

Integrated Thinking & Strategy



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Join us

The Integrated Thinking & Strategy Group brings together some of the world's most innovative companies 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. We are sharing our initial ideas to help others who are facing the same challenges and to get feedback on our ideas. Come and join us.

Contact us at: businessnetwork@theiirc.org

Integration will drive business performance in the 21st century

In today's world, when the financial and manufactured assets of a business can account for as little as twenty percent of market value, businesses are applying a new lens to understand and explain how value is created and how success can be sustained in the long term.

To divide a business today according to its operational functions can sow the seeds of disunity between purpose, vision and strategy.

We need to foster a culture of collaboration and integration between different parts of the business. The evidence shows that breaking down internal silos creates the conditions for increased cooperation, the cross-fertilization of ideas and new value-adding initiatives that can lead to new products and service lines. Many of the organizations that have come together in the IIRC's Integrated Thinking & Strategy Group have gained tangible benefits from this management practice.

To manage a business effectively in the $21^{\rm st}$ century company boards need access to information and data from across the different dimensions of value – the six 'capitals' included in the International <IR> Framework are a helpful reference point for top management to assess the multiple resources and relationships they use to create value. But these drivers of value do not sit in isolation from one another; just as we live in a world of interconnected risks, there are tradeoffs between the use of different capitals that need to be assessed and explained.

For example, to drive productivity a company may invest in its workforce through training or increased wages. In the short term this will show as a financial cost, but over the medium and longer term the business should see an increase in the motivation and productivity of its staff, an improvement in its employee engagement score and higher financial performance.

As well as being good for business performance, integrated thinking translates into better corporate governance, with risks identified and managed earlier. Applying the multi-capital discipline also orients the risk management, internal audit and company secretary functions towards this broader understanding of strategy, influencing the flow of information to the board and improving management's line of sight over key risks and opportunities.



"We need to foster a culture of collaboration and integration."

A collaborative management culture, a multicapital mindset and outcome-based corporate governance – these are the building blocks of integrated thinking, the output of which is an integrated report. Above all, integrated thinking is a unifying concept and a strategic tool that helps management to bring order to the manifestly complex environment in which businesses must operate in the 21st century.

I encourage you to read this report and apply the lessons from the case studies. Please also respond by sending your feedback to the IIRC so that we can learn from your experience and expand our circle of practice in the years to come.

Professor Judge Mervyn King SC Chair Emeritus, International Integrated Reporting Council

Executive summary

How should the management of modern business operate? Are there good practices we can learn from? Is there a goal managers should be aiming for when managing multiple resources beyond financial capital, including human, natural, intellectual, manufactured, and social and relationship capitals?

Some organizations have started to tie together new management practices based on a broader understanding of the resources they use and manage. To use the language defined in the International Integrated Reporting Framework, they are seeking to consider the creation of multicapital value over the short, medium and long term. This multi-capital management approach is known as integrated thinking.

Rather than using a narrow focus on financial tools, today's best performers are basing their business decisions on interconnected information across multiple capitals, including natural, social and relationship, human, manufactured and intellectual. Financial capital, it turns out, is just one capital of many.

Drivers for an integrated perspective

The drivers for this shift are coming from a number of different sources. For example, Solvay, a Belgian chemical company, is clear that its most significant issues relate to rising demand for energy-intensive chemicals, its own ability to catalyze the low-carbon transition in other sectors and the need to improve its own carbon productivity.

Royal Schiphol Group, a Dutch airport company, sees its performance through the eyes of its many and different stakeholders.

HSBC, a British bank and financial services company, reports that its own investors are increasingly interested in environmental, social and governance (ESG) issues.

The World Bank's work in promoting the Sustainable Development Goals (SDGs) has encouraged the creation of new SDG-oriented bonds.

Snam, an Italian natural gas company, is seeking to act as a point of reference for the Italian and European journey towards decarbonization.

BASF, a German chemical company, is incorporating a broad range of non-financial factors into its investment decisions.

Standard Bank, a South African bank, now rewards all employees on the basis of the company's performance across five different social, economic and environmental value drivers.

A new model

What do these companies have in common?

They are practicing integrated thinking by focusing on the drivers of value creation in a multi-capital world.

They are putting in management processes that focus on the connectivity between these resources and relationships across their strategy, governance, performance and prospects to understand how, in the context of their external environment, they are creating value in the short, medium and long term.

The graphic in Figure 1 is a visual representation of the resources, or capitals, that a company deploys to create value. This value can be seen to have impacts on those same resources that were used as inputs. If we only cared about financial performance, we may imagine a single string – the string of financial capital – which acts as the resource a company uses, as well as the measure of its success. In a model with multiple inputs and multiple impacts, we can see multiple strings in operation.

In a world of integrated thinking, we don't just want the individual strings – the capitals and their impacts – to be considered in isolation, we need them to be evaluated together. These strings affect each other. They have impacts on each other. Taken together and taken over time, the actions of the different strings can create value in new ways, or magnify the value creation process over time, or be scaled back by negative impacts from one of the strings.

Visually, if we were to tie the strings together and show their changing impact over time, we could visualise the result as a spring. (See page 12 for an enlarged version and further detail).

The key challenge for management, is to make the spring as effective as possible in enabling the company to create value. This is the heart of integrated thinking.

To support this discussion, this report provides case studies of companies already practicing integrated thinking, and points to tools and techniques that can be utilized to develop these practices further.

















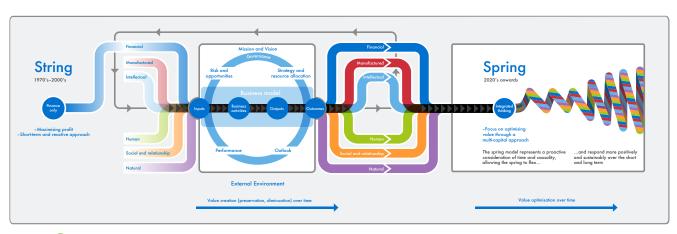


Figure 1 🔷

Introduction

"Make as much money as possible, while conforming to the basic rules of society, both those embodied in law and those embodied in ethical custom."

These words from the pen of Milton Friedman have driven the global rules of business engagement for the last forty years.

The impacts of the Friedman doctrine dominate our view of the world: massive wealth creation, ubiquitous diffusion of technology and poverty reduction on a scale never seen before. But the successes have been undermined by the failures. A favored few have benefited from the system at the expense of a heavily-exploited "bottom of the pyramid" underclass. Climate change, driven by an insatiable appetite for cheap fossil fuel energy, is threatening humankind's ability to live on this planet. Perhaps the deepest crisis of all is the loss of biodiversity, threatening the mass extinction of living species.

Can we run our companies in the same way that we have over the last forty years? Not if we want the outcomes to look different in any significant way. Yet, most companies use business management tools based on financial analysis alone, usually focused on short term considerations only and are asked to do so by their investors. The old, and failing, toolset is still the toolset of choice.²

The basic questions are straightforward: how should modern business management operate? Are there good practices we can learn from? Is there a goal managers should be aiming for when managing multiple resources beyond financial capital, including human, natural, intellectual, manufactured and social and relationship, capitals?

Some companies have started to tie together new management practices based on a broader understanding of the resources they use and manage. To use the language defined in the International Integrated Reporting Framework, they are seeking to consider the creation of multi-capital value over the short, medium and long term.

Rather than using a narrow focus on financial tools, today's best performers3 are basing their business decisions on interconnected information across multiple capitals, including natural, social and relationship, human, manufactured and intellectual. Financial capital, it turns out, is just one capital of many. This practice leads them to ask:

- What are the strategic imperatives behind multi-capital value creation?
- What multi-capital decision tools are credible in the boardroom and with investors?
- How do we deal strategically with the interaction with governance and performance management?

Integrated thinking - balancing a company's performance across financial, social and relationship, human, intellectual, manufactured and natural capitals - is still developing as a nascent discipline.

Companies are adopting these ideas, but in disconnected ways. We recognized the need for momentum in this critical area and in June 2018, we formed a group of strategic thought leaders to drive progress. Currently, we have over forty participants from nearly twenty countries working together on these ideas, with the support of six partner organizations.

The Integrated Thinking and Strategy Group (a special interest group of the IIRC's <IR> Business Network) brings together some of the world's most innovative companies 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.

This document is a state of play report that captures the initial thinking and ideas being developed in the group. The work is by no means complete. We have not settled many issues, but we are sharing our thinking in order to spread the word and to get feedback. We are keen to hear from you and invite you to consider the ideas offered here, and to provide your feedback to businessnetwork@theiirc.org.

"As Mervyn King, Chair Emeritus of the IIRC pointed out, "What do you see around today? You see a constrained natural-resource world. We now have 7.5 billion people on the planet. Last night, one-quarter of them went to bed without food or potable water. Yet we have to board and lodge a further two billion people by 2045. How will we do that? One has to carry on business as unusual – there is no other way."4

How the Integrated Thinking & Strategy Group view integrated thinking

Integrated thinking is a multi-capital management approach that enables organizations to deliver their purpose to the benefit of their key stakeholders over time.

Integrated thinking is about creating and protecting value. Linking purpose and values to strategy, risks, opportunities, objectives, plans, metrics and incentives throughout the organization enables better decision-making.

Integrated thinking requires effective governance, culture, accountability and transparency. It recognizes the importance of addressing value destruction, boundary conditions, changing conditions/context and feedback loops.

Co-chairs of Integrated Thinking & Strategy Group:



Jyoti Banerjee, Strategic Advisor, IIRC/ Partner, Fronesys



Christian Heller. Vice President, BASF/ CEO, Value Balancing Alliance e.V.

Project manager:



Brigitte Raffegeau,

See Friedman (1970) where the writer proposes that the social purpose of business is to produce profits.

Bower and Paine (2017) argue that the primacy of financial capital is pervasive in the financial community and much of the business world: "It centres on the idea that management's objective is, or should be, maximizing value for shareholders, but it addresses a wide range of topics – from performance measurement and executive compensation to shareholder rights, the role of directors, and corporate responsibility. This thought system has been embraced not only by hedge fund activists ... but also by institutional investors more generally,

along with many boards, managers, lawyers, academics and even some regulators and lawmakers."

A number of academic articles point to the strong link between sustainability performance and financial performance. For a summary covering many different themes, see Whelan and

Professor Judge Mervyn King addressing participants in the IIRC's Integrated Thinking & Strategy Group, Paris, October 2018.

The case for change – the emergence of integrated thinking

Integrated thinking is already taking place in our businesses. Given the range of issues we face, there is no choice but to seek a broader, more integrated perspective. Before we explore a model for integrated thinking, we first provide real-world examples of situations facing organizations – these illustrations tell us that organizations are serious in their practice of integrated thinking, but still believe there is much more that can be done.

The work of the Integrated Thinking & Strategy Group has been to learn from the examples of practice in our group, and to explore ways in which we can sharpen these concepts for the benefit of businesses across the world.

An example from the chemicals industry

Consumers across the world are waking up to the actions they can take to reduce their use of single-use products. How should chemical companies that produce plastic deal with this situation?

Michel Washer, Deputy Chief Sustainability Officer at Solvay, a Belgian chemical company, has found that the traditional decision-making tools available to businesses are not helpful. "The traditional business view has been built around the value we create for customers (using Porter's Five Forces model, for example) and the value we create for our shareholders through financial performance (focusing on discounted cash flow and return on capital in the short term, for example). Using these measures, our customers should be happy with the products we create and our shareholders might be pleased with the returns we generate. Potential negative impacts upstream or downstream were not systematically considered."

There are more and more examples showing that this approach is not acceptable anymore. Plastics in the ocean is one of the most obvious examples, but not the only one. Human rights issues in the value chain are now reported in the press. Conflict minerals are another example. Companies must focus beyond value creation for their direct

The percentage of manufactured products that rely on chemistry.



stakeholders and look at value creation or destruction throughout the value chain.

As Washer explains, "The problem is not the value consumers receive from our products, but the perception of the negative impacts our industry is creating elsewhere in the value chain." For Solvay, and for other chemical producers, value has to be understood across the entire value chain. This understanding of value and the value chain has to cover:

- A broader set of issues more than just financial performance or product benefits
- A wider set of stakeholders more than just a company's shareholders or customers
- Multiple time horizons impacts need to be understood in the short, medium and long term, not just the short term.

Taken together, this leads to a new understanding of value, where value creation and destruction are considered throughout the value chain. This is illustrative of the scope of challenges the chemical sector faces. Solvay is one of a number of chemical companies that contributed to a recent report by WBCSD⁷ on climate impacts in the sector, which identifies a broad range of issues these companies have to deal with:

- 95% of all manufactured products rely on chemistry, and demand for the most energyintensive chemicals is expected to increase 2.8-fold by 2050
- The sector can catalyze the low-carbon transition across other industries, by driving the reduction of 2.5 gigatons of carbon dioxide equivalent (GtCO2e) per year up to 2030
- Achieving reductions in global emissions in line with a 2°C global warming trajectory, taking into account the expected 2.8-fold increase in output, requires a 75% reduction in emissions per unit of chemical product by 2050
- While these changes are happening, these organizations have to deal with other trends, including water scarcity, product toxicity, waste and increasing consumer pressure towards the circular economy.

The amount of reduction in global emissions required per unit of chemical product by 2050 to remain in line with the 2°C global warming trajectory.



^{7.} See WBCSD (2019) report, prepared by the TCFD Chemical Sector Preparer Forum, a collaboration between AkzoNobel, BASF, DSM, Solvay, Sumitomo Chemical Company, Limited and WBCSD.

Clearly, non-financial issues will have a deep impact on the risk and opportunity profiles of companies in this sector. Incorporating these issues into their own management practices is part of the journey towards integrated thinking that is taking place in Solvay.

An example from the aviation industry

Stepping away from chemicals, an organization that has had long experience in dealing with value across multiple dimensions is Royal Schiphol Group, a Dutch airport company.

"From the seventies, we have been aware of the negative impacts that an airport has on living standards for those who live near us," explained Marianne de Bie, Senior Advisor Corporate Affairs at Royal Schiphol Group. "But, alongside Port of Rotterdam, we are a key driver of the entire Dutch economy through the transport links we create. As an employer, we use people from all sorts of educational and social backgrounds. The capitals (listed in the International <IR> Framework) are in our DNA."

Yet it is only over the past two years that Schiphol's corporate KPIs have extended beyond financial performance.

Today the airport is seeking to deliver:

- Quality of life primarily seen through the lens of reducing the airport's negative impacts on its immediate community
- Quality of network destinations reflecting the role the airport has as a main driver of the Dutch economy and maintaining the connectivity of the Netherlands to economic centres worldwide
- Quality of services focused on the performance of the airport for the benefit of its customers, employees and partners.

In one sense, it should not be a surprise that value is multi-dimensional. Yet, in practice, value has been defined primarily in financial terms, particularly over the last forty years or so. It's not that the non-financial issues were not present before. Perhaps, as in the case of Schiphol, they were implicit in the actions and business decisions of the airport. Today, they need to be explicit in a company's articulation of its strategy, its decision making and the financial remuneration of all staff.

Other examples

Several participants in the IIRC's Integrated Thinking & Strategy Group report that they are pushing towards a broader perspective, beyond simply managing financial performance. Such a broader view of management practice is at the heart of integrated thinking. The drivers for this push came from a number of different sources.

Further insights from organizations in the Integrated Thinking & Strategy Group

Company	Туре	Drivers for a broader perspective
HSBC	Publicly listed bank and financial services company, headquartered in London, UK, with multiple listings across global markets.	 The 2016 Paris Agreement on greenhouse gas emissions encouraged the bank to think about ways in which this agreement would impact its customers, and itself
		 The greater interest in ESG issues among investors meant that the company had to take account of shifting market conditions
		 There was a greater focus inside the company on sustainability issues, both from a business perspective (new products and services, as well as existing products that have been changed) and from an operational perspective.
The World Bank	International financial institution, headquartered in Washington DC, USA.	 Natural organic changes within the institution that sought to connect the five entities of the World Bank Group
		The focus was on connecting the silos, not on breaking them – recognition that there was genuine expertise and value added in the silos and that should not be lost
		 Greater interest in the capital markets for social impact on the SDGs – this encouraged the Bank to increase the connectivity within the institution and between performance and strategy.
SNAM	Natural gas infrastructure company, headquartered in San Donato Milanese, Italy. A listed company, which is a partially-owned state enterprise.	The company seeks to act as a point of reference for the Italian and European journey towards decarbonization and energy transition
		 Supporting the development of energy from non- programmable renewable sources by meeting energy demand also through the supply of natural gas, biomethane and the use of innovative technologies such as the hydrogen injection into the network and power-to-gas
		 A Europe-wide drive towards sustainable mobility has created focus areas for the company in this respect, including methane and biomethane filling stations for use by cars and small liquefactions plants for use by heavy transportation.
ING	Publicly listed bank and financial services company, headquartered in Amsterdam, Netherlands.	Interest in non-financial performance from central banks and monetary authorities.
		 Investors taking an interest in the company's approach to value creation and integrated reporting.
		 Attention from external stakeholders has helped intensify collaboration between departments that don't typically work together. As collaboration increases, silos are broken down and integration of sustainability takes deeper roots.
BASF	Chemical company, headquartered in Ludwigshafen, Germany. Listed in multiple stock markets across Europe.	 Production sites are expected to operate for around thirty years. As a result, investment decisions need to take into account a broader range of factors, such as changing demographics over the next thirty years; significant fluctuations in water availability; likelihood of increased frequencies of severe weather events.

As we can see from the table, there is a broad spectrum of perspective change in a company. Some are driven by regulatory and oversight issues. Some are caused by changes in the external environment that these companies are operating in. And some are driven by internal changes responding to new ways of doing

business today. Whatever the source of these drivers, they are compelling businesses to take a broader view of how they work, who they benefit (or hurt) and what their impacts are over different timeframes. Such a broader perspective creates the opportunity for business-as-unusual in the management of our companies.

Summary list of drivers

Category of change Sample Issues Megatrends - Demographics (population growth/migration, etc.) - Climate change - Biodiversity loss - Widening inequalities - Technology innovation - Speed and amplification of change. **Company and industry** Changes driven by stakeholders: drivers - Evolving investor behaviour, especially in the context of ESG/SDG preferences and longer term value creation

- Changing attitudes and balance of power across company, customer, employee and society relationships
- Actions taken by NGOs that can negatively affect reputation and brand if the company is perceived as uncaring or incompetent when it comes to stakeholder impacts.

Changes driven by societal changes:

- A license to operate based on the impacts a business makes across its entire value chain8
- Changes to quality of life in regards to wealth and health when people are well fed, healthy and in peacetime, their concerns change
- Trust and accountability driven by corporate scandals and failures, as well as the global financial crisis, have resulted in low scores for many businesses on these matters
- Demands for transparency are affecting business, from its supply chains through to the boardroom.

Regulatory changes:

- The push in regulation, particularly in Europe, has been towards greater protection for consumers from big business
- An evolving view of liability for years impacts on third parties were just 'externalities' increasingly, those externalities are shifting to liability.

Changes in mega-trends:

- Business models are being disrupted in all sorts of industries through, for example, technological advancements - we are also seeing disruption caused by resource depletion and societal changes
- Every industry will need to address post-carbon transition, for some time now this has already been a dominant factor in decision-making.

Internal changes:

- New innovations driving change, as well as intensifying other trends
- A shift in horizon expectations with the need to plan for the medium and long term.

^{8.} Increasingly, understanding impacts across the value chain is not just a basic condition of a company's license to operate; it is also an important component of the license to grow.

A model for integrated thinking

Does this broader view of business require a new model for how business works? Or can we simply use the same models that have operated over the past few decades?

The answer we are receiving from organizations participating in the Integrated Thinking & Strategy Group is that the assumptions that drive the traditional view of how the system of business works do not help them make sense of the new environment for business decision-making. This shift has been taking place for some years. Looking back, we can see the shape of this shift.

When the Friedman doctrine was laid down, the measure of success was maximizing the creation of shareholder value⁵. There were no limits to growth since resources were perceived to be in endless supply and the planet could be reasonably expected to swallow all the pollution business created, given enough time. Where environmental and social issues emerged, they were judged as being separate (and subordinate) to the main activity of business – creating a return for shareholders.

By the 1990s, the understanding had developed that sustainability issues could not be divorced from business. Many businesses created sustainability departments and their outputs were often front and centre of the corporate responsibility reports that showed these businesses putting their best foot forward. Diagrammatically, the circles of business, society and the environment intersect, and where they intersect, business does have to pay attention to those issues, and even take responsibility for them. In all other matters, the business of business remains business.

By the end of the first decade of the 21st century, it felt clear to some of the leaders in the sustainability world that something of a dichotomy had been created in business. In the silos where sustainability thinking was allowed to flourish, businesses often took different decisions than the ones they made where there was no reference to sustainability whatsoever. Those different decisions were usually driven by a wider, fuller view of risk management than was taking place where only financial capital was being managed. What was also clear was that sustainability only played out in the margins of most companies – in the mainstream, the rules of the Friedman doctrine were paramount.

What was needed was a new way of thinking about value, its components and its beneficiaries.

Focus on value – the introduction of integrated reporting

The publication of the International Integrated Reporting Framework, at the end of 2013, provided a new direction in the evolution of business. The International <IR> Framework, as it is commonly known, was a new approach to corporate disclosure that was the fruit of a global collaboration across regulators, investors, companies, standard setters, the accounting profession, academia and NGOs.

The core idea behind integrated reporting is value creation: How does an organization create value for itself and others? Who benefits from this creation of value? While value is being created in one area of the business, is value being destroyed elsewhere? Who gets hurt as a result of this destruction of value?⁶

The definition of value itself has morphed from one that was solely focused on financial capital to one that recognizes value as being multicapital and multi-dimensional.

The <IR> Framework describes six classes of capitals (see adjacent). These capitals play out in the short, medium and long term. This is a significant differentiator from traditional reporting frameworks in that it recognizes that business decisions may operate across multiple timelines in the way they create or destroy value for multiple stakeholders.

In 2019, around 2,000 listed companies in over seventy countries are using such an approach for their reporting. But for many, the significant challenge is how to make such a multi-capital approach real in their businesses, both in terms of their long term strategies as well as their day-to-day decision-making.

See Bower and Paine (2017) for a fuller discussion of this.

^{6.} This discussion on value creation and integrated reporting has been drawn from Banerjee (2019) in The Oxford Handbook of Food, Water and Society

The six capitals of integrated reporting



Financial capital

The pool of funds available to an organization or its use in the production of goods or the provision of services – this capital is obtained through financing or is internally generated.



Social and relationship capital

The relationships and institutions within and between communities, stakeholders, and other networks intersecting with the organization.



Manufactured capital

The manufactured physical assets available for use by the organization.



Human capital

The competencies, capabilities, and experience of the organization's people.



Intellectual capital

Organizational and knowledge-based intangibles, including patents, software, systems, and procedures.



Natural capital

All renewable and non-renewable environmental resources that the organization uses, including air, water, land, biodiversity, and the health of ecosystems.

A multi-capital model

Pioneering efforts, including shareholder value and the shared value model have led to more enlightened views in business and investing communities, paving the way to fully integrated management. Now some are arguing for a system value model which integrates the management of issues relating to business, environment and society.

The diagram below is drawn from the work of Future-Fit Foundation, one proponent of such a model.

Changing business reality in the global capitalistic system

Create and protect value for long-term business success.



Figure 2: Changing focus for management practice: 1970 to 2020 Sased on Future-Fit Foundation.

The core differentiators of the system value model can be summarized as follows:

- Explicit incorporation of resources and model elements (such as time horizons and multiple capitals) that were already implicit in many business decisions, but which did not align with the articulation of the dominant shareholder value model
- The articulation that making a profit is not antagonistic to the objectives a company may have for the capitals it uses and affect, such as the environment and society, mainly because properly managing multi-capital risks and opportunities can help generate profit, if appropriately managed
- A company that has a narrow view (a mono capitalistic view based on financial capital alone) does not mitigate its risks and might also not identify its opportunities
- Businesses are no longer seeking to maximize profit, but optimize the creation of value for the company itself and its key stakeholders
- The shift from the shareholder value model to the system value model requires a company to articulate a changed purpose to
 optimize its profit.

Integrated thinking: The spring model

Integrated reporting is about more than just creating a report. 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.⁹

This approach to value creation in terms of the six capitals and the trade-offs that must be taken into account are captured in the <IR> Framework using the graphic in Figure 3. On the left side of the diagram, a company uses its resources, denominated in terms of capitals, to carry out its activities. On the right side, we see that the creation (or destruction) of value is through the impacts that the organization makes, and these impacts act upon the same capitals that were used to resource the company in the first place. In this view, a company is seen as a value-transforming organization. Such an approach is radically different from traditional financial reporting and has implications not just for external reporting, but for how companies act inside the boundaries of their businesses.

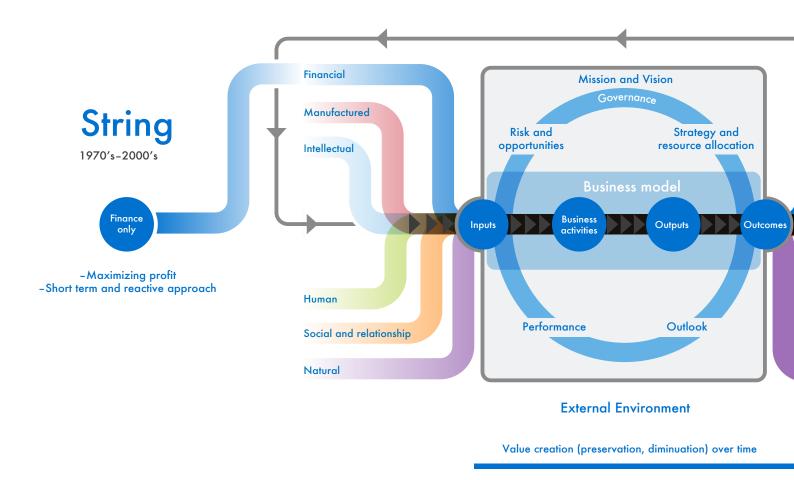


Figure 3 🔷

The first half of graphic in Figure 3, is a visual representation of the operating impact of a corporation. If we were to represent the Friedman model in these terms, we may imagine a single string – the string of financial capital – which acts as the resource a company uses, as well as the measure of its success. In a model with multiple inputs and multiple impacts, this value creation model serves us well.

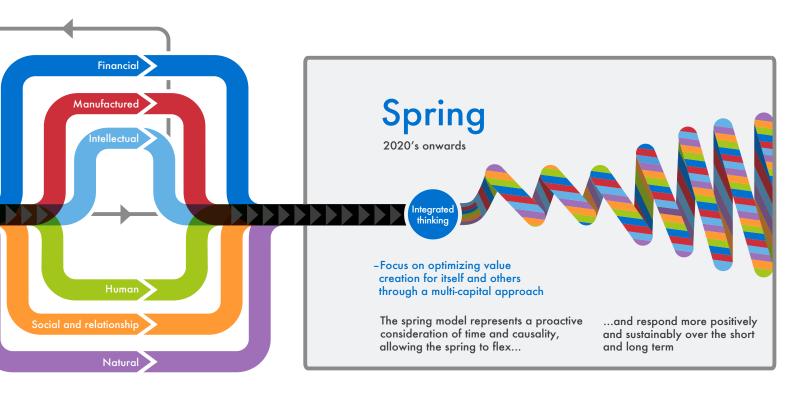
^{9.} For more on Mervyn King's view on integrated thinking, see King (2017)

In a world of integrated thinking, we don't just want the individual strings – the capitals and their impacts – to be considered in isolation – we need them to be evaluated together. This is the key insight from the Integrated Thinking & Strategy Group. These strings operate on each other. They have impacts on each other. Taken together and taken over time, the actions of the different strings can create value in new ways, or magnify the value creation process over time, or be scaled back by negative impacts from one of the strings.

Diagrammatically, if we were to tie the strings together and show their changing impact over time, we could visualize the result as a spring.

"Integrated thinking is the revolutionary immensity of the IIRC."

Professer Judge Mervyn King



Value optimization over time

How does the idea of the spring help us?

Although the Friedman model assumes the primacy of financial capital and its providers, in practice, there are a number of tradeoffs operating on any business: the positive and negative impacts of an organization are unequally divided. How, for example, do the choices get made between who benefits and who does not? Some decisions favour a short term

impact, others have longer term impacts – how are these choices made? Every business decision always uses multiple capitals – how do we choose how these resources are deployed? When the focus is on financial capital above all else, then the trade-offs are always made to benefit those who hold financial capital. This is the basis of the "string" model.

From string to spring in business strategy

Increasing complexity, finance continued lead indicator



The 'spring' model varies from the string model by integrating time and causality. This helps to resolve some of the trade-offs and show how, over time, the various other capitals can potentially contribute in a mutually reinforcing way – a positive spiral to the primary goal of financial capital – in other words, value optimization.

For example, natural capital can contribute to social capital and each can then eventually contribute to long term profits for financial capital. This is because a better environment leads to the avoidance of financial loss, a better society creates more profitable markets, and so

The spring's capacity for mutual reinforcement, with explicit loops, seems more thoroughly to exemplify systems effects than the system value

model. It also makes a nice contrast to the single capital perspective captured by the financial capital string.

One way of thinking about the spring is that there is also a vertical axis relating to the extent of benefits available to the various capitals. Thus the time dimension on the horizontal axis may be positively correlated with the range of multiple capitals on the vertical axis: in other words, the spring expands upwards as it reaches rightwards over time.

With regard to strategy in particular, the spring model asks specific, concrete questions about how each of the capitals causally contribute, via the spiral, to the primary goal of value creation. The point is to shift the emphasis from a reactive discussion of multi-capital constraints towards a proactive view of multi-capital opportunities.

Standard Bank: the move from financial metrics to SEE value drivers

Is there any evidence that the spring model applies in practice? Here's a case study from Standard Bank, one of South Africa's largest financial institutions.

The 2008 global financial crisis caused many organizations across the world to ask fundamental questions about themselves and their activities. Standard Bank was no different. Before 2008, it had sought to be "a leading emerging markets financial services provider" and the group had operations in many emerging markets. Post 2008, in response to the profound changes to the world economy and to the financial services sector that had occurred, it was decided that it should focus exclusively on Africa and on connecting African economies to the wider world.

This positioning for an African context led to a new purpose: Africa is our home, we drive her growth; and a changed vision – to be the leading financial services organization in, for and across Africa.

To deliver on their purpose and vision, the bank's leadership sought to identify strategic value drivers and focused on clients, employees, and risk & conduct inputs which contributed to the company's financial outcomes. This initial view of the company's value drivers was considered incomplete given the place of Standard Bank in society and its stated purpose in driving growth across Africa.

At the same time, across South Africa, the wide swathe of socio-economic challenges, a rising trust deficit, and the need for organizations to be more responsible and responsive to these challenges, drove the leadership's view that Standard Bank had to be more than just a bank. Its impact could therefore not be measured only by its financial results. This gave rise to what the bank calls its Social, Economic and Environmental (SEE) impact.

Starting in 2017, executives were required to report against these value drivers at Executive Committee meetings and these value drivers started to form part of their performance evaluations. The 2017 remuneration report included, for the first time, the breakdown of the key executive remuneration against these value drivers. The company's 2018 integrated report has now been structured according to the SEE value drivers and performance tracking for all employees across the bank uses the same SEE value drivers.

To use the language of this report, the challenge for Standard Bank is not simply to focus on the single string of financial capital, or to report on each of its multiple capital strings in isolation from each other. Instead, the opportunity and the task before the company is to tie the strings together into a powerful spring that enables it to create value across multiple dimensions and hold back those areas where it damages value.

Tools that enable integrated thinking

The language of the Spring model is not currently in use in management practice but, to us, it reflects integrated thinking. How can a company incorporate these ideas into its strategic thinking or its day-to-day management practice?

We see two contrasting threads that help organizations seeking to move from String management to Spring management.

At a broad level, there is a range of initiatives across the world that seek to incorporate some elements of the string model into the general working of business. It is useful to understand the potential role that these initiatives could play in facilitating a company's shift to the spring model. At the same time, companies find that they need detailed guidance on dealing with specific issues – in this context, it is useful to explore tools that can provide support.

Mapping the landscape of initiatives

The shift from String to Spring is about bringing the broader issues of business into a single strategic model, a shift that is at the heart of integrated thinking. The elements of the spring model have been coming together for some time. Across the world, there are a number of initiatives already in play that seek to add or incorporate broader business components into the traditional landscape. None of these use the terminology of the Spring model. But it is interesting to view the intellectual landscape to see how advanced the ideas already are across the working of a company.

The wide variety of initiatives that relate to integrated thinking (our working group has counted over 120 relevant initiatives) can be categorized in two different ways:

- Core these are the ones that have integrated thinking concepts at the heart of their work
- Contextual these are initiatives that give newcomers to integrated thinking useful advice and assistance in particular areas that they need help with. These context "buckets" could relate to reporting, measurement or investor engagement.

The aim of the landscape map is to be the first port of call for any organization beginning to embark on a journey of integrated thinking and then help them make sense of the complex environment. By using credible resources as suggested in the landscape map, organizations

adopting integrated thinking can come to an early decision on the use of globally accepted concepts that many organizations have already found useful in their own integrated thinking journeys.

Two internationally accepted frameworks exist that have been developed to be used by businesses to identify, measure and value impacts and dependencies on capitals, the Natural Capital Protocol and the Social & Human Capital Protocol¹⁰.

Both Protocols are decision making frameworks that cover four stages, "Why", "What", "How" and "What Next". These stages are further broken down into nine steps, which contain specific questions to be answered when integrating capitals thinking into organizational processes.

The Protocols are applicable within any business sector, to organizations of all sizes and in all operational geographies. The Protocols are also applicable at multiple organizational levels and scopes, for example at a product, project or organizational level.

The Natural Capital Coalition and the Social & Human Capital Coalition have now united under the Capitals Coalition, a clear demonstration of the demand for a capitals approach.

For information on how these initiatives fit into the work of the IIRC's Integrated Thinking & Strategy Group see page 24.



10. The Natural Capital Protocol and the Social & Human Capital Protocol can be found at: www.naturalcapitalcoalition.org

Internal challenges to integrated thinking

We identify three categories of barriers:

- Strategic the barriers that surface here relate to company leadership not buying into or understanding the reasons behind a shift towards integrated thinking.
- Organizational for some companies, there is real inertia in moving away from a Friedmanite model that may have dominated their thinking for years, or even decades. For others, the silos that have been embedded into their structures prevent integrated thinking from prospering.
- Analytical if the data and related systems and processes do not exist to support integrated thinking, then the organization will not benefit from the evidence that metrics and analytics can provide to support a broader view

It is important to note that these barriers do not exist in isolation. In most companies, all these barriers co-exist and their interactions with each other reinforce the difficulty in adopting integrated thinking.

The following table provides illustrations of each of the barrier types, how they interact with each other and examples of how individual companies have addressed these problems.

Examples of approaches

The various challenges facing the prospective integrated thinker are such that no single company can expect to face all the challenges together. Equally, no single company has yet come up with a comprehensive response to all the challenges they currently face. However, there is much to be learned from how individual companies have tackled the particular challenges they face.

Purpose

Standard Bank's previous positioning of 'Being a leading emerging markets financial services provider' was more about the company and its ambitions without recognizing the broader context in which it was operating. By articulating a new purpose – 'Africa is our home, we drive her growth' – the company was able to position itself better to deal with the socio-economic challenges in its context while seeking performance across financial and non-financial measures.

Materiality analysis

ABN AMRO created a community of integrated thinkers from across the business who together assessed the material issues facing the company. They drew on new technologies to help them create a list of around 200 potential material topics. This long list was simplified by the community to nine "value-creating topics" which they shared with the company's leadership. As a result, a new list of material topics emerged which were then foundational in the company's strategy choices and external reporting.

Cross-department thinking

BASF has created a comprehensive group drawn from different departments that get involved when the company is seeking to make an investment decision. These experts assess each investment proposal with regard to the impacts on the company's financial performance, environmental impacts, risk profile, governance, safety record and so on. All experts provide their view and analysis so that better decisions are made based on a full evaluation.

A key focus for the World Bank, which is part of the World Bank Group, is to connect the various areas of specialization. A strong effort is devoted to growing and nurturing social capital through active stakeholder engagement and collaboration. In order to drive this, the Bank starts with creating alignment to the strategy to provide a line of sight to staff. It then helps staff understand how their work fits in and impacts the Bank's clients. This also helps clarify how various parts of the organization help create, enable, or protect value, such as maintaining the triple A rating that keeps borrowing costs down for the Bank and ultimately its borrowers.

Training

Many boards appoint a member to take responsibility for sustainability. Solvay decided to do it differently. Every single board member has been trained on understanding and dealing with sustainability issues so that all decisions are intentionally taken with a broader perspective built into them. As a result, all board members incorporate sustainability issues and impacts into all their decisions. Sustainability is now business-as-usual in the board.

Dealing with challenges to integrated thinking

Although companies may choose to follow one or more of the many core initiatives described, in practice there may be a number of barriers that prevent them from adopting these concepts in full measure. Some of these challenges are internal and some are external.

External challenges to adopting integrated thinking

In a Friedmanite world, the main stakeholders a company would care about are customers and shareholders. In certain industries, regulators might also play an important role. In the global context that is currently emerging, and which is providing the fuel for integrated thinking in companies, the need to be cognizant of the needs and aspirations of multiple stakeholders is very strong.

In our working group, the kinds of stakeholders that various companies were tracking included:

- Shareholders
- Providers of finance
- Suppliers
- Customers
- Management
- Employees
- Trade associations
- Government
- Civil Society
- NGOs
- Future generations

When a company shifts from an exclusive focus on the short term returns on financial capital to a broader understanding of optimizing value creation across multiple capitals, each of the stakeholders may need to understand this shift and how it affects them. The challenge is identifying how and what to communicate with each of these stakeholders.

For example, given that the Royal Schiphol Group's core business is that of an airport, it has a long history of dealing with multiple stakeholders. The operation of an airport involves constant engagement with these stakeholders on a broad set of issues, ranging from negotiations of service level agreements and investment decisions with airlines and business partners to discussions of airport accessibility with local governments and transport services providers to interactions with local communities on environmental impacts and noise levels.

Apart from the dedicated support of the CFO, conducting materiality analyses proved to be particularly important in the early phases of the integrated reporting adoption, since it facilitated the systematic identification of material stakeholder issues. This, in turn, helped in raising awareness of the Group's diverse impacts.

Consequently, Royal Schiphol Group has developed a value creation model that captures not only why and what the company is doing to create value, but also how the organization is doing this, and who is contributing to – and affected by – this value creation process.¹¹

^{11.} For further information on the Royal Schiphol value creation model, see pages 22-23 of the Royal Schiphol Group Annual Report 2018: https://www.annualreportschiphol.com/pdfondemand/printpdf?docld=192807

Tools to overcome the barriers to integrated thinking

Category	Barrier	Description	Interactions (examples)	Approaches (examples)
Strategic	Leadership	 Gaining top management support Importance of individual leaders advocating for integrated thinking, with CFOs being particularly relevant. 	Complexity/causality: Both barriers might feed into the challenge of gaining top management support.	Visualization of integrated thinking (See Royal Schiphol Group)
	Strategizing	 Strategy development: Embedding integrated thinking as foundational element in beginning of strategy development processes (versus add-on at later stages) Strategy implementation: Rolling out 	Causality: Difficulties in establishing causal relationships between financial and non-financial factors might limit the incorporation of integrated thinking in strategy development.	Integrated Thinking Model (See discussion around the development of the String-Spring concept on page 12)
		strategy based on integrated thinking throughout organization.		
Organizational	Inertia	 Getting started with integrated thinking can be challenging (see also Complexity). 	Leadership: Getting started can be particularly challenging in the absence of top management support.	"Just do it" approach (See ABN AMRO and Schiphol Group)
	Collaboration	 Collaborations between functions can be hampered by differences in mind-sets, cultures and languages. 	Measurement: Finance functions might struggle with lack of rigorous and robust non-financial KPIs, impeding effective interactions between finance and sustainability functions.	Use of collaborative methods such as Agile Scrum (See ING)
	Complexity	 Multi-dimensional character of integrated thinking increases complexity of decision-making and can be met with resistance by organizational members Due to the holistic nature of integrated thinking, it can be difficult for organizations to assess their progress and identify next steps. 	Meta-barrier: Complexity seems to be implicated in many of the other barriers.	Maturity matrix of integrated thinking (See ongoing work of our working group)
Analytical	Measurement	 Lack of robust KPIs for non-financial factors Frequency of data: Mismatch between financial and non-financial data availability (daily vs. quarterly/annually) System integration: Challenge of integrating financial and non-financial data systems, e.g. due to lack of adequate IT systems. 	Collaborations: Insufficient cross- functional interactions might hamper development of integrated financial and non-financial measurement systems.	Integrated Dashboards (See Solvay)
	Comparability		Measurement: Gap between financial and non-financial data availability and quality might reduce comparability.	a) Integrative Assessment Tools (See Sustainable Portfolio Management in Solvay)
		anough monoceadon.		b) Integrated Profit & Loss Statement (See Value-to-Society in BASF)
	Causality	 Establishing links and determining causal relationships between non- financial and financial factors. 		SAP Connectivity Approach (See SAP Integrated Report 2018)

Implementation advice

Many organizations participating in the Integrated Thinking & Strategy Group have already started their integrated thinking journey. We asked them to share the challenges they face, some of which they have overcome and some of which are still ongoing. The following summarizes their advice and tips that could help you implement integrated thinking.

ABN AMRO

This Dutch bank's integrated reporting/thinking journey is characterized by a 'just get started' ethos. Recognizing the need to instill an integrated thinking culture into the organization to reinforce its sustainable business model strategy, the company was faced with a dilemma - concentrate on enhancing its integrated thinking and then look to report on this in the future, or start reporting in an integrated way and use this to drive greater alignment and connectivity. ABN AMRO chose the latter route and three years down the line was able to look back on its successes, failures and challenges to offer these tips.

Tips

- Integrated thinking implementation does not have to come from the top. It can also be a "bottom-up coup" as it was for ABN AMRO
- While working on the implementation of integrated reporting, creating an integrated thinking community widened the connections within the company
- Just start do not let perfection get in the way of pragmatism when it comes to changing how the business works
- Language is crucial in order to interest the Board and the C-suite. Instead of talking in driven terms such as materiality, their use of the term "value creation topics" was widely appreciated. Terms like "capitals" are more difficult to use, especially in a bank
- Be clear who your stakeholders are and how you create value for them. ABN AMRO identified four types of stakeholders: clients (a wide-angle lens definition), employees, investors and society-atlarge
- Look for a common language that speaks to your different stakeholders
- Another point about language ABN AMRO chose to use "prefinancial" instead of "non-financial" the idea behind the term of "prefinancial" is that non-financial topics will impact financials at some point
- A collaborative process using external tools and the internal integrated thinking community enabled the bank to reduce over 200 topics in its Materiality Matrix down to the nine that the Board and the staff could agree on together.

SOLVAY

Solvay, the Belgian chemicals company, has been working on integrated thinking since 2012 and published its first Annual Integrated Report in 2017. Solvay's journey in this regard has been motivated by a concern for advancing the company's thinking on sustainable value creation. In integrating social and environmental aspects into corporate strategy, Solvay has developed tools and Kev Performance Indicators to monitor progress against its strategic sustainability objectives. For example, Solvay's Sustainable Portfolio Management (SPM) methodology allows the company to quantitatively measure the relationship between financial and certain sustainability factors. Nonetheless, capturing the connectivity among other financial and extra-financial factors remains challenging.

Tips

- In Solvay's view, an integrated dashboard is a pre-requisite for integrated reporting
- An integrated report is an excellent document in supporting a company's dialogue with its stakeholders
- Do not confuse strategy with targets: both words have same letters except for "y" (why)
- The language used for integrated thinking is crucial in gaining executive support for such an approach.
- Providing a set of concepts and terms to enable the company to talk about sustainability can advance integrated thinking within the business
- Monetizing the non-financial indicators enables the company to see value in the terms they are used to seeing
- Finding the right KPIs is a challenge
- Get your CFO on board: use the language of finance to show medium and long term financial impacts
- Use your auditors as an additional source to help identify gaps in your information base
- Be clear on how you define value. Solvay defines value via five financial and five non-financial indicators
- Link your sustainability KPIs to corporate strategy
- The SPM methodology developed by Solvay is a tool for capturing connectivity between capitals
- Be aware that the investor landscape is changing: investors increasingly ask questions on sustainability
- Not everything can quantified: for example, Solvay believes in a link between employees and productivity but feels it cannot be quantified
- Organizations need their boards to be educated on these issues. At Solvay, it has meant regular
 training and information sessions on sustainability for board members. The governance chapter of
 the board manual was updated to integrate responsibility for sustainability.

HSBC

The motivation for embedding an integrated approach at HSBC, a British bank, came from an announcement in 2017 of a new sustainability strategy, which aimed to support its clients transitioning to a low-carbon economy, while also supporting the Paris Agreement and the UN SDGs.

Tips

- Crawl, walk, run don't expect to run right from the beginning
- Defining and listening to stakeholders is important. At HSBC, these are clients (a broad definition that takes into account retail, private bank and business customers), suppliers, society, employees, investors, communities, regulators and governments
- There are different systems of reporting in place at the moment, and they are not all integrated. The company could benefit from bringing them together further.

The World Bank

The World Bank has a longstanding commitment to transparency and accountability and a strong track record of openness about its development activities and performance.

Greater transparency regarding Environmental Social and Governance (ESG) practices has been at the forefront of efforts to build a financial system that supports sustainable development. As a capital market participant, asset owner, and advisor to client countries, the World Bank is committed to supporting the transition toward sustainable capital markets by promoting greater transparency about its performance.

Tips

- Do not wait for sponsorship
- Start at the working level. Use visible roles to build alliances and influence a change in behaviour
- Language matters. Focus on "doing" rather than talking
- Use corporate reporting to help with strategy implementation
- Invest time in understanding how value is created within the organization. This helps connect the silos
- Do not undermine the power of stakeholder engagement. It can help build momentum behind the scenes.

Next steps in developing a model for integrated thinking

Following publication of this 'State of play' report, the Integrated Thinking & Strategy Group will continue its work in various ways.

Feedback

The model for integrated thinking is still developing. We are keen to hear your feedback on the ideas put forward in this report and will be undertaking active outreach to all stakeholders to gather as much feedback and input as possible.

We invite you to share your thoughts or questions by emailing: businessnetwork@theiirc.org

Roadmap

We will evaluate the feedback we receive in order to set out a roadmap for 2020, including the potential to develop new case studies and update current ones.

We will use your feedback to review the Group's structure, introducing new workstreams to reflect emerging innovations and identified next steps on the journey to integrated thinking, as well as refining the ideas and concepts the workstreams generated for this report.

We aim to learn and develop a lot more in the coming year and to share that in a new report at the end of 2020. The report will include findings from new case studies and workstreams. The implications of integrated thinking and advice on how to get started will be key topics – all with the ultimate goal of enabling more organizations to start practicing integrated thinking so they can optimize their ability to create value.

Participants of the Integrated Thinking & Strategy Group

The International Integrated Reporting Council (IIRC) has set up the Integrated Thinking & Strategy Group.

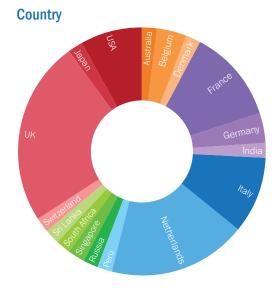
This group is composed, as of December 2019, of 44 organizations and six partners: The Prince's Accounting for Sustainability Project (A4S), Association of International Certified Professional Accountants, IIRC, Capitals Coalition, Saïd Business School – University of Oxford, and The World Bank) from around the world.

Christian Heller, Vice President, BASF, and Jyoti Banerjee, Partner at Fronesys and Strategic Advisor, IIRC co-chaired this group until August 2019. From September 2019, Tjeerd Krumpelman, ABN AMRO, and Zinga Venner, The World Bank, have taken over the chairing of the group.

The focus of the group is to offer world-renowned and innovative organizations the opportunity to share thinking about developing strategy across multiple capitals, learn from world leaders and co-create a common view of integrated thinking that is globally relevant to help build resilient, future-fit businesses.

The participants have agreed to set up a task force, which carries out the core development of the ideas this group is working on. The task force agreed to work on six topics:





Workstreams	Co-leaders Co-leaders	
Definition of integrated thinking	Cora Olsen (Novo Nordisk)	
	Giorgio Saavedra (The World Bank)	
Landscape map of integrated thinking projects/initiatives/literature	Tjeerd Krumpelman (ABN AMRO)	
	Helen Slinger (A4S)	
A model for integrated thinking	Christian Heller (BASF)	
	Richard Whittington (Saïd Business School,	
	University of Oxford)	
Tools enabling/supporting integrated thinking	Lauren Muusse (ING)	
	Eva Zabey (WBCSD)	
Communicating integrated thinking	Michel Washer (Solvay)	
	Samantha Louis (AICPA-CIMA)	
Pathways to achieving integrated thinking	The work of this workstream will be defined	
	on the basis on the work done by the task	
	force on the other topics.	

Further resources

The basic ideas relating to integrated thinking and integrated reporting were first spelled out in the <IR> Framework (2013). This can be located here: https://integratedreporting.org/resource/international-ir-framework/

The public evidence that integrated thinking is taking place inside companies is often the integrated report. To see examples of integrated reports, check out the IIRC's Examples Database: http://examples.integratedreporting.org/home

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About Black Sun

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