

# **INTEGRATED MANAGEMENT**

“In an era when the severity of the problems of sustainability are on the rise and the will to address them seems to be on the wane, Robert Sroufe offers this valuable primer on integrated management. Within these pages, you will find practical tools to help any business leader make balanced decisions, articulate an actionable vision and set his or her organization on a long-term path towards addressing the great issues of our day. This book gives hope that we can come to terms with our sustainability challenges; indeed, if business does not address these challenges we have little hope of solving them.”

Andrew Hoffman, Holcim Professor of Sustainable Enterprise,  
University of Michigan

“*Integrated Management* will be a valuable resource for any manager or student interested in learning how to apply systems thinking to company sustainability. It clearly outlines a path to real sustainability that all companies need to follow if the world is to be a fit place for us humans in the future.”

Sandra Waddock, Galligan Chair of Strategy,  
Boston College

“In an increasingly complex world, with growing environmental and social challenges, corporate strategy and management needs to change. Tackling big, systemic problems requires working across normal lines in business. *Integrated Management* offers solutions to a couple of long-standing and related problems. Companies have too many functional silos, and those divisions communicate and measure success in only one language: cash, or financial capital. This book makes an important argument and helps executives manage multiple capitals beyond just the financial – human, intellectual, manufactured, social, and natural – and thus build more sustainable and successful enterprises.”

Andrew Winston, Advisor to Multinationals &  
Author of *The Big Pivot* and *Green to Gold*

“Meeting the challenge of sustainability will require strategies and action from all segments of society: government, business, and citizens alike. Robert Sroufe advances the state of the art by focusing in particular on the need to develop the

peripheral vision for integrating the many aspects of sustainability into a more coherent and effective business strategy.”

Daniel J. Fiorino, Director, Center for  
Environmental Policy, American University

“To succeed as a business strategy, sustainability needs to be baked-in across the enterprise, not bolted-on to one function: this is the powerful idea that animates Robert Sroufe’s important new book. Providing concrete tools for integration practitioners as well as broad theoretical context for students, *Integrated Management* will be a useful guide for those transforming business to meet the critical sustainability challenges of the 21st century.”

Eban Goodstein, PhD, Director,  
Bard MBA in Sustainability

“The most sustainable companies are those that have fully integrated sustainability into their strategy, products, operations, and marketing. Drawing on best practices, this highly accessible book describes why managers should drive such integration, how to get the organization on board, and what tools and concepts can help them achieve integration.”

Mike Toffel, Professor of Business Administration &  
Faculty Chair, Business & Environment Initiative

“For too long social and environmental sustainability and organizational growth and profitability have been seen at odds. In Robert Sroufe’s new book he shows why and how embedding sustainability in a company’s strategy and operations delivers real value for people, the planet and the bottom line. The future of business will rely on this type of integrated approach to sustainability and this book will provide practical tools to ensure your business adapts and thrives in a changing world.”

James Connelly, VP, Products and Strategic Growth,  
International Living Future Institute

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# INTEGRATED MANAGEMENT

How Sustainability Creates Value  
For Any Business

BY

**ROBERT P. SROUFE**

*Duquesne University, USA*



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INVESTOR IN PEOPLE

*To Marybeth, Alexandra, and Isabella*

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# Foreword

Every generation faces what they believe are unique and unprecedented challenges. Today, we face a myriad of generational challenges. How do we maintain economic growth? How do we make advances in medicine widely available? How do we manage our scarce resources? How do we make our workplaces more open to diversity of gender, ethnicity, and life experience? How do we leverage data analytics, cloud computing, and machine learning to improve the human condition?

Corporations have a significant role to play in meeting these challenges. However, they will not make long-term investments in intellectual and human capital to develop solutions to societal problems if they focus on quarterly and annual earnings using backwards-looking metrics.

Robert Sroufe has a vision that paints an exciting picture of what I hope could be a change in the way organizations are managed and the way business leaders make decisions. The concept of integrated management has begun to emerge within leading firms in different sectors. Integrated management is a tool that can help the CEO share a vision for the future, change a corporate culture, and develop a long-term strategy. Integrated management is a process that helps an organization balance the imperative to create long-term value – for shareholders and society – with expectations for short-term competitiveness and profitability.

Integrated management is a way to consider the relationships between environmental, social, governance, and financial performance when making decisions. It drives creation of short- and medium-term metrics that are explicitly linked to the long-term vision and strategy. It ensures that sustainability is everyone's responsibility rather than a standalone function.

My work in integrated reporting has enabled me to meet with business leaders, investors, and non-governmental organizations all over the world. In doing so, I have been fortunate to observe a few of the earliest

applications of using integrated management systems to address global challenges. While the challenges that confront our society are daunting, I am inspired by companies that understand how integrated management influences decisions and actions of management, shareowners, and other stakeholders. The leaders of these organizations know that integrated management is an essential element of governance and that it is critical for investor confidence.

For the past ten years, Duquesne University, Robert Sroufe, and his faculty colleagues have provided practical guidance, challenged perceptions, and discussed environmental, social and governance (ESG) materiality in their courses. I am optimistic about the future because Duquesne University and other leading-edge MBA programs are helping future generations of business leaders learn about the coming changes in business management as environmental, social, and governance performance are fully integrated into business strategy.

I encourage you to read this book. If you are a business leader, it is an important resource that provides a systems oriented, strategic approach that can be applied to any company. If you are an analyst or investor, it reinforces the necessity to ask C-level executives about their vision for the future and how they will measure progress toward their long-term objectives. If you are a member of civil society, it will help you understand how corporations can create value for current and future generations of shareholders.

Pablo Picasso once said, “everything you can imagine is real.” While it may seem like a stretch today, integrated management is great vision to pursue. As you read this book, reflect not only on the actions available to you to help make integrated management a generally accepted business practice, but also on the impact of those actions on your legacy.

Michael P. Krzus  
Retired Partner, Grant Thornton LLP

# Preface

This book is for decision makers and lifelong students around the world who want to integrate sustainability into business strategy and management practices. We take the view that sustainability is not something that is to be done in addition to strategy; it is a part of strategy and leads to dynamic performance improvement.

Motivations for writing this book came about from a need to have a resource for students, researchers, and practitioners to quickly get up to speed on the strategic opportunities sustainability provides within any business. Opportunities include recognizing a global crisis of wasteful systems, and changing business as usual. While climate change, social unrest, high costs, and GHG emissions are symptoms, lack of integrated decision making is the problem. There is no place for lack of awareness and continued waste. Instead, there are growing opportunities across business sectors and the supply chains that connect them to involve an integrated approach to value creation, lower costs, the assessment of ESG performance, and decision analysis. This approach promises new insight as to how integrated decision-making processes up and down the supply chain are possible for enterprises by leveraging evolving technical resources (e.g., artificial intelligence, big data, dashboards, and Blockchain) and cross-functional expertise to amplify the productivity of everyday systems.

This book starts in *Section I* by suggesting there is a new vision of a performance frontier beyond using the terminology of sustainability. Integrated management provides the opportunity to rethink functions, enterprises, and systems dynamics to reduce waste, to create value. Critical drivers and enablers provide an enterprise, decision makers, and policy maker's ways to take on complex problems. As larger systems level problems are addressed and disassembled into smaller systems within systems, every enterprise can contribute to and have a vision for their own sustainable future. With the application of a strategic

sustainable development framework, strategic planning, and backcasting from your vision, readers will find integrated management opportunities and manage change toward success.

While the first section of this book promotes awareness and a framework for strategic success, Section II stresses the importance of building a shared understanding of the integrated management opportunity across enterprise functions. Given the importance of value creation in for-profit enterprises, and a renewed energy in understanding value creation for both shareholders and stakeholders, a review the importance of materiality in shareholder value, revenue growth, operating margins, asset efficiency, and expectations is necessary. The value creation opportunity provides a transition into Section III and the importance of assessing and benchmarking your current operating systems, processes, and strategic assessment options.

*Section IV* then helps you to brainstorm actions to close the gap between your current practices and a future state further out on the performance frontier. A review of best-practice trends and integrated practices prove you can close the gap. Finally, a number of propositions provide a proving ground for a new measurement/management frontier of integrated performance close out this section. Section IV provides a path forward toward a new vision and change management. The final chapters, Section V, moves a reader down this path in prioritizing integrated actions and goals for any enterprise that can lead to a regenerative future. At the end of chapters, there are multiple opportunities to build on a reader's own research and application of problem based learning in previous chapters to help find creative solutions. This iterative process of learning and application enables a reader to backcast from a self-developed vision so that they can decide on their own priorities and goals. Outcomes of this action learning approach help to assessing available solutions to see how they can take any reader in the right direction toward integrated management, are flexible, and have a business case for success.

Today's solutions are social and technical. We have the technical feasibility, it's already in place and it's evolving. The social will to create new norms involve systems thinking and analytics to tackle one of the biggest opportunities of our time, "sustainable development." Integrated management comes at that point in time when we realize the impacts of a decision go well beyond a single functional perspective and can be measured across functions, firms, and value chains in multidimensional ways.

To succeed with integrated management, a firm must ensure that this outcome is not only present within an enterprise but is also present

within the supply chain. As the insights, evidence based practices, action learning and concepts within this book will illustrate, the market and consumers will punish those firms that promise ESG performance but that are not able to deliver on this promise because of problems with a lack of integrated management.

What we offer within this book are solutions, initiatives we would want to achieve regardless of their proven positive impacts on a single bottom line, as they are practices that benefit the environment and society in dynamic ways that for too long have been overlooked. To some extent, we are all part of integrated enterprises and our role is to make systems better by taking in new information, integrating the management of ESG performance in strategic planning, applying analytics, and enabling better outcomes. What part of this multitrillion dollar integrated management opportunity will you be part of?

The intent of this book is to be a standalone read for professionals, a resource for executive education, and text for existing MBA strategic sustainability and management courses. This information in this book provides a multi perspective approach to integrated management opportunities across functions and value chains to allow understanding from a variety of disciplines and professional backgrounds. If you are a business professional wanting a 2- to 3-hour introduction to integrated management, we suggest you review Chapters 1, 2, 3, and 11 so you can more quickly be ready to put learning into action, whether at the office or in the classroom. For a more in-depth understanding of integrated management as a driver of value creation, we can't help but recommend you read each chapter and more fully engage in the research and action-learning process explicitly positioned at the end of each chapter.

**Features of this book include:**

- How to strategically integrate management, ESG opportunities, and planning activities;
- Evidence-based management examples from leading multinational companies;
- Examples of innovative, cost saving integrated management trends and best-practices;
- References to appropriate tools, emerging technology;
- Chapter research and action learning opportunities for the reader to take a deeper look at integration management opportunities in their own enterprise and supply chains;

- Propositions for a new measurement/management frontier of integrated performance; and
- Application of concepts so that readers from any functional perspective will be able to see opportunities to implement and manage integrated management practices that create value.

The opportunities outlined in this book are ultimately feasible by anyone with the propensity and motivation. The company examples, frameworks, methods, and action learning approach serve as a roadmap as you navigate your own way across enterprises and interconnected systems to create your own vision and action plan for the future.



# Acknowledgments

The information within this book is the product of years of work, shared learning, the showcasing of best practices, and the development of knowledge across teams and individuals to gain insight into emerging value creation opportunities. Duquesne University graduate students have all contributed to my thinking, this book, and its content through their work within an integrated curriculum as they analyze internal/external situations; understand drivers and risks; identify problems and opportunities; evaluate return on investment from alternative courses of action; and to value both short- and long-term prosperity. The work each semester of our MBA student teams is always insightful a contributing factor to changing the performance frontier of the organizations we work with. Due to these prior efforts, readers can independently learn about, apply, and reflect on proven models and methodologies while honing their skills from any functional discipline. Those with more direct involvement in the creation of this book include Research Fellows and Research Assistants: Velika Talyarkhan, Tyler Chaffo, Joey Winkler, Candace Carter, Dhruvin Bhavsar, Kevin Dole, and Laura Jernegan. There are a multitude of colleagues from across industry and academia who allowed me to interview them, have reviewed content, helped spur thinking and directly answer my questions about what would an integrated business solution look like? These people include but are not limited to: Karl-Henrik Robért, Michael Kruzs, John Elkington, Peter Senge, Hunter Lovins, Andy Hoffman, Andrew Winston, John Ehrenfeld, Chris Laszlo, Bob Willard, Bill O'Rourke, Gina Johnson, Stephen Tracey, Chris Dobbstein, Diane Ramos, Nagaraj Sivasubramaniam, Sandra Waddock, Merlina Missimer, Tom Nist, Charles Baer, Steve Melnyk, Cecilia Bratt, John Fillo, Bill Blackburn, James Connelly, Göran Broman, Craig Stevenson, and those individuals who I am fortunate to be able to work with on research projects and as consulting project partners. I want to recognize the importance of taking a sabbatical and with that, the faculty

and graduate students at Blekinge Tekniska Högskola in Sweden in the early stages of this book and their impact on my global mindset and thinking. I need to thank my family for supporting and enabling the development of this book. My wife for putting up with my lack on integrated involvement in daily happenings. To my daughters, I look forward to seeing you grown into the change agents I know you will be. In addition, to the readers of this book, I hope you get to realize your own vision and action plans to create the changes necessary to thrive in a sustainable society.

**Section I**  
**A Dynamic Performance**  
**Frontier – Beyond**  
**Sustainability**

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# 1

## The Integration Opportunity

*“You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete.” – Buckminster Fuller<sup>1</sup>*

There is a new movement afoot. You cannot see all that is happening, but the measurement and management of enterprises now go well beyond costs and profits. This movement changes worldviews and affects how decision-makers approach problem-solving. Innovative minds are questioning conventional thinking. People are now asking the leaders of enterprises, supply chains, cities, and entire countries an important question. Why? Why are they wasting over half of all energy produced by our energy systems? Why do we allow over 80% of all gasoline used in automobile combustion engines to be wasted, not providing movement, but instead heat and friction? Why throw away 99% of all the things we produce in nine months? Why move food 1,500 miles from farm to plate to throw away upward of 40% of it? Why do we continue to let employees work in buildings that are not healthy or high performing? Why do we continue to let functions within enterprises not communicate the full value created or destroyed by a decision, or do not summarize this value in an enterprise annual report? These questions are just the start down a path toward understanding the opportunity and value of integrated business management. As Paul Hawken has pointed out, “somewhere along the way to free-market capitalism, the United States became the most wasteful society on the planet.” An integrated approach to management will take us beyond the definitional ambiguity of sustainability to a dynamic understanding of what is valuable. By acknowledging and including the value

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1. From <https://www.goodreads.com/quotes/1199015-you-never-change-things-by-fighting-the-existing-reality-to>

of environmental and social performance, decision-makers will have more data available to them for analysis and action. This is how sustainability's integration into systems and enterprises of the future will declare a war on waste while enabling value creation. Innovators can now propose integrated solutions to global problems with a purposeful approach to accelerating progress and ending waste within any enterprise.

What's driving this change? We are experiencing a global crisis of wasteful systems. This waste is compounded by a lack of understanding of the complex relationships connecting people, enterprises, value chains, and commerce. While collapsing economies, climate change, social unrest, and pollution are symptoms, a lack of integrated solutions is to the root of the problem. It is time to declare a war on waste. There is no place for continuing the business-as-usual practices that have brought us to where we are today. Instead, there are growing opportunities across processes, functions, sectors, and the value chains that connect them to bring solutions to scale as we benefit from integration. With proven approaches to understanding the important dimensions of integration, there is now a customized approach to building a shared vision of the future, to recognize and develop new opportunities, and to take action. This is what we can do when working together within any enterprise.

What is integration, and what does it look like? For the purpose of this book and your own management opportunities, *integrated management is the process of including Environmental, Social, and Governance (ESG) performance in close coordination between business processes, functions, groups, organizations, and systems.* In this context, decision-makers within an integrated enterprise (*IntEnt*) are able to operationalize dynamic goals, e.g., the UN Sustainable Development Goals (SDGs) to understand the systems in which they operate; define success based on sustainability principles; guide decision-making with strategic valuation of environmental and social guidelines; adhere to a timeline of actions that moves the enterprise toward a sustainable society; and supporting processes for planning with decision analysis tools and management techniques to monitor and guide change management. Integrated management is the goal and it comes at that point in time when decision-makers realize the impacts of a decision go well beyond a single first cost functional perspective with measurement across functions, firms, and value chains in multidimensional ways. We can have enterprise goals and decision-making aligned with societal and environmental prosperity. Integrated management is what can get us to sustainability without compromise.

### *We can look at it this way*

*Pick any four companies located near each other and ask a team of MBAs to optimize these organizations' performance.* A traditional business management approach from many well-known graduate schools would result in some divide-and-conquer form of optimization of each enterprise as a separate entity with lower costs, some incremental waste reduction, and increase to revenue. If any entity was publicly traded, the focus of these optimization efforts would be on short-term improvement to shareholder value.

*Instead, envision a future where this same team of MBAs are asked to optimize performance using a systems (industrial ecology) approach to their shared inputs and outputs enterprises, manage sustainable supply chains, to meet the needs of the current generation without compromising the needs of future generations, to find cradle to cradle opportunities, value natural capital, to retrofit existing buildings so that they are high-performance living buildings, include a social cost of carbon dioxide (SCC) in decision-making, to model and include uncertainty for long-term strategic planning, to report their goals and performance to the CDP and stakeholders using Global Reporting Initiative (GRI) standards, integrating their annual financial and sustainability reporting while mapping outcomes into the United Nation's SDGs.*

This juxtaposition of business-as-usual verses and integrated approach will have a profoundly dynamic and different performance frontier beyond the way businesses have been managed to this point in time.

Every decision we make affects available resources. Integrated thinking and decision analysis leads to better outcomes and understanding of the value creation process. It is easy to say value creation is important, but harder to understand how it is part of every-day decision-making, i.e., where to allocate resources, how to get things done, and, ultimately, how to find a competitive advantage in the marketplace.<sup>2</sup> An integrated approach to management is designed to accelerate the symbiotic relationships between management actions, value creation, and the goal of a sustainable future. Integration builds a business case for ESG practices with top management involvement in social and environmental performance,

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2. A synthesis of the value creation process from Deloitte, and their value creation map

strategic long-term initiatives, and a cross-functional understanding of outcomes. This will not be easy as the integration paradigm is still emerging. It will involve finding opportunities across functions and selling your vision using established core business language. This approach promises new insight as to how integrated decision-making processes up and down the supply chain are possible for enterprises by leveraging evolving technical resources (e.g., artificial intelligence (AI), big data, dashboards, and Blockchain) and cross-functional expertise to amplify the productivity of everyday systems. It is a catalyst for focusing on the most relevant actions and then choosing feasible ways to get them done.

Enterprises are changing. Consider for a moment the following:

- There has been a race to define sustainability, yet a single definition cannot satisfy all of our competing needs to operationalize this paradigm.
- Fortune 500 companies want to tell you about the social and environmental aspects of their global operations and those of their supply chains.
- Revenue growth, operating margins, asset efficiency, and “stakeholder expectations” are all critical to value creation in ways where a decision on one of these has an impact on all other areas.
- You can now see a Life Cycle Assessment of a product online and while at the store using a smart phone app to see the environmental and social aspects of the products you may want to buy.
- Multinational firms are combining their sustainability and financial reporting into a single Integrated Report.

## **We Need Decision-makers with a Vision for a Sustainable Future**

It’s not that the language of sustainability is obsolete; it will always have a place in our lexicon and culture. What many have struggled with is how to operationalize this dynamic business paradigm and the opportunities that have for too long been hidden, but are now evident. There has been a communication gap between what some want and what others are willing to tolerate when using the word “sustainability” to influence change. As this movement evolves, goals are the *elimination of waste* along with the *valuation and integration of ESG performance*. Ironically,



these have been absent in most decision analysis. When building the business case for the future, it will be multidimensional.

I am afraid we have slowed progress by labeling, categorizing, and redefining sustainability to the extent that it is overwhelming. Despite the work of the environmental movement, there is continued confusion regarding this paradigm. For over four decades the message has been basically the same, human activities impact the earth in negative ways. How far has this messaging moved the needle within the management dashboard of organizations? Chris Coulter, CEO of GlobeScan was quoted saying, “It is true that there is a great deal of baggage and challenge around the term sustainability. Part of the reason for that is that we haven’t collectively done a good job in being consistent internally in our organizations or have not been forceful enough in defining sustainability properly (broad, strategic, integrated).”<sup>3</sup> Entrenched, conventional approaches to sustainability, e.g., compliance with EH&S laws, discourage people from developing more innovative approaches to solving complex problems. We need to build a better shared understanding and vision of our common future.

It is time to rethink the compartmentalized approaches to sustainability, a Triple Bottom Line (TBL) and the dynamic capabilities of ESG performance within the context of systems thinking. John Elkington, known for introducing the phrase TBL, is no longer referencing it, but instead calling for innovation and future proofing systems. The new reality for any organization is that integrated solutions are all around us. Sustainability should be the desired outcome, the end goal. If as Bob Raitd, president of Arc, suggests “‘Sustainability’ implies we are okay with preserving and sustaining a lot of bad decisions – sprawl, inefficient and wasteful transportation systems [...] the list goes on and on,”<sup>4</sup> then we need a sharper narrative to mobilize this paradigm.

We do not have sustainable companies as much as we have enterprises integrating activities that measure, manage, and report environmental and social performance while building new competitive capabilities. Lists of these more IntEnts can be found within sustainability indices, and rankings. Further evidence of integration can be found within the GRI reports of many leading multinational companies. As Peter Senge once said, “sustainability is not a problem to be solved, but a

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3. Quoted within the article by Langert (2015).

4. Langert (2015).

future to be created.”<sup>5</sup> There is a new value proposition and we already have the ability to find integrated solutions.

These solutions involve systems, i.e., manufacturing lines, business units, organizations, supply chains, and entire cities. This kind of movement calls for brave and smart leadership. There is no one solution, but instead a portfolio approach at all levels involving individuals, functions, organizations, community, and society. Integration responsibilities and opportunities include how we manage an enterprise, our homes, how we transport ourselves, our purchases, and how we engage with others within social systems. As Paul Hawkinnotes “to be effective, we require and *deserve a conversation that includes possibilities and opportunity, not repetitive emphasis on our undoing.*”<sup>6</sup>

This conversation within the context of this book, builds on decades of work pushing for dynamic performance valuing ESG performance for what it enables, informed decision-making. Millennials and Gen Z should be inspired by the integration opportunity, to be agents of change with a vision of sustainability as part of every enterprise. This is an exciting process in which current decision-makers and MBAs will take the reins from Baby Boomers as they design a new future. To help cut through the noise and misconceptions that surrounded sustainability in the past, we need to understand why integration is needed now and how this paradigm is part of an existing trend line into the future. This is a call to action for creative optimists.

## Why Now?

There is now an opportunity to powerfully enable sustainability and its intersection with value creation. Any enterprise and management team needs to leverage rigor and proven management tenets, business models and tools alongside ever-emerging new technologies to focus on developing human-centered, integrated solutions. Old paradigms, e.g., teaching finance, accounting, marketing, operations, etc., as disconnected disciplines are counter to how successful companies operate. The integration of information systems, operations, and supply chains is already happening. Other powerful examples of this value creating opportunity can be found in Bob Eccles and Mike Krzus books *One Report*, and *The Integrated Reporting Movement* find the integration of financial and sustainability reporting now required by some countries (i.e., Denmark, South Africa, China, with others

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5. As quoted within the book by Moore (2013).

6. Hawken(2017).

like the UK, France, and Germany with similar pending mandates) and being done voluntarily by leading enterprises (Danone ING, Novo Nordisk, SAP, Southwest Airlines, UBS, and Unilever to name a few).

An integrated business management empowers functional groups to become best in class while better understanding tradeoffs that pull down other groups based solely on first costs. Sustainability has been, and all indications support it continuing to be, at the “top of the agenda” in the C-suite. Fortunately, the winds of change are at our back. We can now build integrated business practices on the foundation of years of growing top management support for sustainability, analysts utilizing ESG information in performance analytics, and savvy management systems. We now have the ability to track a multitude of ESG performance metrics. The take away, is that no organization will be allowed to escape the scrutiny of expanding stakeholders demanding change in performance. This means management now and in the future requires a “dynamic” win: win rather than win/lose or compromise approach to decision-making.

Integrated business management is the key driver of innovation and profitability in progressive companies because it reduces risks while pursuing new opportunities, bakes checks and balances into prudent management and strategies for modern go-to-market synergy and growth. Examples include revenue earned and waste diverted through innovation such as Nike’s Flyknit line, GE’s Ecomagination, and Walmart’s billion-dollar fleet efficiency improvements. By changing the language of sustainability, managers can find new methods to identify and plan for the strategic “integration” of sustainability as a material concern for any enterprise. CEOs are convinced sustainability is important, yet many are still looking for ways to operationalize it.<sup>7</sup> Further evidence of the need for integration includes but is not limited to the following:

- Michael Porter and Mark Kramer, propose “creating shared value” as an alternative way to look at sustainability creating economic value in a way that also creates value for society by addressing its needs and challenges, not philanthropic, not social responsibility, or sustainability but instead the next major transformation of business thinking. It’s about expanding the total pool of economic and social value.<sup>8</sup>
- Amory Lovins has reexamined the role of commerce in society, observing that a narrow conception of capitalism has prevented

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7. McKinsey Sustainability study

8. Porter and Kramer (2011).

business from harnessing its full potential to meet society's broader challenges.<sup>9</sup>

- Joseph Bower and Lynn Paine's HBR article on The Error at the Heart of Corporate Leadership recognizes that maximizing shareholder value is not the #1 responsibility of boards and managers, as it has accountability problems, and unintended consequences. Instead, a company's health, not shareholder wealth, should be the primary concern of those who manage corporations as this will make for more resilient companies and a focus on the long term.<sup>10</sup>

An integrated management approach to decision-making, systems and practices will help reveal opportunities while overcoming decades of resistance to the baggage that environmental, green and sustainability labels have carried with them.

## A Dynamic Performance Frontier

Financial and economic issues underlie virtually every sustainable development decision. Integration provides a lens for business, economic and financial systems, their interdependencies, and action learning opportunity for practitioners. In adopting an integrated management approach to decision-making, a new performance frontier will enable the emergence of sustainable development pathways that link economic prosperity with social justice and a healthy biosphere. Governments move too slowly and Adam Smith's invisible hand has for too long ignored environmental and social performance. There is growing interest from policy makers, financial practitioners, civil society, and researchers in systemic interventions that can help mobilize resources for the transition to sustainability and integrated bottom line (IBL) performance.<sup>11</sup> Take for example the work of Eccles and Serafeim (2011) who found from 1995 to 2010 enterprises with strong integration, i.e., higher ESG performance, outperform firms with weak integration of ESG activities.<sup>12</sup>

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9. Lovins (2011).

10. Bower and Paine (2017).

11. Lovins, Hohensee, and Sheldon (2010).

12. Eccles, Ioannou, and Serafeim (2014). An earlier version of this article is available from Harvard University's DASH repository, and is made available under the terms and conditions applicable to Open Access Policy Articles, as set forth at <http://nrs.harvard.edu/urn3:HUL.InstRepos:dash.current.terms-of-use#OAP>Eccles et al. (2014), open access policy articles. Table 1 Evolution of \$1 Invested in the Stock Market in Value-Weighted Portfolios.

### The performance frontier

In the absence of substantial innovation, the financial performance of firms declines as their environmental, social, and governance (ESG) performance improves. To simultaneously improve both kinds of performance, they need to invent new products, processes, and business models.

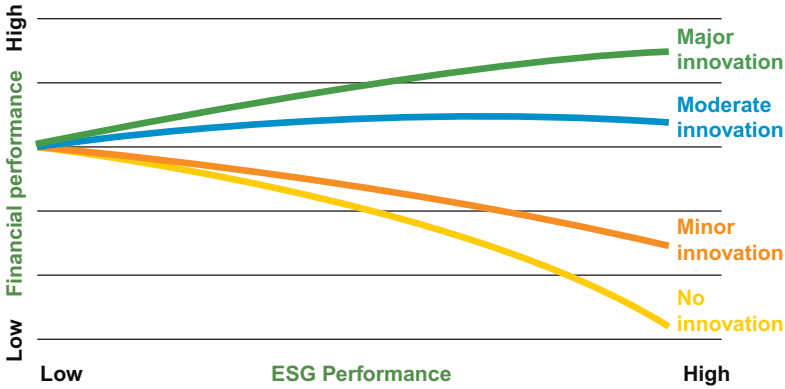


Figure 1.1: The Performance Frontier. *Source:* Reprint by permission of *Harvard Business Review* (Exhibit) Eccles and Serafeim (2013). Copyright © 2013, by Harvard Business Publishing; all rights reserved.<sup>14</sup>

What we are finding is that integration leads to better financial performance, less waste, and a way forward for creating tangible value that is attractive to investors. “Investors want to hear about a company’s sustainability progress and are factoring that progress into their decisions to invest.”<sup>13</sup> Due to this and other requests for information from stakeholders, executives now have to manage investor expectations while demonstrating how sustainability initiatives create value across functions and systems. Integrated business management promises to propel us toward a new performance frontier. As Eccles and Serafeim’s work shows, integration of ESG initiatives and innovation have substantial implications for financial performance (Figure 1.1).

Work done by the United Nations Principles for Responsible Investment (PRI) and Environmental Program (UNEP) Finance Initiative lays the groundwork for a changing frontier. As you are

13. Unruh et al. (2016).

14. Eccles and Serafeim (2013).

reading this, a broad network of organizations is already bringing together diverse communities of researchers, practitioners, and end-users to explore how to align global financial and economic systems. Business models, consumption and production patterns towards sustainability are changing, both conceptually and in practice. Researchers and practitioners are considering the financial and economic system as part of a larger complex socio-ecological system and that system's goal is to stimulate codesign processes that lead to new research, engagement activities and the emergence of evidence-based solutions. Efforts include mapping and designing processes together as well as convening thought leaders and the growing community of innovators in the areas of sustainable finance, Benefits Corporations (B Corps), Life Cycle Assessment (LCA), operations, supply chains, and economic systems.

## Integration Operationalized

The management of complex systems is one of the most important, if not one of the most impactful, inventions of the twenty-first century. When we think about all the systems and processes that have successfully come together, enabled by computers, to develop the first rocket, jumbo jets, energy grid systems, and space exploration, integration was a key element. The ability to enable collaboration in the design and development practice of business systems is no different in its significance. To this end, it is necessary to look for value creating integration opportunities within enterprises and across functions.

It is time to transform the language of sustainability into the actions of integrated business management. This will call for understanding multiple dimensions of performance across functions. The capabilities of integrated business management are built on a platform of measurement that starts with value creation and business terminology so that managers across functions can more easily understand this dynamic value proposition. A multidisciplinary approach to the performance of an enterprise is found at the intersection of sustainability and the functional units of an enterprise. New integration opportunities for environmental and social capital are within functions. *Strategic Planning* now includes long-term capital investment (financial, manufactured, intellectual, human, social, and natural) and a vision for dynamic business management that includes environmental, social

and governance performance goals. *Finance* and *Accounting* can focus on earnings, margins, cash flow, risk, market valuation, return to shareholders, return on equity, and return on investment while also including the environmental and social value of the enterprise within new projects. *Marketing* understands customers, competitors, suppliers, brand value, product development, and risks of not keeping up with integration trends. *Human Resources* focuses on people, capabilities and skills, organizational structure, culture and value with next-generation employees wanting to work for enterprises known for their integration efforts.<sup>15</sup> *Public Affairs*'s networks involve reputation, changing societal attitudes, and even unions calling for safer, less detrimental work environments. *Operations* manages physical assets, intellectual assets, products and services, productivity, supply chains, and risks of labor shortages/strikes or of natural resource scarcity. *Technology and information systems* now make it possible to assess the 80% of an enterprises value (considered intangible) that for too long has not been included in decision-making.

As you look at the financial, manufactured, intellectual, human, social, and natural capital of an enterprise, all forms of capital should be part of integrated business management and decision-making. The functions and systems that connect all forms of capital provide cross-disciplinary performance measurement and analytics capabilities like never before. We can now evaluate performance to show the preservation or diminution of all forms of capital in the value creation process (Figure 1.2).

Change will not happen overnight. We have become too specialized and myopic in our view of an enterprise and its respective systems. Business functions cease to talk to each other in a common language outside of costs. We live in a connected world, yet paradoxically, we still need to better connect functional silos. Take a deeper look within and across your own organization to find integration opportunities. As you progress through the chapters of this book, find evidence of existing integration activities (e.g., raw material waste reduction, energy efficiency programs, social inclusiveness through diversity efforts in hiring, and assessment supplier policies), in the processes, products, and services around you, and build on them. On a chapter-by-chapter basis, prepare to engage colleagues and leverage drivers, enablers, and

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15. Franceschini (2015).

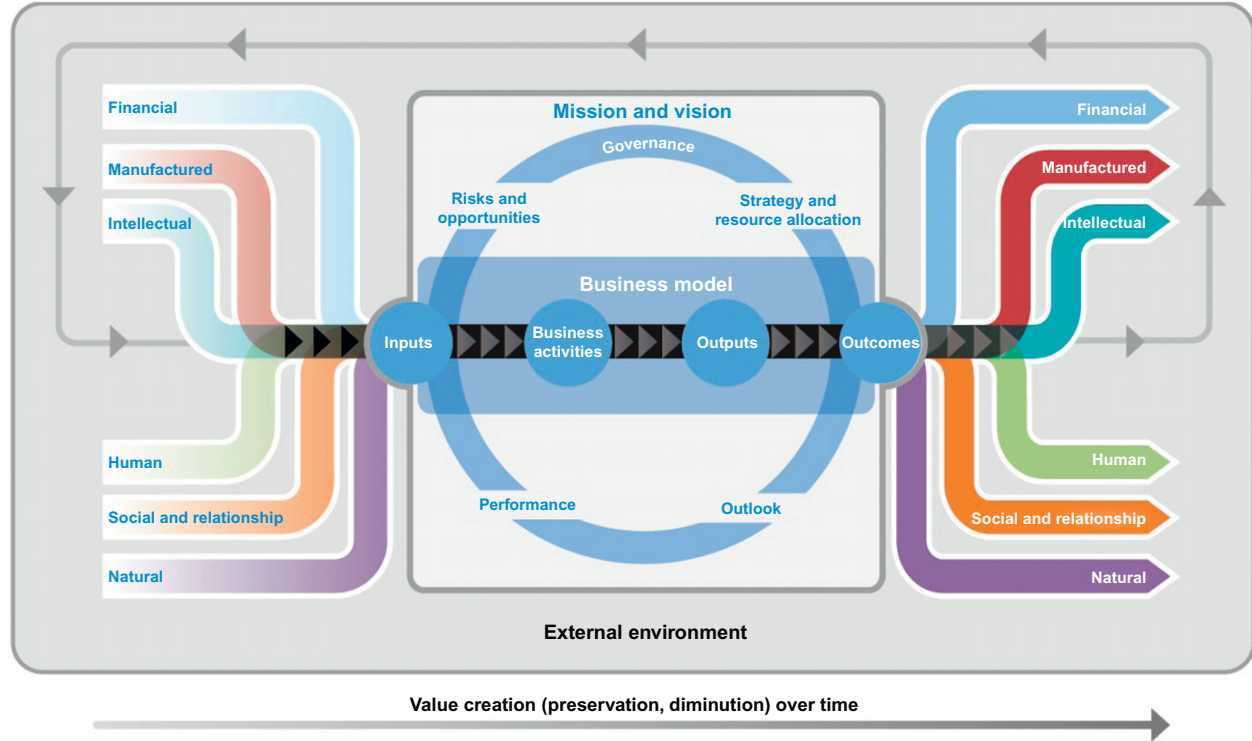


Figure 1.2: Value-creation Process. *Source:* Used with permission from the International Integrated Reporting Council (IIRC). "The International <IR> Framework," <http://www.theirc.org/international-ir-framework/>.



key performance metrics across the organization to present your ideas while enabling the integrated business management movement.

## Trends – Evidence of the Inevitable

Starting with the report of the Club of Rome on “Limits to Growth” in the early 1970s, and continuing with the Brundtland Commission’s report on sustainability in the 1980s, there was early support for changing our thinking and interactions with the socio-ecological systems around us. Look at the creation in the 1990s of the World Business Council of Sustainable Development – now representing 200 companies around the world with combined revenue of greater than US\$ 8 trillion and over 19 million employees<sup>16</sup> – and more recently the CDP (formerly known as the Carbon Disclosure Project) with a network of investors representing \$100 trillion,<sup>17</sup> and you find there is a very tangible movement afoot. There are today many similar initiatives, such as the GRI, and public opinion has shifted public policy toward increasing standards and regulations requiring business to address environmental and social issues. There are even now stock exchanges around the world that require or encourage sustainability reporting by companies. However, business leaders and sustainability professionals are shortsighted if they wait for more regulations to arrive. A review of current trends provides evidence that decision-makers need to act now, not in the future, to develop integrated business strategies as there are many external drivers of change. Consider these other drivers:

- Carbon trading platforms include Emission Trading Scheme (ETS) legislation at the country level in the EU, Switzerland, New Zealand, Australia, South Korea, and Kazakhstan. Subnational ETSs can be found in the United States (California) and Canada, with the Kyoto protocol enabling emissions trading across countries. China now has seven CO<sub>2</sub> trading platforms.<sup>18</sup>

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16. Accessed, summer of 2017; <http://www.wbcsd.org/Overview/About-us>

17. Accessed, summer of 2017; <https://www.cdp.net/en/info/about-us>

18. World Carbon Market Database. <https://www.carbonmarketdata.com/en/products/world-ets-database/presentation>

- The EPA uses an SCC in scenario planning. The price of CO<sub>2</sub> per ton ranges from \$6 to \$240 and can be used in decision analysis and scenario planning.
- Multinational firms have used shadow pricing and a cost of carbon in decision analysis and planning for years.<sup>19</sup>

As we conclude the second decade of the new millennium, the boundaries between business and the environment, and between business and civil society, have become blurred. Business leaders have begun to accept a paradigm of sustainability that calls on them, in their own self-interest, to focus on IBL value creation and a new performance frontier. More and more companies are reporting on their integrated performance using guidelines from organizations such as GRI, ISO (International Organization for Standardization) and EFQM (European Foundation for Quality Management). The shortcut taken earlier of pretending that economic value creation inevitably leads to environmental and social value creation is no longer credible, especially after the global financial meltdown of 2008. Visionary leaders are improving their companies' competitiveness by addressing these sustainability issues proactively.

Almost five decades in the making, the environmental movement has changed forever how companies do business. In the 1960s and 1970s, corporations were in a state of denial regarding their impact on the environment. A series of highly visible ecological problems created a groundswell of support for strict government regulation. In the United States, Lake Erie was dead due to pollution from manufacturing. In Europe, effluent from the auto industry meant the Rhine was on fire. In Japan, people were dying of mercury poisoning caused by manufacturing. Today many companies have begrudgingly accepted their responsibility to do no harm to the environment because of existing laws. Despite some laggards, products and production processes are becoming cleaner; and where such change is under way, the environment is on the mend. In industrialized nations, more companies are "going green" as they realize that this next wave of integration can reduce pollution, waste, supply chain risks, and increase profits simultaneously. We have come a long way.

Few enterprises have fully integrated their strategic planning process. Instead, environmental strategy consists largely of piecemeal projects

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19. Carbon Disclosure Project, Global Corporate Use of Carbon Pricing, September, 2014.

aimed at controlling or preventing pollution. While conservation “is a good start, it is a tragic place to end.”<sup>20</sup> Focusing on integration requires putting business strategies to a new test. Taking the entire planet and its systems as the context in which they do business, decision-makers must ask whether they are part of the solution in recognizing, measuring, and managing social and environmental issues; or part of the problem. When the leaders of a company think in those terms, they can begin to develop a vision of sustainability – a defining logic that goes beyond today’s internal, operational focus on “greening” to a more external, strategic focus on sustainable development. To help guide organizations, the UN’s 17 SDGs provide avenues for which every organization can find ways their operations, products, or services help contribute to achieving a prosperous, inclusive, and sustainable society by 2030.<sup>21</sup> Such a vision is necessary to guide companies through strategic planning and change management processes. Organizations are there to help with this transition:

- The United Nations has proposed 17 SDGs. UN Global Compact (UNGC) and Principles for Responsible Management Education (UNPRME) membership are on board to support the goals embedded in business school curriculum.
- The United Nations Environmental Program (UNEP) has an Integrated Governance model for sustainability.<sup>22</sup>
- Rapid growth in the number of Benefit Corporations (B Corps), which set rigorous environmental and social performance reporting standards as there are alternative business models recognizing value beyond only profit.

The achievement of integration will mean development of trillions of dollars in products, services, and technologies that barely exist today. Whereas yesterday’s businesses were often oblivious to their negative impact on the environment, today’s responsible businesses strive for zero impact, and tomorrow’s businesses are learning how to make a positive impact. Living buildings and living products (i.e., those that produce more energy and water than they consume) already take us in this

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20. Paraphrased from the International Living Future Institute’s Chief Scientist, Greg Norris when talking about ecological footprinting.

21. The goals are available at <https://sustainabledevelopment.un.org/sdgs>

22. United Nations Environment Programme UNEP (2014).

direction.<sup>23</sup> Increasingly, companies will be selling solutions to the world's environmental and social problems. Envisioning tomorrow's businesses, therefore, requires a recognition of global problems. To move beyond greening to integration, we must unravel a complex set of global interdependencies and opportunities.

The challenges presented by emerging markets demand a new way of conceptualizing business opportunities. The rapid growth in emerging economies cannot be sustained in the face of mounting environmental deterioration, poverty, and resource depletion. In this century, companies will be challenged to develop clean technologies and to implement strategies that drastically reduce the environmental burden in the developing world while simultaneously increasing its wealth and standard of living. Like it or not, the responsibility for ensuring sustainable development falls largely on the shoulders of the world's enterprises, the economic engines of the future. Clearly, public policy innovations (at the state, national, and international levels) and changes in individual consumption patterns will be needed to move toward the goal of sustainable development. But what are we waiting for? Corporations can and should lead the way in shaping public policy and driving change in consumer behavior. Some early leaders include Unilever reporting sustainability brands for this company are growing 50% faster than the rest of the business. Additionally, there are at least nine global companies that generate a billion dollars in annual revenue from products and services that have sustainability at their core (Tesla, Chipotle, Ikea, Unilever, Nike, Toyota, Natura, Whole Foods, and GE).<sup>24</sup> Ultimately, it makes good business sense to pursue strategies for an IntEnt and sustainable world. Further evidence of change includes:

- The Conference of the Parties (COP) 21st and 22nd agreements signal importance of climate change and its impacts on the economy with global buy-in at the country level.

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23. Personal contact, and based on practices promoted by James Connelly, Living Products Challenge Director, International Living Products Institute and the Living Products Hub in Pittsburgh, PA.

24. For more on Unilever's sustainability brand growth, see <https://www.marketingweek.com/2017/05/18/unilever-sustainable-brands-growth/>; for the companies generating a billion dollars or more from sustainability see <https://www.theguardian.com/sustainable-business/2016/jan/02/billion-dollar-companies-sustainability-green-giants-tesla-chipotle-ikea-nike-toyota-whole-foods>

- CSR Reporting: in 2005 – 50% of the largest 250 firms produced a CSR report. By 2008, this increased to 80% and by 2012, 53% of S&P 500 reporting. In 2014, 99% of the S&P 500 reporting.<sup>25</sup> The GRI claims 92% of the world’s largest corporations report sustainability performance.
- Demand for Green Banks, Green Finance, and Social Finance is growing in support of renewable energy, energy efficiency, and social benefit startups.

The current economic system has placed enormous pressure on the planet while catering to the needs of only about a quarter of the people on it, but over the next decade twice that number will become consumers and producers. Traditional approaches to business could collapse (e.g., the Coca-Cola plant shutdown in India due to water scarcity, or brick and mortar retail), and enterprises will have to develop innovative solutions to thrive. That will happen when executives recognize a simple truth: *Integrated business management = Innovation*. It is not going to be easy. Organizations that have started this journey have gone through varied phases of change. There are different challenges at each phase and IntEnts are needed to develop new capabilities to tackle coming challenges. Some existing drivers and examples of corporate and government actions towards integrated operations also include:

- The International Integrated Reporting Council, a global coalition of investors, regulators, companies, standard organizations, accounting associations, and NGOs, that promote communication about value creation with a mission to establish integrated sustainability and financial reporting as the norm in the public and private sectors.
- Sustainability Accounting Standards Board materiality maps for industry sector environmental and social performance metrics.<sup>26</sup>
- Investing for a sustainable future report finds 70% of surveyed investors said that sustainability was central to their investment decisions.<sup>27</sup>

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25. KPMG (2008 and 2010); Brown 2013. Reporting is “the set of information items that relate to a firm’s past, current and future environmental management activities and performance... [and their] financial implications” (Bethelot, Cormier, & Magnan, 2003; KPMG’s Integrated Reporting, 2010).

26. See, for example, the maps and metrics here, <https://materiality.sasb.org/>

27. Unrhu, Ibid.

What is offered within these trends and throughout this book is an evidence based approach to developing strategic integration options and a no-apologies approach to creative solutions. Initiatives we would want to achieve by measuring impacts beyond only a single bottom line. They are practices that benefit the environment and society in dynamic ways that for too long have been overlooked. We are all part of learning organizations<sup>28</sup> and our role is to make systems better by taking in new information, applying analytics, and enabling better outcomes for any enterprise. The growing economic data show “that the expense of the problems in the world now exceeds the cost of the solutions. To put it another way, the profit that can be achieved by instituting regenerative solutions is greater than the monetary gains generated by causing the problem or conducting business-as-usual.”<sup>29</sup>

Decision-makers can now calculate their own integration potential, which makes it possible for financial decision-making to include an integrated value equivalency. There will be more on this later in the book. The key is to value these inputs and consider how this will in turn affect decision-making. It’s now possible to build on traditional financial performance while looking for *Integrated Future Value*, *Integrated Rate of Return*, and *Return on Integration*. What part of this multitrillion-dollar integration business management opportunity will you be part of?

Understanding how to identify integration opportunities within any organization will help you go beyond the bias that comes with terms like “environmentalism” and “sustainability” to demonstrate impacts across organizational functions, business units, and value chains. Chapter 2 provides more insight regarding critical dimensions to help operationalize integration for a customized approach for any enterprise as we apply a framework for Strategic Sustainable Development (SSD), value creation, systems and design, life cycle assessment, and the business case for integration.

Integration has been a key theme across the IS/IT, general management, organizational behavior, supply chain, strategy, and the environmental management literature for decades. What has been overlooked to date is an opportunity to change the language of sustainability for business management. We can now “integrate” social and environmental performance into all functions of an enterprise. The integration paradigm proposes a dynamic understanding and design of strategically aligned

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28. Senge (2014).

29. Hawken (2017, p. 217).

measurement and planning opportunities across an organization. In the following chapters, “integration” is front and center so we can get away from the biases associated with labels such as Green, Corporate Social, Environmental Responsibility, or Ethical. With a focus on reframing sustainability as an integration opportunity within strategic planning and decision analysis, there is a new performance frontier awaiting enterprises that strive for integration.

By the end of this book, you will be asked to prepare a Vision and Action plan. The plan needs to describe how you will integrate business and sustainable development in your own career and enterprise. Specifically, you will be asked to think about actions regarding your:

- personal point of view on the role of business in the world for the new millennium; and
- personal action plan for using commerce as a tool to foster a more sustainable world.

Objectives of the coming chapters include enabling you to:

- acquire an in-depth knowledge of the frameworks and models supporting integrated business management practices and innovation;
- think critically about topics and integrate diverse streams of knowledge;
- see products and services from a life cycle perspective;
- explore value creation opportunities across functions within any enterprise; and
- uncover new strategic enterprise management opportunities.

The chapters are sequenced to change the way we understand and operationalize sustainability at the intersection of Systems Thinking, SSD, Value Creation, and insights provided by your assessment of current practices. The approach taken is to provide evidence based research and insight as to the changing needs of business professionals within a synthesis of information useful to sustainability professionals, executives, academic scholars, and graduate education platforms. Sources of information in the coming chapters include primary and secondary data from scholarly works and top consultancies, with chapters providing action learning, and customizable approaches for readers to apply concepts within any enterprise.

# Chapter Summary

Chapter 1 provides a foundation for integrated business management so that you can find synergies with the application of the topics covered in the coming chapters. Support for the importance of integrated management in this book is found in an evidence-based management approach with examples of how and why integration is now critical to any organization. The management systems and tools currently available to you can converge to create decisions that are better informed and guided by your own vision of a sustainable future. A strategic approach to planning and performance will enable practitioners and scholars to align organizational activities with the goal of a sustainable society with transparency in reporting IBL performance.

Today's solutions are both social and technical. We have the technical feasibility to measure and engage. The social will to create new norms calls for open minds and analytics to tackle one of the biggest opportunities of our time [...] the integrated management of processes, systems, and data to enable decision-making with the goal of a sustainable society. If we look at integrated management as something inspiring change and the ability to reimagine everything we manufacture, our energy and transportation systems, cities, and economies, then we can create an innovative future reality.

The challenge before us tests who we are as integrated decision-makers and managers of enterprises that solve problems at the business unit, organizational, value chain, city, and country level. To understand this, we can research and apply information within the coming chapters to understand how to develop integrated management opportunities. We can understand how our actions affect others and to reestablish our role as open-minded, proactive agents of change. Every integrated solution requires collaboration, measurement, and strategic alliances with common goals. When taken to scale, the possibilities are endless.

To apply learning from this chapter, do your own research, and apply the information to your own enterprise. What's your IntEnt?

*What will your IntEnt achieve?*

- What is your perception of management's view of sustainability?
- Choose four businesses located near each other and look at their inputs, value creation processes, and outputs including waste. Where can these businesses eliminate waste and enable more sustainable practices?



- How would the term integration be received by colleagues and management when part of a new project proposal or performance measurement opportunity?
- Identify a leading sustainability practice by your top competitor and introduce it as an “integrated management” practice in your next management meeting. How does your management team react?
- Which indicators of integration are already used within your industry; e.g., how the bottling industry is moving from plastic to bio-based materials; increase of renewable energy; closed loop systems; are enterprises in your industry in sustainability rankings?

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