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UNIVERSITY OF GALWAY

Exploring the Role of **ESG** Practices in Accelerating Decarbonization in the Construction Industry

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Outline



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- ✓ Introduction
- ✓ Project objective
- ✓ Climate change mitigation
- ✓ ESG integration
- ✓ Methodology
- ✓ Research Outcome
- ✓ Conclusion
- ✓ Future Plan

Introduction - Why this Matters



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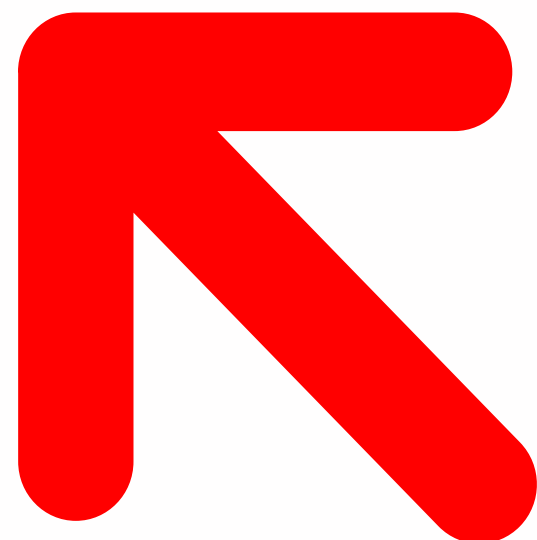


Project Goal

Assess ESG adoption in the **Irish construction sector** and its alignment with climate objectives.

Drivers

Construction industries are a major contributor



Sustainability

ESG (Environmental, Social, Governance) practices

Decarbonation

To meet **EU climate goals** and **Net-Zero targets**.



Project objectives



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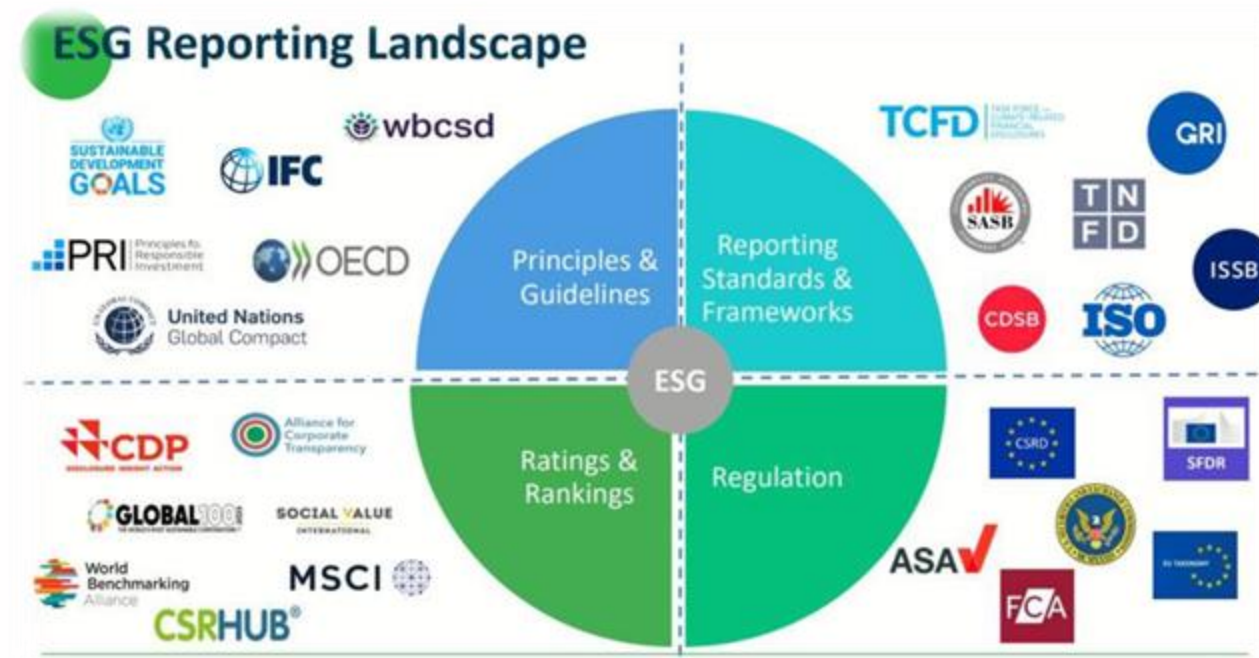
Foster awareness & share knowledge



Develop sustainability roadmap

Demonstrate methodology

Review policy, standards & guidelines



Climate change mitigation



The Paris Agreement

- Limit global temperature rise to well below 2°C



European Green Deal

- At least 55% emissions reduction by 2030 (compared to 1990 levels)
- Net-zero GHG emissions by 2050

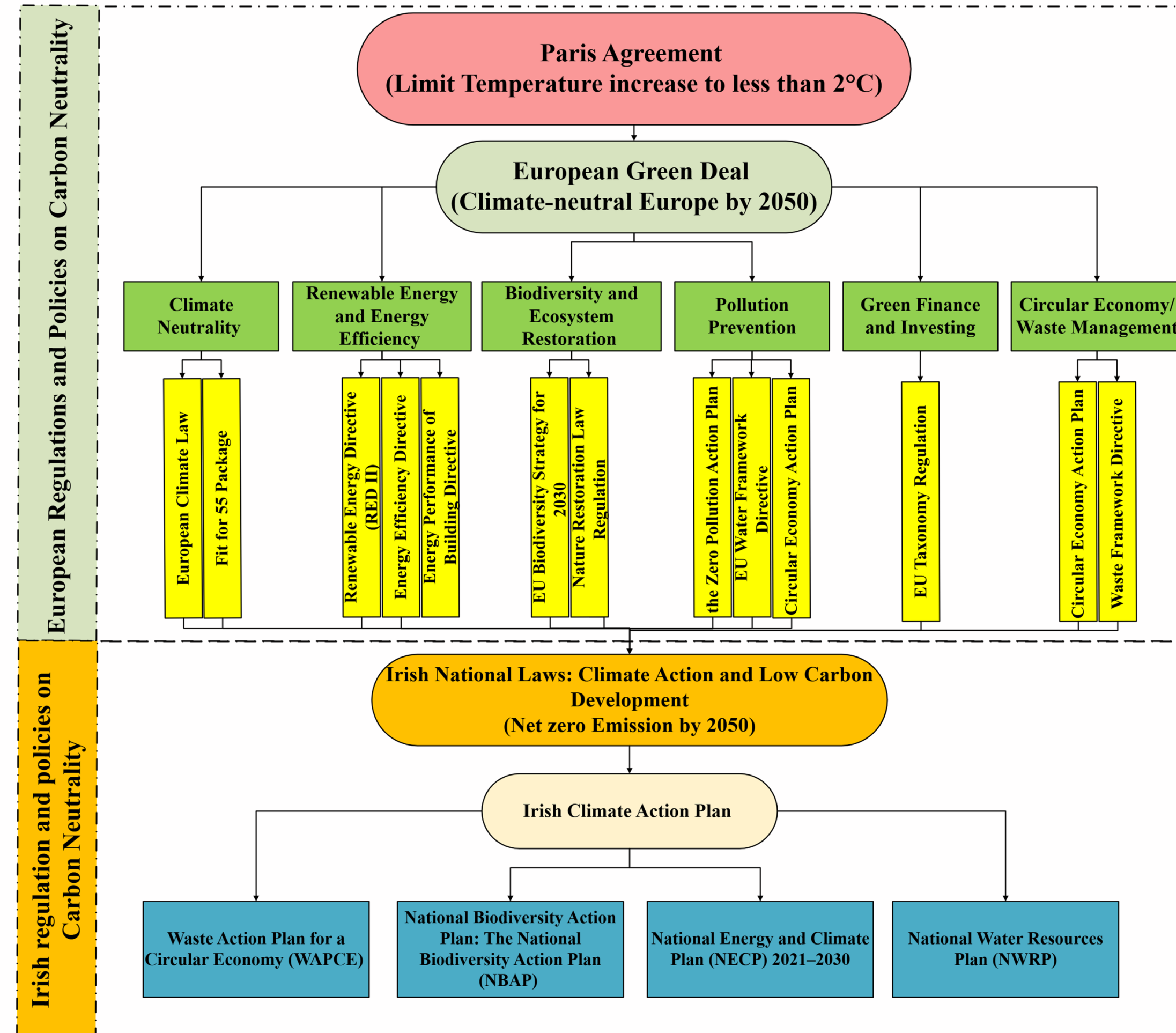


Ireland's Climate Legislation

- 51% GHG reduction by 2030
- Carbon neutrality by 2050



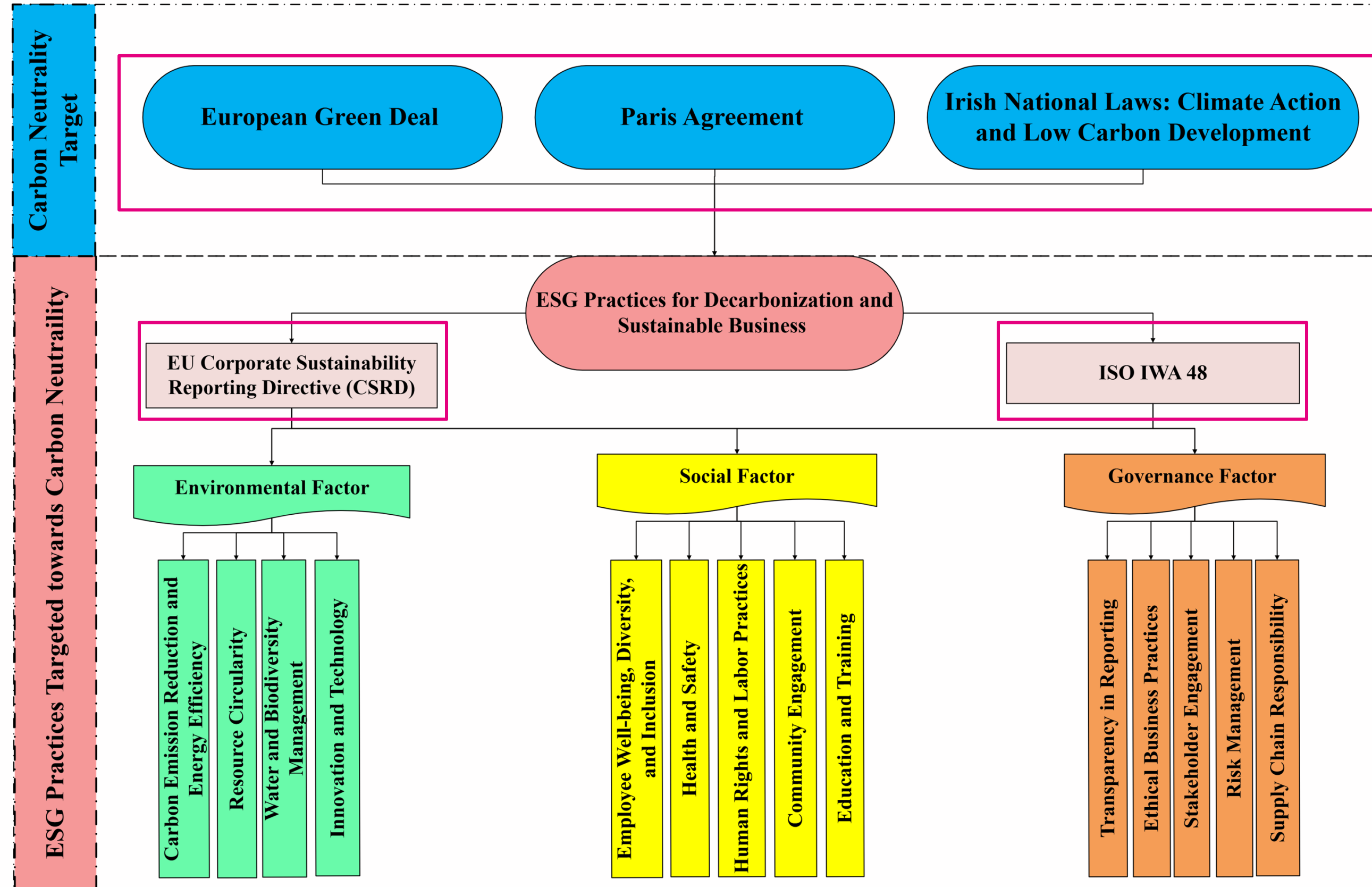
National Climate Action Plan



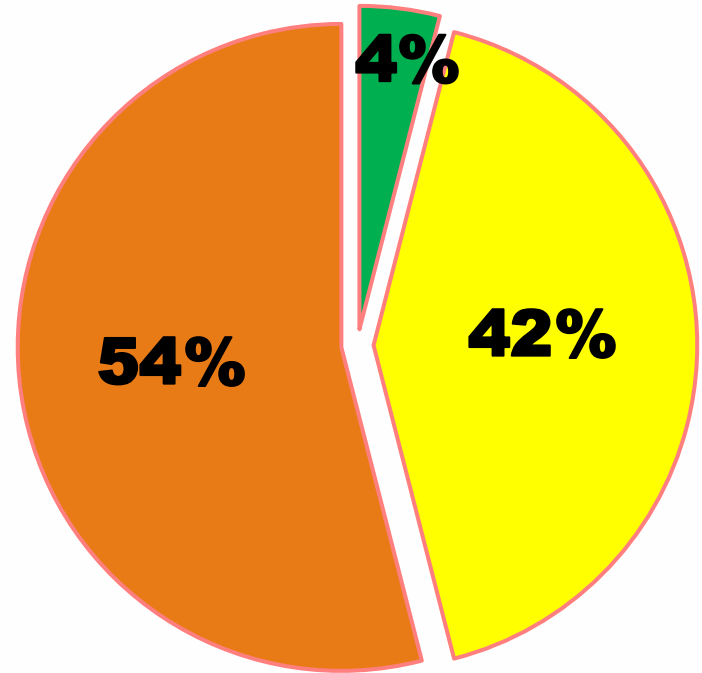
ESG Integration



- Regulations based on:
 - EU CSRD
 - ISO IWA48
- ESG framework ensures companies' accountability for:
 - Reduces **environmental impact**.
 - Improves **social responsibility**.
 - Strengthens **corporate governance**.



Methodology



54%

Large Enterprises



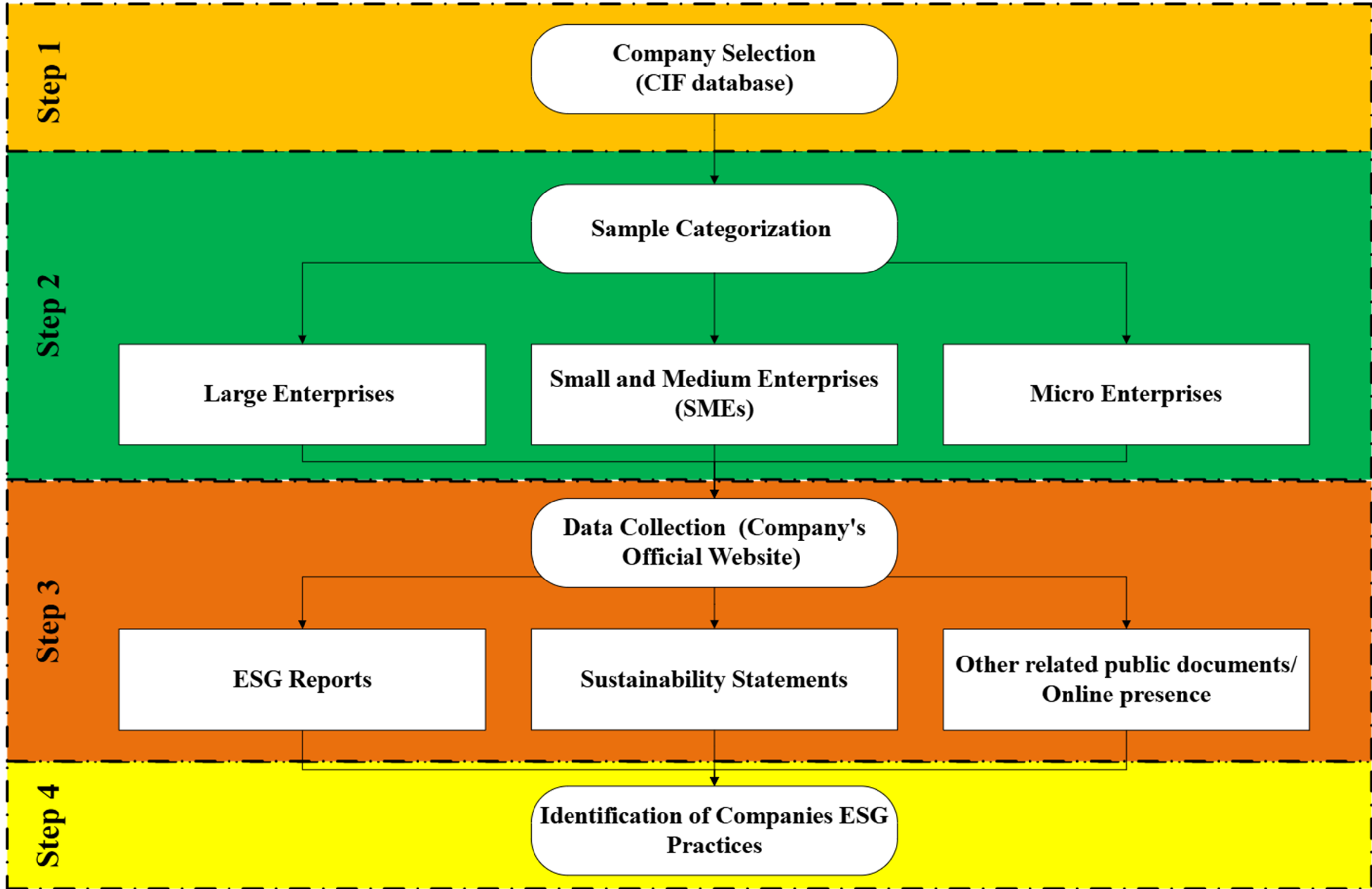
42%

Small and Medium Enterprises



4%

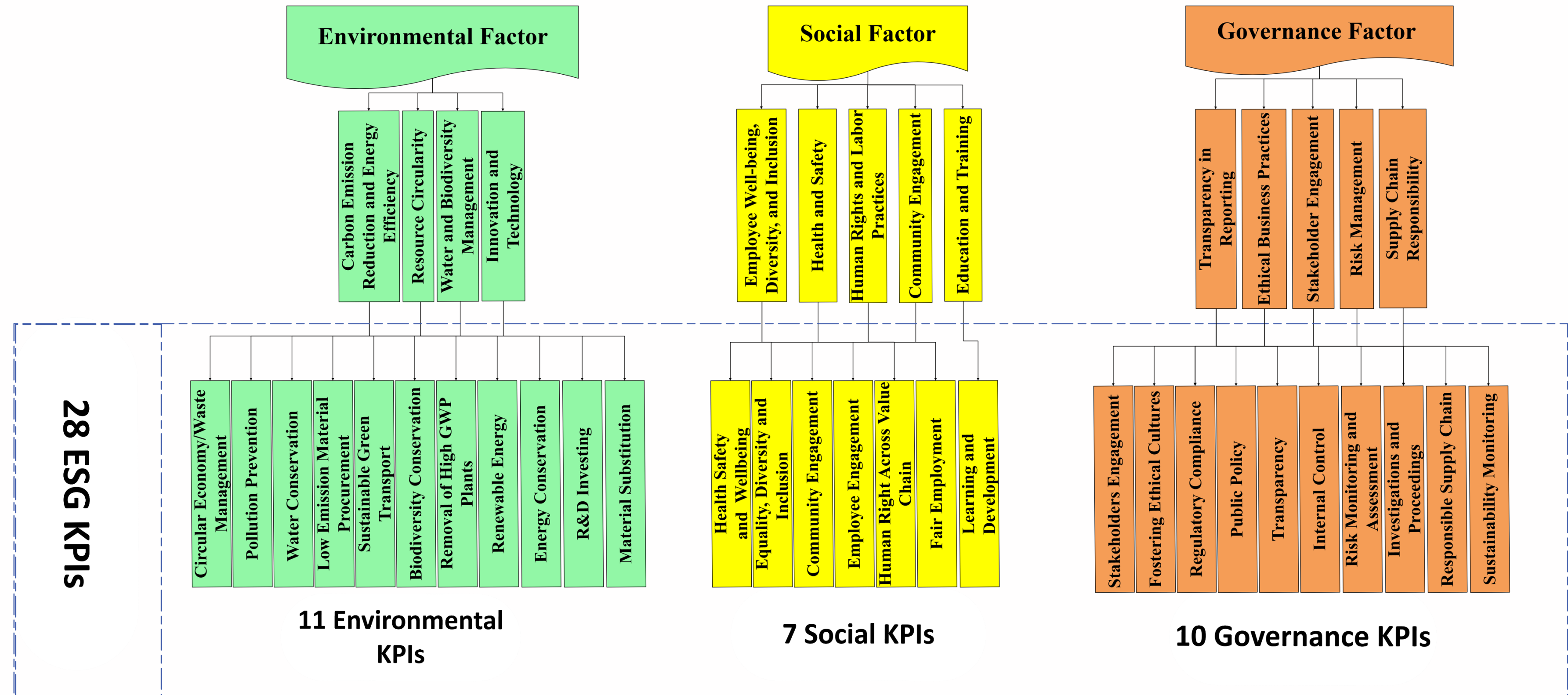
Micro Enterprises



Methodology



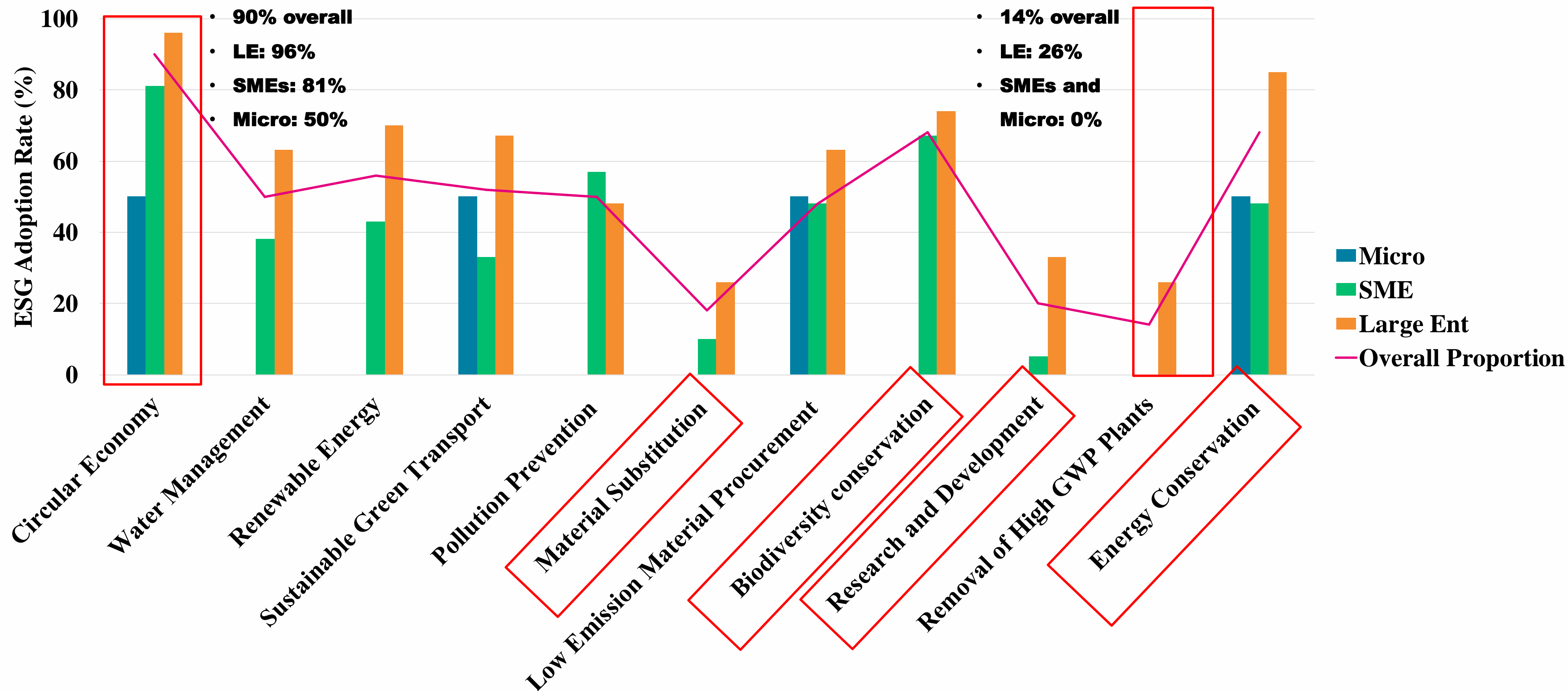
ESG KPI Identification



Research Outcome



Environmental Pillar (E)



Research Outcome



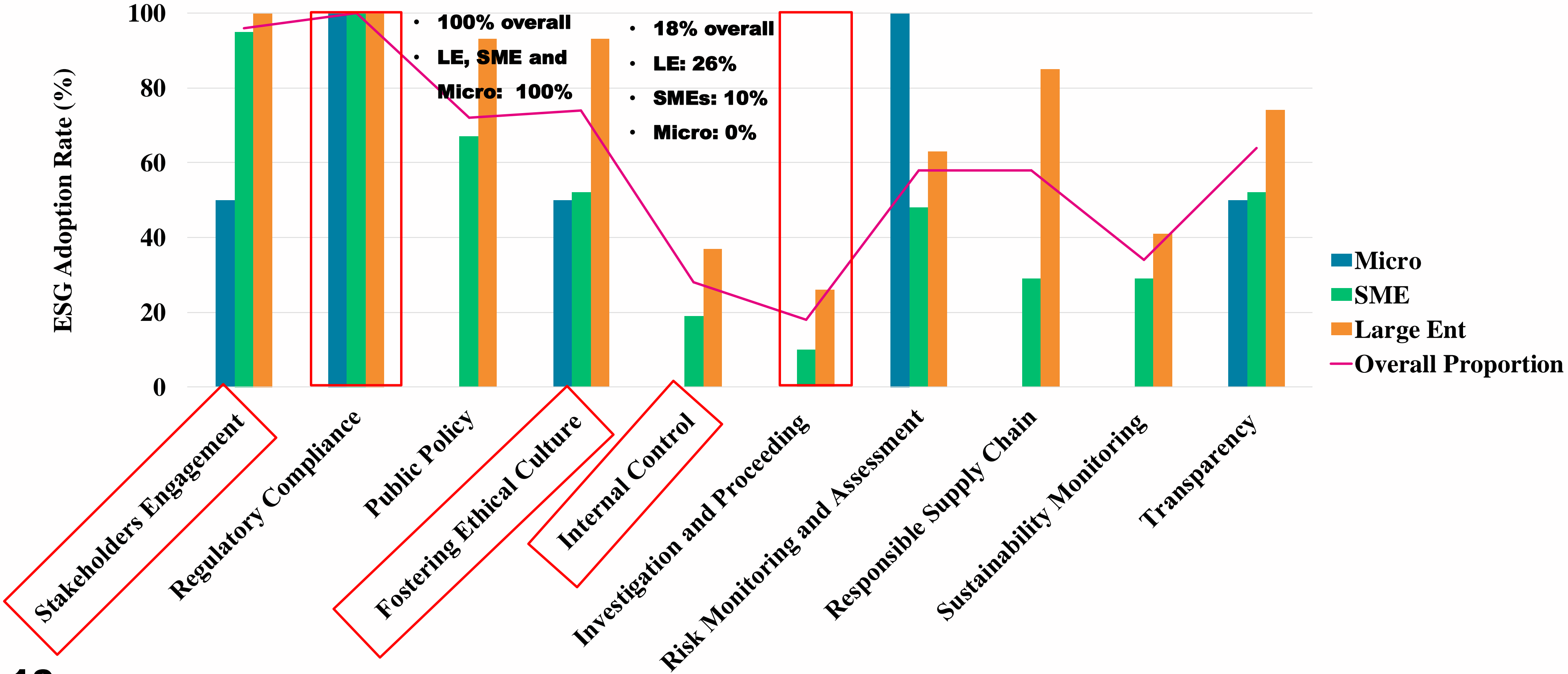
Social Pillar (S)



Research Outcome



Governance Pillar (G)



Conclusion



- **ESG is crucial** for decarbonization in construction.
- SMEs and Micro enterprises faced challenges due to limited **resources and awareness**
- **SMEs need support** to bridge gaps.
- **Collaboration & innovation** will drive industry-wide transformation.
- **Knowledge-sharing & partnerships** are key to ESG integration.

Future plan & Next Steps



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- Conduct **workshops & surveys** to refine ESG implementation.
- Develop methodology for the ESG in the construction industry
- Develop a **digital EPD tool** for façade system verification.
- Launch an **awareness campaign** on sustainability.
- Contribute to **industry-wide knowledge sharing**.



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Thank *you*

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