**Understanding Integrated Thinking:**

**evidence from the field, the development of a framework and avenues for future research**

*Abstract*

**Purpose**: This study develops a framework to systematize the emerging literature on Integrated Thinking and offers empirical insights on how Integrated Thinking has been practiced within an organization. The paper also introduces the contributions that compose the special issue “Exploring Integrated Thinking in action: Theoretical interpretations and evidence from the field” and outlines avenues for future research.

**Design/Methodology/approach**: The paper critically reviews the literature on Integrated Thinking and proposes a framework that classifies prior studies into three areas: Integrated Thinking and sustainable strategies; Integrating Thinking in practice; the concept and measures of Integrated Thinking. The study also provides an illustration of the ways in which Integrated Thinking has been adopted by a European energy company to shape and execute its purpose-driven strategy, as well as the benefits that have emerged. The paper uses the framework developed from the literature to introduce the contributions of the special issue and to suggest future research opportunities.

**Findings**: The study shows that while the literature on Integrated Thinking is still in its infancy, the evidence emerging from contemporary organizations support empirical-driven research and stimulate a variety of theoretical and empirical contributions that will enable the academic debate to move forward.

**Originality**: The theoretical and practical insights offered by this study, together with those provided by the papers of this *Meditari Accountancy Research* special issue, will foster future research on Integrated Thinking. In particular, the framework developed in this paper may be drawn upon by researchers to plan new research projects on Integrated Thinking and its adoption within organizations.

**Keywords**: Integrated Thinking, literature review, case study, future research agenda, special issue papers

1. **Introduction**

The motivation for a special issue on Integrated Thinking arose from the need to systematize the emerging literature on this topic, as well as to stimulate further research on how Integrated Thinking is *actioned* within contemporary organizations. This special issue brings together a wide range of theoretical and empirical studies and outlines the challenges of and opportunities for practicing Integrated Thinking. This special issue will foster further research to be published in management and accounting journals.

Over the last decades, a growing number of studies have investigated Integrated Thinking and Reporting practices (for a systematic literature review, see De Villiers *et al.*, 2014, De Villiers and Sharma, 2020; Dumay *et al.*, 2016; De Villiers *et al.*, 2020). As known, Integrated Reports are meant to rely on “Integrated Thinking”, an approach that encourages organizations to actively reconsider the relationships between the various operating and functional units, and the capitals (financial, manufacturing, intellectual, human, natural, social and relationship) that they use and affect (IIRC, 2013). As emphasized by the Integrated Thinking and Strategy Group’s (2020, p. 12):

“At the heart of integrated reporting is a process founded on integrated thinking which intentionally joins how an organization’s strategy, governance, performance and prospects, in the context of its external environment, lead to the creation of value in the short, medium and long term.”

Integrated Thinking involves identifying, executing, and monitoring business decisions and strategies for long term value creation (Busco *et al.*, 2017; Dumay and Day, 2017; Guthrie *et al*., 2017; Busco *et al.* 2020a). In particular, this approach enables mediation across a number of trade-offs, such as: the way in which different forms of capital impact on the value creation process; ESG (i.e., Environmental, Social, Governance) performance with financial and economic results; lagging and leading measures of performance; different types of report (e.g., financial, social, environmental, etc.) overcoming the logic of “silos” communication; short-term and long-term objectives (and value creation); the multiple needs of a variety of stakeholders; the analysis of the multiple organizational function and expertise, and organizational units that contribute to the value creation process; value creation for the business (which concerns shareholders, employees and investors) and for other stakeholders (IIRC, 2013; 2020).

While previous studies have mainly focused on Integrated Reporting and its adoption within organizations (see, among recent contributions, De Villiers *et al.,* 2020; Adams, 2015; Churet and Eccles, 2014; Serafeim, 2015; Barth *et al.,* 2017; Flower, 2015; De Villiers and Sharma, 2020; De Villiers *et al.,* 2014; Eccles and Krzus, 2014; Busco *et al.,* 2018), the literature on Integrated Thinking is in its infancy. This emerging literature investigates how organizations integrate information, functional units and the different capitals used or affected to create value in the short, medium and long-term (see for example, De Villiers *et al.,* 2017; Dumay *et al.,* 2017). These studies have emphasised the vagueness of the concept of Integrated Thinking as an important obstacle to its adoption within organizations (Dumay *et al.,* 2017, Feng *et al.,* 2017).

According to Feng *et al.* (2017), the challenges in practicing Integrated Thinking mainly come from “the absence of clear precedents in reporting context” (p. 334). Despite the IIRC’s recent attempts to provide more detailed, comprehensive and insightful explanations of Integrated Thinking (IIRC, 2020), this concept has received far less attention from academics. In this regard, Oliver *et al.* (2016) have called for further research to provide “a more nuanced understanding of integrated thinking in practice” (p. 231).

This paper answers this call by providing a critical review of the emerging literature on Integrated Thinking and offering empirical insights on how Integrated Thinking is practiced within a contemporary organization. The paper is structured as follows: Section 2 presents a framework that systematizes the nascent literature on Integrated Thinking, revealing the need for further research addressing the conceptual, theoretical and practical challenges related to Integrated Thinking, its adoption and its development over time. In Section 3, we introduce our empirical analysis which builds on the experience of a European energy infrastructure company that has implemented Integrated Thinking to shape and execute its purpose-driven strategy and we discuss the benefits that have emerged from the adoption of Integrated Thinking. Section 4 uses the framework developed from the literature to introduce and discuss the papers that compose this special issue. These studies contribute to research and practice by offering novel theoretical and empirical insights on how Integrated Thinking is practiced within organizations. In Section 5 we outline avenues for future research and present our concluding remarks.

1. **The emerging literature on Integrated Thinking**

The rise and development of Integrated Thinking and Reporting practices are occurring in a context where the concepts and principles that define how contemporary organizations plan, measure and report their performances are being questioned and redesigned across the world (Andon *et al.*, 2015; Hall *et al.,* 2015; Humphrey *et al.,* 2017). These debates have regained momentum in the aftermath of the financial crisis when the notion and functioning of capitalism, the ultimate purpose of the business, as well as the concept of corporate value creation (Porter and Kramer, 2011) have all been questioned and placed under the spotlight.

Positioned at the center of these debates and involved in the ongoing process of management and reporting innovation, Integrated Thinking and Reporting have been portrayed as being in the transition of making a leap from promising concepts to powerful practices (Adams and Simnett, 2011; Eccles and Krzus, 2014; 2010; Adams, 2015; Churet and Eccles, 2014). According to the International Integrated Reporting Council (IIRC, 2013), Integrated Reporting is a process founded on Integrated Thinking*,* which results in periodic and concise report about how an organization’s strategy, governance, performance and prospects, in the context of its external environment, lead to the creation of value over the short, medium and long term. The key objective of Integrated Reporting is to enhance accountability and stewardship with respect to six “capitals” (i.e., financial, manufacturing, intellectual, human, social and relationship and natural), and promote understanding of their interdependencies.

As emphasised by Churet and Eccles (2014, p. 56) “integrated reporting is only the tip of the iceberg. It is the visible part of what is happening below the surface — namely *integrated thinking* and *integrated decision-making*”. The IIRC Framework defines Integrated Thinking as “the active consideration by an organization of the relationships between its various operating and functional units and the capitals that the organization uses or affects” (IIRC, 2013 p. 2). In particular, this approach provides for a strategic mindset enabling managers to overcome a “silos” thinking (Stacchezzini *et al.,* 2016). Thus, “the more that integrated thinking is embedded into an organization’s activities, the more naturally will the connectivity of information flow into management reporting, analysis and decision-making” (IIRC, 2013, p. 2).

While previous research has mainly focused on Integrated Reporting and its adoption within organizations (see, e.g., De Villiers *et al.,* 2020; Adams, 2015; Serafeim, 2015; Barth *et al.,* 2017; De Villiers and Sharma, 2020; Busco *et al.,* 2018; Gibassier *et al.*, 2018), the literature on Integrated Thinking is gradually expanding (Adams, 2017; Busco *et al.,* 2017; Massingham *et al.,* 2019; Busco *et al.*, 2020b). A keyword search of “Integrated Thinking” and “Reporting” in titles, keywords and abstracts in the Scopus Database reveals a growing trend. From 2015 to 2020, 80 scholarly works have been found in the three most relevant subject areas “Business Management and Accounting”, “Social Science” and “Economics, Econometrics and Finance”. The 80 scholarly works comprise 59 journal articles, most of which (around the 48%) have been published in the following accounting journals: *Meditari Accountancy Research; Sustainability Accounting Management and Policy Journal; Accounting, Auditing and Accountability Journal*.

An emerging literature exploring the concept of Integrated Thinking from different angles and perspectives is beginning to develop thanks to recent calls within academic journals (see for example, De Villiers *et al*., 2017; Dumay *et al*., 2016; Dumay *et al*., 2017) as well as the recent contributions published by the IIRC (IIRC, 2020). In the remaining part of this section we frame and systematize the nascent literature on Integrated Thinking, classifying the studies into three main areas: Integrated Thinking and sustainable strategies; Integrating Thinking in practice; the concept and measures of Integrated Thinking.

***Integrated Thinking and sustainable strategies***

Early studies on Integrated Thinking have provided some initial empirical insights into this approach as related to sustainability practices (Knauer and Serafeim, 2014; Vesty *et al.,* 2015; Oliver *et al*., 2016). Knauer and Serafeim (2014) build on a field study to suggest that Integrated Thinking is a necessary attribute of senior management and can be achieved by linking key sustainability performance indicators to executive rewards. However, the authors argue that even when senior managers are highly committed to Integrated Thinking, engagement from middle managers and employees tends to be lower (Knauer and Serafeim, 2014). Such discrepancy represents a major barrier for organisations that try to embed Integrated Thinking to strengthen the integration among the different forms of capital (Knauer and Serafeim, 2014). Along these lines, Vesty *et al.* (2015) emphasise that Integrated Thinking emerges from mapping senior managers’ sustainability strategic intents and key performance indicators. Their study highlights the need for an active commitment by senior management towards sustainability and Integrated Thinking and calls for further research to better understand the interplay between Integrated Thinking and sustainability accounting practices (Vesty *et al.,* 2015).

Building on Knauer and Serafeim (2014) and Vesty *et al.* (2015), Oliver *et al.* (2016) show how the Integrated Thinking approach can be drawn upon to constructively manage the tensions between the capitals in strategy, resource allocation, performance measurement and control. They discuss the need for a combination between soft Integrated Thinking approaches, based on generative reasoning, freedom from financial constraints and social indicators of well-being, and hard Integrated Thinking approaches, which focus on financial sophistication and sustainability KPIs (Oliver *et al.,* 2016).

***Integrating Thinking in practice***

More recently, a number of scholars have explored how Integrated Thinking is practiced within organizations. Most of these studies have investigated Integrated Thinking with reference to Integrated Reporting. According to the IIRC the adoption of Integrated Reporting and Integrated Thinking takes place at the same time, whereas evidence shows that some organisations adopt Integrated Reporting first (Guthrie *et al.,* 2017), and others adopt Integrated Thinking first (Adams, 2017, and Al-Htaybat and VoN Alberti-Alhtaybat, 2018).

Guthrie *et al.* (2017) examine the relationship between the adoption of Integrated Reporting and Integrated Thinking within public sector organizations. They conceive of Integrated Thinking “not only as a process that leads to the incorporation in an organisation’s strategy of the different perspectives relating to financial, environmental, sustainability and governance issues” but also as a process impacting on “organisational habits of managers from various areas/departments” (Guthrie *et al.,* 2017, p. 559). In particular, Guthrie *et al.* (2017)’s findings reveal that, while adopting Integrated Reporting, managers develop new organisations’ internal processes that foster Integrated Thinking. Further, Guthrie *et al.* (2017) show that top management engagement provides for a key mechanism in moving towards Integrated Reporting and Integrated Thinking.

Differently, Al-Htaybat and von Alberti-Alhtaybat (2018) investigate the Integrated Thinking and Reporting journey in a global service company, showing that Integrated Thinking came first and was managed from the top management. By drawing on Bourdieu’s theory of practice, the authors define the case organization as a ‘natural integrated thinker’ that has grown its Integrated Thinking approach over time and has introduced Integrated Reporting “as a reflection on the IT [Integrated Thinking] approach” (Al-Htaybat and von Alberti-Alhtaybat, 2018, p. 1435). In their field study, Integrated Thinking is found to be a mindset of the company, cultivated and reflected by the top management’s attitudes and concerns. These findings are consistent with a study by Adams (2017) which highlights that Integrated Thinking is critical to the process of developing an integrated report and creating value beyond financial profit.

***The concept and measures of Integrated Thinking***

Whereas the studies reviewed above have explored the relations between Integrated Thinking, sustainability practices and Integrated Reporting, others have focused on the interpretation of the concept of Integrated Thinking within organisations (e.g., Dumay and Dai, 2017; Feng *et al.,* 2017) and have explored ways to measure it (e.g., De Villers *et al.* 2017; Busco *et al.,* 2019).

In a recent study, Dumay and Dai (2017) argue that a fundamental issue with Integrated Thinking is that the IIRC has explained only ‘why’ companies need this approach while overlooking ‘how’ to operationalise it. By exploring how Integrated Thinking is used as a cultural control in a small Australian bank, Dumay and Dai (2017) emphasise the difficulties and drawbacks to putting Integrated Thinking into practice, arguing that Integrated Thinking “may become a source of inertia rather than change because it advocates that an entire workforce should think the same way” (p. 574). Dumai and Dai (2017) criticise the one-size-fits-all approach proposed by the IIRC, questioning whether breaking down silos and embracing Integrated Thinking “is necessary across all organisational functions, especially concerning material organisational risks and reputation, because these silos foster independent thinking” (p. 574).

Along these lines, Feng *et al.* (2017) have investigated how key stakeholders (e.g., policymakers, IIRC pilot organisations, IIRC members, accounting professional bodies) interpret Integrated Thinking and how this, in turn, is applied in practice by organisations. Their findings reveal the lack of shared consensus across stakeholders as to exactly what Integrated Thinking entails. They argue that the IIRC has not fully defined and articulated the concept of Integrated Thinking and therefore:

“In the absence of a solid conceptual foundation, stakeholders have chosen to self-interpret what integrated thinking means in light of their own experience and context. Consequently, different – and not necessarily consistent – interpretations of integrated thinking are emerging through organizational discourse and practice.” (Feng *et al.*, 2017, p. 346)

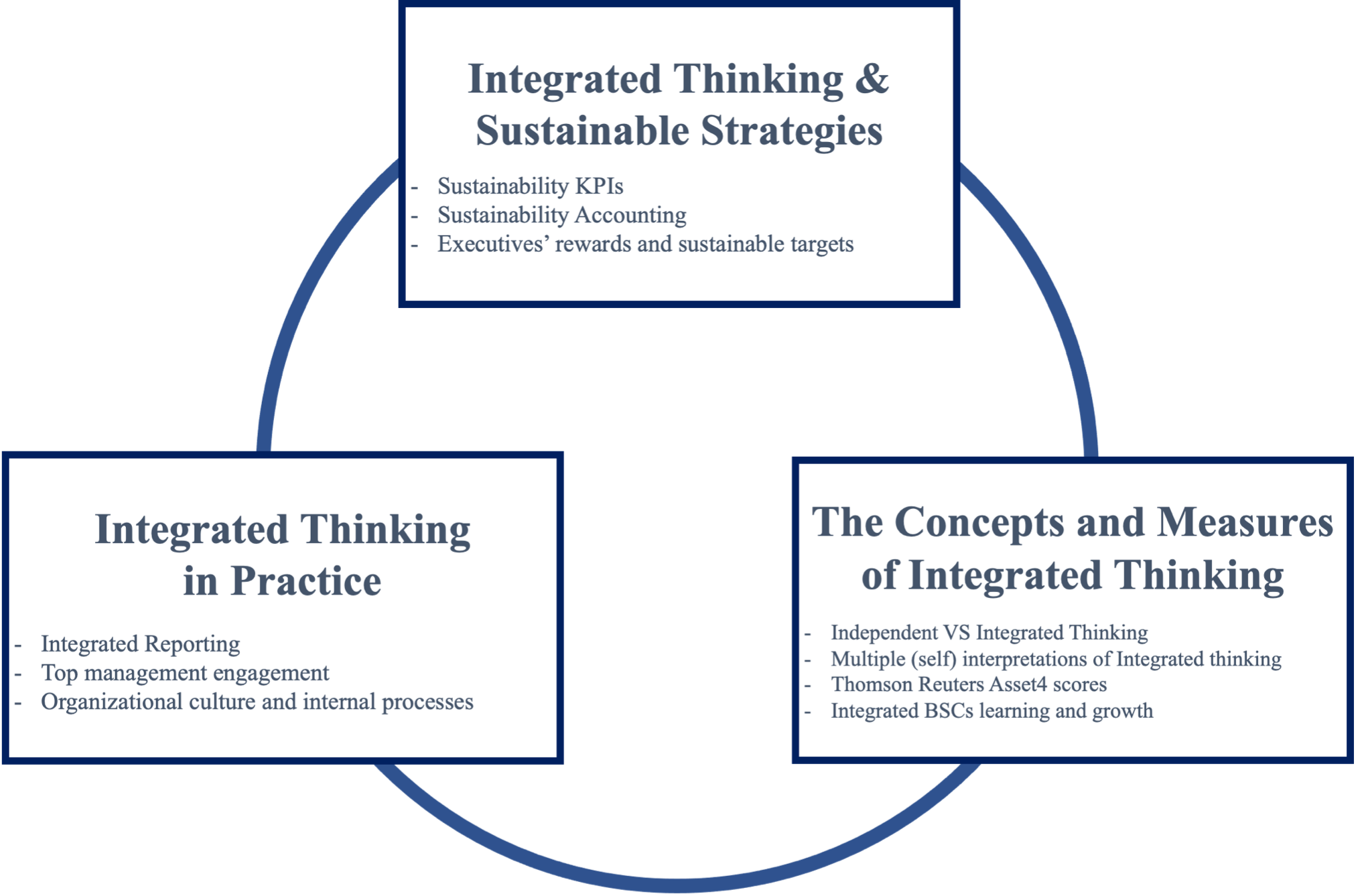
Feng *et al.* (2017) argue that the difficulties in interpreting Integrated Thinking are related to the “absence of clear precedents in reporting contexts” (p. 334). Furthermore, they sustain that although Integrated Thinking is supposed to underpin Integrated Reporting, the IIRC provides only an abstract definition of this concept, resulting in a perception of “confusing, inconsistent and lack[ing] specific metrics” (Feng *et al.,* 2017, p. 348).

In the attempt to clarify the concept of Integrated Thinking, a number of empirical studies have used proxies (mainly Thomson Reuters Asset4 scores) to measure the extent of its embeddedness within organizations. While Serafeim (2015) adopted the CGVS data item from the Asset4 database as a proxy for Integrated Reporting, De Villers *et al.* (2017) analysed the CGVS Asset4 components and observe that “all four drivers and two of the eight outcomes refer to integration” and the remaining six refer to the “reporting outcomes” (p. 948). Therefore, De Villers *et al.* (2017) conclude that CGVS components measure Integrated Thinking in a firm (performance) rather than the quality of Integrated Reports (disclosure) (see also Venter *et al.,* 2016; Maniora, 2017).

In a recent study, Busco *et al.* (2019) review the components and definition of CGVS score from the Asset4 database and conclude that the items composing the CGVS score refer to both the internal processes and the reporting outcomes. In their study, they use CGVS as a measure of the level of integration among Integrated Thinking and Integrated Reporting and the related drivers. In particular, they identify four different levels of integration (i.e., Holistic, Integrated, Conservative and Minimalist), and show that higher levels of integration are related to the greater size and leverage of companies, bigger board size and meetings, and companies’ more sensitive and higher environmental performance of their industries (Busco *et al.,* 2019). While recognizing the difficulties in finding an appropriate measure of Integrated Thinking, they suggest “companies’ levels of ITR [Integrated Thinking and Reporting], namely *Holistic*, *Integrated*, *Conservative*, and *Minimalist*, are related to company characteristics and tend to remain consistent over time exhibiting routine and imitation” (Busco *et al.,* 2019, p. 277).

Massingham *et al*. (2019) attempt to address the need for a tailored approach to measure Integrated Thinking by presenting a new learning and growth perspective for the Balanced Scorecard (BSC) that includes specific measures of Integrated Thinking and value creation. In their conceptual study, the authors re-design the learning and growth perspective of the BSC by “redefining the concept of integrated thinking (learning) and more fully connecting that learning to future value creation (growth)” (Massingham *et al*. 2019, p. 60). In doing so, Massingham *et al*. (2019) suggest a model that brings a new understanding of how to improve Integrated Thinking within organizations facilitating better measurement, management and reporting of their human and structural capital.

Overall, whereas the emerging studies on Integrated Thinking have provided interesting insights into how this approach is interpreted within organisations, further research is needed to address the conceptual, theoretical and practical challenges related to Integrated Thinking, its adoption and development over time (La Torre *et al.,* 2019; Dumay and Dai, 2017; Feng *et al.*, 2017). In this special issue, we answer this call by providing an illustration of the ways in which Integrated Thinking has been adopted by a contemporary organization, as well as by bringing together an eclectic mix of papers presenting a range of different conceptualizations of Integrated Thinking and its adoption in practice. We will use the framework developed in this section to discuss our case and introduce the papers composing this special issue of *Meditari Accountancy Research* on Integrated Thinking. We provide a graphical representation of the framework in Figure 1.



**Figure 1** - Frontiers of Integrated Thinking research

1. **Some evidence from the field: Integrated Thinking in practice**

In this section, we draw on the case of New Energy[[1]](#footnote-1), a European energy infrastructure company, to illustrate a possible adoption of Integrated Thinking in practice. Since 2014 the authors have built and maintained a longstanding relationship with the company that was recently strengthened further by the participation of New Energy to the IIRC Integrated Thinking and Strategy Group (where one of the authors sits as co-chair). The IIRC Integrated Thinking and Strategy Group brings together some of the world’s most active companies in the practice of Integrated Thinking so that they can collaborate, learn from each other, challenge each other’s thinking and share leading practices between themselves and those who follow them. Among the other activities, the IIRC Integrated Thinking and Strategy Group develop a series of case studies that aim to assess how Integrated Thinking is embedded within organizations. Through a series of interviews – in the case of New Energy the Sustainability manager was involved – the case studies aim to explore what led the organization to embed Integrated Thinking; how the company used Integrated Thinking to shape its strategy; how Integrated Thinking has helped the organization deploy its strategy; what benefits have emerged.

*Integrated Thinking at New Energy*

New Energy is one of the world’s leading energy infrastructure operators and one of the largest European listed companies in terms of market capitalization. New Energy operates in Europe’s major markets, including the United Kingdom, Greece, France and the United Arab Emirates through agreements with the leading industry players and direct equity investments in the share capital of various companies. With around 3,000 employees and over 32,600 km of network, New Energy oversees natural gas transportation, dispatching and storage activities, as well as the regasification of liquefied natural gas. The company also offers engineering and technical-operational services for gas operators in national and international markets. Alongside its core business, the company is also increasingly investing in new businesses relating to the energy transition, from sustainable mobility to energy efficiency and the development of renewable gases, such as biomethane and hydrogen.

New Energy started its Integrated Thinking journey in 2013. Pushed by the need to change its reporting model, the company was crafting a more holistic approach to its value creation process and deemed it necessary to reflect this in its reporting model. Since then, Integrated Thinking has been an important driver for the company. The practice of Integrated Thinking has been beneficial for the company, both internally and externally, since it has supported New Energy’s relationship with its stakeholders as well as fostered cross-functional collaboration within the business. Significantly, Integrated Thinking played an important role in identifying and finalizing the purpose-driven sustainable strategy of the company.

**3.1 New Energy’s Integrated Thinking and purpose-driven sustainable strategy**

When the CEO of New Energy talks about “Energy to inspire the world” to introduce the Purpose of the Company he suggests how – viewed as an organization’s raison d’être – a thoughtful Purpose contributes to achieving better, and more inclusive, level of performances leading to the prosperity of Societies. The CEO presents New Energy’s corporate Purpose going back to Aristotle who argued that the purpose of every person is at the crossroads between her talent and the needs of the world. Generated through an inside-out process of company’s self-examination and awareness, the CEO portrays New Energy’s Purpose as a “magic space” where the strengths of the organization have met broader societal needs, firstly giving “sense”, and then offering “directions,” to the efforts of the company and its multiple stakeholders.

New Energy’s purpose “Energy to inspire the world” is rooted around these considerations and, therefore, means a lot more than being an engineering firm that builds and manages energy infrastructures. Through the work of its people, New Energy gives sense to its strengths playing a leading role in the energy transition by guaranteeing stable and safe supplies of sustainable energy, providing heat and light to millions of homes, connecting countries and communities, and creating development opportunities while respecting the environment. As it should be in every organization, within New Energy the “sense of purpose” precedes and shapes the decision-making activities and the identification of the Strategy.

According to the New Energy CEO, having a strategy that builds on the company’s values and inclusive purpose is a great achievement per se, as it is a much more effective strategy, easier to cascade it down the organization and communicate to the stakeholders. Committed to achieving carbon neutrality by 2040, in its 2020-2024 strategic plan New Energy is investing 7.4 billion euros to make its infrastructure hydrogen-ready and develop its new four energy transition businesses: biomethane, energy efficiency, sustainable mobility and hydrogen. Innovation is pivotal as Strategy put New Energy’s Purpose into practice: among other initiatives, New Energy has launched the “NewEnergy Tec-Tomorrow’s Energy Company” project, which is worth 1.4 billion in investments by 2023 and prepares the company for future challenges, with a focus on reducing environmental impact, on the new four green businesses, and on better connections with communities.

*What led New Energy to embed Integrated Thinking?*

Within New Energy, the execution of the purpose-driven sustainable strategy is rooted in the Integrated Thinking approach of the company. New Energy’s Integrated Thinking journey started when the company recognized the need to foster sustainability in its strategy and business model and facilitate the disclosure of both financial and non-financial information – the latter already reported in the Sustainability Report. Since 2012, New Energy’s culture has been continuously evolving. When the business became independent from its previous Energy Group it had to build its own identity. This transition questioned the values and structure at New Energy, providing a moment for the organization to reflect on and improve internal processes.

New Energy required a framework that could guide this process. Hence, the organization decided to take part in the IIRC’s Pilot Programme initiative in 2013. This change was fundamental for the organization and became increasingly important with EU law laying down the rules on disclosure of non-financial and diversity information by large companies under the Directive 2014/95/EU. The adoption of the IIRC Framework led the company to incorporate sustainability aspects within its internal processes and practices. This was carried out by an interdepartmental working group, headed by the Financial and Sustainability teams that also included employees from Legal, Human Resources, Enterprise Risk Management, Health and Safety, and Environment and Quality departments. As highlighted by New Energy’s Sustainability Manager:

“The process started in 2013, when we decided that our reporting model had to change to reflect the importance that non-financial information had in the value creation process of the company. This was further strengthened by the EU Directive on non-financial reporting in 2014. We decided to adopt the IIRC Framework and realized that building an integrated report required integrated thinking to be practiced”.

**3.2 Integrated Thinking in practice within New Energy**

New Energy started its Integrated Thinking journey by working with an external advisor on its reporting model, materiality and stakeholder engagement. By gaining a holistic view of the business, New Energy hoped to be better placed to assess the value it creates. The first milestone of New Energy’s Integrated Thinking journey was achieved in 2015, when the organization published its first integrated report. The report reflected the internal work that had been carried out to enable the integration of sustainability aspects within the industrial plan.

It was agreed that the organization ought to aim for complete integration of sustainability into the business and that goal could be better achieved by a shift from a pyramid structure to a flatter one. This was deemed crucial to avoid the creation of silos between functions. In 2016, the company introduced a Sustainability Committee, which in 2019 became the ESG Committee. The role of the Committee is to monitor and foster the integration of ESG factors within the organization’s strategy.

*How has Integrated Thinking helped New Energy articulate its strategy?*

Integrated Thinking is now embedded within the organization and is a fundamental element of its 2019-2023 strategic plan, which was published in November 2019. The plan aims to deliver sustainable growth through a value creation model that fosters the continuous improvement of the core business, a solid financial structure, the commitment to energy transition and the development of an internationalization strategy. As highlighted above the strategy is underpinned by the purpose of the organization: “Energy to inspire the world”. In turn, the purpose is articulated by four values, defined in 2018, which integrate ESG aspects within the business: “Making connections to create opportunities”; “Promoting safety”; “Supporting the world which is changing” and “Giving shape to the future”. These four values drive the company’s business activities: Storage, Transportation, Regasification and Green Business.

According to New Energy’s Sustainability Manager:

“In 2012 we started to rethink our identity, we started to work on our organizational culture. This is an ongoing process, nonetheless, we now have integrated ESG factors across all functions of our business. The main enablers of this process have been our purpose and our values, which allow us to carry out our business activities, Storage, Transportation, Regasification and Green Business, by taking into account the holistic value that is created. Indeed, ESG elements are as well integrated in our corporate bylaw. For example, in 2019 during the Extraordinary Shareholders’ Meeting we agreed to change New Energy’s corporate bylaw to promote gender equality in our governance”.

A key goal set by the company is to achieve decarbonization. New Energy intends to do so by integrating business goals with sustainability objectives. These hybrid objectives are further integrated in the organization’s industrial plan. New Energy relies on a strong management process to monitor and assess the company’s renewed sustainable strategy. The guidelines set out by the leadership team and CEO in the strategic plan are co-created with the company’s sustainability team and ESG Committee. New Energy’s strategy, therefore, is the outcome of an integrated top-down and bottom-up approach. The strategic plan is also marked by economic-financial and sustainability targets, which monitor and track the plan.

The corporate strategy is reviewed through the annual planning process, which involves the active participation of all functions and is influenced by internal stakeholder ESG KPIs. Also, an important process is the Function Review, where the company’s management level is invited to the Leadership’s Team meeting to ensure full transparency and a flat corporate structure. As argued by New Energy’s Sustainability Manager:

“Integrated Thinking supports the definition of our strategy and how this can be executed by our business model. This is supported by our integrated management system. A clear example of this is provided by our Function Review project. This project foresees that our management team presents, discusses, and overviews the work in progress with the Leadership Team during their staff meetings. This is supported by New Energy’s organizational culture which enables the flow of information and avoids the creation of silos”.

*How has Integrated Thinking helped New Energy deploy its strategy?*

Integrated Thinking has supported New Energy’s organizational culture and reporting practices, which have enabled the execution of the company’s strategy. New Energy manages the performance of its strategy by monitoring the financial and non-financial ESG KPIs on a monthly and quarterly basis. The KPIs have been developed from financial, investments and market perspectives and results linked to the gas network and work safety. A three-level control system is used across the business to identify, assess and manage safety risk. The CEO is charged by the Board of Directors with overseeing the structure and maintaining the system. The first level check ensures that New Energy and its subsidiaries undertake the measurement and management of risks and the implementation of related checks for the processes they are responsible for. The second level check confirms that the enterprise risk management system monitors and ensures the adequacy of the checks. The third level check safeguards the independent check that is carried out by an internal audit.

With the support of Integrated Thinking, the company’s risks are identified, measured, valued, and prioritized in a cross-organizational way. This is carried out through the enterprise risk management model and its impact measurement is wide-ranging. Indeed, multiple types of impact are detected for each risk event through first level checks carried out by risk owners and specialist departments. For example, a risk event has types of impact that are operational (detected by risk owners) and specialist (detected by financial and legal departments).

**3.3 Integrated Thinking and innovative performance measurement systems: the ESG scorecard**

Over the last few years, New Energy has strengthened its business model with a view to achieving the UN’s Sustainable Development Goals. Within this process, Integrated Thinking led to building a Scorecard of ambitious objectives on ESG issues to generate positive impact both for the company and its stakeholders. The targets have a three-year timescale, and the scorecard will be monitored and reviewed annually.

The ever-increasing importance of non-financial aspects in defining corporate strategies, the consideration that investors place on ESG issues in their investment choices, as well as the interest of all stakeholders in the company’s modus operandi, have driven New Energy to strengthen its ability to measure its impact on the planet and society. Having implemented a sustainable development model and committed to reducing its impacts through sustainability projects and initiatives several years ago, New Energy has decided to further integrate sustainability into its business: this is how the new ESG Scorecard was introduced, a tool designed to provide maximum disclosure on the main environmental, social and governance aspects and to assess the performance of the group with respect to certain targets defined for the coming years.

While the existing sustainability performance measurement model already enabled New Energy to monitor over 140 KPIs in the ESG field, with its new ESG Scorecard New Energy has decided to further strengthen this process by defining specific annual KPIs and targets belonging to the environmental sphere (natural gas emissions, energy savings, green innovation, land protection and biodiversity), social (welfare, employee engagement, safety, gender diversity, responsible and sustainable supply chain, local communities) and governance (governance structure and its functioning, infrastructure reliability, anti-corruption).

*How has embedding Integrated Thinking benefited New Energy?*

Integrated Thinking has benefited New Energy in building a strong and long-lasting relationship of trust and transparency with its stakeholders. Indeed, the adoption of Integrated Thinking has enabled the company to answer stakeholders’ requests accurately and comprehensively. Moreover, it has encouraged the organization to develop cross-functional collaboration.

Integrated Thinking has helped the company to incorporate ESG factors in its risk management model, enabling evaluation of opportunities and risks and leading to a more efficient decision-making process. Integrated Thinking was crucial to establish New Energy’s strategy since the future of its business is strictly linked with sustainability. As argued by New Energy’s Sustainability Manager:

“Adopting Integrated Thinking has benefited us in several ways. It has helped us build a good relationship with our stakeholders. Moreover, it has encouraged us to create cross-functional collaboration, which is key to fostering a holistic approach in our value creation process”.

Being fully ingrained in the discipline of making a deliberate and coordinated effort to connect the organization’s strategy, governance, performance and prospects, the way in which Integrated Thinking is adopted by organizations is different from company to company. It is indeed connected to the relationships between the multiple and heterogeneous operating and functional units and stores of value that the organization uses or effects to create value over the short, medium, and long term. Nevertheless, the empirical evidence that illustrates the New Energy’s journey towards Integrated Thinking adds to the literature reviewed above offering a snapshot of the process of adoption, as well as its possible challenges and benefits. Next, we turn to the papers of this special issue summarising their key themes and contents.

1. **Contributions of the special issue**

This special issue contributes to the emerging field of Integrated Thinking, encouraging further research and debate into its adoption within organisations. The 13 papers of this issue rely on a variety of theoretical lenses, qualitative and quantitative methodological approaches to explore how Integrated Thinking is practiced within contemporary organizations. Next, we introduce the papers according to the three areas of the framework we developed in Section 2.

***The concept and measures of Integrated Thinking***

The first paper of the special issue offers a thorough and systematic overview of the academic literature on Integrated Thinking and Reporting (Di Vaio *et al.,* 2021). By drawing on a bibliometric analysis conducted on a database containing 60 publications from 1990 to 2019, Di Vaio *et al.* (2021) show that Integrating Thinking and Reporting have changed how organisations communicate and create value, facilitating the integration of processes and a better allocation of resources and capitals. However, this study also highlights that organisations still lack a comprehensive understanding of Integrated Thinking and Reporting, which come to be mainly used as mere approaches to disclose the positive results of the organisation (Di Vaio *et al.,* 2021).

Arul *et al.* (2021) compare and contrast Integrated Reporting disclosures in two different institutional settings, South Africa and Japan, to provide insights into the concept of Integrated Thinking. In particular, the authors perform a content analysis of the narrative sections of a sample of integrated reports of organisations operating in the financial sector in both countries to explore similarities and differences in the way the concept of Integrated Thinking is portrayed (Arul *et al*., 2021). The analysis suggests that a strong association exists between Integrated Thinking disclosures, corporate governance practices, materiality assessments and the pursuit of an industry leadership position (Arul *et al*., 2021). In a similar vein, Quarchioni *et al*. (2021) combine textual analysis and network text analysis to examine the meaning of Integrated Thinking as it is embedded in the texts of integrated reports of five organizations between 2012 and 2018. They found that the concept of Integrated Thinking is dynamic in its meaning since it is referred to a wide range of objects that are represented in integrated reports, such as different types of capital (i.e., financial, human, social-relational, process, organizational, commercial), which are related to each other while following different paths over time (Quarchioni *et al.,* 2021). This study offers a linguistic approach for analyzing the different concepts related to Integrated Thinking to make them meaningful in facilitating coordination within and between organizations (Quarchioni *et al.,* 2021).

The next paper of the special issue introduces an analytical focus on individuals’ *integrative* thinking capacity to further understand *Integrated* Thinking within organisations (McGuigan *et al.*, 2021). The study draws on the Conceptual Systems Theory to explore how *integrative* thinking can be encouraged and supported among individuals and how *Integrated* Thinking can be fostered within organisations (McGuigan *et al*., 2021). By analysing four sites of *integrative* thinking (i.e., the Athenian democracy; the Minangkabau community; the Quakers and consensus decision-making; the Apis Mellifera and the hive mind), the study demonstrates that *integrative* thinking can be actively developed among individuals through ongoing professional development and learning interventions designed to model more *integrative* ways of thinking within organisations (McGuigan *et al*., 2021).

Malafronte and Pereira (2021) propose a measure to quantify the level of Integrated Thinking within organisations. By employing the Thomson Reuters Asset4 scores, they perform both a factor analysis and a cluster analysis to rationalize the choice of variables that could serve as proxies of the level of Integrated Thinking within an organisation (Malafronte and Pereira, 2021). Their study shows that a quantified metric of Integrated Thinking can help managers adopt a holistic view of the value creation process within their business model, supporting investors and other stakeholders in monitoring organisations’ journey towards Integrated Thinking (Malafronte and Pereira, 2021).

In the next paper, Kunc *et al.* (2021) draw on the backward and forward-looking disclosure in Integrated Reporting and the Dynamic Resource-Based View to develop an explorative case study: a quantitative simulation model based on an Integrated Report. The authors argue that, while the Integrated Reporting framework can support organizations to develop a comprehensive representation of their business model, it inevitably needs to embrace the adoption of a holistic vision to Integrated Thinking and management (Kunc *et al*., 2021). They suggest that the Dynamic Resource-Based View may help decision-makers and investors to transform past-oriented financial information into “new”, forward-looking knowledge, informing future decisions in a more quantitative way (Kunc *et al*., 2021).

***Integrated Thinking in practice***

As noted above, the adoption of Integrating Thinking within organisations is not a straightforward process. As highlighted by Dimes and De Villiers (2021), Management Control Systems can both enable and constrain the successful adoption of Integrated Thinking in an organisation. By relying upon a field study, the paper shows how the Management Control System model developed by Tessier and Otley (2012) can be used as a framework to study the adoption of Integrated Thinking. In particular, Dimes and De Villiers’ (2021) research suggests that informal social controls with strong endorsement from senior management frequently substitute more formal technical controls in helping to develop a trust-based organisational culture, which favors Integrated Thinking. However, even within a collaborative and trustful environment, profit-focused performance measurement and reporting systems may constrain the successful adoption of Integrated Thinking, reinforcing a silos approach and a focus on short-term performance metrics.

Herat *et al.* (2021) explore how the Integrated Thinking perspective of the CEO impacts the management’s orchestration of the six capitals to create value in an organization. By drawing on the experience of two business organizations in Sri Lanka, the study shows that a broad perspective of the Integrated Thinking of the CEO generates greater impacts on the orchestration of the six capitals by the management and can result in greater value creation over time. On the contrary, a narrower perspective of a CEO toward Integrated Thinking can lead to a business case perspective for value creation, which causes the organisation to focus only on the key areas of responsibility that matter for operational efficiency improvements (Herat *et al*., 2021). Along these lines, Garcia-Sanchez *et al.* (2021) investigate the role of the CEO as a corporate governance determinant capable of influencing the choices of Integrated Reporting adoption and examine whether this role is moderated by incentives to promote corporate transparency. The quantitative analysis shows that CEOs with greater power oppose the disclosure of integrated information about the organisation’s value creation, and that this behaviour is not modified by firms’ incentives. The study suggests that the negative relationship between CEO power and Integrated Reporting adoption can be extended to the quality of information contained in the integrated reports and that organisations should limit CEO power to allow greater transparency (Garcia-Sanchez *et al*., 2021).

In the following study, Devalle *et al.* (2021) explore organizations’ approaches and actions of Integrated Thinking based on stakeholder engagement practices. The research relies on a case-study of an Italian company to demonstrate that the more Integrated Thinking is embedded in the business, the more the organization refers to key stakeholders’ interests as a relevant part of its value creation process (Devalle *et al.,* 2021). The study also suggests a practical Integrated Thinking approach, which recognizes sustainability as an end in itself and not just as a means to achieve profit maximization. Such approach is based on the consideration and involvement of all stakeholders (Devalle *et al.,* 2021).

***Integrated Thinking and sustainable strategies***

Integrated Thinking and Reporting have been traditionally used to integrate sustainability issues into processes of strategic decision-making and long-term value creation. In their research, Rossi and Luque-Vílchez (2021) draw on neo-institutional theory to explore the integration of sustainability issues into the accounting system of a small-medium Italian company. The study suggests that regulative, normative and cognitive factors contribute to the institutionalization of a sustainable accounting system within organizations (Rossi and Luque-Vílchez, 2021). In line with previous research on social and environmental accounting, this study shows that the appropriateness of the institutional and organizational context and culture helps the social and environmental reporting implementation process (Rossi and Luque-Vílchez, 2021). In a similar vein, Paolone *et al.* (2021) conduct an action research in a multi-utility company to investigate how organizations involve multiple stakeholders in the development of an integrated report to give greater transparency and accountability of their decisions. The study applies a system dynamics method to examine the nonlinear behaviour of complex systems in the development of an integrated sustainability report (Paolone *et al.,* 2021).

In the last paper of the special issue, Brunelli *et al.* (2021) contribute to the debate on accountability for climate change using the Integrating Thinking perspective. The authors argue that the debate on accountability for climate change is dominated by a “silo approach”, which results in a loss of connectivity amongst internal and external factors, leading to weak motivations as well as poor performance in tackling climate change (Brunelli *et al.*, 2021). The study suggests adopting an Integrated Thinking approach grounded on “The Climate Governance Triangle” in the development of accounting and accountability tools to address climate issues (Brunelli *et al.*, 2021).

1. **Conclusion**

This paper offers a twofold contribution. Firstly, we contribute to the emerging literature on Integrated Thinking by developing a framework that systematizes the studies on this topic into three areas: Integrated Thinking and sustainable strategies; Integrating Thinking in practice; the concept and measures of Integrated Thinking. Secondly, we answer to the call for further research on how Integrated Thinking is practiced within organizations (Oliver *et al.* 2016; Dumay and Dai, 2017; Feng *et al.*, 2017; La Torre *et al.,* 2019) by offering an illustration of the ways in which Integrated Thinking has been adopted by a European energy infrastructure company to shape and execute its purpose-driven sustainable strategy, as well as the benefits that have emerged. Finally, we present the contributions of this special issue of *Meditari Accountancy Research* which offers novel theoretical and empirical insights on how Integrated Thinking is practiced within organizations.

The rise and development of Integrated Thinking and Reporting practices appear to be crucial in the contemporary context when the notion of capitalism, the ultimate purpose of the business, the concept of corporate value creation, as well as the adoption of the UN Agenda 2030 and the climate change challenges are all being placed under the spotlight. This special issue is therefore timely and provides opportunities for future research on Integrated Thinking. In particular, the framework we developed in this paper may be drawn upon by researchers to further explore Integrated Thinking and its adoption within organizations. Future research may look at how Integrated Thinking can support organizations in integrating the different capitals to plan and execute sustainable development strategies. Researchers may also explore the challenges organizations encounter in making Integrating Thinking happen, as well as the opportunities and innovations this approach can bring in terms of internal processes, cultural changes, and performance management systems. Further research is also needed to understand how Integrated Thinking is interpreted and “lived” by individuals in their daily activities and which metrics can be used to assess the extent to which Integrating Thinking is embedded within organizational processes.

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1. New Energy is a pseudonym used for reasons of privacy and confidentiality. [↑](#footnote-ref-1)