



Ecopetrol's Emerging Risks

Update 2024-2025

**Risk Management
Corporate Compliance
Department**

EMERGING RISKS AT ECOPETROL

Risks that could have a long-term impact (3-5 or more years) or, in some cases, may have already begun to have an impact on the company.



New risks, developing risks or risks that are significantly increasing in importance.



Known risks that occur in a new or unknown context or appear in a new context.



The potential material impact in financial or reputational terms has long-term effects and is significant.



External risks, i.e., they are generated by factors external to the company that are beyond its influence and control.



Have a specific impact on the company.



They have a high potential impact for the company and may require it to adapt its strategy and/or business model.

General Concepts – Emerging Risks

* Emerging risks are considered to be those that meet any of these characteristics.



Emerging Risks Cycle 2024 - 2025



Through the application of the EMERGING RISK MANAGEMENT CYCLE, Ecopetrol performs understanding, analysis and recording of emerging trends and their derived risks. Emerging risks are evaluated based on criteria of (i) potential impact and (ii) speed of emergence* to prioritize them.

Potential Impact

- Very High
- High
- Moderate
- Low
- Very Low

Speed of emergence



Based on the analysis carried out in different joint construction scenarios, Ecopetrol identified the following external environment TRENDS that have the greatest influence on the company, from which the emerging risks are derived:

How do we identify trends?



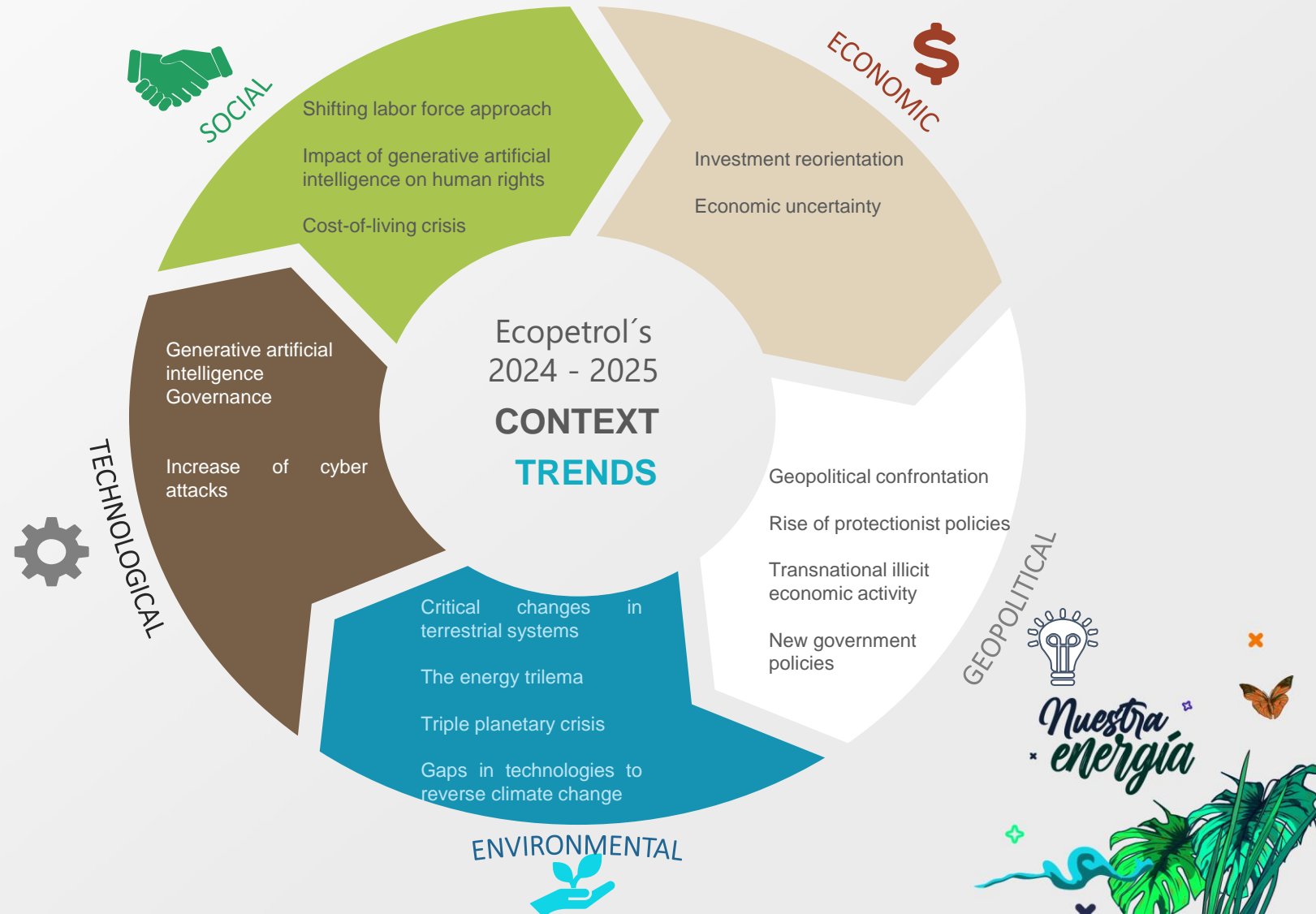
Assessment of the context and the different external conditions that may affect the company.



Analysis of all trends to identify signals in the industry and their connection with the company, seeking to address all critical areas, classified in the categories applied by the World Economic Forum (social, technological, economic, geopolitical and environmental).



Identification of emerging risks for the company derived from the trends analyzed, to determine their treatment as emerging, business or tactical risk.



Trends vs Emerging Risks 2024 - 2025

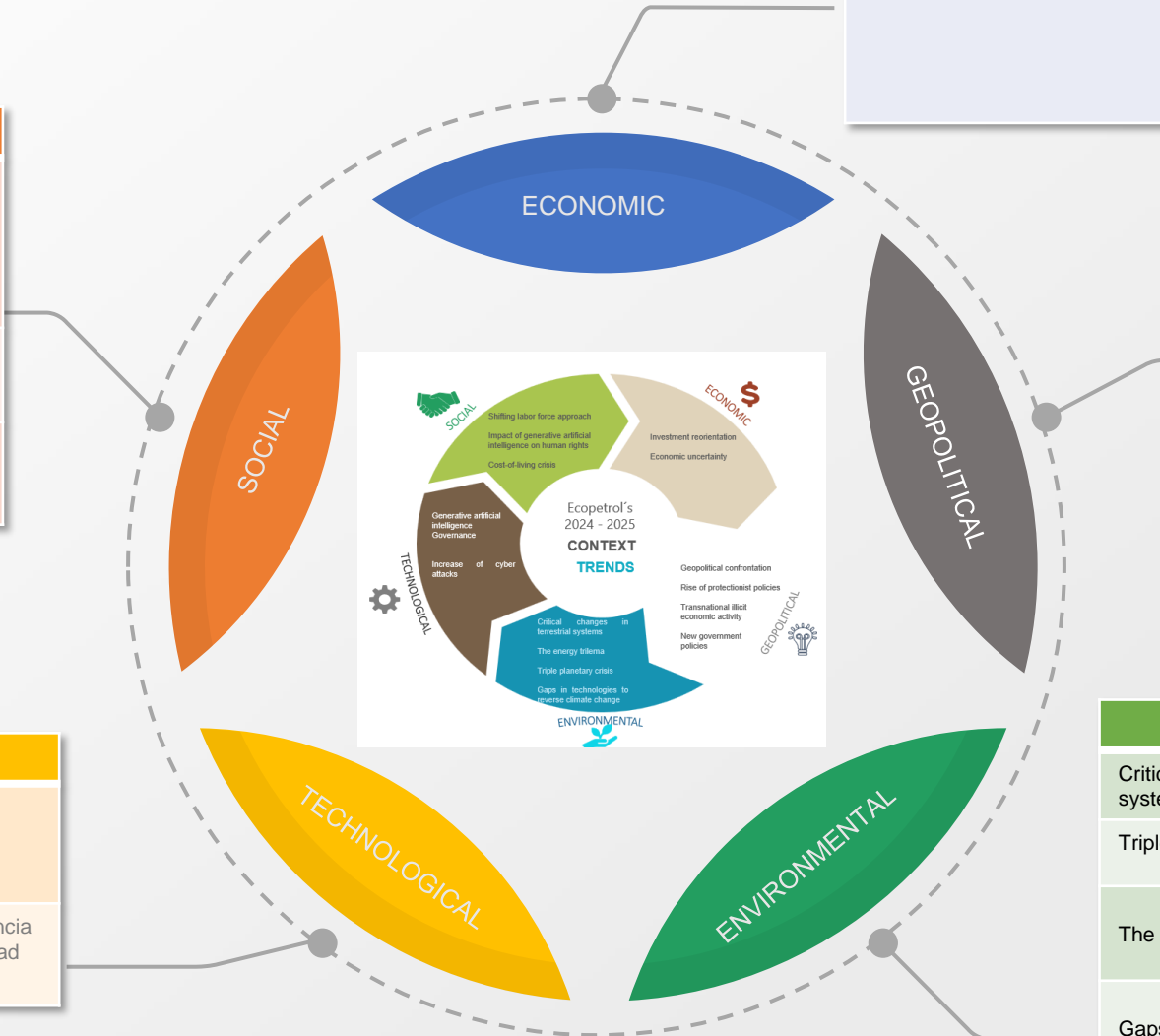
Trend	Risk
Investment reorientation	Inefficient capital allocation in the context of the energy transition Strategic misalignment against investment expectations and market opportunities
Economic uncertainty	Reduction of investment or financial support to O&G companies Prolonged impacts of global recession

Trend	Risk
Shifting labor force approach	Shortage of labor force to implement the strategy Effects on labor force due to increased incorporation on AI
Impact of generative artificial intelligence on human rights	Increase of human rights violations due to the use of generative AI
Cost-of-living crisis	Social unrest due to cost-of-living crisis

Trend	Risk
Geopolitical confrontation	Effects on the supply chain due to escalation of the conflict
Rise of protectionist policies	Effects of protectionism on energy security
Transnational illicit economic activity	Impacts of the increase in transnational crime
New government policies	Adverse decisions to business plans

Trend	Risk
Generative artificial intelligence Governance	Desalineación entre gobernanza y la velocidad de uso de tecnologías de IA.
Increase of cyber attacks	Efectos de la inteligencia artificial en la seguridad de la información

Trend	Risk
Critical changes in terrestrial systems	Lack of readiness to deal with critical changes and ecosystem collapse
Triple planetary crisis	
The energy trilema	Breach of environmental Sustainability due to energy assurance.
Gaps in technologies to reverse climate change	Technology gap for business lines in energy transition



Emerging Risks Radar 2024 - 2025

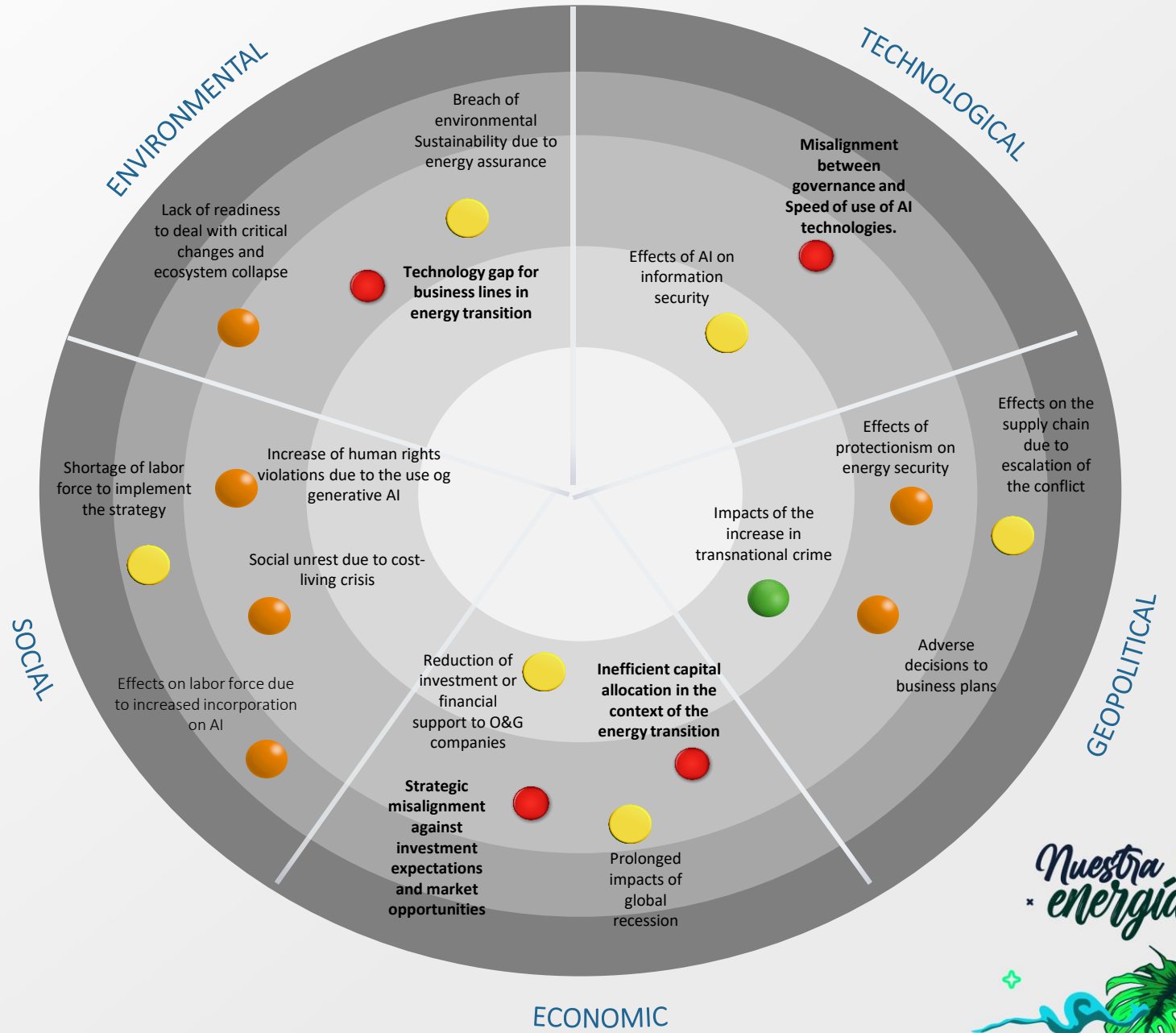
According to our methodology, and aiming to identify the most relevant emerging risks, the following is a risk assessment for each trend category, considering the levels of impact and speed of emergence:

Potential Impact

- Very High
- High
- Moderate
- Low
- Very Low

Speed of emergence

- Now – In Ecopetrol’s context
- Near Future (1- 3 years)
- Foreseeable Future (3-5 years)
- Distant Future (5-10 years)
- Uncertain Future (10+ years)



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