we face today as a crisis.

Now, more than ever, businesses need to be at the forefront of delivering positive change. Leading by example, we can help to tackle the chronic problems that endanger our lives and hamper sustainable growth together."

John McCalla-Leacy
Head of Global ESG
KPMG International

Continuous shocks and a duo of dangerous crises: climate and conflicts





Source: Global risks report 2024 (World Economic Forum)

The regulatory framework encourages the sustainable transformation of companies but is also challenging

GREEN DEAL

- **Higher level of climate ambition** for 2030 and 2050
- **Zero contamination** in an environment free of toxic substances
- **Clean**, affordable and secure **energy supply**
- Preservation and restoration of ecosystems and **biodiversity**
- Mobilizing industry for a **clean and circular economy**
- **Fair**, healthy and respectful **food system**
- **Efficient use of energy** and resources in construction and renovation
- Accelerating the transition to **sustainable mobility**

Some relevant initiatives

- Climate Change Law
- Circular economy strategy
- Sustainability Due Diligence Directive
- EU Sustainable Corporate Governance Initiative
- European Pillar of Social Rights

Source: KPMG, Sustainability

FINANCING → BUSINESS TRANSFORMATION → REPORT

> The Green Deal and the Action Plan **share initiatives and complement each other**, such as the EU Taxonomy.

ACTION PLAN FOR FINANCING SUSTAINABLE DEVELOPMENT

- **Redirect capital flows** towards a more sustainable economy.
- Managing the **financial risks** associated with climate change.
- Promote **transparency in financial** and economic **activities**.

Initiatives

- EU Taxonomy
- CSRD and EFRAG
- Guidance on the EU Green Bond Standard
- SFRD

Investors care about how companies identify and mitigate risks but also who captures opportunities.

Despite the dispersion in methodologies, investors and analysts are aligned in terms of the importance given to ESG issues. Governance and social issues are given greater importance, and they are less focused on environmental performance.

Investors expectations

- Board of Directors' experience and process on ESG issues
- Strategy oversight
- ESG incentive structure

CORPORATE GOVERNANCE

Clearly define board and management **processes** to ensure adequate oversight of these issues.

- Adoption of/adherence to international standards, codes of conduct and initiatives to ensure diversity and talent development.
- Importance of climate risks in the business model.

HUMAN RIGHTS AND ENVIRONMENT

Processes to ensure talent retention and the importance of climate change in the business strategy.

- Objectives, metrics and performance indicators.
- Disclosure of how ESG issues are integrated.
- Report progress and achievements and determine the impact of actions.

TRANSPARENCY

Measures necessary **to achieve ESG objectives**, from operations to procurement. Consistent and comparable information to disclose data.

Large international investors are **including ESG** as a **criteria** while searching for investments

Correlation analysis between ESG and value shows that **excellent ESG companies** have a **market premium**

Efficiency and ESG are two of the key drivers of value enhancement

Shareholder activism and pressure on management structures is leading to demand for results in the short term in those sectors that are closest to sustainability criteria (ESG)

Source: KPMG, Sustainability

Companies face four major challenges in this sustainable transformation

More than €1.1bn worth of GDPR fines were issued from 28 January 2021 (1)

Transparency and good governance

A responsible, transparent and trustworthy company

““Report the information necessary to understand the impact of activities in environmental, social, human rights, anti-corruption and anti-bribery matters".

– CSDR

The global cybersecurity workforce gap has increased by 26.2% compared to 2021 and the percentage of women software developers is a meager 5.17%(2, 3).

Talent attraction and retention

Improve talent attraction, so professionals want to work in sectors that will be crucial to face the challenges we are facing

“Having a quality job is a key source of income, purpose and fulfillment, and is fundamental for social inclusion and active participation in society”.

– European Pillar of Social Rights Action Plan

Total investment in Q3 2022 ended up down more than 40% compared to the same quarter in 2021 (4)

Sustainable finance

Aligning to the EU Taxonomy CSRD and the SFDR to remain attractive to investors

"To achieve the objectives set out in the European Green Pact, the Commission has committed to mobilizing at least one trillion euros in sustainable investments over the next decade."

– European commission

The technology sector represents between 2% and 3% of global emissions, according to the UN (5)

Zero emissions

Net Zero emissions in all industries in Europe by 2050

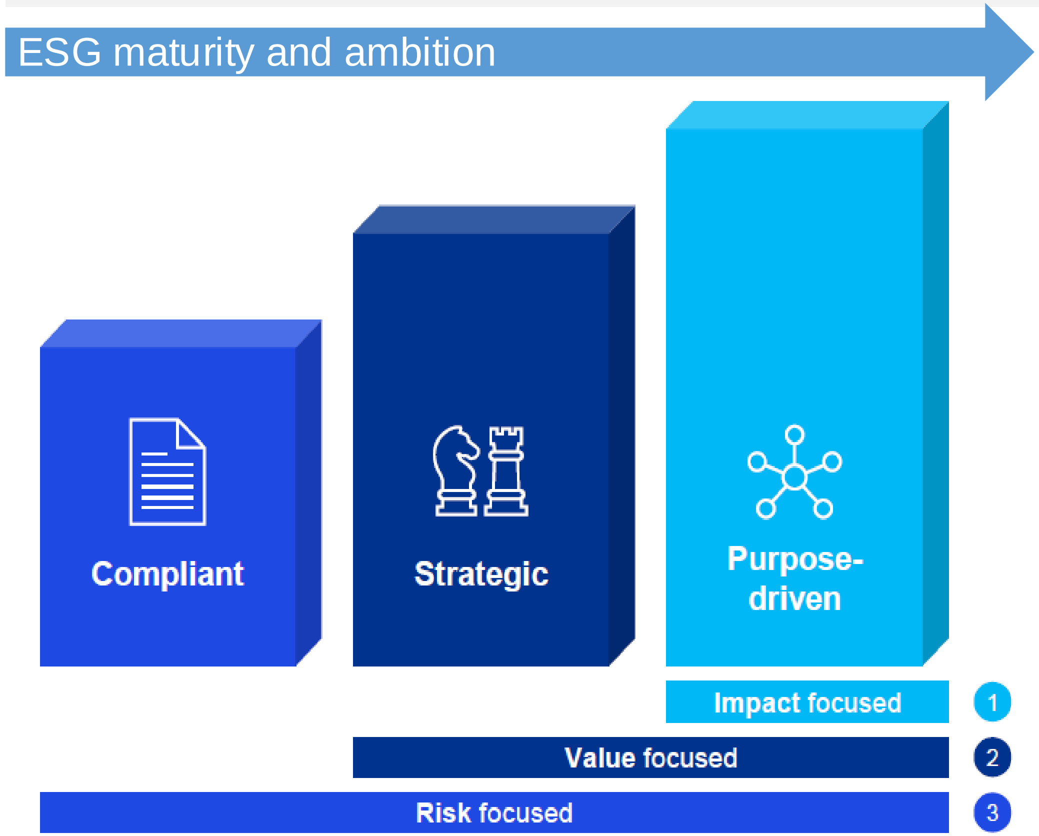
“Reduce greenhouse gas emissions of the Spanish economy as a whole by at least 23% compared to 1990 by 2030. To achieve a penetration of renewable energies in final energy consumption of at least 42% by the year 2030.

– European Climate Change Law.

Source: KPMG, Sustainability

Driving real ESG transformation requires authentic changes in the company culture

Companies having the greatest success with their ESG transformation have created authentic changes in the CULTURE, shifting leaders and employees mindsets, beliefs and behaviors



CULTURE CHANGE

1. **"We want our leaders and employees to have authentic ESG thinking and doing – walk the ESG talk"**, we believe economic success goes hand in hand with value generated for society
2. **"ESG gives us a competitive advantage",** we proactively manage business opportunities and risks
3. **"We'll just do what is required",** we act in accordance with the law

1. **We want to build a strong ESG DNA**
2. **We proactively manage business opportunities**
3. **We basically focus on compliance**

Source: KPMG, Sustainability

ESG digitalization, the key to decision-making support, but it's a partial view

The companies can use technology to achieve holistic management of its ESG objectives from an overall vision. Key to this is an understanding of strategy and business needs, along with knowledge of market solutions and technological capabilities.

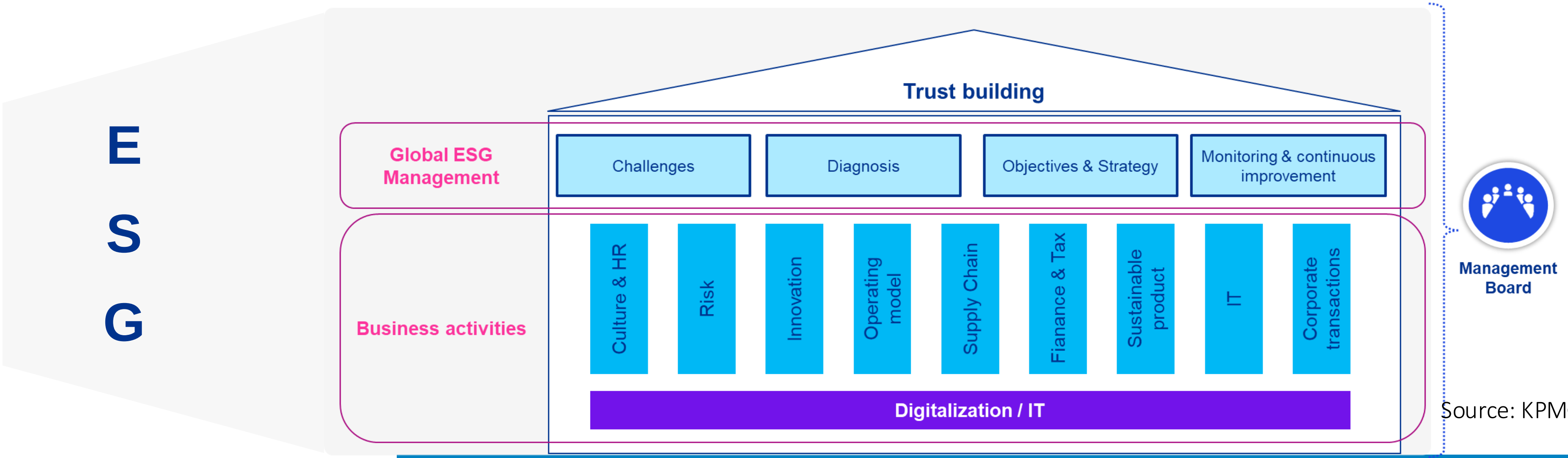
ESG Strategy

Helping companies to drive economic vitality and deliver long-term value through effective engagement with all stakeholders, building trust and competitive advantage.

Technology -AI

It is the way for companies to achieve this goal and cover their information needs helping them in their decision making and compliance with both regulatory and ESG objectives.

Holistic analysis of all ESG factors & the use of technology to manage companies' ESG processes:



Source: KPMG, Sustainability

How can AI help us in the sustainable transformation

The sustainability trilemma. A complex and interconnected problems	AI facilitates and fosters environmental governance, the formal and informal rules that govern human behavior in decision-making processes as well as the decisions themselves, dictates how society determines and acts on goals and priorities for managing natural resources.
The lack of data and the excess of data	AI reveals insights that are otherwise trapped in massive amounts of unstructured data that once required human management and analysis, such as data generated by videos, photos, written reports, business documents, social media posts, or e-mail messages.
Changing the mindset. Cultural changes	We need to go beyond current thinking patterns to devise science-based solutions and policies requires a paradigm shift. Paradigms intermingle training, education, governmental policies, and cultural variables that guide and constrain behaviors. In the current human-solution paradigm, short-term, self-interested reasoning tends to dominate decisions about how to confront water, energy, and food supply challenges.

Source: Artificial intelligence for sustainability: Challenges, opportunities, and a research agenda
Rohit Nishant, Mike Kennedy, Jacqueline Corbett

Thank you

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