IMPERIAL
BUSINESS SCHOOL

Leonardo Centre on Business for Society

A BEHAVIOURAL REVOLUTION:

Sustainability actions that create alpha

EXECUTIVE SUMMARY

Imperial College London

imperial.ac.uk/business-school

Executive Summary

Rethinking the Finance–Sustainability Link

For more than four decades, one question has dominated research, policy, and practice: *does sustainability pay?* The results have been contradictory. Some studies claim positive correlations between corporate sustainability and financial returns, others report neutral or negative effects. This ambiguity has frustrated investors, regulators, and business leaders alike.

The root of the problem lies in **measurement**. The prevailing reliance on ESG (Environmental, Social, Governance) ratings has produced what has now been referred to as "aggregate confusion"[1]:

- ESG scores are **subjectively assessed and opaque** in their assessment and factor weighting methodology
- Consequently, they are **poorly correlated** across providers.
- They are biased toward **disclosure and compliance,** rather than concrete action.
- They **reward what is easy to audit** (commitments, disclosure) while neglecting what matters most: **strategic and behavioural change.**

This report offers a potential breakthrough in this long-standing debate. By shifting the focus from ESG scores to **systematic observation of corporate behaviours,** it provides an objective, data-driven lens to understand how sustainability actions affect both **financial returns and systemic impact.**

The GOLDEN Sustainability Dataset

Our analysis is powered by the **GOLDEN Sustainability Dataset:**

- Over **1,300,000 corporate initiatives** since the mid-1990s.
- Covering **18,000 companies** across all sectors and headquartered in 86 countries.
- Structured via advanced ML/NLP algorithms, classifying initiatives on their **goals (SDGs), behavioural content,** and stakeholder **beneficiaries.**
- Updated regularly on a semi-annual basis.

Each initiative is classified according to their objectives (matching with UN SDGs) and their behavioural content, using a comprehensive taxonomy of 14 type of actions. These were grouped, for analytical reasons, in three macro categories:

1. **Advocacy –** externally oriented, symbolic or philanthropic actions (donations, volunteering, communications).
2. **Preparation –** internal, policy-driven steps (training, measurement systems, incentive structures).
3. **Transformation –** innovation-driven strategic change embedded in products, processes, governance, and value chains.

This taxonomy, grounded in the **Business Impact Maturity (BIM) model**[2], allows unprecedented granularity: a firm's **behavioural maturity** can be tracked over time, across sectors, and benchmarked globally.

Key Findings

Maturity Generates Superior Returns

- Companies in the top quartile for **Transformation actions** delivered an avg. **+2.52% annual alpha, or risk-adjusted excess returns** (+38.5% cumulative, 2010–2022).
- **Sharpe ratios** confirm higher risk-adjusted returns (0.753 for high Transformation portfolio vs. 0.640 for the market).
- The analysis of **profitability,** across several measures, confirms the superiority of high Transformation behaviour companies vis-à-vis all other groups.
- **Low Advocacy portfolios** produce similar risk-adjusted returns to high Transformation portfolios, showing that avoiding symbolic "greenwashing" creates value.

By shifting the focus from ESG scores to systematic observation of corporate behaviours, it provides an objective, data-driven lens to understand how sustainability actions affect both financial returns and systemic impact.

1 See Berg et al. (2023).

2 See the Leonardo Centre report on Corporate Sustainability and Shareholder Returns: The Role of Business Impact Maturity.

ESG Ratings Miss the Mark

- ESG scores are **positively correlated** with Preparation initiatives (training, risk management).
- These same initiatives show **little or no impact on profitability and stock returns.**
- The result: ESG-driven portfolios systematically misallocate capital, overweighting procedural compliance and risk-management, while underweighting transformative innovation.

A New Generation of Sustainability Indicators

Behavioural indicators outperform ESG ratings across four dimensions:

Dimension	ESG Ratings	Behavioural Indicators
Methodology	Qualitative, subjective assessment, opaque weighting, highly inconsistent across evaluators	Quantitative, based on >1M systematically categorised observable actions
Granularity	Composite firm-level aggregates	Firm × Action resolution
Performance	Weak correlation with fundamentals. Inversely related to returns, since risk-minimization focused.	High Transformation actions associated with higher profitability and abnormal, risk-adjusted, returns (alpha+2.52% annually)
Coverage	Limited, labour-intensive	Global, scalable, automated

Finance Holds Untapped Systemic Agency

The **Impact Finance Maturity Model (IFMM)** extends the behavioural lens to the financial sector. It positions institutions along two axes:

- **Institutional Influence:** from passive investors to majority owners.
- **Strategic Depth:** from ESG compliance to systemic transformation.

This framework empowers financial institutions to evolve from passive allocators of capital to **agents of systemic change.** The findings on abnormal risk-adjusted returns for specific corporate actions motivates and directs this evolution.

Market Snapshot of Financial Institutions

The financial sector commands resources on a scale that dwarfs global GDP and the SDG financing gap:

- **Commercial Banks:** $410T in assets (~4x global GDP).
- **Asset Managers:** $128T AUM (~1.2x global GDP).
- **Private Equity:** $15T AUM.
- **Sovereign Wealth Funds:** $13.2T AUM.
- **Development Banks & Impact Bonds:** >$1T annual issuance.

Strategic opportunities include:

- **Banks** embedding SDG KPIs in loans and scaling sustainability-linked financing.
- **Investment banks** structuring blended finance and SDG securitisation.
- **Asset managers** designing SDG behaviour-based indices and activist thematic funds.
- **Private equity** leveraging governance control to redesign enterprises and supply chains.
- **Sovereign wealth funds** anchoring national SDG strategies.
- **Development banks** catalysing private capital by de-risking systemic projects.

The Market Opportunity toward the 2030 Agenda

The United Nations estimates that achieving the SDGs requires **$5 trillion per year** (~5% of GDP) in additional investment. Even a **1% reallocation of the $566T global financial assets** would be sufficient to close the SDG gap.

This is not a cost burden. It represents the **largest growth market of the decade,** spanning energy, infrastructure, health, food, and digital inclusion. Companies and financial institutions that align early will capture alpha, resilience, and legitimacy.

Conclusions

1. **Behavioural maturity matters:** Transformative behaviours drive both superior financial returns and systemic wellbeing.
2. **ESG is off-target:** Ratings reward preparation, not transformation; investors relying on them risk underperformance.
3. **Behavioural indicators are a structural innovation:** Predictive, scalable, and systemic, they align capital flows with genuine transformation.
4. **Finance has systemic agency:** With $566T in assets, financial institutions can shift from compliance to co-creation of regenerative markets.
5. **The SDG gap is solvable:** Closing the $5T annual gap requires <1% of financial assets; the barrier is not resources but alignment.
6. **The 2030 Agenda is an investment thesis:** The SDGs are the largest growth market of our time, not a burden.

A Global Call to Action

The financial sector holds the key to systemic transformation. By grounding decisions in **behavioural indicators** rather than static ESG scores, investors can unlock superior returns while simultaneously closing the SDG financing gap.

The **2030 Agenda** is not as a constraint, but as a **historic opportunity:** to redirect 1% of financial assets toward transformation, capture alpha, reduce systemic risks, and accelerate the transition to a regenerative, inclusive global economy.

Finance has both the power and the interest to evolve from a value extraction mechanism to the main engine of a regenerative future.

The United Nations estimates that achieving the SDGs requires **$5 trillion per year** (~5% of GDP) in additional investment. Even a **1% reallocation of the $566T of financial assets** would be sufficient to close the SDG gap.

Want the full report?

www.bit.ly/behaverev

Subscribe to the Leonardo Centre mailing list:

Authors

Matteo Burrato, Mojtaba Nouri, Filippo Pellegrino, Livio Scalvini, Shuying Wu, Maurizio Zollo.

Acknowledgments:

Special thanks go to Cathy Gray, and to Hana Amer and Greg Brina from the Leonardo Centre for their contributions and support in the development of this report.

In preparing this report, the authors have relied upon appropriate available data, information and industry standards at the time of writing. It contains various statements and opinions that are or could be “forward-looking” statements, however a number of risks, uncertainties and other important factors could cause actual developments and / or results to differ materially from expectations. This report should not form the basis of any third party’s decision to undertake, or otherwise engage in, any activity and third parties do not have any right to rely on it. The report, by its nature, is not comprehensive and has not been independently verified. Neither Imperial College London nor any of the authors of this report accepts any duty of care, responsibility or liability in relation to this report or its application or interpretation, including as to the accuracy, completeness or sufficiency of it or any outcomes arising from the same.

Please send comments and feedback to:

Email: leonardo.centre@imperial.ac.uk

About the Leonardo Centre

The Leonardo Centre on Business for Society is a cross-faculty Centre of Excellence at Imperial College London.

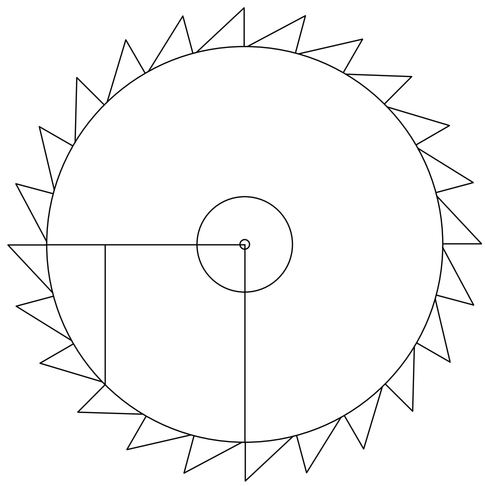
The Science of Business for Humanity

We work with leading scholars, purpose-driven companies, and global institutions to redraw business from basic principles for a flourishing economy and society.

We ask three fundamental questions:

- What model of business fits with humanity’s expectations on economic and social wellbeing within planetary boundaries?
- What are the transformational changes necessary in mindsets, business models and markets to realise an economic system fit for purpose?
- For each type of change, what are the progressive steps needed to propagate and establish these new models in business?

Leonardo is well positioned to tackle these questions by integrating unique data, real-world experimentation, and interdisciplinary co-innovation at global scale.



The Leonardo Centre on Business for Society
Imperial College Business School
South Kensington Campus
London SW7 2AZ
United Kingdom

Email: leonardo.centre@imperial.ac.uk

Website: imperial.ac.uk/business-school/leonardo-centre-business-society

LEONARDO CENTRE
Imperial Centres of Excellence