

Keeping the Course: How Boards Integrate Sustainability in Strategic Investment Decisions



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1.0 Keeping Course Through Headwinds

The board of directors holds a stewardship role that no other body in the company can occupy. It approves strategy, oversees execution, and answers to shareholders for the long-term value creation of the firm.¹ Increasingly, that long-term value creation is based on environmental sustainability.² Reporting obligations (e.g., EU's Corporate Sustainability Reporting Directive), climate-related disclosure standards³, science-based targets, and rising shareholder expectations have moved environmental sustainability from a corporate social responsibility appendix into the strategic agenda of almost every listed company.^{3, 4, 5, 6} The board is the body that signs off on environmental commitments, approves sustainability strategies and answers for whether commitments are kept.^{7, 8}

The board, in particular, has reason to care whether environmental sustainability is integrated into investment decisions. Strategy approval is not strategy execution. Many corporate sustainability commitments live or die in capital allocation decisions, i.e., the strategic decisions through which companies build plants, fleets, buildings, and production lines that will define their financial and environmental footprint for the next twenty, thirty, or forty years.⁹

- 1 OECD. (2023). G20/OECD principles of corporate governance. OECD Publishing.
- 2 Bansal, P., Durand, R., Kreutzer, M., Kunisch, S., & McGahan, A. M. (2025). Strategy can no longer ignore planetary boundaries: A call for tackling strategy's ecological fallacy. *Journal of Management Studies*, 62(2), 965-985. <https://doi.org/10.1111/joms.13088>
- 3 IFRS Foundation. (2023). IFRS S1 and S2 sustainability disclosure standards. International Sustainability Standards Board.
- 4 European Commission. (2023). Corporate Sustainability Reporting Directive (CSRD). Directive (EU) 2022/2464.
- 5 Eccles, R. G., & Klimenko, S. (2019). The investor revolution: Shareholders are getting serious about sustainability. *Harvard Business Review*, 97(3), 106–116.
- 6 Berndt, T., & Weyer, A. (2023). ESG-Reporting heute und morgen – eine Standortbestimmung. Center for Corporate Reporting (CCR).
- 7 Aguilera, R. V., Aragón-Correa, J. A., Marano, V., & Tashman, P. A. (2021). The corporate governance of environmental sustainability: A review and proposal for more integrated research. *Journal of Management*, 47(6), 1468-1497. <https://doi.org/10.1177/0149206321991212>
- 8 Walls, J. L., & Hoffman, A. J. (2013). Exceptional boards: Environmental experience and positive deviance from institutional norms. *Journal of Organizational Behavior*, 34(2), 253-271. <https://doi.org/10.1002/job.1813>
- 9 Seto, K. C., Davis, S. J., Mitchell, R. B., Stokes, E. C., Unruh, G., & Ürge-Vorsatz, D. (2016). Carbon lock-in: Types, causes, and policy implications. *Annual Review of Environment and Resources*, 41, 425–452.

These investments are largely irreversible, and lock in environmental trajectories that short-term action cannot later steer back on course.¹⁰ If the consideration of environmental impacts does not seriously enter this investment decision process, the board's strategy risks staying a line on the chart rather than a course the company actually sails.¹¹ Sustainability commitments approved at the top can fail to shape investment decisions, because the decision-making and governance architecture of capital allocation contains predictable biases that systematically devalue long-term sustainability considerations. These biases sharpen in times of quarterly profit pressure and macro-economic headwinds. With rising capital costs, tariff uncertainty, and squeezed margins, trimming sustainability from long-horizon investment decisions can seem unavoidable. Yet – we argue – the board is uniquely positioned to hold the course and keep the company from veering off its sustainability objectives and long-term value creation strategy.

A 20-month research engagement with the Hilti Lab at the University of St. Gallen examined how a large industrial firm navigated exactly this challenge in its strategic capital allocation.¹² This article summarises our research's implications for boards:

1. We identify three biases embedded in standard capital allocation governance that systematically discount the value of long-term environmental sustainability and ask how board members can test for these biases.
2. We develop three integration instruments, the temporal bridge, the attention anchor, and the structural coupler, through which these biases can be counteracted in practice. For each instrument, we identify the distinctive role the board plays.

We illustrate the biases and integration instruments through an in-depth case study of Hilti AG (see case call-out).

The Hilti Case: Sustainable Value Creation as the North Star

Hilti Group, a family-owned multinational headquartered in Schaan (Liechtenstein), supplies the global construction and energy sectors with products, systems, software, and services. Founded in 1941, the company employs around 34,000 people across more than 120 countries and reported net sales of approximately CHF 6.4 billion in 2024. Hilti has embedded environmental sustainability into its «Lead 2023» strategy and committed to net-zero greenhouse gas emissions across its value chain by 2050, validated by the Science Based Targets initiative. The findings reported here draw on a 20-month qualitative research engagement (April 2024 to November 2025) comprising >60 interviews, 15 focus groups, two steering committee observations, five workshops, and analysis of external and internal documents.

2.0 The Three Steering Biases the Board Should Test For

Standard capital allocation governance, i.e., the rules, templates, and thresholds, that have evolved over decades to optimise financial returns, contains three biases that can steer long-term sustainable value creation out of investment decisions.^{13, 14, 15, 16} We call them «temporal bias», «monetisation bias», and «structural bias».

10 Young-Ferris, A., & Roberts, J. (2023). Looking for something that isn't there: A case study of an early attempt at ESG integration in investment decision making. *European Accounting Review*, 32(3), 717–744. <https://doi.org/10.1080/09638180.2021.2000458>

11 Bebbington, J., Iain, M., Larrinaga, C., & Michelon, G. (2023). Environmental accounting in the European Accounting Review: A reflection. *European Accounting Review*, 32(5), 1107–1128. <https://doi.org/10.1080/09638180.2023.2254351>

12 Klaiber, J., Stroehle, J., Wirmsperger, F., & Berndt, T. (forthcoming). Integrating environmental sustainability into capital allocation: A levers of control perspective. [Working Paper]

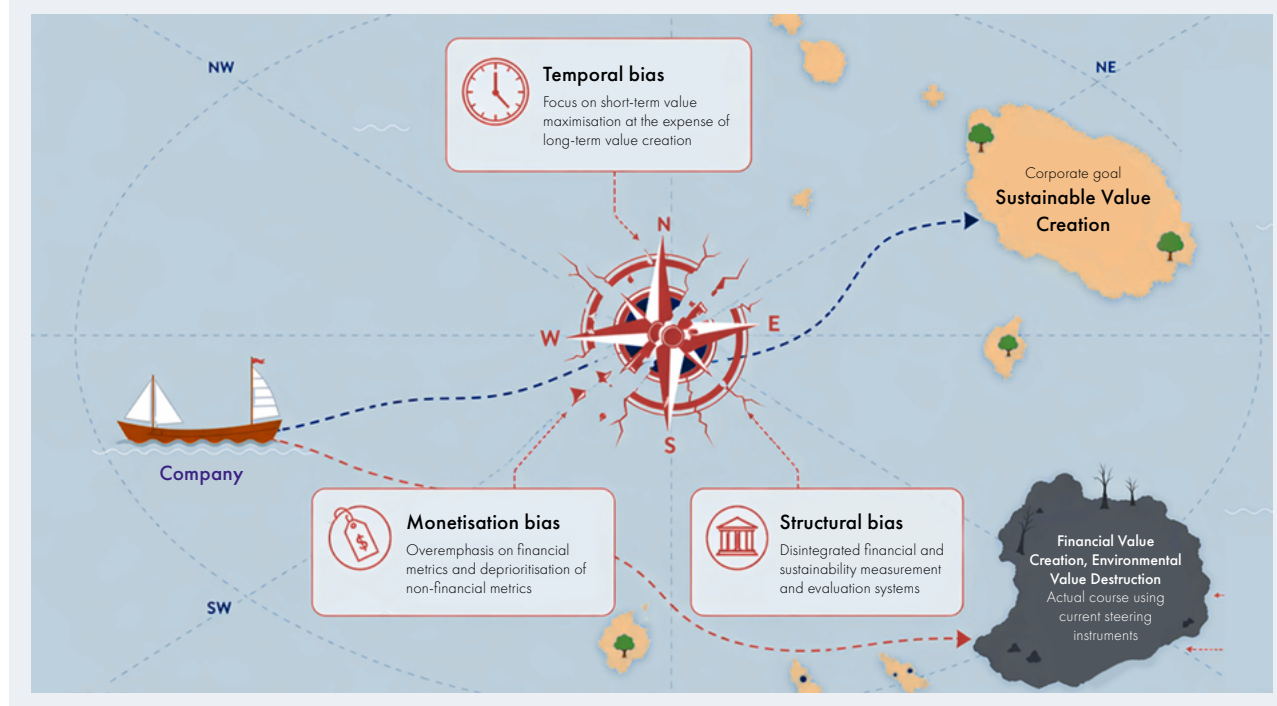
13 Aguilera, R. V., Aragón-Correa, J. A., Marano, V., & Tashman, P. A. (2021). The corporate governance of environmental sustainability: A review and proposal for more integrated research. *Journal of Management*, 47(6), 1468–1497. <https://doi.org/10.1177/0149206321991212>

14 Battilana, J., Obloj, T., Pache, A. C., & Sengul, M. (2022). Beyond shareholder value maximization: Accounting for financial/social trade-offs in dual-purpose companies. *Academy of Management Review*, 47(2), 237–258. <https://doi.org/10.5465/amr.2019.0386>

15 Beusch, P., Frisk, J. E., Rosén, M., & Dilla, W. (2022). Management control for sustainability: Towards integrated systems. *Management Accounting Research*, 54, 100777. <https://doi.org/10.1016/j.mar.2021.100777>

16 Young-Ferris, A., & Roberts, J. (2023). Looking for something that isn't there: A case study of an early attempt at ESG integration in investment decision making. *European Accounting Review*, 32(3), 717–744. <https://doi.org/10.1080/09638180.2021.2000458>

Figure 1: Three steering biases in capital allocation



2.1 Temporal Bias: Short Horizons Crowd Out Long-Term Value

Investments in plant design, building standards, fleet choices, and technology platforms chart financial and environmental trajectories for decades.¹⁷ Most companies evaluate them using standard appraisal tools, e.g., net present value, internal rate of return, payback period, that privilege short- to medium-term cash impacts.^{18, 19} Hurdle rates and stage-gate policies compound this, institutionalising short-termism and the preference for liquidity preservation, while shareholder pressure for near-term returns adds further weight.

Environmental impacts, by contrast, are long-term and path-dependent.^{20, 21} The result: even strategically important decarbonisation investments appear weak when judged through short-horizon financial metrics, and profitability dominates.

Board members should test for: whether the company's finance manual allows for temporal elasticity in environmentally material asset categories, e.g., buildings, fleets, energy infrastructure, or whether payback and depreciation rules apply uniformly across the board. Where the rules are uniform, sustainability-relevant projects often fail to clear the gate before evaluation has begun. The board can ask management to name the asset categories in which payback or depreciation has been deliberately calibrated to long-horizon environmental benefits.

17 Seto, K. C., Davis, S. J., Mitchell, R. B., Stokes, E. C., Unruh, G., & Ürge-Vorsatz, D. (2016). Carbon lock-in: Types, causes, and policy implications. *Annual Review of Environment and Resources*, 41, 425–452.

18 Herbohn, K. (2005). A full cost environmental accounting experiment. *Accounting, Organizations and Society*, 30(6), 519–536.

19 Battilana, J., Obloj, T., Pache, A. C., & Sengul, M. (2022). Beyond shareholder value maximization: Accounting for financial/social trade-offs in dual-purpose companies. *Academy of Management Review*, 47(2), 237–258. <https://doi.org/10.5465/amr.2019.0386>

20 Bebbington, J., Laine, M., Larrinaga, C., & Michelon, G. (2023). Environmental accounting in the European Accounting Review: A reflection. *European Accounting Review*, 32(5), 1107–1128. <https://doi.org/10.1080/09638180.2023.2254351>

21 Gray, R. (1992). Accounting and environmentalism: an exploration of the challenge of gently accounting for accountability, transparency and sustainability. *Accounting, Organizations and Society*, 17(5), 399–425. [https://doi.org/10.1016/0361-3682\(92\)90038-T](https://doi.org/10.1016/0361-3682(92)90038-T)

2.2 Monetisation Bias: What Cannot Be Priced Does Not Count

In corporations, value is often expressed in a single language: CHF, EUR, USD.²² Management control systems are built around these monetary metrics: return on investment, economic value added, return on capital employed.^{23, 24} Environmental impacts, by contrast, are typically expressed in physical or qualitative terms: tonnes of CO₂, cubic metres of waste water consumption, species at risk. These numbers carry high uncertainty, and the monetary translation of environmental impact is itself the subject of active scholarly debate.²⁵ Carbon prices, internal shadow prices, and lifecycle-based costing have increasingly emerged as tools to bridge this gap for the companies' carbon footprint, but their steering influence in capital allocation remains contested.²⁶ They are rarely decisive, because they are barely understood at scale. In trade-offs, monetary indicators are treated as hard facts and environmental ones as soft, so sustainability arguments are readily overruled when capital is allocated.²⁷

Board members should test for: how environmental and financial information are weighed against each other when they conflict. The signal lies in the trade-off cases, not the win-win ones.

The board can ask management to walk through one recent investment where financial and environmental indicators pointed in different directions: which considerations were treated as hard constraints and which as soft preferences? When the trade-off surfaced, how were environmental impacts translated into a form that could weigh against financial metrics, through an internal price or through narratives? Did the translation shift the decision, or did the project come out the same way it would have without it? The board's question is not how environmental impacts are measured, but whether they carry decision weight only when expressed in monetary terms.

2.3 Structural Bias: Two Systems, No Integration

In most large companies, sustainability controls have grown up alongside, not inside, the financial management system: two dashboards, two reporting lines, two evaluative logics.²⁸ While sustainability indicators, scenarios, and carbon prices increasingly exist within companies, they typically sit in separate reports, teams, and processes from core CAPEX, budgeting, and performance management.²⁹ Integration architectures vary — from parallel systems through overlay and embedded designs to full fusion — yet most firms remain in intermediate configurations where coupling is weak.²⁷ Integration quality, not the number of ESG metrics, predicts whether sustainability actually shapes investment decisions.²⁶ The result: dual objectives are formulated at the top, but investment decisions are governed almost entirely by the traditional financial control architecture, and environmental criteria merely accompany them.³⁰

- 22 Edinger-Schons, L. M., Strohle, J., Gümüşay, A. A., Berg, F., Besharov, M., Busch, T., Etzion, D., Harji, K., Hsieh, N.-h., King, A. A., Mayer, C., Michelin, G., Rasche, A., Reinecke, J., & Hoos, F. (2025). Monetary impact valuation for sustainable business. *Nature Sustainability*. Advance online publication.
- 23 Gond, J. P., Grubnic, S., Herzig, C., & Moon, J. (2012). Configuring management control systems: Theorizing the integration of strategy and sustainability. *Management Accounting Research*, 23(3), 205-223. <https://doi.org/10.1016/j.mar.2012.06.003>.
- 24 Beusch, P., Frisk, J. E., Rosén, M., & Dilla, W. (2022). Management control for sustainability: Towards integrated systems. *Management Accounting Research*, 54, 100777. <https://doi.org/10.1016/j.mar.2021.100777>.
- 25 Strohle, J., Gümüşay, A. A., Edinger-Schons, L. M., Vogel, A., Ebrahim, A., Rasche, A., King, A., Pucker, K., Barker, R., Reinecke, J., Michelin, G., Cooper, S., Etzion, D., Harji, K., Besharov, M., Mayer, C., Hsieh, N.-h., & van den Terrell, E. (2026). A critical examination of corporate environmental and social impact measurement and valuation. *Journal of Management Inquiry*, 35(1), 3–18.
- 26 Christensen, H., Hales, J., O'Dwyer, B., & Peecher, M. E. (2024). Accounting for sustainability and climate change: Special section overview. *Accounting, Organizations and Society*, 113, 101568. <https://doi.org/10.1016/j.aos.2024.101568>
- 27 Young-Ferris, A., & Roberts, J. (2023). Looking for something that isn't there: A case study of an early attempt at ESG integration in investment decision making. *European Accounting Review*, 32(3), 717–744. <https://doi.org/10.1080/09638180.2021.2000458>

- 28 Beusch, P., Frisk, J. E., Rosén, M., & Dilla, W. (2022). Management control for sustainability: Towards integrated systems. *Management Accounting Research*, 54, 100777. <https://doi.org/10.1016/j.mar.2021.100777>
- 29 Gond, J. P., Grubnic, S., Herzig, C., & Moon, J. (2012). Configuring management control systems: Theorizing the integration of strategy and sustainability. *Management Accounting Research*, 23(3), 205-223. <https://doi.org/10.1016/j.mar.2012.06.003>.
- 30 Battilana, J., Obloj, T., Pache, A. C., & Sengul, M. (2022). Beyond shareholder value maximization: Accounting for financial/social trade-offs in dual-purpose companies. *Academy of Management Review*, 47(2), 237-258. <https://doi.org/10.5465/amr.2019.0386>

Board members should test for: whether investment dossiers present financial and environmental evidence as a single integrated package, or whether they arrive as parallel documents. Three further questions reveal the architecture. Do escalation thresholds make sub-threshold sustainability investments visible at corporate level, or do they keep the crow's nest looking only at large-ticket items? Are coupling roles codified in the finance manual, or do they depend on individual goodwill? Are environmental and financial metrics designed into the same decision interfaces, or do they live in separate systems connected only by occasional reporting? Where the answers point to parallel rather than integrated, structural bias is shaping CAPEX, even if the strategy at the top suggests otherwise.

3.0 The Board's Role in Recalibrating the Instruments

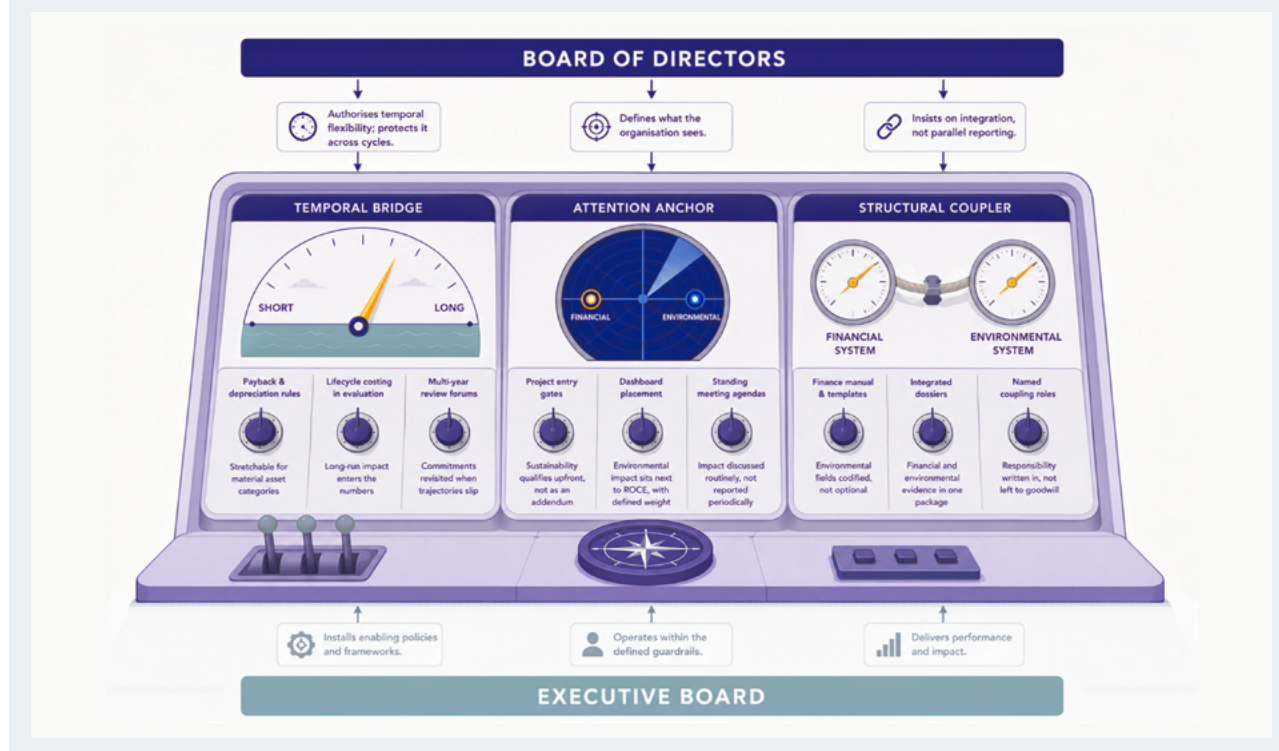
In our research we identified three integration instruments through which environmental sustainability can be integrated into existing decision-making systems for capital allocation.³¹

Each instrument consists of a combination of corporate control practices and governance tools that have the potential to jointly address these biases.

We call these instruments «temporal bridge», «attention anchor», and «structural coupler». The Board of Directors and the Executive Board play complementary roles in activating these instruments.

The Executive Board installs and operates them in the day-to-day architecture of capital allocation, through the finance manual, the dashboards, the investment templates, and the coupling roles. The Board of Directors authorises and oversees them, setting the strategic direction, approving the principle of integration, and ensuring that the instruments hold across financial cycles. Throughout this section, where we describe «the board's role», we refer primarily to the oversight role of the Board of Directors, recognising that the Executive Board is the body that puts the instruments into practice.

Figure 2: The board's role in integrating sustainability in strategic decision making



31 Klaiber, J., Stroeble, J., Wirnsperger, F., & Berndt, T. (forthcoming). Integrating environmental sustainability into capital allocation: A levers of control perspective. [Working Paper]

3.1 The Temporal Bridge: Connecting Short-Horizon Discipline to Long-Horizon Impact

The temporal bridge addresses temporal bias by changing how time enters investment evaluation, so that long-term environmental impacts can be understood, compared, and weighed against short-term financial returns. It works through three coordinated controls.

First, the rules in the finance manual stretch: payback windows, depreciation periods, and lease terms become designable parameters for asset categories where long-horizon benefits are material, rather than fixed defaults that apply uniformly to everything. The case research documented an Executive Board adjusting maximum lease lengths for electric vehicles in selected markets, allowing longer leasing periods to reconcile capital discipline with decarbonisation, with the explicit recognition that this was a triple conflict between operational expenditure, capital expenditure, and sustainability that only the Executive Board could resolve. Second, investment evaluation tools change shape: lifecycle costing, lifecycle assessment, and intensity metrics (such as tonnes of CO₂ per unit of sales) bring long-run environmental impacts into the same calculation as financial returns, so the extended horizon shows up in the numbers, not just in the narrative. Third, strategic review forums sequence multi-year commitments and revisit them when trajectories slip, so long-horizon investments do not quietly disappear in the next annual budget round.

The board's role in the temporal bridge is to authorise the recalibration that management cannot authorise alone. Payback norms, depreciation rules, and hurdle rates shape reported capital efficiency, so changing them is a governance decision. The board approves the principle of temporal flexibility in the finance manual, defines the asset categories in which it applies, and sets the caps and eligibility criteria that preserve overall discipline. It also protects the bridge across cycles. Without periodic board-level review of progress against long-horizon commitments, even strong environmental projects are postponed when budgets tighten. The case research documented a 2023 budget freeze in which a planned ventilation modernisation was deferred, and the long-term impact was lost. The board has the standing to keep the long view on the agenda when short-term pressures rise.

3.2 The Attention Anchor: Converting Awareness into Decision-Salient Action

The attention anchor addresses monetisation bias by turning diffuse awareness of environmental impacts into clear signals that move capital. It works through three reinforcing controls.

First, the gates that filter which projects reach managerial scrutiny are reset so that sustainability enters consideration upfront, rather than as a late-stage addendum: certification standards function as qualifying screens at project scoping, and environmental impact fields become mandatory in investment proposal templates. Second, the dashboards, cockpits, and management reports that already structure attention place environmental indicators next to financial ones, at the same level of visibility and with defined weight in the decision. In the case research, environmental indicators were positioned next to return on capital employed on the corporate cockpit, visible at group level among major finance metrics, signalling that they belonged in the same conversation. Third, the meetings, reviews, and forums that already exist for financial steering include environmental impacts on the standing agenda, so impacts are routinely discussed rather than periodically reported.

The board's role in the attention anchor is to define what the organisation sees. The board sets the agenda for what appears on its own dashboards, what is required in investment proposal templates submitted for approval, and what is presented at strategic reviews. These design choices cascade. Where environmental impact appears at the level the board reviews, attention follows throughout the organisation; where it appears only in separate reports, it remains organisationally peripheral regardless of strategic commitment. The board also has the authority to require an explicit first-gate environmental qualifier in capital allocation, asking whether an investment meets a science-based target or comparable threshold before financial evaluation begins. Finance managers in the case research recommended exactly this design as the way to prevent environmental considerations from sliding back into qualitative narrative. This is a governance choice with material consequences for which projects proceed, and it can be made only at board level.

3.3 The Structural Coupler: Keeping Financial and Environmental Systems Interoperable

The structural coupler addresses structural bias by enabling financial and sustainability systems to work together without collapsing them into a single metric. It works through three interrelated controls.

First, finance manuals, decision templates, and certification ecosystems codify the integration: lifecycle costing and CO₂ become mandatory sections in the standard decision request template, so environmental and financial information travel together through the same approval channels. Second, integrated decision interfaces present financial and environmental impacts side by side in single dossiers, not in parallel documents. The case research documented an industrial plant decision in which lifecycle costing revealed that an additional upfront investment generated annual energy savings alongside productivity gains, re-ranking the option in favour of the environmentally superior design once both impacts appeared in the same calculation. Third, named coupling roles, typically finance-sustainability-project management triads, are formally responsible for keeping the integration alive at each stage of the investment process, and their responsibilities are written into the finance manual rather than left to personal goodwill. The principle running through all three moves: reuse the existing instruments that already structure capital allocation, rather than building parallel sustainability channels that risk being marginalised when pressure rises.

The board's role in the structural coupler is to insist on integration rather than parallel reporting. The board approves the finance manual as the single authoritative source of capital allocation governance and requires that environmental requirements live inside it, not in a separate sustainability handbook. The board reviews integrated investment dossiers and declines to approve proposals that arrive with environmental impact in an annex. The board codifies the coupling roles and ensures they have formal standing in the investment review process. When financial pressure rises, the case research showed that even committed individual champions reverted to single-code financial criteria where the artefacts and roles were not codified. The board's task is to make the coupling structural rather than personal, so that integration survives the next downcycle and does not depend on which individuals happen to be in post.

4.0 The Point of Departure

Sustainability strategies do not run aground because boards lack ambition; they drift because the rules and templates below deck quietly steer capital elsewhere. The board's distinctive contribution is to set the course, authorise the recalibration of the instruments, and keep watch from the quarterdeck to not deviate from the course when short-term pressures rise. The temporal bridge, the attention anchor, and the structural coupler are the instruments. The board is the navigator.

The Board's Navigation Checklist

What boards should do

- **Calibrate the instruments:** Approve temporal flexibility in the finance manual, so investments with long-horizon environmental benefits are evaluated over their real lifetimes, not a uniform payback rule.
- **Decide what shows up on the chart:** Require environmental impact to appear next to financial metrics on the same templates, dashboards, and approval gates the board itself reviews.
- **Have one bridge, not two:** Require financial and environmental evidence to be displayed together through a single investment dossier, integrated dashboard and codified coupling roles, rather than in parallel systems.
- **Keep watch through every cycle:** Review progress against long-horizon commitments at regular intervals, especially when budgets tighten and sustainability projects are first overboard.
- **Sustainability is the compass, not the cargo:** Sustainable value generation is the main course, not a narrative annex that rides along with the decision but carries no weight when it conflicts with monetary metrics.