

Institutionalisation of sustainability in universities: insights from strategic planning and sustainability reporting practices in Italian universities

Patrizia Di Tullio and Michele Antonio Rea

*Department of Economic Studies,
Università degli Studi Gabriele d'Annunzio Chieti Pescara, Pescara, Italy*

Abstract

Purpose – This study aims to investigate the institutionalisation of sustainability in universities by examining the relationship between strategic planning and sustainability reporting practices.

Design/methodology/approach – Focusing on the Italian higher education system as a case study, the research used an institutional theory framework and conducted a qualitative content analysis of universities' strategic plans and sustainability reports. The analysis evaluated their alignment and identified the sustainability aspects prioritised by universities.

Findings – The Italian case demonstrates how the institutionalisation of sustainability in universities is shaped by a complex interplay of normative, coercive and mimetic forces operating at multiple levels. The findings also reveal that the alignment between strategic plans and sustainability reports is rarely achieved. Differences in governance, organisational commitment and academic staff engagement play a significant role in influencing the stages of sustainability institutionalisation.

Practical implications – The findings provide actionable insights for university governing bodies, emphasising the need to foster a culture of sustainability and ensure alignment between strategic planning and sustainability reporting practices.

Social implications – The misalignment between strategic planning and sustainability reporting can hinder progress in sustainability initiatives and erode stakeholder confidence. This study underscores the role of universities as key agents of sustainable development, advocating for a holistic and integrated approach to sustainability.

Originality/value – This research fills a critical gap in the literature by exploring the alignment between strategic planning and sustainability reporting in universities. It introduces a novel perspective on the institutionalisation process in higher education, leveraging a newly developed standard specifically designed for universities.

Keywords Sustainability, Institutionalisation, Decoupling, University, Strategic plan, Non-financial reporting

Paper type Research paper

1. Introduction

The growing frequency of global challenges, such as natural disasters, climate change, humanitarian crises and health emergencies, has highlighted the urgent need for actions rooted in social and environmental responsibility across all social contexts and within the organisations operating in



them (Bebbington and Unerman, 2018). In response, both public and private social and economic actors are prompted to rethink their activities and align them with sustainability principles, ensuring accountability of their commitment to their stakeholders (Bebbington and Larrinaga, 2014). As key public actors, universities too are tasked with spearheading the transition towards sustainable development (McCowan, 2020; Stein, 2024). To accomplish this, they must strategically plan and integrate sustainability into their core missions – teaching, research and third mission activities (Ramisio *et al.*, 2019; Cottafava *et al.*, 2022). Furthermore, universities are expected to manage and report their social, environmental and economic sustainability performance to stakeholders, thereby promoting a wider adoption of sustainability principles (Stein, 2024).

Recently, a growing number of universities worldwide have initiated efforts to tackle sustainability issues, which are increasingly shaping their strategic choices and plans. These efforts should be mirrored in sustainability reports, ensuring transparency and accountability (Moggi, 2023; de Villiers *et al.*, 2024). In fact, to make a meaningful contribution to sustainable development, it is essential for universities to integrate sustainability principles into their strategies, translate these principles into actionable initiatives and systematically measure and report their outcomes to stakeholders through sustainability reporting (Higgins *et al.*, 2018; Ramisio *et al.*, 2019). However, sustainability reporting in higher education is still at an early stage, primarily due to the absence of mandatory requirements in many countries and the lack of a globally accepted sustainability reporting framework tailored to the education sector (Moggi, 2019; Sassen *et al.*, 2022). Universities currently use various tools for sustainability assessment and reporting, such as the Global Reporting Initiative (GRI) guidelines and the Sustainability Tracking, Assessment and Rating System (Shriberg, 2002; Huber and Bassen, 2017). Despite their utility, these tools often fall short of addressing the specific needs of Higher Education Institutions (HEIs) and have been subject to several critiques (Fonseca *et al.*, 2011; Huber and Bassen, 2017), including the lack of required indicators related to sustainability strategies or targets. Consequently, universities may draw sustainability reports without a clear sustainability strategy and defined sustainability goals (Sassen *et al.*, 2022).

This study aims to explore the institutionalisation of sustainability within universities, focusing on the alignment between strategic planning and sustainability reporting. Institutionalisation, in this context, refers to the process of progression from merely including sustainability policies in the strategic plan to implementing them, culminating in effective reporting. The Italian context provides a compelling case for examining this process, particularly due to the recent development of a standard called the “Sustainability Report for University” (RUS–GBS, 2022). This standard, known as the RUS–GBS Standard, was developed by Rete delle Università per lo Sviluppo Sostenibile (RUS) – the Italian University Network for Sustainable Development, in collaboration with Gruppo Bilanci e Sostenibilità (GBS) – the national research group Reporting and Sustainability Group. It was published in December 2022 with an implementation manual released in January 2023. The RUS–GBS Standard was specifically designed to address the unique characteristics of HEIs, offering guidance for both universities new to sustainability reporting and those with established practices (Moggi, 2023; RUS–GBS, 2023). This Standard represents significant progress for HEIs, particularly Italian universities, which already have access to the Standard and its implementation manual. In fact, it may serve as a valuable reference at the international level in the foreseeable future as it was developed with a focus on the unique features of higher education rather than the specific characteristics of the national context.

This research involved a content analysis of the strategic plans and the sustainability reports of Italian public universities, taking as reference the recent RUS–GBS Standard. Tailored for the specific activities of universities, this standard facilitates a more targeted and focused analysis. The study, specifically examined the correlation and coherence between

these two documents within the framework of the institutionalisation process, revisiting that proposed by [Tolbert and Zucker \(1996\)](#).

The analysis of the Italian case offers valuable insights for HEIs worldwide, highlighting that the institutionalisation of sustainability in universities is shaped by a complex interplay of normative, coercive and mimetic forces operating at multiple levels. The study identifies different stages of sustainability institutionalisation across universities, influenced by differences in governance, organisational commitment and academic staff engagement. These findings suggest that by fostering a synergistic approach that combines top-down leadership with bottom-up initiatives, universities can achieve the institutionalisation of sustainability, embedding it as a core component of their strategic and operational practices.

Despite the growing focus on sustainability in higher education, few studies have examined the connection between strategic planning and sustainability reporting. This research fills this gap and offers significant understanding on the relationship between strategic planning and reporting practices on sustainability matters. The findings also highlight how universities can better institutionalise sustainability practices, thereby enhancing transparency and accountability. Furthermore, this research delves into the influence of institutional pressures on the selection of social and environmental issues to address.

This study has broader implications for HEIs, providing insights into how universities can integrate sustainability principles into university strategies and translated into actionable and accountable initiatives. From a theoretical perspective, this research advances the application of institutional theory to higher education by leveraging the RUS–GBS Standard as a novel analytical tool. It deepens our understanding of sustainability institutionalisation, contributing to the broader discourse on sustainable practices in HEIs and the public sector at large. Practically, it underscores the critical role of university governing bodies in fostering a culture of sustainability and aligning institutional objectives with measurable outcomes.

This paper is structured as follows. Section 2 presents the theoretical background, Section 3 outlines the research method and Section 4 illustrates the main research results, which are discussed further in Section 5. Conclusions and suggestions for future research are provided in Section 6.

2. Theoretical background

2.1 *The institutionalisation process of sustainability in universities*

Organisations that produce similar services or products constitute an area of institutional life that “partake of a common meaning system and whose participants interact more frequently and fatefully with one another than with actors outside the field” ([Scott, 1995](#), p. 56). Within such fields, organisations are influenced by “powerful forces” that drive them to become more alike. This process is known as isomorphism and can arise from market competition (i.e. competitive isomorphism) or competition for political power and institutional legitimacy (i.e. institutional isomorphism) ([DiMaggio and Powell, 1983](#)). In the context of institutional isomorphism, formal structures and practices are designed to adhere to norms and social expectations, thereby incorporating institutionalised elements that confer legitimacy by demonstrating that the organisation is “acting on collectively valued purposes in a proper and adequate manner” ([Meyer and Rowan, 1977](#)). Isomorphic change is propelled by three types of powerful forces: coercive, mimetic and normative ([DiMaggio and Powell, 1991](#)). These forces collectively trigger institutionalisation ([Meyer and Rowan, 1977](#)). Institutionalisation is conceived as “both the process and the outcome of a process, by which a social practice/behaviour became usual, desirable and/or taken for granted in organisations” ([Larrinaga, 2007](#)). Therefore, the institutionalisation process leads to the establishment of organisational procedures, practices and structures that become ingrained and taken for granted ([Contrafatto, 2014](#); [Negash and Lemma, 2020](#)).

Universities constitute a significant domain of institutional life that over the last decades have encountered various institutional pressures to integrate sustainability into their plans, activities and organisations (Bautista-Puig and Sanz-Casado, 2021). In universities, the institutionalisation process of sustainability begins with the integration of sustainability objectives in medium-long-term planning processes and strategic plans. This ensures that sustainability becomes an inherent part of the institution's practices and operations, encouraging the active involvement of university members in sustainability initiatives (Lee *et al.*, 2013; Amey *et al.*, 2020). Indeed, strategic planning, a management-driven process, is essential for defining the organisation's strategic goals, as well as identifying the tools and actions required to achieve them (Amey *et al.*, 2020). Incorporating sustainability into these plans helps define goals and actions that improve social and environmental performance, thereby contributing positively to society. Furthermore, the effective implementation and outcomes of sustainability programmes should be documented in sustainability reports, which serve as a tool for accountability and transparency (Adams, 2013; Moggi *et al.*, 2015).

Sustainability reports reflect the management's commitment to sustainability (Giddens, 1984; Higgins *et al.*, 2018) and are also valuable for decision-making and strategic planning, as they aim to progressively enhance performance (Yanez *et al.*, 2019; Moggi, 2023). In fact, when sustainability reports are integrated into the strategic planning processes, they can serve as a learning tool within the organisation, highlighting areas requiring greater focus and helping to prioritise objectives (Gond and Herrbach, 2006). Conversely, a disconnect between the sustainability objectives and programs outlined in the strategic plan and the subsequent reporting of resulting initiatives can lead to various challenges. Neglecting strategic planning can hinder effective sustainability management, causing universities to undertake sustainability-oriented actions that are not aligned with their planned strategy (Adams, 2013). Similarly, the absence of sustainability reports can impede the monitoring of the implementation and progress of sustainability programmes outlined in strategic plans (Ramisio *et al.*, 2019). This lack of alignment weakens the promotion of a comprehensive institutional approach needed to drive the transition towards sustainable development, weakening the promotion of a culture of sustainability within universities' operations (Ferrer-Balas *et al.*, 2008).

From what has been discussed, it is clear that the institutionalisation of sustainability within universities requires an integrated approach to strategic planning and sustainability reporting. In practice, this means universities should first identify the key dimensions where sustainability can be operationalised within their strategic planning, then implement initiatives in those areas and finally report on the outcomes of these initiatives (Bautista-Puig and Sanz-Casado, 2021). However, as Barley and Tolbert (1997) note, "practices and behavioural patterns are not equally institutionalised" (p. 4). In fact, the institutionalisation process unfolds through different stages, each corresponding to varying levels of institutionalisation.

2.2 Stages of the institutionalisation process

Tolbert and Zucker (1996) identified three stages of the institutionalisation process that differ in the extent to which a practice is deeply embedded in a social system, i.e. habituation, objectification and sedimentation.

Habituation phase marks the initial stage of the institutionalisation process, occurring when "repeated activities among a group of individuals become institutionalised through ongoing interactions" (Reay *et al.*, 2013, p. 985). In this stage, practices are defined in response to specific issues and formalised through policies or procedures (Tolbert and Zucker, 1996). The practices that emerge during this phase result from independent

endeavours aimed at “encouraging new behaviour and facilitating the development of meanings tightly connected to practices” (Reay *et al.*, 2013, p. 967). Their diffusion is often attributed to a group of people sharing a common core of knowledge and ideas (Fuenfschilling and Truffer, 2014). However, these practices may not persist in the long term and often disappear when the promoter ceases to support them or is no longer in a position of influence. Within universities, the habitualisation phase occurs when sustainability reporting practices emerge autonomously and are disconnected from strategic planning. They arise as a bottom-up process initiated by individuals with a strong understanding of sustainability principles and the importance of sustainability reporting (Moggi *et al.*, 2015).

Objectification represents the subsequent phase of the institutionalisation process and occurs when the habitualised actions become independent of the original promoter as social consensus regarding the value of the idea emerges, granting it cognitive and normative legitimacy (Tolbert and Zucker, 1996). Indeed, this level of institutionalisation often results from the need to monitor and maintain competitiveness compared to “champion” organisations. (DiMaggio, 1988). Furthermore, during this phase of semi-institutionalisation, a system of measurement and documentation is developed to control and assess the outcomes of actions (Hasselbladh and Kallinikos, 2000). In universities, the objectification of sustainability occurs when there is a partial alignment between the sustainability strategies outlined in the strategic plan and the actions detailed in the sustainability report. There is a need to monitor and evaluate the results of the actions and the sustainability report explicitly refers to the strategic plan. However, not all of the strategic plan’s objectives are pursued and reported on, and some initiatives included in the sustainability report are not related to the strategic objectives. Consequently, there is an incomplete correspondence between the content of the strategic plan and that of the sustainability report regarding sustainability themes.

Sedimentation is the final phase of the institutionalisation process, characterised by a settlement of a practice that has become taken for granted. At this stage, “principles are translated from a discursive level into practice” (Fuenfschilling and Truffer, 2014, p. 775). In this phase of full institutionalisation, the practice is fully adopted by all actors and perpetuated over time (Tolbert and Zucker, 1996). This outcome occurs when there is consistency among the principles, the way of defining and acting upon reality and the documentation used for controlling and reporting the outcomes of actions (Dambrin *et al.*, 2007). In universities where the institutionalisation process of sustainability has reached its final stage, there is complete alignment between the sustainability strategies outlined in the strategic plan and the actions reported in the sustainability report. This implies that for each sustainability objective identified in the strategic plan, there is a corresponding description in the sustainability report of the initiatives undertaken or actions implemented to achieve it.

Tolbert and Zucker (1996) did not consider the possibility that the institutionalisation process might not occur. Decoupling, however, is recognised as an alternative response to coercive, mimetic and normative forces, offering a different path than mere adaptation and isomorphism with the environment (de Villiers *et al.*, 2024). Moreover, it holds enduring relevance within institutional theory (Bromley and Powell, 2012). Therefore, we have included it in our analysis.

Decoupling is conceived as “a gap between policy and practice” (Bromley and Powell, 2012, p. 483) and it occurs when organisations superficially comply with institutional pressures. In such cases, policies are adopted, implemented and monitored so weakly that they fail to meaningfully influence organisational practices (Boxenbaum and Jonsson, 2017). The translation of formal policies into actual practices does not occur, leading to misalignment between organisational practices and stated policies (Junaid *et al.*, 2015). This

discrepancy may arise because formal policies often represent an “ideal theory” of organisational action, whereas concrete decisions and actions are contingent on specific contexts and available resources (Weick, 1976). Organisations may ceremonially adopt formal elements of practices in response to institutional pressure (Bromley and Powell, 2012) due to a lack of consensus within the organisation’s governance or a failure to effectively manage the translation of formal policies into organisational practices (Firestone, 1986). Therefore, decoupling could result in window dressing practices designed to give the appearance of satisfying regulatory requirements or enhancing organisational legitimacy without substantive changes (MacLean and Benham, 2010). In the context of this study, decoupling is evident when a university’s strategic plans outline sustainability strategies and objectives, but these are not followed by a corresponding sustainability report. This scenario may occur either because the sustainability reporting process was never initiated or because it was discontinued. In both cases, the result is an inability of a university to monitor the effective implementation and progress of the sustainability programmes outlined in strategic plans (Ramisio *et al.*, 2019).

Despite extensive research on sustainability reporting and strategic planning in universities (e.g. Del Sordo *et al.*, 2016; Shan *et al.*, 2022) there remains a paucity of studies examining the institutionalisation of sustainability through the connection between strategic planning and sustainability reporting.

Italian universities provide a particularly compelling context for studying the institutionalisation of sustainability for several reasons. Sustainability initiatives in these institutions are often developed as fragmented goals, lacking systemic integration with overall university strategies (Vagnoni and Cavicchi, 2015; Giovanelli *et al.*, 2021). Furthermore, this context is characterised by the absence of mandatory regulation and, until recently, the lack of a standardised frameworks for sustainability reporting, which has led to inconsistent practices across institutions. Notably, this situation has evolved with the recent and significant introduction of the RUS–GBS Standard. Specifically designed for the Italian contest, this standard provides universities with a structured approach to sustainability reporting, and it holds potential as a valuable reference for international applications in the future.

Given these considerations, this study addresses the following research question:

RQ1. What insights can be drawn from the analysis of the Italian case regarding the institutionalisation of sustainability in universities?

By examining the Italian context, this paper explores the integration of sustainability principles into university strategies and their translation into actionable and accountable initiatives. The findings, in addition to offering valuable guidance for Italian universities, also provide broader perspective for HEIs globally facing similar challenges in institutionalising sustainability.

2.3 Sustainability in Italian universities

Italian public universities have been the subject of extensive research in social and environmental accounting due to their growing interest in voluntary reporting and their rapid advancement towards sustainable reporting practices (Moggi, 2019; Nicolò *et al.*, 2021). Like other public Italian organisations, these universities have undergone significant reforms aimed at improving effectiveness, efficiency, transparency and accountability (Sangiorgi and Siboni, 2017; Aversano *et al.*, 2020a). These reforms have introduced key tools for programming and managing performance, such as the three-year performance plan (Costa *et al.*, 2021), and more recently, the Integrated Plan of Activities and Organization, which

further reinforces universities' commitment to transparency and accountability (Cappelli *et al.*, 2024). These documents must align with the strategy outlined in the strategic plan and have a shorter time horizon serving as a guide for managing the university's activities and structures. However, there is still no mandatory requirement for universities to develop and publish a strategic plan, nor is there an explicit mandate for integrating and reporting sustainability initiatives. Furthermore, previous research has pointed out that sustainability initiatives in Italian universities are often established as fragmented goals that are not necessarily integrated into the university's overall strategy (Vagnoni and Cavicchi, 2015).

Much of the research on sustainability reporting in Italian universities has focused on single case studies (e.g. Corazza, 2018; Capocchi *et al.*, 2019), the application of specific guidelines (e.g. Farneti and Siboni, 2011; Moggi, 2023) or the reporting of particular aspects (e.g. Sangiorgi and Siboni, 2017; Aversano *et al.*, 2020a). More recently, attention has shifted towards the use of online media (Di Tullio *et al.*, 2021; Nicolò *et al.*, 2021), and the disclosure and integration of sustainable development goals (SDGs) (Paletta and Bonoli, 2019; Caputo *et al.*, 2021). Previous research on strategic planning has primarily focused on analysing three-year plans (Aversano *et al.*, 2020b; Costa *et al.*, 2021), the integration of SDGs into strategic plans (Nardo *et al.*, 2021) and gender sensitivity in strategic documents (Mazzotta *et al.*, 2020). Furthermore, much of the existing literature has examined the institutionalisation of sustainability primarily by analysing planning documents alone and focusing on normative pressures (Farneti and Siboni, 2011; Nardo *et al.*, 2021; Andrades *et al.*, 2024). This paper overcomes these limitations by considering all the institutional forces and analysing the relationship between strategic plans and sustainability reports.

2.3.1 Institutional forces driving the integration of sustainability in Italian universities. Institutionalisation is driven by isomorphic change, which arises from three key forces: coercive, mimetic and normative (Meyer and Rowan, 1977; DiMaggio and Powell, 1991). Coercive forces arise from legal requirements and regulations; mimetic forces stem from uncertainty and lead to imitation of leading peers; and normative forces are exerted by professional bodies through standards and guidelines (Contrafatto, 2014). Italian public universities have been subject to various institutional pressures over the last two decades compelling them to integrate sustainability into their plans, activities and organisational structures while enhancing their accountability (Sangiorgi and Siboni, 2017; Aversano *et al.*, 2020a).

Coercive pressures on Italian universities result from both national and European legal requirements and regulations. National obligations have compelled Italian universities to publish financial documents and undergo multiple reforms, influencing their accounting information system (Bonollo *et al.*, 2017). These regulations primarily aim to improve efficiency and transparency, making universities accountable for their use of public resources. In particular, the 2010 university reform mandated the adoption of a triennial program outlining the mission and the main objectives of universities. Leveraging the insights provided by the new regulations, the most proactive universities have ventured to draw up a comprehensive strategic plan. However, without a standardised framework, strategic plan development has varied based on the interpretation and priorities set by the university's Rector and top management. Over time, strategic plans have become essential management tools within universities, albeit with nuanced distinctions contingent upon the style of academic governance (Biondi and Russo, 2022). While these plans have progressively become intertwined with the financial planning process, sustainability remains frequently overlooked in strategic planning (Costa *et al.*, 2021).

The journey towards incorporating social and environmental issues has been complex. An initial effort to regulate sustainability reporting in public administrations occurred with the

2006 publication of Directive No. 63 by the Ministry of Public Administration, which included guidelines for drafting a social report. However, these guidelines were not specific to universities and had limited relevance to sustainability (Farneti and Siboni, 2011; Moggi, 2019). Thus, this directive failed to achieve its intended impact. Afterwards, Decree-Law No. 208 of 2008 required Italian universities to develop projects aimed at raising awareness of sustainability among younger generations. However, subsequent norms have not consistently pursued the integration of sustainability within these institutions (Cavicchi and Vagnoni, 2018). As a result, Italian legislation has been ineffective in promoting sustainability reporting, focused instead on accountability and long-term planning without explicitly requiring universities to integrate sustainability within their missions. At the European level, the Bologna Process, initiated in 1999, has played a pivotal role in encouraging the integration of sustainability in European universities (Larran *et al.*, 2016). This European intergovernmental cooperation aims to establish a European Higher Education Area based on shared principles, which would enhance the mobility and employability of students and also incorporate sustainability issues in curricula (Neave, 2003). Although flexible and informal, the Bologna Process is widely acknowledged as the most influential force for change in European higher education policy over the last 50 years (Ravinet, 2008).

The mimetic isomorphism occurs when a university adopts practices and strategies that are socially acceptable and similar to those of other universities it perceives as more “prestigious” (Sassen *et al.*, 2022). Therefore, university leaders, considered “sustainability champions”, often inspire other universities to adopt sustainability practices and report on them (Larran *et al.*, 2016). Failing to include sustainability in a university’s strategy or not reporting on sustainability performance can create a perception of being less prestigious in the sustainability area (Sassen *et al.*, 2022). In addition, university rankings play a significant role in motivating the adoption of sustainability practices. A strong position in reputable rankings enhances a university’s reputation, competitiveness and legitimacy, thereby establishing standards within the academic community (Brusca *et al.*, 2020; Shan *et al.*, 2022; de Villiers *et al.*, 2024). In particular, rankings such as the UI Green Metric Ranking, the Times Higher Education Impact Ranking and the QS World University Rankings recognise universities for their production of sustainability reports, research productivity on sustainable development themes and activities related to green campus and sustainability (Cottafava *et al.*, 2022; Leal Filho *et al.*, 2022).

Normative forces for Italian universities come from associations and organisations dedicated to promoting sustainability culture and best practices within the academic sector. Notably, GBS and RUS have been instrumental in driving changes in university sustainability practices, particularly through the publication of the RUS–GBS Standard (Siboni *et al.*, 2013; Moggi, 2023). This standard provides a structured approach to sustainability reporting, and it seeks to address the limitations of the GRI guidelines (Fonseca *et al.*, 2011; Larran *et al.*, 2016). Therefore, this normative pressure drives Italian universities and is likely to drive HEIs globally, not only to introduce sustainability practices but also to report on their sustainability initiatives and results by adopting models tailored to the university system.

At the international level, the United Nations’ SDGs have called upon universities to enhance their commitment to students and the community, fostering behavioural change among stakeholders (Cottafava *et al.*, 2022). Universities are urged to integrate the SDGs into their missions, strategies and reporting processes (Leal Filho *et al.*, 2022; de Villiers *et al.*, 2024). In this vein, the Alleanza Italiana per lo Sviluppo Sostenibile (ASviS) – Italian Alliance for Sustainable Development, strives to increase awareness among Italian

institutions regarding the significance of SDGs, while RUS has the specific mandate of guiding Italian universities in adopting SDGs and disseminating best practices for sustainability policies (Nicolò *et al.*, 2021).

All these forces may have influenced Italian public universities in varying ways, resulting in diverse approaches to integrating sustainability into their strategies and reporting practices. The sustainability reports and strategic plans of Italian universities were analysed to assess the degrees of institutionalisation of sustainability within these institutions.

3. Research method

This study examines the Italian higher education system as a case study (Patton, 2002; Moggi, 2019) to explore the institutionalisation of sustainability in universities. A mixed method research approach was adopted, integrating both quantitative and qualitative methods to explore complex phenomena and generate new empirical insights (Malina *et al.*, 2011). Specifically, in the first step, a content analysis was performed on the strategic plans and sustainability reports of selected Italian public universities, as detailed in sub-section 3.1. Content analysis is widely used in research on corporate social and environmental responsibility, offering a systematic and replicable technique for coding and then interpreting textual data (Gray *et al.*, 1995). In this study, the content analysis, described in sub-section 3.2, is used to assess the alignment between the strategic plans and sustainability reports regarding sustainability issues.

In the second step, the findings are interpreted and discussed through the lens of institutionalisation theory, with a specific focus on the stages of the institutionalisation process and their corresponding degrees of institutionalisation. This theoretical framework offers a robust perspective for understanding the emergence and diffusion of practices, shedding light on the driving forces behind a phenomenon and the factors shaping its outcomes (Dillard *et al.*, 2004; Fuenfschilling and Truffer, 2014). Ultimately, this analysis aims to uncover the varying levels of sustainability institutionalisation within universities and identify the key factors that influence them.

Regarding the validity, reliability and generalisability of the research findings, we emphasise that the observations drawn from individual cases might also be relevant to other contexts with characteristics similar to those of the Italian setting (Cronbach, 1975; Smaling, 2003). Furthermore, “thick description” plays a pivotal role in ensuring both credibility and potential for generalisation of the results (Lukka and Modell, 2010; Parker and Northcott, 2016). Specifically, the validity of the findings and the foundation for their generalisation are supported by a comprehensive literature review on the integration of sustainability into Italian universities, as presented in the theoretical background. In addition, the detailed examination of the sample characteristics and the analysis of sustainability reports and strategic plans in the subsequent sections further reinforce these claims (Parker and Northcott, 2016).

3.1 Sample selection and data collection

The Italian higher education system comprises 67 public and 31 private universities (including 11 telematic universities) currently active (Ministry of Education, Universities and Research). This study focuses on Italian public universities, which play a predominant role in the system in terms of the number of students enrolled, academic programs and disciplinary coverage (Vagnoni and Cavicchi, 2015; Sangiorgi and Siboni, 2017). Private and telematic universities have been excluded due to their distinct regulatory framework, management practices, funding mechanisms and reporting models (Aversano *et al.*, 2020a).

Furthermore, they respond to different pressures and challenges that guide their accountability processes (Moggi, 2023).

Among public universities, special-order institutions (6) and universities for foreigners (2) were excluded because they are engaged in specific activities that make them incomparable to others (Manes Rossi *et al.*, 2018). Therefore, the analysis examines 59 Italian public universities. Geographically, these universities are distributed as follows: 18 universities in northern Italy, 18 in central Italy and 23 in southern Italy. By size, based on the number of students enrolled, there are 9 mega universities (with over 40,000 students), 18 large (with 20,000–40,000 students), 17 medium (with 10,000–20,000 students), 11 small (with up to 10,000 students) and 4 polytechnics. Some of these institutions are very old (7 founded before 1,300; 20 founded between 1,300 and 1,800) while others are relatively recent (32 founded from 1,900 onwards).

Our study assessed whether each Italian public university had published sustainability reports over the past four years (2020–2023). All types of reports providing social and environmental information were considered, regardless of their specific titles. A total of 31 reports were retrieved from the universities' official websites. Of the 59 universities, 9 had last published their sustainability reports before 2020, and 19 have never published one.

To evaluate strategic planning effectiveness within public administration, we adopted the approach proposed by McGuire *et al.* (1994), which analysed the outcomes of a strategic development planning program defined two years earlier through a strategic plan. This approach allowed for the assessment of both the process and results of strategic planning (McGuire *et al.*, 1994). Applying this approach, we searched for the strategic plans of Italian public universities using the following criteria: for universities that had published sustainability reports within the last four years, we considered the strategic plan covering the period including the two years before the sustainability report, or the strategic plan referenced in the sustainability report, provided it predated the report's publication. For universities that had not published a sustainability report within the last four years, we considered the strategic plan that included 2021 (i.e. two years before 2023) or 2018 (i.e. two years before 2020). This approach ensured consistency in the temporal reference of the strategic plans across the sample, aligning with the selection criterion that requires strategic plans to cover the two years preceding the sustainability report (before 2020 and 2023).

We also included strategic plans presented as sub-sections within other documents (e.g. three-year development plan; integrated programming document), analysing only the part related to the strategic plan. Two universities were excluded from the analysis as they did not meet the selection criteria. Both had never published a sustainability report; one had strategic plans for 2016–2018 and 2023–2025, while the other had a strategic plan for 2023–2025. Consequently, neither the strategic plans nor sustainability reports from these universities could be analysed.

In summary, the final sample includes 57 Italian public universities, designated as UNI_01 to UNI_57. Of these, three universities (UN_17, UN_34, UN_52) published sustainability reports within the last four years, but their strategic plans did not cover the period prior to the sustainability report (Figure 1).

The final data set comprises 31 sustainability reports and 54 strategic plans, totalling 85 documents (Table 1).

These documents were downloaded and imported into NVivo software for content analysis, with manual coding applied.

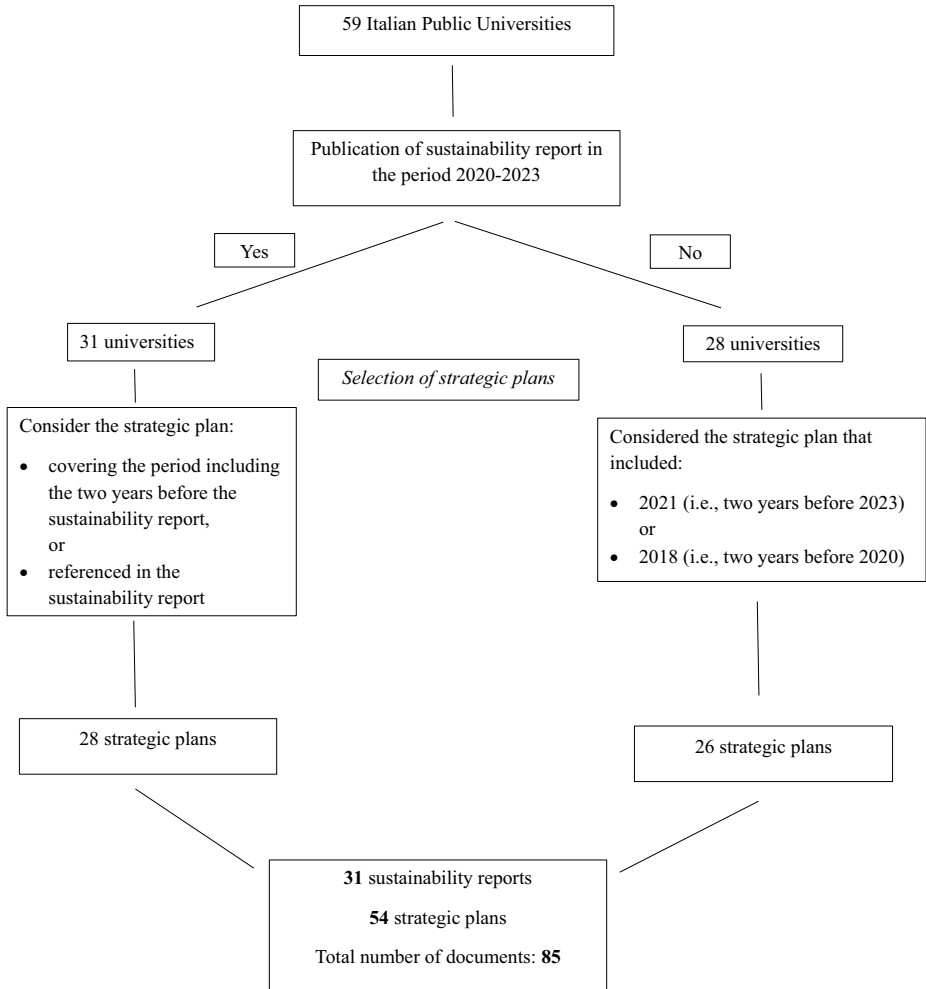


Figure 1. Stages of sample document selection
Source(s): Figure by authors

3.2 Data analysis

Content analysis is a research technique involving the systematic examination of a body of texts to enhance a researcher's comprehension of specific phenomena (Krippendorff, 2004). A pivotal aspect of content analysis is determining the unit of analysis, which is defined as "the wholes that analysts distinguish and treat as independent elements" (Krippendorff, 2004, p. 97). The choice of the most appropriate measure for coding and measurement (e.g. word count, sentences, pages and fractions of pages) has sparked an ongoing debate (Leanne et al., 2019). Nevertheless, many studies advocate for using sentences as the unit of analysis due to their precision and contextual relevance, which can yield more reliable and insightful results (Hackston and Milne, 1996; Milne and Adler, 1999). This approach is particularly

Table 1. Analysed sources

Universities	Sustainability report	Title of document	Strategic plan	Title of document
UNI_01			✓	Strategic plan
UNI_02			✓	Integrated programming document
UNI_03			✓	Strategic plan
UNI_04			✓	Strategic plan
UNI_05	✓	Sustainability report	✓	Strategic plan
UNI_06	✓	Sustainability report	✓	Strategic plan
UNI_07	✓	Sustainability report	✓	Integrated programming document
UNI_08			✓	Strategic plan
UNI_09			✓	Strategic plan
UNI_10	✓	The university for sustainability	✓	Strategic plan
UNI_11			✓	Strategic plan
UNI_12			✓	Strategic plan
UNI_13	✓	Sustainability report	✓	Strategic plan
UNI_14			✓	Strategic plan
UNI_15	✓	Social report	✓	Strategic plan
UNI_16			✓	Strategic plan
UNI_17	✓	Sustainability report		
UNI_18			✓	Strategic plan
UNI_19			✓	Strategic plan
UNI_20			✓	Strategic plan
UNI_21	✓	Integrated report	✓	Strategic plan
UNI_22	✓	Sustainability report	✓	Strategic plan
UNI_23	✓	Sustainability report	✓	Strategic plan
UNI_24	✓	Sustainability report	✓	Strategic plan
UNI_25	✓	Sustainability report	✓	Strategic plan
UNI_26			✓	Strategic plan
UNI_27			✓	Strategic planning document
UNI_28			✓	Strategic plan
UNI_29			✓	Strategic plan
UNI_30			✓	Strategic plan
UNI_31	✓	Sustainability report	✓	Strategic lines
UNI_32	✓	Social report	✓	Strategic plan
UNI_33	✓	Sustainability report	✓	Strategic plan
UNI_34	✓	Sustainability report		
UNI_35	✓	Report on the status of sustainability and sustainability initiatives	✓	Planning lines
UNI_36			✓	Strategic plan
UNI_37	✓	Sustainability report	✓	Strategic plan
UNI_38			✓	Strategic plan
UNI_39	✓	Social sustainability report	✓	Strategic plan
UNI_40	✓	Social report	✓	Strategic plan
UNI_41	✓	Sustainability report	✓	Strategic plan
UNI_42			✓	Strategic plan
UNI_43			✓	Strategic plan
UNI_44	✓	Social reporting	✓	Strategic plan

(continued)

Table 1. Continued

Universities	Sustainability report	Title of document	Strategic plan	Title of document
UNI_45			✓	Integrated strategic plan
UNI_46	✓	Summary of activities	✓	Strategic planning document
UNI_47			✓	Strategic plan
UNI_48	✓	Sustainability report	✓	Strategic plan
UNI_49	✓	Sustainability report	✓	Strategic plan
UNI_50	✓	Sustainability report	✓	Strategic plan
UNI_51	✓	Social report	✓	Strategic plan
UNI_52	✓	Integrated report		
UNI_53	✓	Social report	✓	Strategic plan
UNI_54			✓	Strategic plan
UNI_55	✓	Sustainability report	✓	Integrated strategic plan
UNI_56	✓	Sustainability report	✓	Strategic plan
UNI_57			✓	Strategic plan

Source(s): Table by authors

recommended for manual coding (Beattie *et al.*, 2004). Manual coding was chosen for this study due to its superior capability to accurately infer meaning from the texts and minimise misinterpretation risks, compared to electronic or automatic content analysis methods (Beattie and Thomson, 2007; Nardo *et al.*, 2021).

Another central element of content analysis is selecting an appropriate categorisation method (Weber, 1990). Previous studies have used the GRI guidelines as a coding scheme for university sustainability reports, though adaptations were necessary to suit the specific context of higher education (Fonseca *et al.*, 2011; Moggi, 2019). As the GRI has not developed sector-specific standards for the education sector (Moggi, 2023), this study developed a content analysis scheme based on the RUS–GBS Standard, which is tailored to the needs and characteristics of universities (Table 2).

This scheme includes categories related to universities' missions (i.e. teaching, research and third mission) oriented towards sustainability, social and environmental performance and organisation profile and governance for sustainable development. Each category within the coding scheme is examined through various qualitative indicators defined by following the indication of the RUS–GBS Standard implementation manual. This approach allows researchers to first identify disclosure categories and then the specific aspect disclosed (i.e. indicators), thereby minimising confusion and enhancing reliability (Moggi, 2019). To ensure reliability and validity, the two coders established coding rules and independently examined the first 10 reports. Rules included the stipulation that if a sentence was relevant to more than one category, it should be considered for each applicable category, and figures and diagrams should be included. Coders systematically identified and marked sentences corresponding to categories and indicators, and then reconciled any discrepancies through discussion. The content of strategic plans and sustainability reports was analysed by adopting "a tick-box framework" (Fonseca *et al.*, 2011). NVivo software was used to quantify the extent of reporting within each category. However, as Dixon *et al.* (2006) noted, NVivo cannot replace the researcher's role in uncovering meanings within a data set. Nevertheless, in this case, the qualitative analysis was enriched by applying the institutionalisation process framework.

Table 2. Content analysis scheme based on RUS–GBS standard

Categories	Indicators
1. Organisation profile and governance for sustainable development	1.a Mission and value orientation for sustainable development 1.b Governance system and organisational structure for sustainable development 1.c Strategies and policies on sustainability matters
<i>University missions</i>	
2. Teaching and training	2.a Educational offer on sustainable development 2.b Tutoring and study support activities 2.c Guidance activities 2.d Transdisciplinary training pathways
3. Scientific research	3.a Main research results (e.g. information on research projects, research centres, scientific publications, awards) or projects on sustainability themes 3.b Results of the research evaluation process (e.g. funds on research projects, national research performance)
4. Third mission	4.a Technology transfer, academic entrepreneurship and research commercialisation on sustainability issues 4.b Public engagement on sustainability issues (e.g. partnership, external training courses, external communications) 4.c Job placement, continuing professional education and lifelong learning on sustainability topics (e.g. continuing education and training courses on sustainability, post-graduate internships) 4.d Enhancement of cultural heritage (e.g. accessibility of university cultural assets, musealisation of scientific artifacts, Temporary exhibitions on themes of the 2030 Agenda) 4.e Production of public goods of a social, educational and inclusive nature (e.g. Academic and technical staff involved in the construction of standards) 4.f Clinical trials and health protection initiatives
<i>Performances</i>	
5. Social performance	5.a Human resources (e.g. employees on sustainability initiatives, employee training on sustainability themes) 5.b Inclusion and social justice (e.g. spread the culture of inclusion and justice; policies for gender parity) 5.c Support for the right to study and a quality university life, even in the presence of disabilities, learning difficulties and other forms of vulnerability
6. Environmental performance	6.a Energy and sustainable buildings 6.b Promoting the sustainable use of water resources (e.g. presence of drinking water dispensing points) 6.c Fighting climate change 6.d Resource valorisation and waste prevention 6.e Sustainable mobility 6.f Green spaces and biodiversity 6.g Food (e.g. spaces for consuming food, canteens)

Source(s): Table by authors

To answer the research question, a comparative analysis was conducted on the number of sentences coded for each indicator within both the strategic plan and the sustainability report of each university, followed by a qualitative analysis. This approach assessed the consistency between the defined strategies and the executed activities for each specific sustainability aspect. Results were then interpreted using the institutionalisation process framework, focusing on the relative degrees of institutionalisation across universities.

4. Results

Examining the sample composition, over half of the Italian public universities (28) have published a sustainability report within the last four years, preceded by a strategic plan. These universities share some common characteristics. Notably, their geographical distribution is significant, with 22 located in northern or central Italy. In terms of size, 8 are mega-sized, 10 are large and 6 are medium-sized. This may be attributed to the fact that larger universities often have greater financial and human resources available to dedicate to the preparation of sustainability reports, which typically demand such resources (Ferrer-Balas *et al.*, 2008; Sassen *et al.*, 2022). In addition, 26 universities have a strategic plan but have not drafted a sustainability report, either never or within the last three years. As a residual category, three universities have published a sustainability report but do not have a corresponding strategic plan.

4.1 Prevalent sustainability features in university strategic plans and sustainability reports

The content analysis conducted to assess the alignment between defined strategies and reported activities enabled us to identify the most prominent sustainability aspects within universities' strategic plans and sustainability reports, regardless of the varying degrees of sustainability institutionalisation. We quantified the number of statements related to each category and the corresponding indicators in the coding scheme (Figure 2).

Subsequently, a qualitative analysis revealed recurring themes within each category.

The "Organisation profile and governance for sustainable development" category primarily features information about organisational roles and structures dedicated to coordinating social and environmental initiatives. Common roles include mobility managers

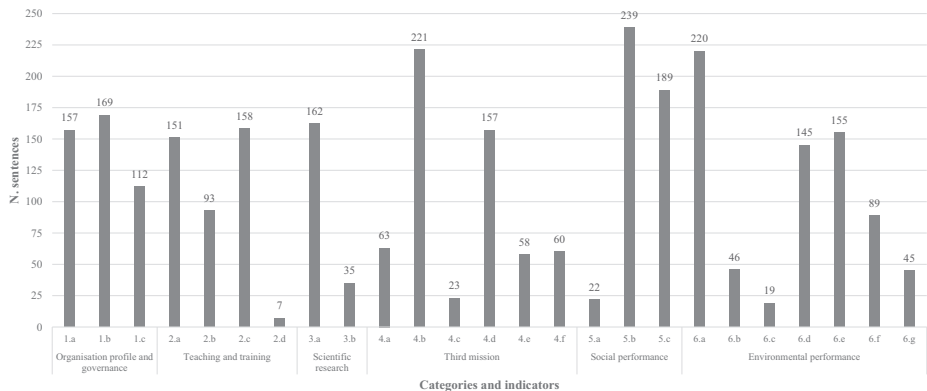


Figure 2. Number of sentences for each category and indicators

Source(s): Figure by authors

and energy managers, as well as groups like the Joint Committee for Equal Opportunity and the Gender Equality Plan Team.

The “third mission” category contains the most extensive sustainability-related information among the universities’ missions. This is largely due to universities’ emphasis on public engagement on sustainability issues and the enhancement of cultural heritage. Public engagement information mainly revolves around the publication of gender balance reports and documents related to SDGs (e.g. SDGs Report on activities carried out for the 17 UN goals). Universities also quantify sustainability-themed events targeting both the university community and the broader public, often organised by RUS and ASviS. Regarding the “enhancement of cultural heritage”, universities demonstrate their commitment through the promotion of public access to their facilities, such as museums and libraries, and their renovation according to sustainability principles. They also organise cultural events to celebrate artistic milestones and facilitate open debates on contemporary social and environmental issues.

Concerning the “teaching and training” mission, extensive information is available on activities designed to guide students throughout their academic journey. Universities map out courses that impart knowledge and skills in sustainability and sustainable development. It is also common practice to specify each course’s contribution to specific SDGs. Similarly, regarding the “scientific research” mission, it is customary for universities to report the number of research publications addressing sustainability topics and the SDGs. Furthermore, the objectives and activities of research groups and centres focused on sustainability issues are detailed.

Regarding “social performance”, universities promote a culture of inclusion and gender equality through awareness-raising initiatives and training for students and staff. They also provide dedicated services to support students facing particular social conditions, aligning with efforts to uphold educational rights and improve university life quality. Specific measures include support for students with disabilities, scholarships for economically disadvantaged students and psychological counselling services aimed at preventing dropouts or academic delays.

Regarding “environmental performance”, three indicators stand out. Most information on environmental performance concerns energy usage and the construction or renovation of sustainable buildings. They also prioritise active transportation and public transport use, implementing commuting plans, establishing agreements with transport services and installing bike-sharing stations and electric vehicle charging points. In addition, universities emphasise “resource valorisation and waste prevention”, with efforts to reduce plastic usage, improve waste management and strengthen recycling and reuse policies. Initiatives include distributing reusable water bottles, installing water dispensers, contracting with sustainable catering services and running awareness campaigns on reuse and recycling.

4.2 *The degrees of institutionalisation of sustainability in Italian public universities*

This paper examined the relationship between strategic plans and sustainability reports using the framework of the institutionalisation process. Our analysis revealed that the institutionalisation process of sustainability has reached different stages across Italian public universities (Table 3).

Each stage is detailed in the following sections.

4.2.1 *Universities with sustainability at the sedimentation stage.* The analysis indicates that sustainability has reached the final stage of the institutionalisation process, known as *sedimentation*, in two universities. These universities have explicitly integrated sustainability into their strategic plans, translated them into concrete actions and reported on their progress.

Table 3. Universities and stages of the institutionalisation

Stages of institutionalisation	Characteristics of the stages	Universities
Sedimentation	There is a complete alignment between the objectives and actions, as each sustainability aspect mentioned in the strategic plan is also addressed in the sustainability report, and vice versa	UNI_22 UNI_25
Objectification	Sustainability is deeply embedded within the university's vision and mission, and actions related to sustainability are documented in the sustainability report. However, there is not a flawless alignment between the content of the strategic plan and that of the sustainability report; some objectives are not linked to corresponding actions, and vice versa	UNI_05 UNI_06 UNI_07 UNI_10 UNI_13 UNI_15 UNI_21 UNI_23 UNI_24 UNI_31 UNI_33 UNI_35 UNI_37 UNI_39 UNI_40 UNI_41 UNI_44 UNI_46 UNI_48 UNI_49 UNI_50 UNI_55 UNI_56
Habitualisation	Sustainability-related actions and activities detailed in the sustainability reports are not interconnected with the university's overarching strategy	UNI_17 UNI_32 UNI_34 UNI_51 UNI_52 UNI_53
Decoupling	Universities have integrated sustainability into their strategic plans, but have not published a sustainability report	UNI_01 UNI_02 UNI_03 UNI_04 UNI_08 UNI_09 UNI_11 UNI_12 UNI_14 UNI_16 UNI_18 UNI_19 UNI_20 UNI_26 UNI_27

(continued)

Table 3. Continued

Stages of institutionalisation	Characteristics of the stages	Universities
		UNI_28
		UNI_29
		UNI_30
		UNI_36
		UNI_38
		UNI_42
		UNI_43
		UNI_45
		UNI_47
		UNI_54
		UNI_57

Source(s): Table by authors

Specifically, there is a complete alignment between the objectives and actions, as for every strategic sustainability objective outlined in the strategic plan, corresponding actions and initiatives are detailed in the sustainability report.

In these cases, the strategic plans explicitly reference the sustainability reporting or outline plans to introduce it in the future:

“Objective 3.6.5: Introduction of a social reporting system.” (UNI_22, Strategic Plan)

“The presentation of the first Sustainability Report of the University, in January 2019, demonstrated that the University has the potential for further growth in the field of sustainability.” (UNI_25, Strategic Plan)

Similarly, sustainability reports refer to the strategic plan and its sustainability-related content, objectives and missions:

Each section of the document tells a part of our identity and our commitment to the community, allowing us to relate the goals outlined in the 2019/22 Strategic Plan to the results achieved. (UNI_22, Sustainability Report)

Environmental, economic, and social sustainability, inclusion, and attention to climate change represent increasingly significant strategic objectives for the Uni_25, as highlighted in the 2020-2022 Strategic Plan. (UNI_25, Sustainability Report)

These references indicate a strong commitment from university leadership to account for sustainability-related activities and outcomes. This alignment is often emphasised in the preface by the Rector or in the report’s introduction.

Regarding the specific sustainability aspects, there is a flawless alignment between the strategic plans and sustainability reports of these universities. Consequently, for each aspect of sustainability-oriented missions and performance, the objectives articulated in the strategic plan have been followed by actions reported in the sustainability report. For example, the strategic plan of UNI_22 includes objectives related to reducing energy consumption and increasing the use of renewable energy, and the sustainability report details the interventions undertaken to meet these goals:

At the level of internal process optimization, the Uni_22, in compliance with European and national regulations, aims to contain energy consumption and progressively increase the use of renewable energy sources (energy efficiency and eco-sustainability). (UNI_22, Strategic Plan)

The installation of photovoltaic generators, totalling 455 kW, at the Campus sports citadel, and the replacement of approximately 6,000 fluorescent and incandescent lamps with high-efficiency LED devices in the Campus departments. (UNI_22, Sustainability Report)

Overall, these universities demonstrate that the institutionalisation process is in its final stage, with sustainability fully integrated into the strategic decisions and accompanied by corresponding actions and reporting.

4.2.2 Universities with sustainability at the objectification stage. In 23 universities, sustainability has nearly reached the highest degree of institutionalisation. In these universities, sustainability is deeply embedded within the university's vision and mission, and actions related to sustainability are documented in the sustainability report. However, unlike in the sedimentation stage, there is no flawless alignment between the content of the strategic plan and that of the sustainability report; some objectives are not linked to corresponding actions, and vice versa.

In these universities, sustainability is prominently featured in their development strategy. The strategic plans typically include a dedicated section on sustainability, referred to in various terms (e.g. sustainability goals; sustainability within the university; sustainability: the goals of the 2030 Agenda in the university), often emphasising their commitment to SDGs. There is often an explicit connection between the strategic plan and the sustainability report, and sustainability reports refer to the strategic plan. Furthermore, when a new strategic plan has been recently implemented, these reports emphasise the continuity of the university's sustainability-oriented approach:

As part of its strategic planning process, the university has decided to take a significant step towards the real integration of sustainability into its operations by defining a sustainability report to be developed, improved over time, and continuously monitored. (UNI_49, Integrated Programming Document)

The renewed commitment of our university to the three dimensions of sustainability (economic, social, and environmental) is manifested in the drafting of the Strategic Plan 2022-2024, through which the university aims to continue, consolidate, and strengthen what has already been initiated in previous planning cycles. (UNI_33, Sustainability Report)

The continuity between the sustainability objectives in the strategic plan and the actions reported in the sustainability report is often ensured by including the strategic planning delegate within the reporting team or sustainability coordination group.

However, there are content misalignment between the strategic plan and sustainability report. Not all strategic objectives are pursued and reported. For instance, UNI_10's strategic plan includes an objective to promote an inclusive culture by facilitating the participation of students with disabilities and specific learning disorders in university life:

Promoting a culture of inclusion that values diversity and differences, pursuing the overall well-being of the academic community by increasing services and actions aimed at inclusion in various areas of university life, and facilitating the participation of students with disabilities and specific learning disorders for the full realisation of educational objectives. (UNI_10, Strategic Plan)

However, the sustainability report lacks any mention of actions aimed at achieving this strategic objective, nor does it reference initiatives targeting students with disabilities or specific learning disorders.

Similarly, some initiatives detailed in the sustainability report are not aligned with the strategic objectives. For example, UNI_05's sustainability report includes numerous initiatives supporting sustainable mobility:

In 2022, actions for sustainable mobility were confirmed and enhanced, including the purchase of discounted public transportation passes for students and staff, as well as the development of a systematic set of actions to enhance cycling mobility. [...]. The commuting mobility of the university community has a significant impact in terms of emissions. To address this issue, the Uni_05 continued its commitment to supporting various measures for sustainable mobility in 2022 (UNI_05, Sustainability Report)

However, this theme was not addressed in the strategic plan, and it was not listed among the university's sustainability objectives.

These examples illustrate that while these universities have integrated sustainability principles and sustainable development into their operations and reporting processes, there is not a complete alignment between the content of the strategic plan and that of the sustainability report regarding sustainability themes.

4.2.3 Universities with sustainability at the habitualisation stage. In six universities the institutionalisation process of sustainability is in its initial phase, known as *habitualisation*. Among these universities, three do not mention sustainability within their foundational values, strategic development lines or primary objectives in their strategic plans, yet they publish sustainability reports. The other three universities, as previously noted, had no preceding strategic plan before the release of their sustainability report. Consequently, in all these cases, the sustainability-related actions and activities detailed in the sustainability reports are not interconnected with the university's overarching strategy.

It is noteworthy that some sustainability reports explicitly acknowledge the lack of alignment with the strategic plan and the absence of formal sustainability strategies:

However, there are potential areas for improvement that could be addressed prospectively through the following measures: introducing the theme of sustainability from the planning phase of the University's activities (UNI_51, Integrated Social Report)

The social accountability initiative has not remained an isolated experience but has been followed up, requiring ongoing analysis and evaluation of facts and data that, collectively, are triggering a new mode of reflection and multidimensional management oversight. On the other hand, it serves as a technical premise supporting the design of the next Strategic Plan (UNI_53, Social Report)

In these universities, sustainability reporting represents the initial step in the institutionalisation process of sustainability. However, it often arises from individual efforts rather than from a well-established, institution-wide practice. This aspect is sometimes highlighted in the methodological notes of sustainability reports:

"The first Sustainability Report of the Uni_34 originates from the initiative of the Office for Sustainable Actions – OSA, the sustainability working group established by the Rector" (UNI_34, Sustainability Report)

An evolution in the process of institutionalising sustainability in these universities will likely depend on the integration of sustainability into their strategic planning processes.

4.2.4 Universities exhibiting sustainability decoupling. In 26 universities, we observed a phenomenon known as the *decoupling* of sustainability. These universities have integrated sustainability into their strategic plans but have not published a sustainability report. Specifically, 17 of these universities have never published a sustainability report, while the remaining 9 have either published only one report or discontinued their sustainability reporting practice, which had been ongoing before 2020.

These universities explicitly declare adherence to the principles of social and environmental sustainability and aim to align their actions with the SDGs within their strategic plans. Sustainability is viewed as a key element of their development strategy, with

objective and strategic action intended to reflect sustainability principles in a cross-cutting manner. However, these universities rarely have governance roles specifically dedicated to sustainability (e.g. delegates of the rector), who could serve as catalysts for initiatives aimed at achieving the above-mentioned goals. Furthermore, despite the emphasis on sustainability in their strategic plans, a few universities highlight their intention to establish regular social, environmental and gender reporting practices following recognised standards and methods:

Subsequently, an annual Sustainability Report will be prepared and published, a tool that allows reporting to stakeholders what the institution has accomplished to contribute to sustainable development. (UNI_26, Strategic Plan)

“Action plan for the strategic area of administration and user services: Drafting the gender plan and sustainability report.” (UNI_47, Strategic Plan)

By establishing a consistent practice of sustainability reporting, the institutionalisation process of sustainability in these universities could advance to the stage of objectification or even sedimentation, depending on the degree of alignment between the strategic plan’s content and that of the sustainability report.

5. Discussion

5.1 Institutional forces shaping strategic plans and sustainability reports of universities

The content analysis of strategic plans and sustainability reports of Italian public universities provides valuable insights into the institutionalisation of sustainability within these institutions. The findings reveal that sustainability has been unevenly integrated across university activities, reflecting varying degrees of commitment and prioritisation. These results partly align with McCowan’s (2020) study, which highlights an imbalanced integration of sustainability in university, with some areas receiving insufficient attention while others are overemphasised.

This uneven integration is influenced by a combination of institutional forces operating across national, European and international contexts. Consequently, although these findings are derived from the analysis of a specific context, they highlight aspects that can be generalised to similarly recurring circumstances (Smaling, 2003; Kvale and Brinkmann, 2009), illustrating how institutional forces have influenced the institutionalisation of social and environmental aspects within universities’ strategic plans and sustainability reports.

Normative forces, such as the global promotion of the SDGs and participation in network, like RUS, have prompted many universities to actively engage in planning, implementing and reporting on activities aimed at sustainable development (Nicolò *et al.*, 2021; Leal Filho *et al.*, 2022). Contrary to previous findings by Costa *et al.* (2021), this study highlights a growing alignment between university strategies, educational offerings and research initiatives with the SDGs. This trend signals increasing awareness of the importance of universities’ contributions to these global objectives.

Coercive forces, stemming from national regulations and European directives, have also played a significant role. The introduction of specific organisational roles and committees, like the mobility manager and Gender Equality Plan Teams, exemplifies how external mandates have shaped organisational structures and strategies. Gender issues, historically overlooked, have gained prominence in sustainability reports (Adams *et al.*, 2014; Moggi, 2019; Caputo *et al.*, 2021) and strategic plans (Mazzotta *et al.*, 2020; Nardo *et al.*, 2021) in the past decade. This shift is largely attributed to the European Commission’s 2021 requirement for research institutions to adopt a Gender Equality Plan as a condition for Horizon Europe funding. While no specific regulation mandates the creation of these teams, their presence is necessary for universities to remain competitive in research funding. Similarly, mandatory guidelines from the National Agency for the Evaluation of Universities

and Research Institutes, emphasise the importance of managing cultural assets as part of evaluating a university's third mission and social impact (Aversano *et al.*, 2020a). The focus on cultural heritage, particularly in centuries-old universities, underscore how national evaluation guidelines can act as coercive pressures to institutionalise accountability and strengthen universities' social relevance. In addition, environmental sustainability, previously underrepresented in the sustainability reports of Italian universities (Del Sordo *et al.*, 2016), has gained prominence, particularly in areas such as energy-efficient buildings and green infrastructure. This progress is closely linked to the availability of national and European funding scheme, highlighting the impact of economic incentives on advancing sustainability practices (Moggi, 2019).

Mimetic forces further contribute to the sustainability institutionalisation. As sustainability becomes an increasingly pressing societal concern (Stein, 2024), universities face growing expectations to demonstrate meaningful contributions to these efforts. These expectations drive institutions to showcase their achievements, communicate initiatives and engage stakeholders in sustainability-related activities, enhancing their reputation, competitiveness and legitimacy (Brusca *et al.*, 2020; Shan *et al.*, 2022). Such dynamics reinforce universities' role as socially relevant institutions (Bebbington and Larrinaga, 2014; de Villiers *et al.*, 2024).

Overall, the Italian case illustrates that the institutionalisation of sustainability in universities is shaped by a complex interplay of normative, coercive and mimetic forces operating at multiple levels. While progress is evident in several areas, the uneven integration of sustainability across universities underscores the need for more cohesive and comprehensive strategies to ensure that sustainability is embedded holistically across all organisational dimensions. These findings have broader implications for higher education systems in other contexts, where similar institutional pressures may shape the trajectory of sustainability practices.

5.2 Institutionalisation process of sustainability in universities

The analysis reveals varying degrees of alignment between strategic plans and sustainability reports highlighting the characteristics of each stage and factors influencing the institutionalisation process of sustainability in universities. It also provides suggestions for improving the integration of sustainability into university operations, aiming to enhance both strategic alignment and reporting practices.

At the most advanced stage of the institutionalisation process of sustainability, some universities (2) demonstrate full coherence and continuity between strategic plans and sustainability reports. This alignment allows for monitoring of effective implementation and progress of all sustainability programmes outlined in strategic plans (Ramisio *et al.*, 2019). Achieving this level of institutionalisation requires strong leadership, active participation from all university stakeholders and the establishment of a pervasive sustainability culture, supported by robust communication and collaboration mechanisms (Del Sordo *et al.*, 2016; Corazza, 2018; Paletta and Bonoli, 2019). Such practices exemplify how sustainability can become a core component of university governance.

However, partial alignment between strategic plans and sustainability reports is most common, observed in 23 universities. In these cases, systemic barriers, such as inadequate internal communication, limited resources to implement certain sustainable actions and insufficient awareness of sustainability objectives hinder full integration. This suggest that sustainability is often treated as a supplementary rather than an integral part of university operations. Addressing these barriers requires structural reforms, including improved communication across divisions, adequate resource allocation and periodic evaluations of

sustainability performance. The findings underscore the importance of updating strategic plans and sustainability reports based on evaluation outcomes to strengthen their alignment and coherence.

In some universities (6), sustainability initiatives are limited to isolated efforts, with sustainability reporting practices disconnected from governance and strategic orientations. This fragmentation indicates a reliance on independent actions and institutional pressures rather than a cohesive, long-term vision for sustainability. Such a scenario underscores that while measuring and reporting sustainability is crucial (Adams, 2013), these practices must be complemented by effective management of sustainability performance to drive meaningful improvement. Without strategic planning, sustainability efforts risk becoming uncoordinated and inconsistent, undermining their potential impact.

In a significant number of universities (26) the institutionalisation process of sustainability has not occurred, despite the stated importance of sustainability in their strategic objectives. This decoupling between formal commitments and practical implementation highlights challenges such as limited capacity to translate policies into actions or superficial compliance with external expectations (MacLean and Benham, 2010; Bromley and Powell, 2012). In both scenarios, the lack of sustainability reports precludes effective monitoring of their progress towards sustainability goals (Ramisio *et al.*, 2019), thereby hindering their ability to make informed adjustments to their strategies. Furthermore, sustainability reporting plays a pivotal role in building trust with stakeholders and ensuring organisational legitimacy (Gazzola *et al.*, 2021; Tang and Higgins, 2022). Therefore, even if sustainability information were available through other channels, such as online, the absence of formal sustainability reporting generally undermines accountability and transparency. This shortfall limits universities' ability to engage effectively with their stakeholders and erodes trust. These findings underscore the critical importance of sustainability reporting in fostering transparency and legitimacy, particularly when a sustainability strategy has been articulated. The absence of formal reporting compromises the credibility of long-term sustainability commitments.

The different stages of sustainability institutionalisation observed across universities are influenced by differences in governance, organisational commitment and academic staff engagement. University governing bodies play a pivotal role in embedding sustainability principles into institutional practices and in mobilising the broader academic community (Sassen *et al.*, 2022). Similarly, individual actors with a strong interest in sustainability serve as change agents, driving the adoption of initiatives and reporting practices (Moggi *et al.*, 2015; Paletta and Bonoli, 2019). These findings underscore that the institutionalisation of sustainability necessitates a synergistic approach that combines top-down leadership with bottom-up initiatives. Such an approach fosters collaboration across governance levels and encourages active participation from diverse university stakeholders. Furthermore, the insights derived from this study offer a framework for addressing common barriers to sustainability integration within HEIs and offer guidance for promoting alignment between strategic objectives and practical implementation that can be adapted to similar institutional contexts.

6. Conclusion

Universities are pivotal public, social and economic actors that should lead the transition towards sustainable development. This requires integrating sustainability into their core missions, rethinking their activities and aligning them with sustainability principles. While universities have begun to move in this direction, becoming true agents of change necessitates that their commitment to sustainability is deeply embedded in their strategies,

translated into concrete actions and effectively measured and reported to stakeholders through sustainability reporting. However, the relationship between strategic planning and sustainability reporting remains underexplored. This study addresses this gap by analysing the institutionalisation of sustainability in universities through the correlation and coherence between strategic plans and sustainability reports, using the institutionalisation process framework.

In this study, Italian public universities are examined as a representative case due to their increasing commitment to sustainability reporting practices, the absence of a regulatory framework and the recent introduction of a standard for sustainability reporting specifically tailored to universities. The analysis of the Italian case has revealed several insights regarding the institutionalisation of sustainability in universities. In particular, it demonstrates that the institutionalisation of sustainability in universities is shaped by a complex interplay of normative, coercive and mimetic forces operating at multiple levels. Furthermore, the analysis identifies different stages of sustainability institutionalisation among universities. The study finds that the desired alignment between strategic plans and sustainability reports is rarely achieved. This misalignment between strategic planning and sustainability reporting hinders both internal and external monitoring of progress towards sustainability objectives, missing opportunities for operational improvement. Moreover, it can erode stakeholder trust, leading to scepticism about the university's genuine commitment to sustainability, ultimately resulting in a loss of credibility, reputation and legitimacy. Several factors, including the availability of financial and human resources and the commitment of university actors at different levels, may contribute to different levels of institutionalisation of sustainability. Consistent with previous research (Moggi *et al.*, 2015; Corazza, 2018; Bautista-Puig and Sanz-Casado, 2021), this study underscores the critical role of governing bodies in translating sustainability principles into action and engaging internal and external stakeholders.

From a theoretical perspective, this study advances the international discourse on sustainable practices within HEIs by examining the relationship between strategic planning and sustainability reporting. It significantly contributes to the literature on sustainability accounting in the public sector, given that universities are part of this sector and have undergone similar extensive reforms, introducing new documents and roles, and facing comparable pressures regarding accountability and sustainability integration (Adams *et al.*, 2014; Bebbington and Unerman, 2018). Furthermore, the results can be extended to other higher education systems that operate under similar institutional settings and encounter comparable challenges in integrating sustainability into their strategic planning and reporting practices. This research also offers a novel perspective on the institutionalisation process, enhancing our understanding of how sustainability becomes embedded within university structures and practices. By focusing on the translation of sustainability from a guiding principle in strategic plans to initiatives accounted for in sustainability reports, the study provides a comprehensive application of DiMaggio and Powell's model, incorporating all three mechanisms of isomorphism – coercive, normative and mimetic – rather than relying on just one or two (Farneti and Siboni, 2011; Larran *et al.*, 2016; Andrades *et al.*, 2024). This approach enriches the theoretical ground of institutional theory, opening up new avenues for applying the institutionalisation process (Tolbert and Zucker, 1996) to explore the interplay between the content of different documents and the factors influencing their relationships. Furthermore, this study makes a pioneering contribution by using the recently published RUS–GBS Standard for the first time in the analysis of sustainability reports and strategic plans. By leveraging this new Standard, the research not only enhances the rigour and relevance of the content analysis but also sets a precedent for future studies evaluating

university sustainability practices. This novel application enriches the existing literature, by providing a robust framework for understanding and improving the alignment between strategic planning and sustainability reporting in HEIs.

While the findings are rooted in the Italian context, they align with the concept of qualitative generalisation, where insights derived from specific cases can inform broader theoretical or practical understandings when appropriately contextualised (Robinson and Norris, 2001; Parker and Northcott, 2016). From a practical perspective, the study provides valuable insights for university governing bodies on fostering a culture of sustainability and promoting objectives aligned with sustainability principles. By understanding the institutionalisation process, universities can be better equipped to integrate sustainability practices into their organisational structures and operations, thereby enhancing their commitment to sustainable development. However, despite progress, challenges remain, particularly in achieving full sustainability institutionalisation and overcoming organisational inertia. Previous research has partly attributed this inertia and the slow evolution of sustainability reporting in universities to the absence of a dedicated standard (Moggi, 2019; Andrades *et al.*, 2024). The introduction of the RUS–GBS Standard could act as a catalyst for enhancing the preparation of sustainability reports in Italian universities and achieving greater alignment between defined strategies and implemented activities disclosed in these reports.

Despite its contributions, this study has several limitations that merit discussion. Firstly, it focuses exclusively on the Italian context, aiming to understand how contextual institutions and norms influence sustainability institutionalisation. Future research should consider comparative analyses between Italy and other countries to gain a more comprehensive understanding of how contextual institutions and norms differently drive the institutionalisation process in universities. Secondly, the study did not examine the content of online channels for sustainability communication. This choice is justified by the fact that online communications may be extemporaneous and driven by external communication advantages, requiring less effort and knowledge in sustainability themes compared to formal sustainability reporting (Manes Rossi *et al.*, 2018; Ramírez and Tejada, 2019). Furthermore, the websites of Italian public universities often omit some information on environmental performance, green buildings and curricula and teaching on sustainability issues (Nicolò *et al.*, 2023). Social media, on the other hand, is primarily used by universities to educate stakeholders on sustainability topics (Di Tullio *et al.*, 2021). Nevertheless, the growing use of digital media by universities to share real-time information about their commitment to sustainable development (Nicolò *et al.*, 2021), highlights the need for future research to explore the relationship between the content of strategic plans and that of online channels on sustainability topics, to compare it with the findings of this study. In addition, in this study, we assume that decoupling occurs when a university's strategic plans outline sustainability strategies and objectives but lack a corresponding sustainability report. However, to conduct a more comprehensive and in-depth analysis of decoupling, future research should also explore whether universities with sustainability strategies disclose information on social and environmental aspects through other channels beyond sustainability reports. Therefore, expanding the scope to include digital media and alternative communication platforms could enhance our understanding of universities' sustainability practices, offering a more nuanced assessment of their commitment to integrating sustainability into their organisational practices. Thirdly, the analysed documents pertain to a specific timeframe. It would be valuable to explore whether there is an evolution in the sustainability institutionalisation process over time, resulting in a shift in the level of institutionalisation, particularly in light of the introduction of the RUS–GBS Standard and its accompanying guidelines. Finally, the study focused exclusively on strategic plans and sustainability reports, associating these

documents with the definition of strategies and their translation into reported actions, respectively. While these documents offer valuable insights into sustainability institutionalisation in universities, they may not capture the full spectrum of sustainability efforts undertaken by universities. Although some universities have begun to supplement the strategic plan with dedicated documents, such as plans for the SDGs or the Environmental Sustainability Plan (Capocchi et al., 2019; Paletta and Bonoli, 2019), these instances remain limited. Among Italian public universities, only eight have published a dedicated sustainability plan. Nevertheless, the content of these documents must still be derived from, and aligned with, the overarching strategic plan. Future research could explore the interconnectedness between various institutional documents, such as sustainability plans, gender equality plans, codes of ethics and diversity reports, to better understand how universities operationalise sustainability across various dimensions of their organisational structure and practices.

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Corresponding author

Patrizia Di Tullio can be contacted at: patrizia.ditullio@unich.it