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Reconciling Sustainability with Profit & Loss

Managing the Economics of Sustainability with Linked Performance Measurement

In markets increasingly shaped by regulation and investor focus on GHG emissions, natural resource use, and fair wages, companies delivering both profit and superior sustainability outcomes are poised for long-term competitive advantage. To capture that opportunity, companies can go beyond EU mandated "double-materiality" reporting, and adopt linked performance measurement to guide their business forward towards greater impact and value creation. Linked performance measurement offers a new way to evaluate companies by simultaneously tracking progression on sustainability goals and profits.

This paper applies such linked measures in the real estate and hotel sectors, with a first sample of companies. It shows that those that most profitably progress on their most material sustainability issue also perform well in the stock market against companies that profitably underperform on sustainability, or even more so, against those that unprofitably advance on their top environmental or social issues.

This analysis should trigger deeper research and evidence-seeking in these and other sectors. In the meantime, it offers companies a five-step approach to linking and optimizing their financial and sustainability performance.

Introduction

New EU regulation on corporate sustainability reporting (CRSD[1]) came into force in 2024, tasking all public and private companies with more than 250 employees to conduct a "double materiality assessment.[2] Companies must disclose which societal issues impacted by the company, or affecting its operations, create the biggest financial risks or opportunities. The objective is to promote sustainable investment and business practices, and by extension, a greener and more inclusive economy. The ruling has global influence, as all foreign firms operating or listed in Europe should comply.

While laudable, the reporting mandate subject to expert stakeholder assessment might remain just that: a post-facto qualitative description of existing business models and their exposure to social and environmental risks, rather than a stimulus for corporate transformation. To meet the regulation's objectives, the concept of double materiality needs to be operationalized into corporate strategy, and guided by a new set of business performance tools that link key social and environmental measures with financials. Managers need these to inform decisions and resource allocation, and investors to embed sustainability objectives in their company valuations.

In 2022,[3] we highlighted the importance of such linked measures in growing and operating Shared Value businesses.[4] Such companies evolve their products, value chain activities and business ecosystem to deliver both financial gains and societal benefits as a competitive value proposition. Their revenues, costs, and ultimately profits, are generated in ways that drive incremental progress on GHG-emissions, resource use, or the value shared with suppliers, employees or customers. The conceptual leap was to anticipate that such companies would have greater *impact-intensity of profit*: they would deliver more environmental or social benefit each year, as measured by standard KPIs,[5] for each unit of profit generated.

Since linked measures do not exist in business today, we applied these retroactively to the real estate and hotel management sectors to demonstrate their relevance to management and investors.[6] Each of these sectors has a dominant impact area: GHG[7] emissions in real estate, and wages of vulnerable workers in hotels. Reducing the emissions footprint or raising low wages to living wage levels is often shunned for fear of reducing profits. In real estate, it may require new forms of construction with greener building materials, technology to reduce power use, or clean energy generation. Executed poorly, capital outlays and future operational expenditures will exceed potential revenue and profit margin gains, creating trade-offs. Done well footprint decreases and profits grow. For hotel groups and their tens of thousands of low-wage workers, wage increases can stress profits unless wage increases are clearly associated with productivity gains, or an improved customer experience that warrants a price premium. Some companies fear minimum wage increases while others see a strong mutuality between better wages and profit gains. Indeed, our analysis shows that some companies progress on creating Shared Value, while others fail to break the trade-offs between their financial and sustainability objectives. Companies in the same sectors therefore vary greatly their *impact-intensity of profit.*

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[1] E.U. Corporate Sustainability Reporting Directive. See: https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:32023R2772

[2] The E.U. is considering increasing the threshold to 1000 employees according to the "Omnibus I" process started in Q1 2025

[3] See Kramer & Pfitzer: "The Essential Link Between ESG Targets and Financial Performance," Harvard Business Review 2022 & Harvard Business Review "10 Must Reads 2024" https://hbr.org/2022/09/the-essential-link-between-esg-targets-financial-performance

[4] With Prof. Michael E. Porter: see Porter & Kramer, "Creating Shared Value," Harvard Business Review 2011 https://hbr.org/2011/01/the-big-idea-creating-shared-value

[5] For example, as directed by the E.U. according to the ESRS (European Sustainability Reporting Standard)

[6] This research was enabled by the Nasdaq Nordic Foundation, which supports Nordic financial markets through scientific research

[7] Green-House-Gas Emissions

Linked Performance Measures in the Real Estate Sector

We analyzed the largest listed European real estate management companies by market cap that reported scope 1-3[8] GHG emissions from 2019 to 2024.[9] Real estate management represents 28% of global GHG emissions, making it a must win sector in combating climate change. Scope 1 and 2 emissions are generated by corporate facilities and purchased energy. Scope 3 emissions, comprising a massive 86% of the total, stem from upstream activities (e.g., purchased goods and services, production of fuel and energy, business travel) and downstream use (e.g., tenant energy use and transportation[10]). Scope 3 has 15 sub-categories, and reporting across companies differ in what is included, somewhat limiting comparison. For example, not all companies report on purchased versus developed assets, or the footprint generated by building visitors, requiring some adjustments for benchmarking across companies.[11] Despite year-on-year improvements in emissions accounting, many companies still work with assumptions for scope 3 emissions, rather than measuring actual values. Regardless, most real estate companies view climate and GHG emissions as a top double-material issue, and many have committed to net-zero targets by 2030 or 2045[12].

All real estate management companies base their operations and value creation on their area under management, in square meters or feet. The GHG emissions (in KgCO2e) per square meter, and operating profit [13] per square meter, therefore provide a solid basis for understanding which company is more or less profitably decarbonizing. Combining these ratios yields the annual *carbon-intensity of profit* for each company — or how much GHG is generated for each unit of profit realized.

From the top 131 global real estate companies by market cap, seven European firms provided sufficient data over the last five years in their annual and sustainability reports for proper analysis. The largest, Vonovia (Germany), had a market cap of €24B at the end of 2024, while the others, including Gecina (France), Klépierre (France), Swiss Prime Site (Switzerland), Castellum (Sweden), Landsec (UK), and British Land (UK), all ranged from €5B to €10B in market value.

Business models differ considerably: Vonovia focuses on affordable, sustainable housing, while Gecina and Landsec develop offices with residential or retail areas. British Land incorporates logistics, and Swiss Prime Site specializes in office-retail space. Klépierre owns and leases shopping malls, and Castellum blends offices and logistics centers.

Their respective models affect emissions levels as well as their mitigation options. Swiss Prime Site and Gecina had already achieved relatively low-emissions in 2019, while British Lands and Landsec, the two UK-based companies, still exceeded these five-fold. To mitigate emissions, companies have four direct options: they can purchase renewable energy (for corporate and

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[8] Broadly: Scope 1 are generated by corporate facilities; Scope 2 by purchased energy for corporate activities; and Scope 3 by building materials, tenants use of energy, etc. In all cases, location-based emissions rather than market-based were taken into account.

[9] Note that eliminated over 50% of listed companies, many started only reporting scope 3 emissions in 2021 or 2022. Sample selection was based on working down the list of European real estate companies in the global market cap ranking, stopping at an initial set 7 companies (with British Lands ranked 131 in the real estate global market cap)

[10] Most companies account for tenant/visitor transportation and GHG emissions separately or fail to report it as not considered of direct responsibility. For comparison, as a result, GHG emissions from visitor/tenant transportation was not included. It is also possible that each company has applied different standards or methods for calculating scope 3 emissions, in particular.

[11] For example, since Klépierre was an outlier in reporting vast scope 3 emissions from its shopping malls visitors, those emissions were removed from the scope 3 total to improve comparability with other companies

[12] all companies also pursue building certifications like LEED, BREEAM, or HQE, that also address other environmental factors such as waste, energy use, and biodiversity.

[13] For comparability, gross operating profit (EBITDA) was used across companies, to avoid extraordinary swings in property revaluations, and differences driven by financing choices (e.g. equity vs debt) and terms.

tenants), generate on-site energy (e.g., solar PV) with/out battery storage, implement energy-saving technologies like smart meters, or purchase carbon offsets. Indirectly, they can also engage their tenants in energy-saving actions, or encourage shopping center visitors to use clean mobility options. Effectiveness will differ across companies, as power use varies by property type (e.g., retail vs. logistics vs. residential), as does the ability to generate energy. Mall rooftops and logistics warehouses, for instance, are ideal for solar. Local energy contexts also determine access to renewable energy at competitive rates.

The extent to which these strategies are implemented link directly to operating profit: through CAPEX depreciation and energy costs, which affect both owner and tenant utility bills. Companies can also charge premium green rents to offset investments, and boost property values. Sector benchmarking suggests that green rent premium gains can range from 5-20%, while energy costs represent only 5-10% of revenue, making the former far more consequential in the economics of decarbonization.[14] However, no company reports specifically how such GHG-related CAPEX/OPEX decisions affect profits, distinctively from other profit drivers such as property revaluations or financing costs.

Results show companies decarbonize at different rates and profitability levels **(see Exhibits 1 & 2).** *Castellum and Swiss Prime Sites are the only companies that profitably decarbonized*, with Castellum achieving the largest reductions in KgCO2e per square meter in both absolute and relative terms. In terms of contribution to climate change these two companies removed more CO2e per square meter than all the others real estate firms combined. Castellum's absolute carbon gains exceeded its profit gains, making it the leader in "carbon-intensity of profit" gains (-31%). Swiss Prime Sites maintained relatively high profits, and managed a 5% decarbonization rate from an already low-carbon position. These two companies help prove double-materiality: making progress on both decarbonization and profit, and avoiding a trade-off. *The two companies also show the best and third-best 5-year stock performance,* with Swiss Prime Sites extraordinary result likely boosted by an important portfolio revaluation (which affects net profits significantly, and not the analyzed operating profit).

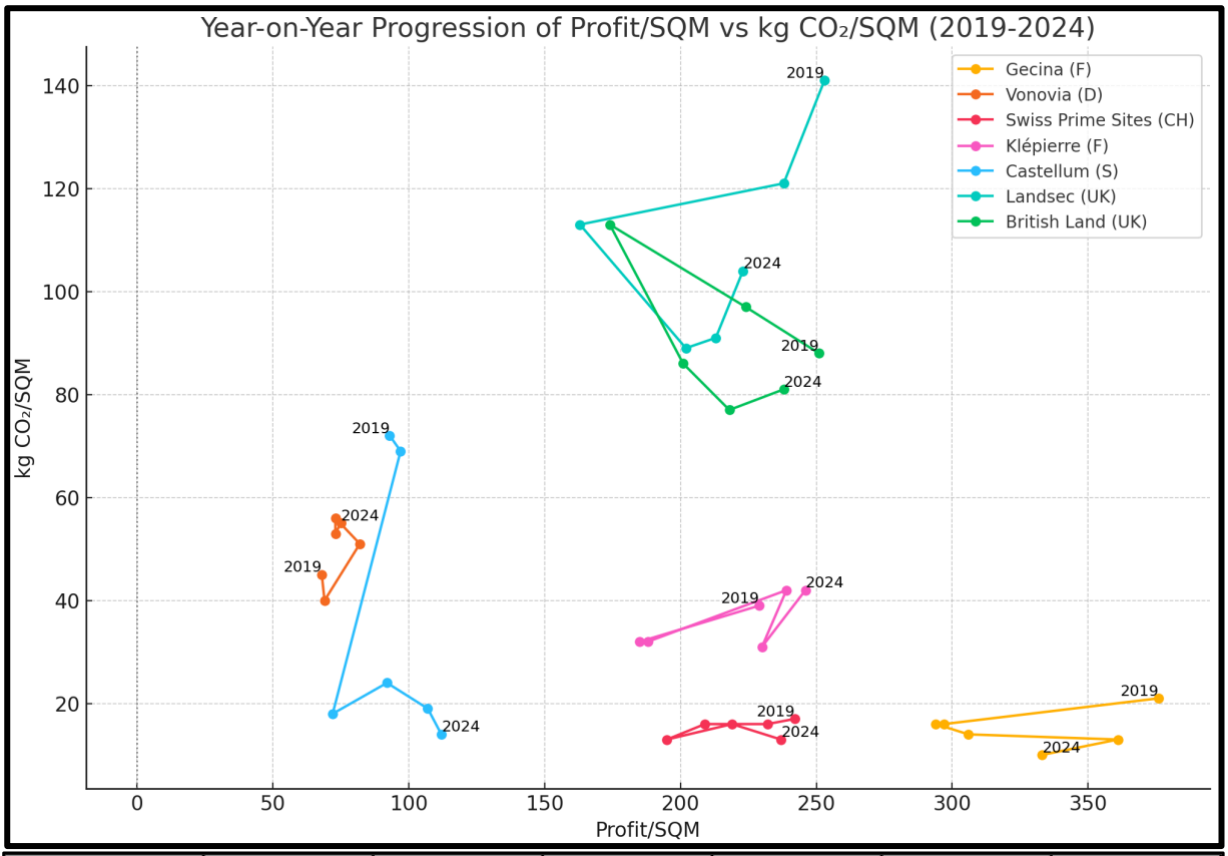
Castellum has an aggressive net-zero targets for 2030 on all scopes (1-3), benefited from access to Nordic utilities' renewables, and focused on building efficiency and solar power. The company invested €25-35 million per year in the last 5 years for efficiency, adding 120 solar installations, with some of the largest covering 30000m2 (on logistics centers). Other investments covered heating systems, windows and building frames. 22% of its energy is now self -generated. For all CAPEX, the company systematically applies an 8% yield threshold on investments. To get that return, tenants agree on rent increases and/or electricity payments. Lower investment yields are also acceptable, for example, if efficiency upgrades will help maintain high vacancy rates.[15] The company is banking on a long-term competitive trend of tenants paying more rent for energy efficiency, and favoring higher quality assets. And in the process, its financing costs also drop, as it is able to mobilize lower-rate green debt.

Across the sample of companies, profits appear to weigh more than decarbonization on market value: the two companies that profitably carbonized (increasing emissions), Vonovia and Klépierre, performed relatively better that the three that unprofitably decarbonized (Gecina, Landsec and British Lands). The two UK companies made initial and much needed progress on decarbonization with some profit loss, then improved profits while re-carbonizing, seemingly stuck in trade-off strategies. Gecina is a paradox: it unprofitably

[14] Source: ChatGPT
[15] Source: interview with Castellum's Chief Sustainability Officer

decarbonized from a very low-carbon basis, and logically shows a poor market performance. But it operates as a Shared Value company in the highest profit/lowest carbon quadrant! The market context appears to override a strong profit/carbon position: analyst reports suggest that the company's high exposure to Paris is at cause: as property values in that city are declining, and vacancy rates increasing. Finally, Vonovia, seems to stagnate on both profits and emissions per square meter, despite having a dedicated energy services division.

Exhibit 1: 2019-2024 Progression of kgCo2e/Sqm (Scope 1,2,3) and Operating Profit/Sqm (EUR) in Real Estate Management



Year	2019		2020		2021		2022		2023		2024	
Company & Ratio	Profit/SQM	kg CO2/SQM	Profit/SQM	kg CO2/SQM	Profit/SQM	kg CO2/SQM	Profit/SQM	kg CO2/SQM	Profit/SQM	kg CO2/SQM	Profit/SQM	kg CO2/SQM
Gecina (F)	376	21	297	16	294	16	306	14	361	13	333	10
Vonovia (D)	68	45	69	40	82	51	73	56	73	53	75	55
Swiss Prime Sites (CH)	242	17	232	16	209	16	195	13	219	16	237	13
Klépierre (F)	229	39	185	32	188	32	239	42	230	31	246	42
Castellum (S)	93	72	97	69	72	18	92	24	107	19	112	14
Landsec (UK)	253	141	238	121	163	113	202	89	213	91	223	104
British Land (UK)	251	88	224	97	174	113	201	86	218	77	238	81

Exhibit 2: 2019-2024 Comparative Carbon-Intensity and Profitability Ratios: Real Estate Management

5-Year 2019-2024 Sc 1-3	Total SQM 2024	5Y Avr. Revenue/SQM (EUR)	5Y Avr. Op. Profit/SQM (EUR)	5Y Op. Profit/SQM CAGR (%)	2019 Carbon Intensity (KgCO2e/SQM)	2024 Carbon Intensity (KgCO2e/SQM)	5Y Decarb. / SQM CAGR (%)	2024 Carbon-Intensity of Profit (KgCO2e/Profit)	5Y CAGR Carbon-Intensity of Profit (%)	5Y Market Value CAGR (%)
Gecina (F)	1'700'000	453	328	-2%	21	10	-14%	0.03	-12%	-11%
Vonovia (D)	35'209'745	159	73	2%	45	55	4%	0.74	2%	-1%
Swiss Prime Sites (CH)	1'618'602	479	222	0%	17	13	-5%	0.05	-5%	10%
Klépierre (F)	4'000'000	273	220	1%	39	42	2%	0.17	0%	-4%
Castellum (S)	5'282'000	139	95	4%	72	14	-28%	0.12	-31%	-2%
Landsec (UK)	2'192'511	390	215	-3%	141	104	-6%	0.47	-3%	-6%
British Land (UK)	1'858'060	298	218	-1%	88	81	-2%	0.34	-1%	-8%

Linked Performance Measures in the Hotel Sector

The next sector analyzed were Hotels, also selected from the top European companies by market cap.[16] The largest, Whitbread (2024 market cap €5.7B; 914 hotels), is the leading UK chain and runs Premier Inn and associated restaurants, focusing on affordable midscale hotels for diverse customers. NH Group (owned by Minor International, market cap €2.7B; 293 hotels) operates upscale and midscale urban hotels in Europe and Latin America, catering to business and conference customers. Two smaller groups included Scandic (€1.3B; 263 hotels), the main hotel operator in the Nordics with properties in cities, airports, business centers, and natural settings, and Dalata (€1B; 55 hotels): Ireland's largest hotel group with its Clayton and Maldron brands.

Hotel groups, represent the social side of sustainability: a highly labor-intensive sector relying on low-wage, and potentially vulnerable workers. Labor costs in hotels typically represent a third of OPEX (25-32% in our sample), by far the largest expenditure. Wages are not only a critical driver of profit but also a significant social risk or contribution, particularly when minimum and living wages differ. Moreover, wages are directly linked to the quality of the hotel experience, and, therefore, to long-term revenue growth. Wage information, shockingly, is scarcely measured or reported in this sector, favoring other KPIs like health & safety, gender equity, or training hours received. This analysis brings the wage issue back to the forefront for this sector, as a critical "double-material" priority.

For hotel groups, the core business driver is the number of rooms which are serviced by staff.[17] Total labor costs per room, and profit per room, provide a measure of both financial and social contributions. Without any action, these two ratios are in full trade-offs. But mutual gains are possible when management re-designs operating activities for greater labor productivity. Dividing wages per room by profit per room yields the *wage-intensity of profit*, showing how much wages are paid for each unit of profit. Given the massive disruption caused by COVID-19 in 2020 and 2021, trend lines were drawn from the baseline year of 2019 to the "normal" 2022-2024 years.

All hotel groups highlight people as their key asset, linking service quality to employees. Staff training is a priority, with Dalata and Scandic institutionalizing programs through branded staff academies. Dalata trained nearly 20% of its staff in 2023 alone. Diversity and equity, particularly gender representation in management, are commonly promoted alongside wellness and health initiatives. But attention to worker wages differs starkly. Generally, only executive compensation is disclosed. Whitbread is the most explicit about wage vulnerabilities, and consistently exceeds minimum wage benchmarks with annual raises. In contrast, Dalata expressed concerns over UK-mandated minimum wage increases as putting stress on profit[18]. NH Group offers a striking exception. It emphasizes salary fairness and discloses wages in great detail across professional levels, genders, and ages. It also pays the highest average wages per head count[19] supported by its upscale positioning.

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[16] Note companies like IHG and Accor were dropped as they franchise hotels rather than operate them, which means they rely much more on highly paid corporate jobs, and do not capture the labor costs of their franchises in their financials

[17] Along with occupancy rates

[18] See 2023 Annual Report

[19] Note : employee numbers are typically reported in head counts rather then FTE equivalents, which means average wage information can be skewed by different ratios of full and part-time employment

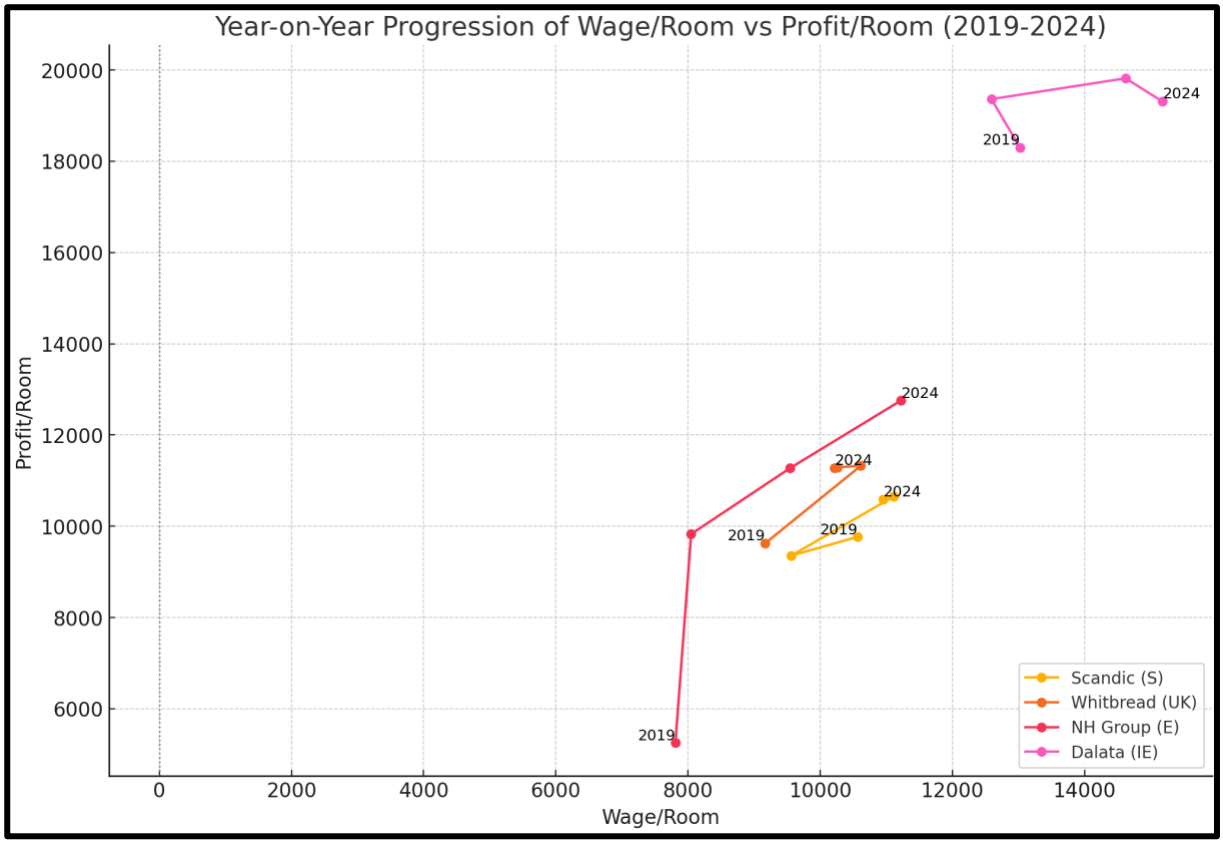
A key blind spot is the link between wages, profits, and productivity. None of the companies seems to connect skills training, diversity, or health initiatives to increased productivity, which could create opportunities for both wage growth and margin improvement. This is particularly relevant when linked to their primary workload factors: the number of rooms and occupancy rates. Similar gaps exist in leveraging other productivity drivers like technology and customer incentives. While all groups aggressively pursue digitization—streamlining booking, check-ins, in-house services, and housekeeping optimization—none explicitly connect these efficiency efforts to employee outcomes or wages. This is the case even for NH Group, despite its evident productivity efforts in deploying robots for room servicing and cleaning, and offering "Green Stay Vouchers" for customers to forgo room cleaning in exchange for in-house perks.

The different hotel operations and policies also affect their linked performance results. Trends in wages paid per room and profit per room (yielding the wage-intensity of profit) vary significantly among groups. All hotel groups advanced both wages and profit (see Exhibits 3 & 4). NH Group more than doubled its profit per room since 2019, sharing half of that value with employees. NH employees also manage over twice the number of rooms compared to peers, indicating higher productivity, and/or more full-time employment. Together with Scandic, NH leads in wage-intensity of profit (1.05/1.01), though it favored profit over wage growth in the last 5 years. NH also delivered the strongest 5-year stock performance (+8%).

Scandic achieved modest gains in both wages and profit per room, and as NH Group shared half the profit gain with employees. Strikingly, however, it shows the highest wage-intensity of profit, and the second-best stock performance (with strong gains in the last two years). Whitbread favored profits over wages growth, while Dalata prioritized wage growth, improving its wage-intensity of profit the most. The last two groups, however perform both at low levels of wage-intensity of profit, and have the worst 5-year stock performance. As in the real estate sample above, the clear Shared Value star that delivers both the highest absolute profit and wages per room on a static basis(Dalata) is not the best stock performer.

The focus of hotel groups on people aligns well with the way value is shared with tens of thousands of hotel workers. This alignment is also reflected in market performance: higher performance is observed when both wages and profits grow significantly (e.g., NH Group), while weaker performance occurs when both measures show minimal progress (e.g., Whitbread). However, as with real estate companies, no definitive correlation can be assumed without wider analysis.

Exhibit 3: 2019; 2022-2023 Progression of Wage/Room (EUR) and Operating Profit/Room (EUR) in Hotel Groups



	2024		2023		2022		2019	
	Wage / Room	Profit / Room	Wage / Room	Profit / Room	Wage / Room	Profit / Room	Wage / Room	Profit / Room
Scandic (S)	10'950	10'591	11'113	10'652	9'561	9'355	10'566	9'767
Whitbread (UK)	10'217	11'278	10'264	11'292	10'614	11'324	9'167	9'626
NH Group (E)	11'219	12'753	9'544	11'274	8'047	9'829	7'809	5'255
Dalata (IE)	15'175	19'314	14'619	19'817	12'591	19'361	13'023	18'298

Exhibit 4: 2019; 2022-2023 Comparative Labor-, Wage-, and Profit-Intensity per in Hotel Groups

Years: 2019, 2022-2'24	Avr Rooms Provided	Avr Total Employees	Rooms / Employee	Avr, Labor Costs /Revenue (%)	Avr. Wage / Employee (EUR)	5Y Wage / Empl. CAGR (%)	Avr. Wage / Room (EUR)	5Y Wage / Room. CAGR (%)	Avr. Profit / Room (EUR)	5Y Profit / Room CAGR (%)	Avr. Wage-intensity of Profit	5Y Wage Intensity of Profit CAGR (%)	5Y Market Value CAGR (%)
Scandic (S)	54'948	18'181	3.02	31%	32'037	4.6%	10'547	0.7%	10'091	1.6%	1.05	-0.9%	5%
Whitbread (UK)	88'033	36'078	2.44	29%	24'899	10.1%	10'065	2.2%	10'880	3.2%	0.93	-1.0%	-3%
NH Group (E)	55'920	13'674	4.09	25%	37'266	4.9%	9'155	7.5%	9'778	19.4%	1.01	-10.0%	8%
Dalata (IE)	10'752	5'284	2.03	27%	28'269	7.6%	13'852	3.1%	19'198	1.1%	0.72	2.0%	1%

Conclusion and Opportunity

In summary, select year-on-year trajectories of linked performance measures in the real estate and hotel sectors reflect different business realities and choices. Business models affect baseline profit and footprint levels, and CAPEX/OPEX choices then determine forward progression. Over-time some companies are better at breaking trade-offs, advance both profits and sustainability, achieving higher impact-intensity of profit, and to be confirmed with

a larger sample, potentially out-performing on market value. Such results suggest much insights could be gained if companies were to voluntarily adopt linked performance measurement. Today in company management and reporting, however, there is no way of systematically linking CAPEX/OPEX decisions to a rate of progress on both financials and sustainability objectives, limiting management insights, and external capital mobilization.

Our analysis points to a great opportunity for business to go beyond simply reporting on double-material issues to managing those dual outcomes. Linked performance measures provide a powerful management tool and a guide for investors seeking companies that successfully brake trade-offs. Since no established practices exist for implementing linked performance measures, guidance can be drawn from emerging "double-materiality" processes in companies that go beyond reporting, and early efforts to apply metrics as ratios. The following five steps outline a potential forward path for pioneer companies to adapt linked performance measurement:

1. Start with the mandated double-materiality assessment, but exceed EU guidance

EU regulations recommend qualitative double-materiality assessments based on expert consultation, helping companies focus on key issues and step away from two decades of diluted efforts under broad "CSR" agendas. While valuable, these assessments lack quantitative financial risk or opportunity evaluations. Moving to linked performance measurement requires quantifying the relationships between sustainability issues and financial outcomes. Companies committed to succeeding in a green and fair economy must embrace this deeper integration across senior leadership, and task financial and sustainability officers with its implementation.

2. Identify standard impact metrics and link them to a core business driver

For industries like real estate and hotels, the most material issues often revolve around climate, energy, and fair working conditions[20]. Metrics should reflect the resource-use or labor dimensions central to business operations. In other industries, where impact is inherent to products, metrics might focus on outcomes like GHG, health, or affordability. Standardized indicators should then be connected to core business drivers (e.g., square meters for real estate or the number of rooms for hotels).

For example, industrial goods companies that are exposed to high material-intensity, and are heavy users of polymers or metal components, are typically on a trajectory to re-use, re-cycle or substitute materials from more renewable sources. Such companies can track the net material intensity per ton produced, and the profit per ton produced across product areas. Management will be able to understand whether its innovation tracks are yielding more trade-offs or shared value, or more or less "material-intensity of profit."

In some cases, impacts will correlate positively or negatively with impacts. Lowered emissions or net material use should drive profit, meaning that a near zero impact-intensity of profit is the objective. Higher wages, on the hand, should link to increasing profit, with an increasing ratio as the goal.

3. Focus linked performance management on the top 1-2 material impact areas

[20] The hotel sector has not yet fully embrace the centrality of employees' vulnerability to low wages, even as they all acknowledge the centrality of people in their business model

Most companies have one or two areas where they can make the greatest impact[21]. Linked performance measures should prioritize these areas while addressing other significant issues through standalone reporting. For instance, manufacturers can track both material-, and GHG intensity of profit as parallel measures, optimizing shared value in both areas. As companies achieve key targets, like decarbonization, they can shift focus to the next material issue.

4. Leverage retroactive insights to refine strategies

Companies can analyze past performance to verify links between sustainability progress and margin growth. This approach converts initial qualitative assessments into evidence-based rankings of material issues. In addition, the hotel industry's COVID-related disruptions highlight the importance of excluding extraordinary factors when analyzing *longer-term trends.* Internal data can identify which business units or product lines made the most profitable progress, unlocking forward-looking opportunities.

5. Use linked performance measures to manage outcomes and signal investors

In real estate and hospitality, deviations within sectors indicate companiers are on diverse pathways, underscoring the need for linked performance planning. This approach allows companies to identify laggards, accelerate learning, and align financial and sustainability goals. Reporting setbacks and gains in linked profit and sustainability annually, with a focus on long-term trends, will enable businesses to demonstrate their progress toward a green and fair economy. Currently, investors lack tools to translate qualitative double-materiality assessments into value forecasts. Pioneers in linked performance measurement can change this dynamic.

Building on this pilot study, there is significant potential to validate and apply linked performance measures, both retrospectively and prospectively. Deeper analysis across sectors is needed, supported by more information between CAOEX/OPEX decisions and resulting linked performance. At the same time, pioneer companies have the chance to understand and manage their impact-intensity of profit, and further shape their operations for a sustainable future.

Discussion

In this paper we have demonstrated how Shared Value thinking can be used in practice as a way of measuring and modelling how a double value creation is done in business. This provides an examples in a field where calls have been made for more empirical data (Menghwar & Daood 2021, Dembek et al 2016). Further studies is needed to test this also for other industries and in other contexts to further strengthen the use of the analysis described. In addition, the paper displays how the concept of financial materiality, a core part of the CSRD regulation, can be used from a strategic business perspective. Here, many more studies are needed to connect financial materiality to business strategy, using the vast amount of data available as the first mandatory CSRD reports in Europe are published, starting 2025.

[21] See Kramer & Pfitzer, "The Essential Link Between ESG Targets and Financial Performance," Harvard Business Review 2022 & Harvard Business Review "10 Must Reads 2024" https://hbr.org/2022/09/the-essential-link-between-esg-targets-financial-performance

A Shared Value study

Theoretically this paper is placed within the field of sustainable business strategies. Here the concept of Shared Value is central (Porter & Kramer 2011, 2006). The concept has developed into one of the most influential models within instrumental CSR strategies, connecting sustainability strategy with overall corporate strategy (e.g. Vallentin & Spence 2018, Rasche et al 2018, Dembek et al 2016, Reyes et al 2016). In short, Shared Value emphasizes double value creation, financial and sustainability-wise. Increasing numbers of scholars and business leaders are pointing to the connection between CSR and corporate performance, stressing the co-creation of financial value and sustainability value (Eccles et al 2014, Miller & Serafeim 2014) and the connection to corporate innovation (Halme & Laurila 2009). Recently, the discussion about the firm's "Purpose" in a broader context has also come into focus, where the purpose of a firm's existence is to meet the *needs* of society in a profitable way (Lleo et al 2021, George et al 2021).

Several scholars call for more research on Shared Value. In a previous literature review, Dembek (et al 2016) found 392 academic articles on Shared Value. They call for more studies on how Shared Value works in practice; there are too few empirical examples in the research and too little data. Also, the theoretical understanding of the concept needs further elaboration. In a more recent literature review of Shared Value Menghwar & Daood (2021) found 242 articles published between 2010 – 2020; these authors point to the need to understand how differences between national systems affect a company's value creation for owners and society and suggest studies from areas with different "variants of capitalism" (p 481). A practical, theoretical and conceptual link between Sustainablity, Shared Value and Financial Materiality is still to be made and this paper will contribute on multiple levels. Two examples of articles adopting Shared Value strategies into specific contexts are Kramer & Pfitzer (2016) on Collective Impact partnerships and Kramer & Pfitzer (2022) on the link between ESG and financial value creation; the "Economics of Impact".

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