# Decarbonization Planning – Sector Specific Analysis

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Capstone Project – Public Summary

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Environmental, Social, and Governance (ESG) factors have become increasingly important and are now a primary focus in the transformation of businesses across all sectors of the economy. Starting in 2025, ESG reporting becomes mandatory for organizations that meet certain criteria in terms of size and turnover. Therefore, banks have begun implementing calculation methods and performing detailed analyses of their environmental, social, and governance impacts.

For the Capstone Project, I supported one of the largest Hungarian banks (hereafter referred to as "the Bank") on a comprehensive sectoral analysis of decarbonization opportunities within their financed portfolio across the countries in which they operate. This analysis focuses on the Environmental ("E") component of the ESG report, which is currently the most clearly defined and thus the most relevant for setting company objectives in sustainability reporting.

In response to the expectations, the Bank engaged the consulting firm Horváth to assist in their decarbonization project. The Bank defined a six-step roadmap, including the calculation of emissions from its financed portfolio and setting emission targets based on decarbonization opportunities aligned with key sectors. The Bank has successfully completed the initial phase by measuring the emissions of its financed portfolio and identifying the sectors responsible for the highest carbon footprints.



The objective of our project was to support the Bank in progressing to Step 2 of its roadmap: gaining a deep understanding of the decarbonization potential within the highest-emission sectors, of which I was responsible for the Logistics, Electricity and Commercial Real Estate & Mortgages sectors. Our mandate involved conducting detailed research in eight of the countries where the Bank operates: Hungary, Bulgaria, Slovenia, Croatia, Serbia, Moldova, Montenegro, and Albania.

The Bank's goal was to understand the decarbonization potential of each sector. More specifically, the Bank aims to achieve carbon neutrality by focusing on Scope 3 financed portfolio emissions and has tasked us with conducting a sector-level analysis across all eight countries. This includes evaluating investments, trends, firm-level projects, and current and future emission estimations. By 2050, the Bank plans to exclusively finance businesses that meet strict sustainability criteria, which they will establish in the upcoming years, based on our findings and international standards.

As a result, we prepared a detailed presentation documenting sector-level findings for each country, divided into a top-down analysis, a bottom-up analysis, and country-level emission trajectories. The top-down analysis evaluated country-level sector emissions, historical GHG emissions, sustainability challenges, and projected GHG decreases in five-year periods until 2050. The bottom-up analysis identified key sector players, assessed their sustainability commitments, and rated them on a three-scale system to provide a general sustainability rating. We created emission decrease trajectories for each country, visualizing sector-specific and total emissions to compare climate footprints and rationalize targets until 2050.

The project provided detailed insights into decarbonization possibilities and directions. In the Electricity sector, significant investments are being made in renewable energy sources, with many countries committed to phasing out coal production by 2050. The Logistics sector faces challenges due to heavy reliance on road transport and aging vehicle fleets, coupled with inadequate infrastructure to support sustainable transport methods. The Commercial Real Estate & Mortgages sector is unlikely to meet the EU's 60% emissions decrease target by 2030 compared to 2015, primarily due to insufficient state budgets for energy renovation projects.

Furthermore, we identified high-risk countries from a sustainability standpoint, like Moldova and Montenegro for closer monitoring, emphasizing that while these countries face significant challenges in meeting decarbonization goals, the Bank should not cease financing due to the high risk. Instead, the Bank should play a crucial role in enabling projects that meet its sustainability criteria, thereby supporting green transformation projects and renewable energy initiatives in these high-risk regions. For moderate-risk regions, such as Bulgaria, and low-risk regions, such as Croatia, the Bank should continue financing and consider allocating a larger portion of the financed portfolio to these countries in order to minimize their sustainability risk.

The Bank plans to use these insights for scenario building and setting science-based targets to achieve net-zero emissions by 2050, with a comprehensive decarbonization plan to be published in 2025. Overall, the project underscored the Bank's commitment to ESG principles and provided actionable intelligence to support strategic decision-making and advance its decarbonization efforts.

In conclusion, I would like to reflect on the valuable experiences gained during the project. As the Stream Lead, my role involved overseeing research, coordinating junior team members, and refining findings to maintain high standards. Leading the team improved my delegation, communication, and quality control skills. Regular meetings with the Bank allowed for feedback and addressing client needs, enhancing my client management abilities and ensured our analysis met their requirements effectively. Overall, the in-depth research process and continuous iterations have significantly enhanced my attention to detail, structuring abilities, and comprehension of key focus areas, all of which will be invaluable in my future endeavors.