Microsoft Joins Other Tech Giants to Secure 20M Carbon Removal Credits by 2030 By: Kleber Ofume

Will tech giants begin launching carbon dioxide removal technologies every two years? It was only two years ago, in April 2022, when Frontier Climate was launched as an initiative by Stripe, Alphabet (Google), Shopify, Meta, and McKinsey Sustainability to secure over $1 billion in commitments by 2030 to drive the demand for high-quality, permanent carbon removal solutions.

On May 22, 2024, Meta, Salesforce, Google, and Microsoft launched a nature-

based carbon removal coalition to purchase up to 20 million tons of high-quality credits by 2030. This ambitious pledge and coalition, named the 'Symbiosis Coalition,' marks a collaborative effort among some of the world's leading technology companies to invest in sustainable and impactful environmental solutions.

Goals and Standards of the Coalition

The coalition aims to establish rigorous standards for carbon removal projects, ensuring they provide reliable and measurable benefits to the environment. By setting these high standards, the coalition hopes to address the urgent need for effective climate action and encourage other organizations to follow suit.

Enhancing Climate Impact Certainty

One of the main goals of the initiative is to enhance the certainty of climate impact. By investing in high-quality

nature-based solutions, the coalition seeks to ensure that carbon removal projects deliver the expected environmental benefits. Therefore, Symbiosis is eager to engage with a wide array of participants in the restoration and carbon markets—including investors, NGOs, standards organizations, project developers, researchers, and other key players—to establish a robust carbon market that prioritizes natural solutions.

Criteria for Nature-Based Carbon Removal Credits

Symbiosis aims to procure nature-based carbon removal credits based on precise accounting, longevity, social benefits, ecological integrity, and transparency. It will focus on forest and mangrove restoration, using criteria for additionality, leakage prevention, and durable projects, benefiting Indigenous communities.

Melanie Nakagawa, Chief Sustainability Officer at Microsoft, stated, "*High-quality, nature-based solutions are vital to addressing climate change, and our work with the Symbiosis Coalition is a key step towards realizing our carbon negative goal by 2030 through a diversified portfolio of carbon removal. This collaboration will help build the overall market for these solutions, leading to more restoration purchases that benefit all of us. Continued investment in carbon removal is important not just to meet our goals but for the world to meet its goals.*"

Significant and Quick Action is Needed

It will take between $6 trillion and $16 trillion in total investments to remove carbon dioxide from the atmosphere by the year 2050, according to a recent McKinsey research. A large financial gap for ecosystem protection and restoration is evident from the fact that less than $15 billion has been spent on carbon removal

initiatives to far. For this investment gap to be closed, significant and quick action is needed. See also (Chart 1).

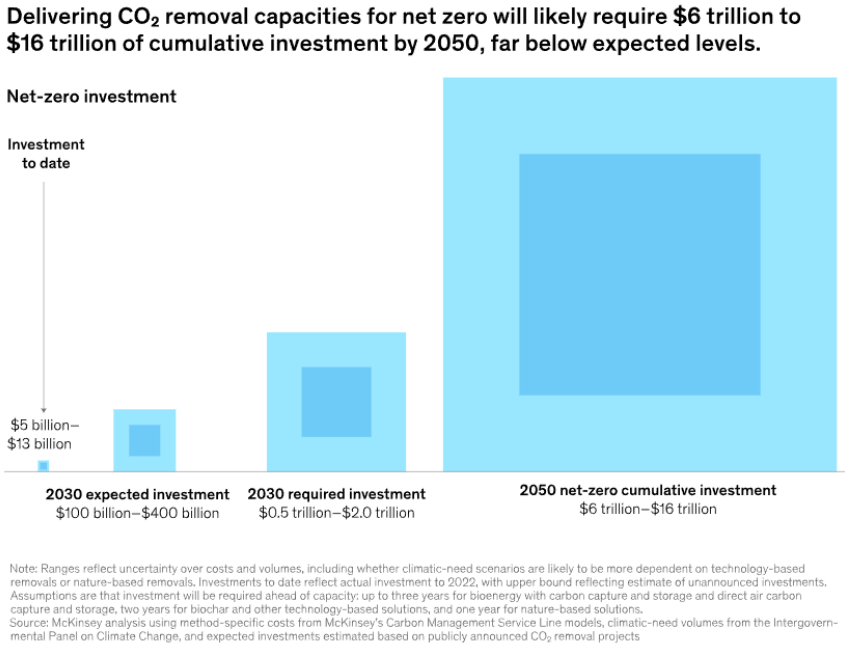


Chart 1

The news is timely for Microsoft, as its 2024 Environmental Sustainability Report notes a 30.9% rise in indirect emissions (Scope 3) from its 2020 baseline. In aggregate, across all Scopes 1–3, Microsoft's emissions are up 29.1% from

the 2020 baseline. See also (Chart 2).

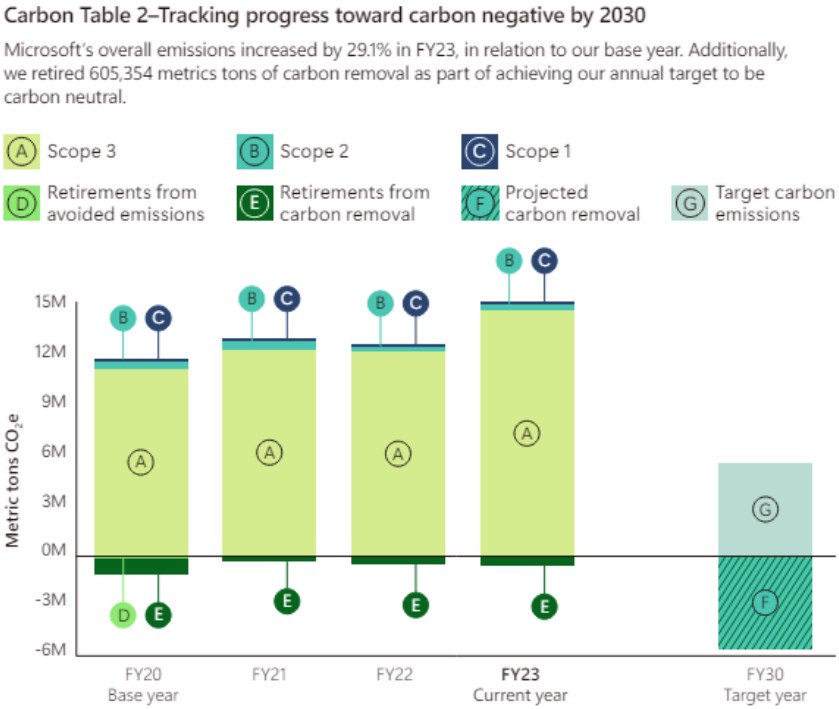


Chart 2

A major reason for the rise in Microsoft's indirect emissions (Scope 3), as noted in its report, is *the construction of more data centers and the associated embodied carbon in building materials, as well as hardware components*

such as semiconductors, servers, and racks. The challenges are partly unique to Microsoft's position as a leading cloud supplier expanding its data centers. However, these challenges also reflect broader issues the world must overcome to develop and use greener concrete, steel, fuels, and chips. These are the biggest drivers of our Scope 3 challenges.

The Future of Carbon Removal Technologies

Will tech giants need more carbon dioxide technologies or nuclear energy to manage the growing emissions associated with their operations? A 2020 survey of data center managers and IT experts claims that, on average, the lifespan of their data center servers is 2-3 years. However, same survey two years later, claims servers are even running longer (3-5 years) depending on how often it's used i.e. cooling systems implemented, regular upkeep, and the specific GPU model.

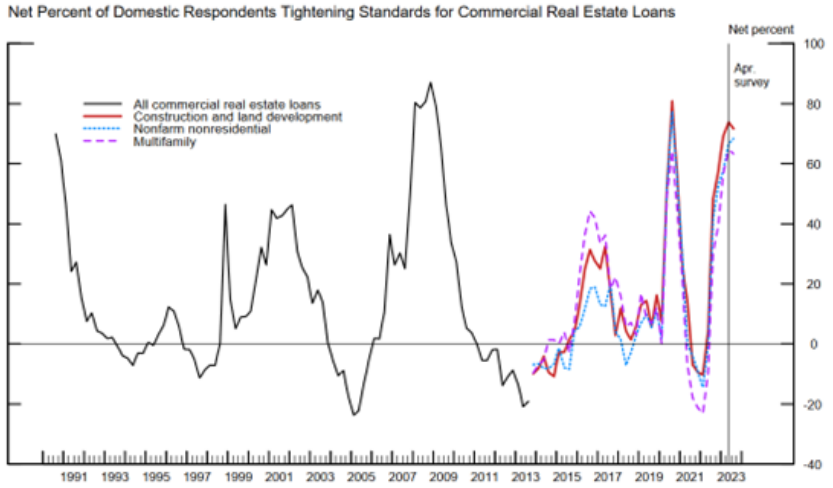
Therefore, we might see press releases about new carbon dioxide removal technologies every two to three years or three to five years to offset the growing depreciation of data centers.

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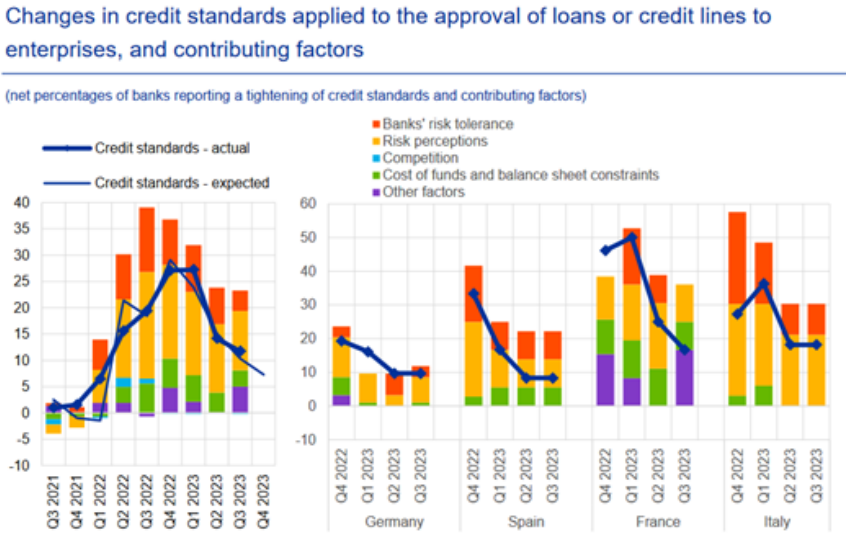
Global Real Estate Sustainability Benchmark (GRESB): Participation Skyrockets in 5

Years to 138.52%! By: Kleber Ofume

The global commercial real estate industry is undergoing a profound transformation, influenced by various factors ranging from rising interest rates from central banks, recent Senior Loan Officer Opinion Survey conducted in Canada, the United States, the European Union, and other regions revealing notable pullback on lending, particularly impacting the office space sector.



[Source: July 2023 US Senior Loan Officer (SLO) Opinion Survey on Bank Lending Practices]



Source: ECB SLO (2023Q3)

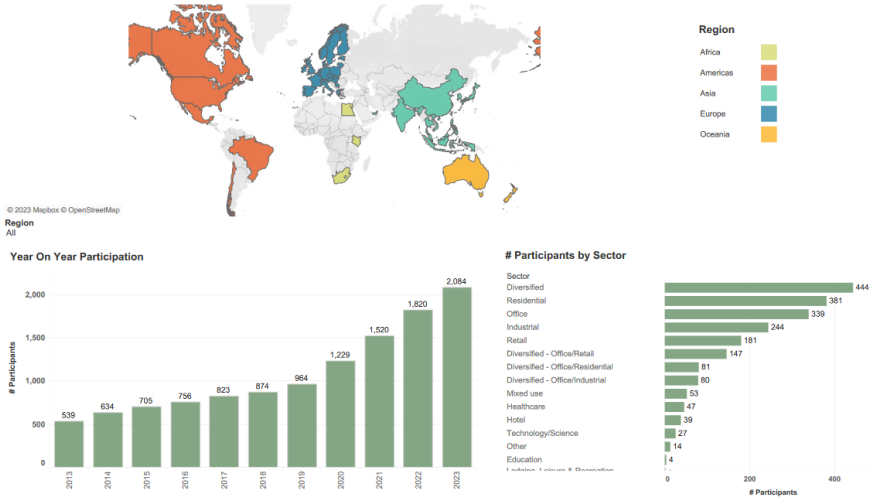
Concurrently, major corporations like Google and Meta (formerly Facebook) are making strategic moves, with Google opening the *Google Visitor Experience Centre* and *Meta Menlo Park, CA offering perks* to their employees following significant layoffs.

Despite these shifts, it's important to recognize that opportunities abound for real asset investors and developers. In this context, the Global Real Estate Sustainability Benchmark (GRESB) emerges as a powerful resource with the potential to deliver substantial benefit that'll be imperative and practical in the shift to NetZero carbon building goals.

What is GRESB?

GRESB is a voluntary, investor-led Environmental, Social, and Governance (ESG) performance reporting framework for

real estate assets. Established in the Netherlands in 2009, it offers standardized, validated, and industry-specific ESG data for capital markets. GRESB is distinct from general ESG benchmarks, addressing the unique aspects of real estate. Over the last five years, participation have jumped to 138.52% with 2023 seeing 2084 participants.



[Source: GRESB 2023 Real Estate Assessment Results]

How Does GRESB Work?

GRESB collects, validates, scores, and benchmarks ESG data to provide business intelligence, engagement tools, and regulatory reporting solutions. The GRESB Real Estate Benchmark tracks and weighs everything from:

- Leadership
- Policies
- Reporting
- Risk Management
- Stakeholder Engagement
- Risk Assessment
- Targets
- Tenants & Community
- Energy
- GHG
- Water
- Waste
- Data Monitoring & Review
- And Building Certifications

Real estate funds, REITs, property companies, developers, infrastructure fund managers, and asset operators

utilize GRESB to assess their ESG performance in a globally recognized framework.

Significance of GRESB for Investors and Fund Managers?

With the growing importance of ESG factors in capital markets. Approximately 200 prominent investors, among them some of the globe's most astute pension funds and insurance firms, utilize GRESB to inform their decision-making, streamline their ESG (Environmental, Social, and Governance) procedures, and interact with managers. Investors and managers ranging from the likes of BlackRock, Ontario Teachers' Pension Plan, Alberta Investment Management Corporation (AIMCo), Norges Bank Investment Management, New York State Common Retirement Fund, Catholic Super and etc. rely on GRESB to obtain reliable ESG data, enabling them to better understand financial risks and opportunities in the

real estate industry. Managers can use GRESB to measure their ESG performance, enhance investor-manager engagement, compare assets with peers, and identify areas for improvement. Investors leverage ESG data and GRESB's tools for monitoring investments, engaging with managers, and promoting sustainability in the real asset industry.

GRESB Participation Linked to Financial Returns?

A ***recent academic study*** demonstrates that GRESB reporting positively impacts financial returns. Participating in the GRESB assessment contributed to a 0.35% increase in an ODCE fund's total quarterly return. Moreover, GRESB participants outperformed non-participating companies, delivering buy-and-hold returns 40% higher, equivalent to 1.8% per year. However, current market conditions show unfavourable declines in listed companies.

Alignment with International Reporting Frameworks?

GRESB assessments align with various international reporting frameworks, including the Sustainable Accounting Standards Board (SASB), the Global Reporting Initiative (GRI), the Taskforce on Climate-Related Financial Disclosures (TCFD), the United Nations Principles for Responsible Investment (PRI), the Paris Climate Agreement, Sustainable Development Goals (SDGs), and region-specific disclosure guidelines and regulations.

To conclude, GRESB, as an investor driven ESG reporting framework, presents substantial opportunities for real asset investors and managers. Its standardized approach, alignment with global reporting standards, and proven positive impact on financial returns make it a valuable

“tool” for those looking to thrive in the evolving real estate industry. Harnessing GRESB’s capabilities is crucial for unlocking the true value of ESG reporting in the real asset sector.

You can now find GRESB in Karbon Offsets curated resources page as well via link: Karbon Offsets: Curated Resources

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