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Arne Schulke

ABSTRACT:

Sustainability Management refers to the integration of environmental and social objectives into corporate management systems. It extends traditional management to encompass CSR (Corporate Social Responsibility) and ESG aspects (Environment, Social, Governance) to plan, steer and control overall business success more holistically. It constitutes an area of growing research focus both in the Germanic community as well as globally. With regards to Controlling, two apparently conflicting findings in literature are that 1) Sustainability Controlling is a crucial way to support this growing trend, and yet, 2) Controlling organizations play a subordinate role in overall Sustainability Management efforts. The discussion paper draws on German and international literature to present evidence on the status quo of Sustainability Controlling. Based on this, a framework for the likely development of the organizational responsibility for Sustainability Controlling within organizations is laid out, with a focus on the information provision function of Controlling.

KEYWORDS:

Management Control Systems, Controlling, Management Accounting, Sustainability Management

JEL classification:

M10, M11, M19, M40

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Introduction

It is striking that despite **Sustainability Controlling** being widely recognized in literature as an important function supporting the establishment of **Sustainability Management** in firms globally, **Controlling** as an existing organizational unit **seems to play little driving role** in that process. This paper introduces Sustainability Management, Sustainability Controlling and evidence on the above paradox. We then discuss likely future Controller involvement in the **three main processes of Sustainability Controlling** and factors that may hinder or drive Controller involvement within them. This may serve as a starting point for further research on how the Controlling function may be enriched or diminished in their organizational role depending on their ability to claim a driver seat in Sustainability Controlling.

Moving toward Sustainability Management

Surely, the reader of this paper will appreciate merely a short introduction on the general topic, as the topic of sustainability has taken a firm place in management literature and seems here to stay. Terminologically, we will simplify the historical genesis of the term and **use the simplified "equation" of Sustainability Management = Triple Bottom Line = People, Planet Profit = Economic, Social, Ecological Goals = CSR = ESG**, as use of these terms in management literature seems to be synonymous or at least vastly overlapping. As to what is meant by the term itself, **„Sustainability Management is the process of planning, organizing, directing, and controlling organizational resources to meet the needs of the present without compromising the ability of future generations to meet their own needs."** (Quesado et al., 2024, p. 12).

A vast body of literature has formed around various aspects of the subject connecting it to virtually every aspect of contemporary management: How to define sustainability goals, integrate them with strategy, align the organization, manage change, measure progress, create transparency about one's efforts and progress and report to the outside. **Two schools of thought** are discernible here: first, one that argues that investment in social and ecological benefits ultimately is likely to translate into an improved financial performance of a firm (Handoko, 2024). Second, one that argues for those investments as a means of stakeholder appeasement and a necessary diversion of shareholder funds. Both arguments would have much infuriated Milton Friedman (Friedman, 1970, p. 216), but whether benefiting shareholders or just increasing the likelihood of survival of firms in their business environment, **integrating sustainability considerations into business management is a widely accepted challenge in much of the Western Hemisphere** (Sailer, 2024, p. 25)

External stakeholder groups pushing the application of Sustainability Management are **government and regulatory bodies as well as NGOs** (like the Global Reporting Initiative, GRI). The idea here is to start with nudging or forcing companies to report on their performance/footprint/progress with regards to all three levers of sustainability, creating a trickle-down effect (Rötzel & Joeris, 2023, p. 44): As customers and, more importantly, investors take increased interest in the sustainability issues of corporations, more and more emphasis by their management is put on Sustainability Management. To name but a few initiatives:

- **Global Reporting Initiative (GRI)**: Founded in 1997, this non-profit, public benefit organization has developed a comprehensive set of guidelines for companies' reporting on sustainability matters (Sailer, 2024, p. 74).
- **IFRS/ISSB Standards**: In 2023, the IFRS Foundation issued global standards (IFRS S1, S2) on sustainability disclosure, aiming for cross-border comparability in ESG reporting (International Sustainability Standards Board, 2023a, 2023b).
- **EU Corporate Sustainability Reporting Directive (CSRD)**: In force from 2024 for listed firms and expanding to large entities by 2025 and SMEs by 2026. It mandates ESG reporting aligned with EU standards (EFRAG ESRS) for nearly 50,000 companies (European Council & European Parliament, 2022).
- **German Supply Chain Due Diligence Act (LkSG)**: Effective since 2023 for companies with >3,000 employees (and from 2024 for >1,000), this law mandates risk management systems and annual reporting on social and environmental risks in supply chains (Bundestag, 2021).

To date, **the intended trickle-down effect from reporting to management action** is a hypothesis that global policy makers and -influencers act upon. Given the often stark contrast between corporate awareness and corporate action (Amini et al., 2018; Institute of Management Accountants, 2022), the overall effectiveness of this approach remains to be seen.

Controlling/Management Accounting – its Traditional Role in the MCS Context

Controlling provides a management support function that builds on a solid practical as well as theoretical foundation and is part of the Management Control Systems in companies from small to global (Weber & Schäffer, 2022, p. 12). The use of the term "**Controlling**" is however most prominent in German-speaking countries and many parts of Europe, whereas the term "**Management Accounting**" is used in the Anglo-American context. Despite differences in the development of both functions in practice and in theory internationally, there is a clear convergence visible in recent years, driven by globalization of both the economic as well as the academic realm (Hoffjan, 2009, p.25; Weber & Schäffer, 2022, p. 34). Therefore, the **term Controlling will be used exclusively in this paper**, referring at the same time to Management Accounting synonymously.

In the classic understanding, Controlling is viewed as a functional component of corporate management primarily concerned with ensuring the organization's financial performance. It encompasses **three central tasks: planning, control, and information provision**. Planning establishes the company's target system and defines measurable performance indicators that guide operational and strategic actions. Control involves systematic plan–actual comparisons and analyses, enabling management to detect deviations and initiate corrective measures. Finally, the provision of relevant and timely internal reporting ensures that decision-makers at all levels have the necessary information to steer the organization effectively. In this functional perspective, Controlling serves as the financial backbone of management, linking operational processes and strategic objectives through a cycle of planning, monitoring, and informed decision-making.

Figure 1 below tries to shine a light on the main tasks of Controlling in the pre-sustainability picture. In the center, we find the classic management process of a firm: **Plan, Steer, Control**. This is the simplest version of a phased management process, which is sometimes represented by more phases in literature depending on geography and context (e.g. PDCA, DMAIC etc.). Generally, Controlling takes over an important role of supporting line management by taking on the process ownership for three tedious, demanding and time-consuming processes: Organization of corporate planning, Performance measurement and control, and general management information provision – with a certain emphasis on the ownership on internal financial measures within them. This should allow management across all entities and hierarchical tasks to pertain to their core management tasks of getting things done ("Steer").

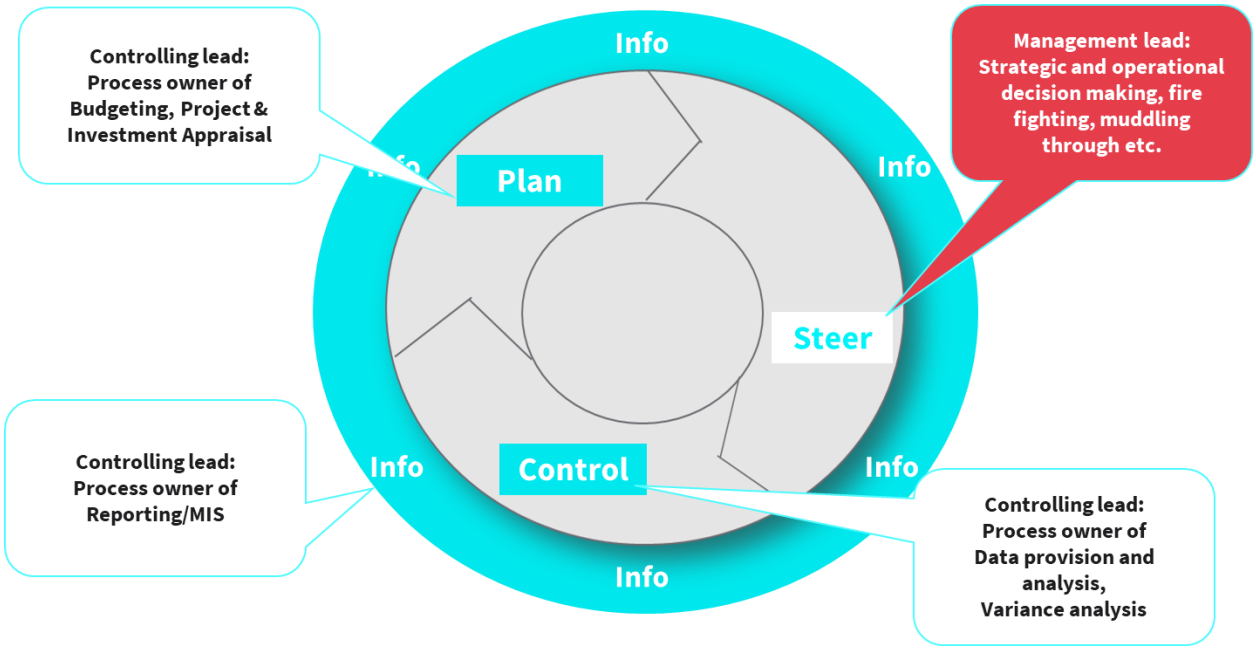

Figure 1: Process Ownership of Controlling in the Management Process (own illustration)

Admittedly, above **figure visually tells a misleading story** – it seems like Controlling does all the heavy lifting in the management process. That is not the case, as any line manager up to the very top management will confirm. The fact that usually less than 1% of corporate staff are Controllers may help to put their role into a more realistic light (Reimer & Schäffer, 2022, p. 122). The underlying reason is an important distinction: **process ownership does not mean that full execution of that process** - e.g. budgeting lies in the hands of all individual managers in terms of actually doing it for their unit of responsibility. Controlling will design and guide the overall process within the company.

The What vs. the Who – Controlling vs. Controllership

The **Controlling function** needs to be separated clearly from the practical work of Controllers (i.e. people whose job description gives them that role), which is often referred to as **Controllership** (Weber & Schäffer, 2022, p. 3). This has two practical aspects: Controllers often perform tasks in companies that would not be considered as part of the Controlling function according to literature. On the other hand, part of the Controlling function will be carried out by people with other roles than that of a Controller (Weber & Schäffer, p. 34). The first is particularly often visible in Anglo-American companies, where the

separation between Financial Accounting and Controlling is often fuzzy and therefore Controllers will be tasked with non-controlling responsibilities. The latter might stem from the interplay with managers who routinely take over active parts in the "plan" and "control" actions in companies on the various levels of hierarchy. This distinction is important to note towards the **core question** this paper aims to discuss, namely: **When a company is actively engaged in Sustainability Management as defined in the beginning, what is the role that Controllers play in the newly arising field of an enlarged Controlling function that needs to emerge: "Sustainability Controlling"?**

Enter: Sustainability Controlling!

To this paper, **Sustainability Controlling is defined as a management support function aiming at providing guidance on financial, social and ecological performance of businesses within their planning processes, regular and ad-hoc control activities and management information provision processes.** With an altered definition of performance, the underlying need for Controlling as a management support function does not fundamentally change (Colsman, 2016, p. 46; Sailer, 2024, p. 37). What changes, however, is the **increasing breadth** of parameters that need to be considered when planning, steering and measuring the three fundamental areas concerned in Sustainability Management (Hahn & Scheermesser, 2006, p. 150; Wellbrock et al., 2020, p. 16). In other words, Controlling must integrate the potentially conflicting and trade-off-ridden dimensions of financial, social and ecological performance in the overall management process of companies. This is a conceptual challenge that this paper addresses briefly in the following.

For writing this discussion paper as a catalyst for further research, an extensive, but not systematic literature review was conducted. Its base were searches of the EBSCO Discovery Service and the SemanticScholar service for the terms Sustainability Management Accounting, Sustainability AND MCS/Management Control Systems and Nachhaltigkeitscontrolling within a five-year period.

In the **German-speaking academic context**, the established term equivalent to Sustainability Controlling is "**Nachhaltigkeitscontrolling**". The evidence of multiple textbooks with that title bears witness to the interest of enlarging the concepts of "traditional" Controlling toward the two additional dimensions of Sustainability Management, which are social and ecological value (e.g. Colsman, 2016; Günther et al., 2016; Sailer, 2024 (in its fifth edition already); Schulze et al., 2025; Schwellnuß, 2024; Weber & Hastenteufel, 2024).

There is similar interest in the global academic community, to be witnessed by a host of journal articles on the matter. Most international contributions seem to draw upon the "Contingency Theory" school of thought and try to assess the interplay between Sustainability Management, **Management Control Systems (MCS)** or more narrowly, **Management Accounting Systems (MAS)**, and company performance. An often-found difficulty within this research (including German contributions to it, of course) is that the scope and definition of the underlying reference to "MCS" or "MAS" is not explicit or clear, leading often to **terminological confusion** for the reader. To name but one example: Quesado et al. (2024) in their recent bibliometric analysis on publications on MCS and Sustainability, circumvent the problem of a clear definition of MCS by merely linking loosely to Malmi & Browns concept of an MCS package (Quesado et al., 2024, p. 3). Therefore, it is important to note that the definition of MCS usually comprises many control elements from culture, vision, mission, or information and communication

systems to policies and practices - thus they include Management Accounting Systems as an integral part, but are not specific to them. A strict focus on the role of and link to the Controlling function/systems is found in only a very limited subset of these studies globally. Traxler et al. (2020), in their review on literature regarding the link between MCS and sustainability reporting, very critically conclude: „Furthermore, […] the existing body of literature does not go beyond an instrumental and therefore functionalistic perspective. Additionally, the literature is lacking on empirical, theory guided and critical analyses." (Traxler et al., 2020, p. 1). No doubt, much **opportunity for theory development** and research remains in this young field of study.

However, there are also **theoretical and conceptual contributions** internationally towards the enlarged Controlling function under the context of Sustainability Management. **Sustainability Management Accounting (SMA)** is frequently used in international literature to refer to the integration of sustainability considerations into Management Accounting and Control systems. **Related terms** include **Sustainability Management Control, Sustainability Control Systems (SCS), and Sustainability Accounting and Reporting**. These terms are often used interchangeably or in overlapping contexts, especially in English-language research (e.g. Ascani et al., 2021; Beusch et al., 2022; Broccardo & Mauro, 2024; Christ et al., 2024; Ghosh et al., 2019; Johri et al., 2024; Kumar, 2023; Maas et al., 2016; Quesado et al., 2024; Traxler et al., 2020; Willekes et al., 2022).

Two levels of emerging challenges: Controlling challenges and Controller(ship) challenges

From the study of the Germanic and international literature on the matter of Sustainability Controlling (and the many somewhat related contributions), two distinct challenges become apparent:

Conceptual Challenges in Sustainability Controlling

Sustainability Controlling needs a sound **conceptual base**. Management research has taken on the intellectual challenge in the form of new proposed Controlling Concepts, performance measures (e.g. Social Return on Investment), tools (e.g. proposals for Sustainability Balanced Scorecards), but it is an emerging field to date (Ghosh et al., 2019, p. 11; Hansen & Schaltegger, 2016; Sailer, 2024, p. 222). This discussion is also split into at least **two factions**: One regarding social and ecological actions of companies as an add-on to business strategy, others regarding sustainability targets in all three dimensions as integral part of business strategy itself (Gandenberger, 2009, p. 305). The conceptual work is complicated through several external factors – for example the rapid evolution of ESG regulations. The multitude of different standards of sustainability reporting and measurement makes it hard to establish a sound foundation for Sustainability Controlling. Sailer (2024, p. 97) lists further **conceptual complications**, which should be taken as informative, but not collectively exhaustive:

- The traditional accounting-based approach to planning, control, and decision support cannot be seamlessly transferred to ecological and social domains.
- Accounting systems provide Controllers with comprehensive, integrated, and continuously updated data; in contrast, ecological and social data are often fragmented, poorly integrated, irregular, and largely qualitative.

- Economic goals are comparatively established, clearly defined and stem from investor expectations — typically minimum returns, profit, and cost targets that can be cascaded through the hierarchy. Ecological and social goals, however, are often vague, lack logical derivation, or are limited to statutory minimum standards. KPIs in the field are emergent and lack clear, globally accepted standards.
- Tensions between economic, ecological, and social objectives are common, yet clear rules for resolving such conflicts are rarely established.
- The controlling logic of aggregating diverse factors into a single key metric—such as profit, return on capital, or firm value—cannot and often should not be applied across ecological and social dimensions.

As stated in the chapter above, this paper acknowledges these ongoing challenges, but centers on the second aspect.

Challenges to Controllers in Sustainability Controlling

There is sound empirical evidence that very practically, Controllers are struggling to play their part in Sustainability Management, of which Sustainability Controlling is a vital and important part. In this chapter, we address issues related to **Controllership**, not the concept of Sustainability Controlling itself, therefore we will use the term "**Controllers**", rather than "Controlling". Summarizing studies on the subject, three areas of challenges to Controllers emerge:

- A significant number of companies, especially small and medium-sized ones, are **aware** of Sustainability Management, **but are not acting on it** or acting rather slowly. This in turn renders the broadening of Controllers' actions and tools a rather futile act and hinders a more proactive role of Controllers in terms of Sustainability Management (Amini et al., 2018; Kämmler-Burrak et al., 2022, p. 22; Reimer & Schäffer, 2022, p. 213; Reimer & Schäffer, 2024; Rötzel & Joeris, 2023)

- There is often a **lack of mandate for Controllers**: In many firms, sustainability responsibilities remain concentrated within either **top management**, or **specialized departments** such as the Strategy Department, a dedicated Sustainability Department, or even Financial Accounting or Communications (in the case that Sustainability Management is seen primarily as an effort to fulfill reporting requirements). This often leaves Controlling without direct access or authority. Consequently, Controllers rarely act as sustainability advisors to management, and their strategic involvement remains limited (Beusch et al., 2022; Institute of Management Accountants, 2022; Kämmler-Burrak, 2022; Reimer & Schäffer, 2022, p. 213-230; taken from the two latter see also below: Figure 2, n=approx. 1.000; Figure 3, n=216, both studies with international scope, presumably DACH focus).

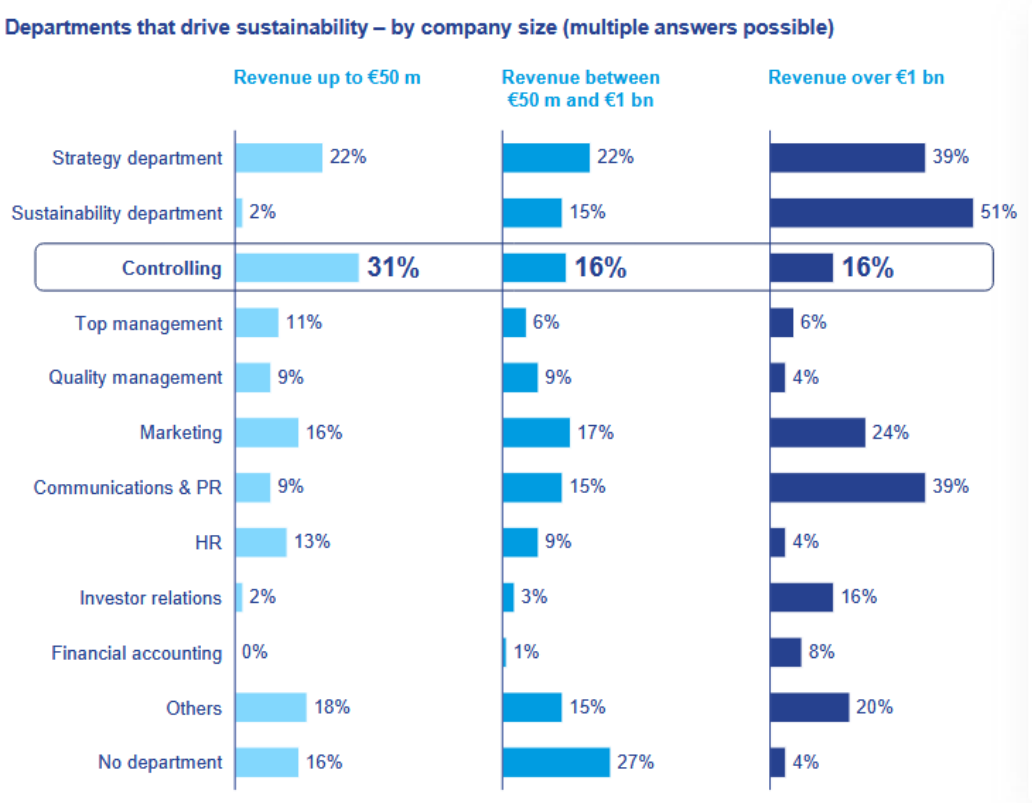

Figure 2: Departments that drive Sustainability Management (Reimer & Schäffer, 2022, p. 216)

- Another issue **is gaps in competency and qualification**. Controllers are experts in **financially driven** planning and control, but comparable expertise in ecological and social management remains scarce. Sustainability Management is still completely or largely absent from Controller education and training. Controllers frequently **lack sustainability literacy**, systems thinking, and technical knowledge in areas such as energy management, resource efficiency, and circular economy — skills increasingly required to link ESG metrics to financial performance (Schaltegger & Zvezdov, 2015; Ascani et al., 2021; Willekes et al., 2022).

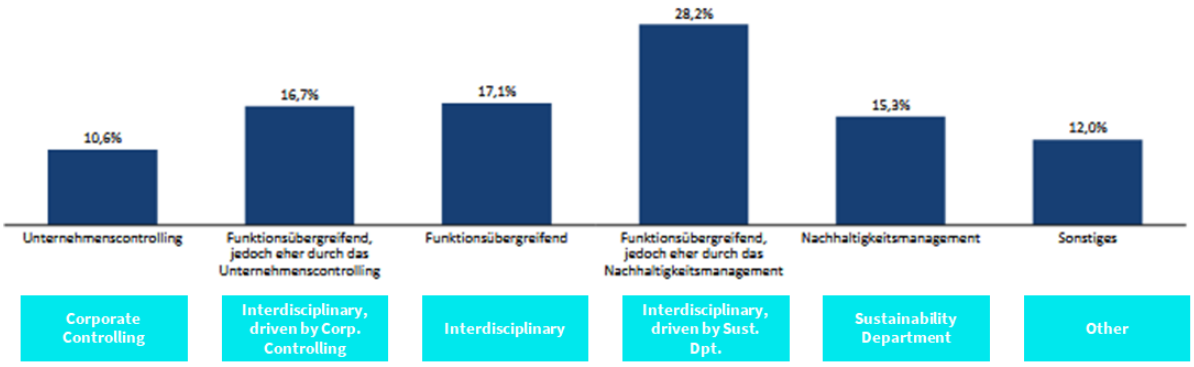

Figure 3: Departments that drive Sustainability Controlling (Kämmler-Burrak et al., 2022, p. 18, translation by Author)

Framework for the Road Ahead: Who will be in the Driver seat for Sustainability Controlling?

Most authors agree that Controllers can and should play a pivotal role in Sustainability Management generally and in Sustainability Controlling very particularly. Controllers need to take on the personal challenge of learning about the concepts of Sustainable Management, enlarge their controlling toolbox and help build Sustainability Controlling for their particular company's business. Companies need to build up social and ecological business intelligence systems in the way they have embraced them for operational and financial data in the past. Academia needs to continue to provide a practically relevant foundation to help practitioners balancing the conflicts between the three target dimensions of sustainability. **But the open question is: Will it really be Controllers in the corporate driver seat of Sustainability Controlling?** We will argue on Planning, Control and Information Provision separately.

Thoughts on Planning

One core job of Controlling is to enable and facilitate the planning processes of a firm. The most important vehicles of this are the **budgeting process on one hand, and investment appraisal on the other** hand. Both can be linked together in the form of strategic development projects, but investment appraisal can also be necessary for ad-hoc, outside-of-budget projects. Budgeting is a tedious, time- and management energy-consuming process, and few people envy the role of Controllers to facilitate the process. The same goes for the very technical process of financially evaluating and building scenarios around investment projects, testing for a project's risk profile and exposure. **Controlling brings two very important things to the table** in this regard: **Financial expertise and skill set**, and secondly its supposed **objectivity and neutrality**. Literature suggests the facilitation of rational decision-making as a core function of Controlling, and Controllers as guardians against rapid-fire decision making, which is subject to the dangers of individual and social biases. The Controlling organization should safeguard strict neutrality, not subscribing or succumbing to any management agenda (Weber & Schäffer, 2022, p. 39).

A further argument in favor of Controlling can be constructed on the ultimate shareholders' interest in the business's survival (as a necessary condition) and generation of continuous returns on their invested capital (as a sufficient condition). For these conditions to be fulfilled, the **financial perspective** will always take a certain **level of higher priority** over social concerns and ecological concerns of the enterprise. Any other prioritization would not be in the best interest of top management as agents of the shareholders, and would be quickly realigned in the absence of financial performance or severely doubtful survival prospects of any business enterprise. Controllers' role as rationality guardians and financial experts weighs in heavily for them here in the concerns of planning, which ultimately is the careful optimization of the relationship between expected returns and the risks inherent to any form of investment.

This makes planning probably the **area of least concern** for Controllers as to their involvement and future role under Sustainability Controlling. The challenge for Controllers here is a **perspective change**, rather: social and ecological concerns were classically integrated into budgeting and investment appraisal from a **cash-out and risk-focused perspective**. Controlling has historically very little means

at hand to measure the potential social and ecological benefits and "**upside risks**" that an activity or project might have – neither in quantitative terms, nor in qualitative terms. Enriching the planning process and methodology with an integration of these aspects methodologically remains a challenge that both Controlling researchers and practitioners have yet to fully embrace.

Thoughts on Control

A similar argument can be made on the role of Controllers in the Control-related part of Sustainability Controlling. **All three arguments** – expertise, neutrality, primacy of the financial dimension, **apply also in terms of the Control role**. Target-to-actual comparison, variance analysis, root cause analysis are all well-established tools in the toolbox of Controllers. Some Controllers are even whispered to have mastered the important further step towards the generation of improvement ideas and management support in problem solving.

Therefore, the challenge for Controllers here is also one of **perspective change and enlargement** – in **terms of measurement**. Controllers think in numbers, figures, indicators – which means financial and non-financial performance indicators and the combination of both. What they need to develop in addition is a deep understanding of what can be measured in the areas of social and ecological performance. The Global Reporting Initiative today probably offers the most comprehensive standards on the KPIs of these two perspectives, which may be one reason why it is globally the most referred to by companies (Bais et al., 2024; KPMG, 2022). Controllers need to **master these KPIs and adapt them** meaningfully to their respective organization to provide meaningful insights. In the long term, this is likely to **lead to specialized Controller roles** especially in large organizations: In a first step, the Eco Controller and the Social Controller (which encompasses much more than the still emerging role of HR Controller). In further steps, roles like the waste, noise, health, inclusiveness and diversity Controller might emerge. Some of today's Controllers may gasp in horror at such prospects, but at least for today, there is no indication that the traditional, financially focused Controller role will disappear entirely.

Thoughts on Information Provision

Information Provision may be the watershed to the future role Controllers play in any given organization – be that role unchanged, elevated and enriched, or decimated and diminished. **Figure 4 tries to capture the organizational responsibilities** of Information Provision before the advent of Sustainability Management. Controlling has clearly separated internal management support responsibilities; Financial Accounting is charged with the external reporting to share- and other stakeholders. As Controlling also deals in non-financial information and some people related information in terms of HR Controlling, the responsibility extends a little into the two additional sustainability dimensions, but only just so much.

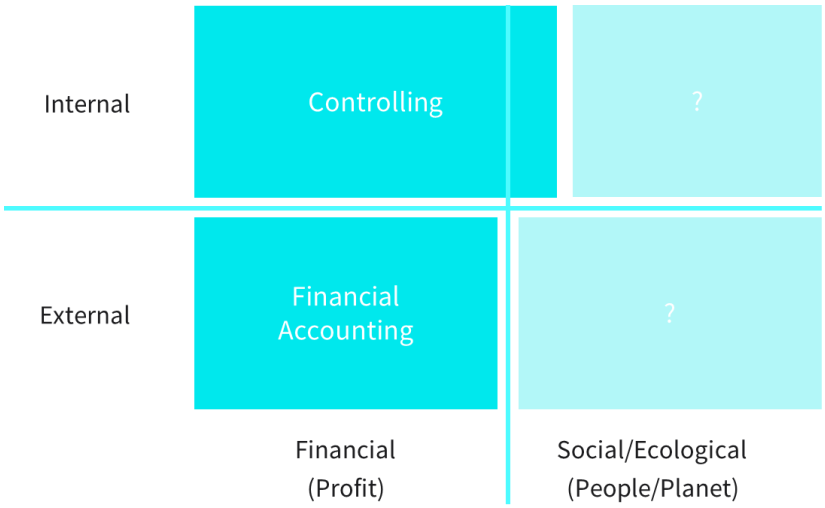

Figure 4: Information Provision – Historical Perspective (own illustration)

Several factors are likely to affect the organization of the information provision roles under Sustainability Controlling, but which have not been researched in a comprehensive explorative manner this far:

- **Top Management Involvement**: If Sustainability Management is driven strongly by the CEO, it is likely that information provision on the social and ecological dimensions will be separated from the Controlling unit (e.g. Strategy or Sustainability Department), which in large companies is predominantly reporting to the CFO (Weber & Schäffer, 2022, p. 482). If the Sustainability agenda is strongly driven by the CFO or others de-centrally, this would likely favor an extended role of Controlling.
- **Sophistication of Controlling**: Where Controlling is strongly decentralized and embedded, as is often the case in large enterprises, an extension of its role towards sustainability seems more feasible from a pure resource perspective than in organizations where Controlling is rather centralized and limited in terms of information provision towards financial performance reporting.
- **Regulation Tightness**: If sustainability reporting is mandatory, this would favor a clear centralization of responsibility of social and ecological reporting in a single unit. Even external audit requirements towards sustainability reporting can exist. Here, unity of process ownership would favor an extension of Financial Accounting's role toward sustainability information provision. So would the existence of an internal auditing unit under direct supervision of the CEO for reasons of balanced corporate governance. In absence of mandatory reporting and external audit requirements, a more opportunistic approach (knowledge, resource, power considerations etc.) can be pursued.
- **Business Intelligence Systems**: If Controlling has implemented and governs sophisticated data warehouse/business intelligence systems, a high degree of centralized control over performance measures exists. This would favor a Controlling lead in the extension of social and ecological performance measurement. Where systems are rather basic and data ownership is generally decentralized, this would give parties other than Controlling the opportunity for pushing ahead.

- **Other Factors**, such as financial health of a company, arising crises situations in- and externally, special control and governance requirements etc. are also likely to influence the organizational setup within the information provision function of Sustainability Controlling.

We propose a **framework of four avenues** that companies might take from the existing status quo (see Figure 5 for a graphical overview). None of the alternatives offers a preferable or dominant solution, and companies might experiment with different variants over time. Sustainability Management is a journey, not a decision – therefore **different setups** might be deemed useful in organization **for different stages** of development towards the desired maturity stage of Sustainability Management (Kämmler-Burrak et al., 2022, p. 10).

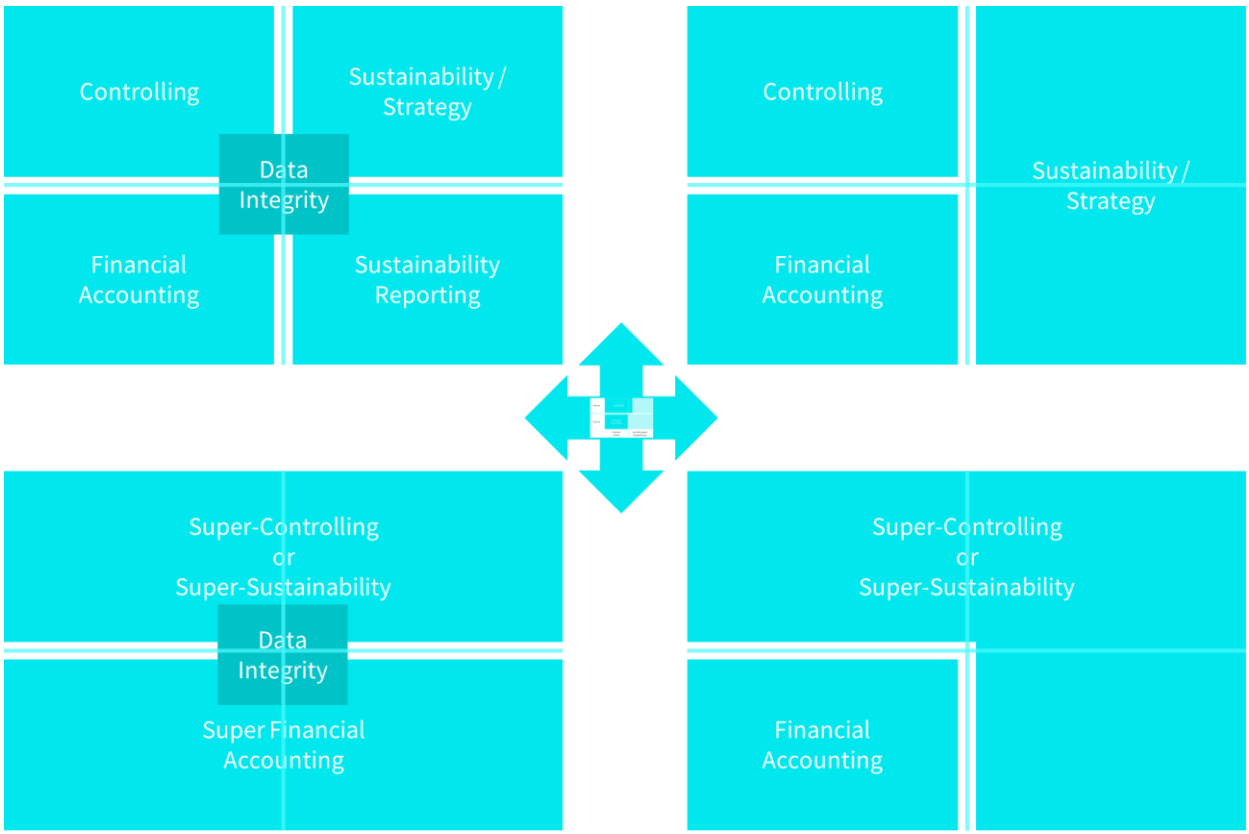

Figure 5: Information Provision – Framework for Development Variants (own illustration)

- In the top right corner of Figure 5, either a **Strategy Department or a newly established Sustainability Management** unit entity fills the vacuum for providing both in- and external information on the two additional sustainability dimensions. Strategy departments exist in most large enterprises – however, regular information provision to the in- and outside is not a role these departments are usually tasked with. Therefore, many organizations have installed additional Sustainability departments. Combining internal and external information provision in one unit creates unity of expertise and responsibility for both kinds and leaves the established roles of Controlling and Financial Accounting unchanged. It also allows for separate organizational oversight as these functions are usually placed under the CEO organization. In this organizational variant, there are rather few synergies to harvest due to the parallel existence of the units, and reporting and data warehouse systems will have to be managed separately and potentially technically redundant, but without much overlap of their scope.

Frictions between the new unit and the traditional ones are a natural consequence of this design, but may well be intended by top management for at least a certain development stage of Sustainability Management and Sustainability Controlling.

- **The top left variant** seems wasteful at first but could well make sense. First, it retains clear existing responsibilities for both Controlling and Financial Accounting. Second, it allows to fulfill external reporting requirements and internal ones separately, which might well be in line with an outside-in-driven approach to introducing Sustainability Management. Many studies we referred to in this paper confirm that in organizations, external reporting is more mature than the internal provision and use of social and ecological data. Therefore, separate units could allow different speeds and focus of development. Third, where sustainability reporting is not integrated into the standard external reporting, a clear separation also makes sense to keep processes uncoupled where there is no benefit in the coupling.
- In the **bottom left, the responsibility is split between Financial Accounting and Controlling** and extended in full to the people and planet dimensions (hence the prefix "Super" to both). This extends the classic separation of management information vs. legal and voluntary external reporting, but is a bold enlargement of both units' area of responsibility and thus need for extended expertise. As with financial information, a close coordination is needed but does not come natural to this setup – thus some sort of institutionalized exchange ("Data Integrity") is needed to align data sources, data management and information provision in terms of data warehouses or similar business intelligence systems. This variant, however, centralizes information provision entirely within the two units, which would ideally see them report to different superiors from a perspective of good corporate governance – likely with the CFO in charge of the enlarged Financial Accounting unit, the CEO or another C-level manager for the enlarged Controlling unit. Alternatively, other effective controls need to be installed as discussed for the next variant as well.
- Finally, in the **bottom right variant, a single unit or Department** is tasked with the responsibility of all internal and external information provision functions except for the external financial reporting obligations. For reasons of current legal governance considerations, it seems logical to retain these responsibilities under separate and independent leadership. But: With the EU pursuing the goal of a unified reporting that entails all three dimensions with equal weight (European Parliament, 2022), this separation might not make sense anymore at some point in the future. The unified responsibility would have massive advantages in terms of data and KPI integrity for all dimensions, as it offers the opportunity for a single overall information management strategy for the entire enterprise. As literature and studies mention data availability and the lack of data warehouse systems as a major ongoing challenge, this advantage can be a strong argument in favor of this organizational setup. Whether organizations realize this setup as an enlarged Controlling function or separate and transfer the information provision function into a newly designed unit is an open-ended consideration. From a governance perspective, oversight of this unit is likely to shift to the CEO realm, as the scope and centrality of the information provision is extended far beyond the reach of any unit previously. Alternatively, this unit could be realized in the CFO's area of responsibility but complemented by solid check-and-balances via internal auditing or the Strategy department, for instance.

An important takeaway from this discussion is that in the role of information provider, Controlling faces **severe challenges from other interested parties.** If Controllers are unwilling and uninterested in embracing Sustainability Controlling in an organization, their ownership of information provision is the area most likely to see themselves reduced in their organizational reach and, ultimately, power. If Controlling cannot retain control of the information provision for internal management support at least, their role as **business partners or consultants to management will be severely affected**.

A Conclusion (of sorts)

The previous discussion was future-oriented, looking at how the responsibility for Sustainability Controlling in organizations is likely to develop in the years to come. On one hand, this development will offer Academia interesting opportunities for **descriptive research on the process of organizational integration** of Sustainability Controlling in companies globally to explore the underlying driving factors. This is indeed a field that is not part of a structured research stream in academic literature. On the other hand, based on observed best (and worst) practices, **a theoretical underpinning of a dominant preferred way** to organize Sustainability Controlling **might emerge**.

However, given past, similar efforts in the vast area of literature referred to earlier as “Contingency Theory” since the late 1960s, one should not expect too much practical guidance in this matter from management research (Alawattage & Wickramasinghe, 2007, p. 398-404). Moreover, humbly paying respect to the diversity and dynamics of industries, business models, regulatory demands, internal resource and power distribution within companies, and many more factors, **finding a dominant solution seems even less likely**. Rather, managers will have to keep on muddling through to master the challenges of institutionalizing the responsibility for Sustainability Controlling in their respective organizations without a one-size-fits-all solution at the ready. And **Controllers** will have to take on the **challenge to evolve** to **retain their relevance** as a Business Partner to managers and potentially even **gain relevance** with stakeholders externally.

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