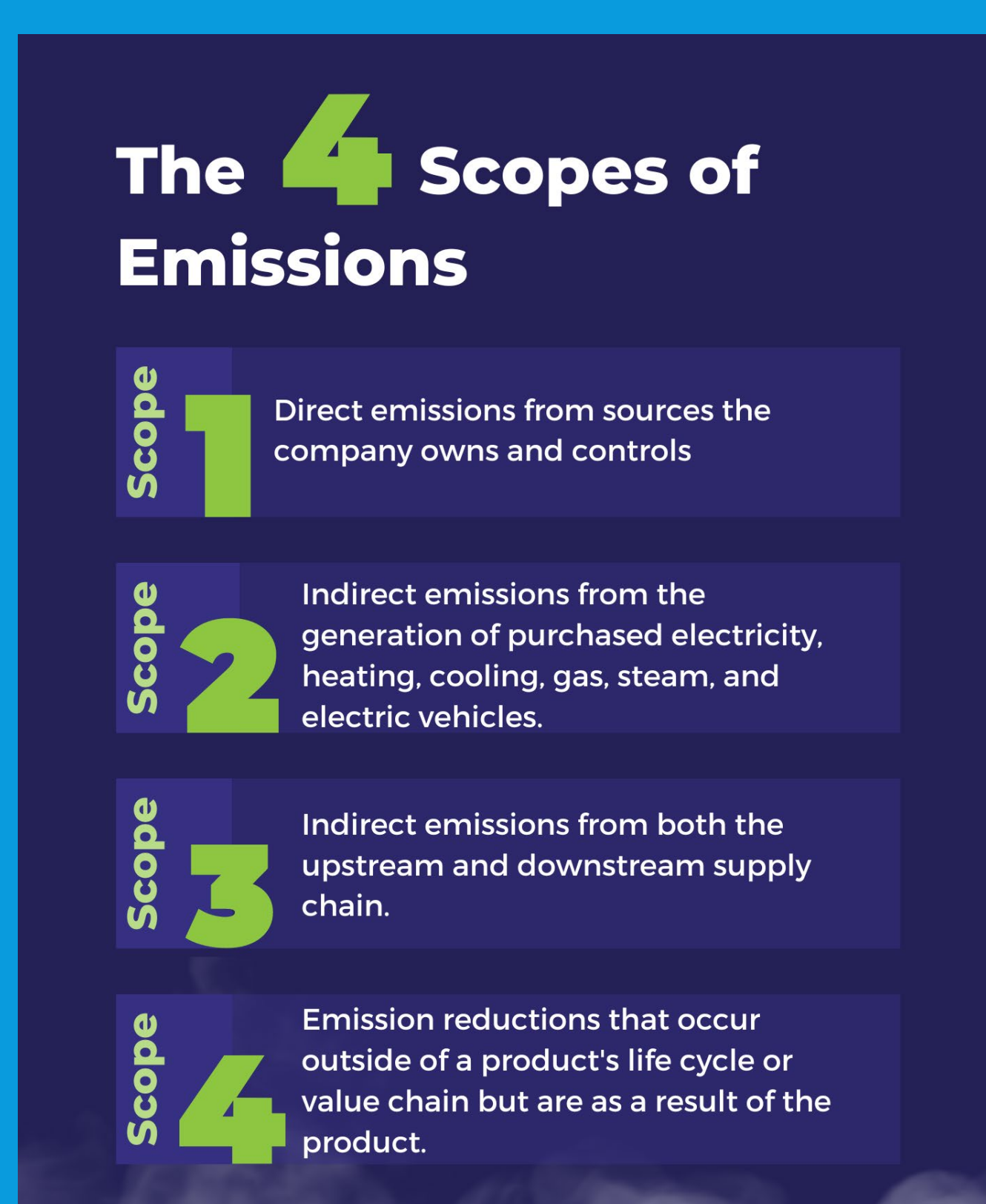


THE GROWING REQUIREMENTS OF AVOIDED EMISSIONS (SCOPE 4) AND ITS ACCOUNTING BY ORGANIZATIONS IN EMISSIONS REDUCTION PROJECTS

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Introduction

The urgent need to reduce emissions to meet global climate goals highlights the growing significance of Avoided Emissions (Scope 4). These reductions occur beyond the product's lifecycle as a result of its use. Implementing effective policies and standardized methods for accounting and reporting Avoided Emissions is crucial for ensuring credible and consistent climate action targets and goals. Achieving net zero will require efforts to both reduce and avoid emissions.



Research Question

Why is there a growing requirement to address **Avoided Emissions (Scope 4)**, and how are organizations accounting for these emissions in their emissions reduction projects?

Interdisciplinary Aspects

- Energy** - Energy production and consumption are significant contributors to GHG emissions.
- Environment** - CO2 emissions from fossil fuel combustion have been a major driver of the increase in atmospheric CO2 levels since the pre-industrial era.
- Policy & Reporting** - As a policy tool, it could guide governmental action directed at accelerating decarbonization efforts

Methodology

DATA COLLECTION

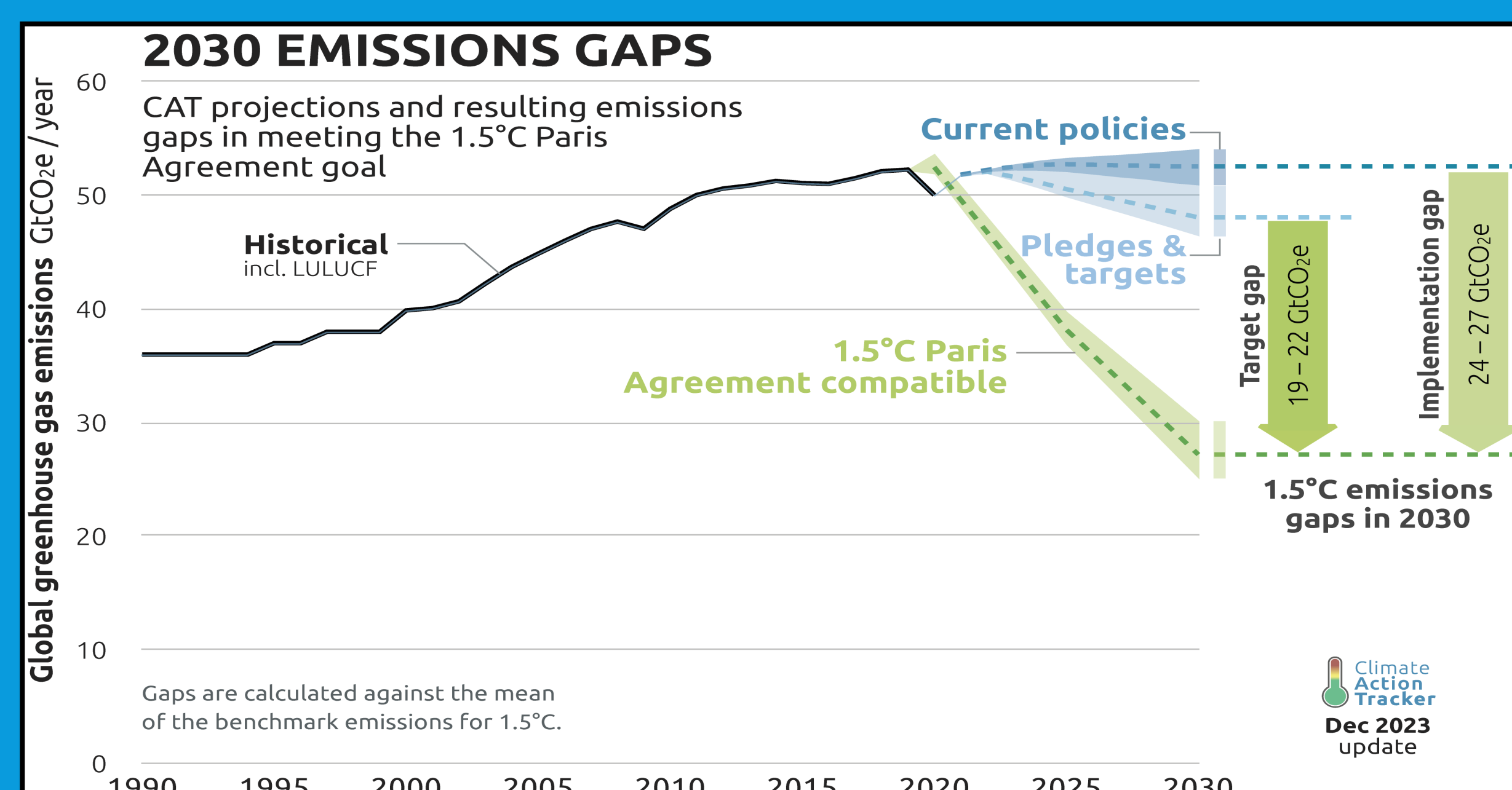
Industry guidelines
Academic research
Standards & Regulations
Framework & guidelines
Organizational Reports

INTERVIEWS

Industry Experts



Policy & Reporting



GHG PROTOCOL - Policy and Action standard estimates and reports the emissions effects of policies and actions.

CDP - Voluntary disclosure of environmental Information. **Climate - Water - Forest**

ISO 14064, Measures, validates & verifies GHG emissions.

14064-1:2018 - Organizational level

14064-2:2019 -Project Level

14064-3:2019 – Verification & Validation

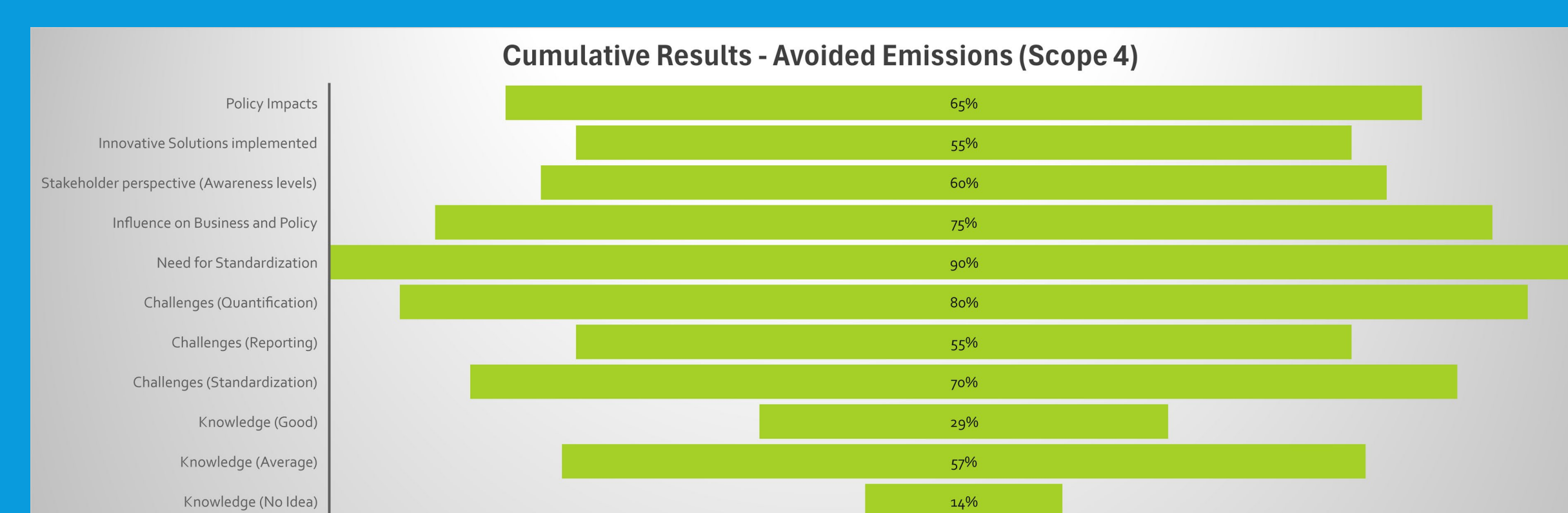
ISSB- IFRS S1 and S2 (Climate related disclosures)

GLOBAL REPORTING INITIATIVE (GRI) - sustainability reporting standard, driving transparency in economic, environmental, and social impacts.
Universal, Sector, and Topic

CORPORATE SUSTAINABILITY REPORTING DIRECTIVE (CSRD) ESRS 1 - General Requirements. **ESRS 2** General Disclosures

TASK FORCE ON CLIMATE RELATED FINANCIAL DISCLOSURES (TCFD) - 11 Recommendations for businesses to manage Climate related risks and opportunities.
Governance – Strategy – Risk - Metrics & Targets

Results from Interviews



Calculating Avoided Emissions (Scope 4) by the three guidelines

AVOIDED EMISSIONS FRAMEWORK

Net Avoided Emissions =

Enabling Avoided Emissions – Direct Solution emissions
– Rebound Emissions

WORLD RESOURCE INSTITUTE - Calculating comparative GHG impacts using the Attributional LCA Approach

Avoided Emissions = Lifecycle of reference product – Lifecycle of Primary product

WORLD BUSINESS COUNCIL FOR SUSTAINABLE DEVELOPMENT FIVE STEP APPROACH

- Identify the timeframe
- Define reference scenario
- Assess solution and reference scenario life cycle emissions
- Assess Avoided Emissions
- Assess Avoided emissions at the scale of the company (optional)

Consequential Accounting method preferred as an accounting tool (Avoided Emissions Scope 4)

Research Findings

- Avoided Emissions is a relatively **new concept** in emissions accounting and is not widely used, with most organizations focusing on Scope 1 and 2 emissions.
- There are **significant challenges** in implementing Avoided Emissions accounting, such as the lack of standardized methods, inconsistent reporting, and difficulty in accurately measuring emissions avoided.
- There's an **urgent need to develop robust frameworks and guidelines** to improve the credibility and reliability of Avoided Emissions reporting.
- Organizations are beginning to see the **financial and policy benefits** of accounting for Avoided Emissions, which can foster innovation in low-carbon products and services.
- There is a **varying level of understanding and implementation** of Avoided Emissions across different industries.

Conclusion

It is imperative that policymakers, industry leaders, and researchers collaborate to establish clearer definitions, standardized accounting practices, and a comprehensive educational resource that can help bridge the gaps identified in this report.

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