

## Chapter 5: The Social Footprint Method

*Mark W. McElroy, PhD*

The sustainability performance of organizations is too often thought of in terms of environmental impacts only. When this happens, performance typically reduces to a focus on carbon emissions, energy use, water consumption, solid wastes to landfills, etc. The dominant sustainability norm in such cases is *reduction*, or at the very least *eco-efficiency*, which may not involve reduction at all, just less natural resource use per unit of production, revenue, etc.

As a construct, however, sustainability is much broader than environmental in scope and generally entails the social and economic impacts of organizations as well. An organization's social and economic impacts are just as susceptible to sustainability performance evaluations as its environmental impacts. Why then, do so many organizations fail to take the so-called Triple Bottom Line (TBL) more fully into account when assessing their performance and instead focus narrowly on just the environmental bottom line?

The answer I think, has two parts to it. First is the relatively tangible side of the biophysical world in which environmental impacts occur versus the comparatively intangible world of social and economic impacts. This makes the measurement of environmental impacts, such as water consumption, much easier to deal with than social and economic impacts, like employee engagement or supplier well-being. Second is the general lack of clarity, much less consensus, as to what it would mean in the first place for a social or economic impact to be sustainable. What exactly do we measure when attempting to assess a social impact anyway? And what are the related sustainability standards of performance?

For those organizations brave enough to venture into the social and economic arenas the result is often misguided. Instead of measuring and reporting their social and economic *sustainability performance* per se, what we too often see are reports that merely summarize the putatively positive impacts organizations are having, such as the number of people they employ, their community involvement, their philanthropy or the merits of their products and services. Strictly speaking, none of that is sustainability performance as such, because it fails to report impacts relative to sustainability norms, standards or thresholds.

### **The Obligatory Versus Discretionary**

The distinction I'm making here is between the obligatory and the discretionary. Indeed, it is an important one, the meaning of which can help differentiate sustainability performance from other forms of performance that may have nothing to do with sustainability per se, despite appearances to the contrary.

The difference between these two terms can be understood as the difference between activities that are subject to ethical and normative considerations versus those that are not. Broadly speaking, it is the failure to abide by duties or obligations to act or not act in particular ways that can be sustainable, not failures to act or not act in discretionary ways. Organizations can and should be held accountable to duties and obligations, but whether or not they act in discretionary ways is entirely up to them.

Note here as well that in order for anyone’s activity or impact to be sustainable, it must also be the case that the opposite condition would yield the opposite result. If it is alleged, for example, that an organization’s degree of philanthropy is sustainable (for itself), it must also be the case that anything less than that would be unsustainable (again, for itself). In order for that to be true, we would first have to show that a duty or obligation exists for the organization to engage in philanthropy at a prescribed level, and that the failure to do so would constitute an ethical violation of some kind that would put human (stakeholder) well-being at risk. Short of that, engaging in philanthropy is a purely discretionary activity and, again, has nothing to do with sustainability.

Before moving on, I want to be clear about what I mean by *stakeholders*. In the Social Footprint Method – and Context-Based Sustainability (CBS) more broadly construed, as discussed below – a *stakeholder* is anyone to whom an organization owes a *duty* or *obligation* to manage its impacts on *vital capitals* in ways that can affect their well-being (see *Glossary* in Box 1 below). It is up to each organization to define whom they think their stakeholders are according to this principle.

### Context-Based Sustainability

The Social Footprint Method (SFM) is an application of Context-Based Sustainability, or CBS, a particular school of thought in which sustainability performance is defined in terms of organizational impacts on vital capitals. Before delving into the details of SFM, then, we must first explain what CBS is, including the relevance of the discussion above in regards to obligatory versus discretionary behaviors.

Unlike most of what passes for mainstream practice in corporate sustainability management, CBS calls for the measurement, management and reporting of sustainability performance relative to real social, economic and ecological thresholds in the world.

For example, in order to assess the sustainability of an organization’s use of water, we must first determine the sustainability context in which water use is occurring. The sustainability of water use, for example, depends on (1) how much water is available in the places where use is occurring, (2) the size of the surrounding population relying on the same supplies, and (3) how much of the available resources can therefore be fairly and proportionately allocated to an individual user (i.e., such that if the same rules were applied to all users in the same place, the carrying capacity of the water resources involved would not be exceeded).

#### Glossary of Key Terms in CBS

A **duty** is a behavioral norm owed by one person or group to another that is independent of any contractual or voluntary commitment. Duties are natural and non-discretionary in this regard.

An **obligation** is a behavioral norm owed by one person or group to another that arises from a contractual or voluntary commitment. Obligations are self-imposed and discretionary in this regard.

An organization’s actions (or inactions) are **material** if they can, do or should have impacts on *vital capitals* in ways that can affect *stakeholder* well-being.

A **stakeholder** is anyone to whom a *duty* or *obligation* is owed by an organization to manage its impacts on *vital capitals* in ways that can affect their well-being.

**Vital capitals** are stocks of natural, human, social & relationship and economic resources and their flows of goods and services people rely on for their well-being.

#### Box 1 – Glossary of Key Terms in CBS

(Source: Thomas & McElroy, LLC)

The allocations we make can then function, for management purposes, as thresholds for water use that should not be crossed. Each user of water resources can thereby determine their own sustainability standard of performance for water use, the limit or threshold for which they have a duty to respect. Why? Because if they cross such limits (and by extension, if others did so as well), it could put both the resources themselves and the well-being of those who depend on them at risk.

The water example above pertains to an impact on only one type of natural capital. Of course there are many other forms of natural capital; and so, too, are there several other types of vital capitals that organizations can have impact on in ways that can affect stakeholder well-being. In all cases, what makes an organization's activities sustainable or not is how their impacts, if generalized, compare to either the supply of or demand for vital capitals.

One of the basic steps in practicing CBS, then, is to identify impacts on vital capitals an organization either already is or should be having, so that duties, obligations and sustainability standards of performance for such impacts can be defined. In CBS, six contextually relevant factors combine to provide a basis for identifying material impacts in this way:

1. an organization's stakeholders;
2. impacts on *vital capitals* an organization is either (a) already having, or (b) ought to be having, not having or managing in ways that can affect stakeholder well-being;
3. type, status and sufficiency of such capitals;
4. identity and number of other parties who may be relying on the same capitals for their own well-being;
5. identity and number of other parties who may be co-responsible in some way for helping to produce and/or maintain the capitals; and
6. already-defined sustainability standards of performance that take the above factors explicitly into account

Knowledge of these six factors makes it possible to define meaningful norms, standards or thresholds for what an organization's impacts on the carrying capacities of vital capitals must be in order to be sustainable, or in other words to set sustainability standards of performance. Context-based metrics can then be used to measure performance against them, as can goals, strategies and interventions be devised for improving or maintaining performance in non-arbitrary ways.

CBS is also deeply grounded in fairness, justice and proportionality in the sense that any of the capital-based sustainability standards of performance defined according to its principles must be generalizable in ways that do not confer undue advantage to specific actors nor impose the consequences of free riding on others.

This brings us to the subject of vital capitals already mentioned, but not yet defined.

### **Vital Capitals**

Vital capitals are key resources in the world that humans and non-humans alike rely on for their well-being. Capital, that is, is a stock of anything that yields a flow of valuable goods or services important to human or non-human well-being. When organizations have impacts on vital capitals (or fail to in cases where impacts are called for), it can put the quality or sufficiency of capitals at risk, and human and/or non-human well-being, too.

To say, therefore, that capital theory is germane to sustainability would be an understatement. Indeed, capital theory forms the very basis of sustainability theory. If we are not talking about human impacts on vital capitals, we are very likely not talking about sustainability at all.

Sustainability management, therefore, can be usefully thought of as *capital impact management*. Depending on the type of capital we're talking about, sustainable performance boils down to either (a) constraining the use or consumption of capital stocks and flows so as to preserve them, or (b) continually producing stocks and flows so as to maintain them at required levels.

The first case (constrained use) pertains to vital capitals that humans cannot reproduce and which therefore must be maintained through non-use or highly limited use. The second case, by contrast, pertains to vital capitals that humans *do* produce (largely or exclusively) and which can be reproduced, continually, if and when needed given the resources and will to do so. The second case consists of anthropogenic capitals sometimes referred to as *anthro capitals*.

In CBS we recognize six major categories of vital capitals, all of which are anthropogenic save one: natural capital. What follows below is a definition of each type, after which we turn to a description of the Social Footprint Method itself. The six categories of vital capitals are as follows:

#### *Natural Capital*

- Natural Resources

Consists of air, land, water, minerals, flora, fauna, ecosystems and other natural biophysical resources that humans and non-humans alike rely on for their well-being.

- Ecosystem Services

Consists of services or functions provided by ecosystems that humans and non-humans alike rely on for their well-being. Examples include climate regulation.

#### *Human Capital*

Consists of knowledge, skills, experience, health, values, attitudes, motivation and ethical entitlements of individuals. It includes the intellectual capital held at the level of the individual.

#### *Social & Relationship*

Consists of teams, networks and hierarchies of individuals working together and their shared knowledge, skills, experience, health, values, attitudes, motivation and ethical entitlements. It includes the mutually held intellectual capital of groups.

#### *Constructed Capital*

Consists of material objects, systems or ecosystems created and/or cultivated by humans, including the functions they perform. It is the world of human artifacts and the functions or services they provide, in which other capitals will usually be embedded, although in modified or designed forms. It is the world of human design in which intellectual capital may also be embedded and/or expressed.

#### *Internal Economic Capital*

- Financial

Consists of the pool of funds available to an organization, including debt and equity finance. This description of financial capital focuses on the source of funding, (liabilities on the balance sheet) rather than its application, which usually results in the acquisition of assets such as land, buildings, plant and inventories or other forms of capital (e.g., intellectual property).

- Non-Financial

Consists of net assets not recognized in internal financial capital. This category captures assets pertaining to an organization that are not recognized as financial capital. They may or may not be monetized. An example is the value of brands that have been developed organically internally, but not recognized in the financial accounts.

*External Economic Capital*

- Financial

Consists of all financial funds available to all parties outside an organization.

- Non-Financial

Consists of external non-financial capitals and the externalities that generally escape the financial accounting system (e.g., impacts on natural resources, ecosystem services, socio-economic systems, etc.).

\* \* \*

This articulation of vital capitals is largely consistent with the manner in which capitals have been defined and identified over the years in the sustainability literature and more recently in international standards for measuring, rating and reporting the sustainability performance of organizations. Of particular interest is the explicit capital-based orientation found in the International Integrated Reporting Council’s Integrated Reporting <IR> framework, and the Global Initiative for Sustainability Ratings standard for rating the sustainability performance of publicly traded firms.

**The Social Footprint Method**

The Social Footprint Method (SFM) is simply a narrow application of Context-Based Sustainability that focuses only on the social bottom line component of the Triple Bottom Line. Thus, it is a way of measuring, reporting and assessing the social sustainability performance of an organization independent of its economic and environmental performance.

The object of the SFM’s attention is first and foremost the activities or operations of an organization and not its supply chain or product lifecycles. The question it is designed to answer is: Is an organization socially sustainable in terms of its own operations? And while it is theoretically possible to apply the SFM to supply chains and also products or services, that is not yet something that has been done and is not the focus of our attention here.

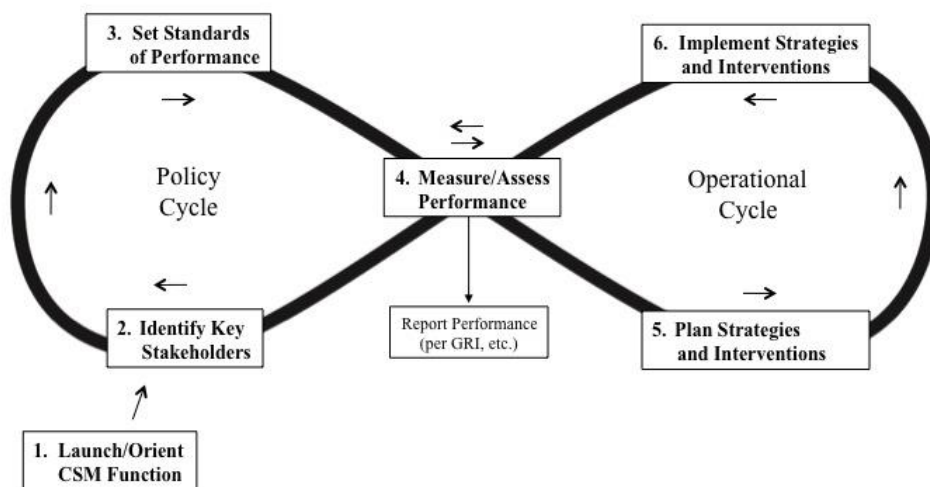
<b>Vital Capitals</b>		
<i>Human</i>	<i>Internal Economic</i>  <i>Financial &amp; Non-Financial</i>	<i>Natural</i>  <i>Natural Resources &amp; Ecosystem Services</i>
<i>Social &amp; Relationship</i>		
<i>Constructed</i>	<i>External Economic</i>  <i>Financial &amp; Non-Financial</i>	
<b>Social Bottom Line</b>	<b>Economic Bottom Line</b>	<b>Environmental Bottom Line</b>

**Table 1 – Vital Capitals and the Triple Bottom Line**  
(Source: Thomas & McElroy, LLC)

Instead, we are only concerned with the *social* sustainability performance of organizations and their *social* bottom lines (i.e., with the impacts of organizations on the carrying capacities of vital capitals associated with that particular dimension of performance; see Table 1). Still, the SFM helps illustrate how in Context-Based Sustainability we make it possible to operationalize the Triple Bottom Line. We do so by associating specific vital capitals with each of the three bottom lines and then by measuring, managing and reporting our impacts upon them.

In the case of the social bottom line the capitals of interest to us are human, social & relationship and constructed. The sustainability of an organization’s impacts on the carrying capacities of these three capitals (i.e., contextually relevant and material ones) provides a basis for determining its social sustainability performance. In principle we can and do carry out precisely the same sort of analyses with respect to impacts on the other capitals, but for now we are concerned only with the social bottom line.

The practice of the SFM follows a 6-step process (see Figure 1). These steps comprise a process that essentially follows the pattern of a gap analysis, whereby a target state is defined, a current state is measured, and any gaps found to exist between them are addressed by way of strategies and interventions aimed at closing them. In the case of the SFM, the target and current states of interest pertain to an organization’s desired and actual impacts on human, social & relationship and constructed capitals.



**Figure 1 – The Corporate Sustainability Management (CSM) Cycle**  
(Source: McElroy and Van Engelen, 2012)

Each of the six steps followed in the practice of the SFM is briefly described below, with references to the above discussion:

*Step 1 – Launch/Orient CSM Function*

This step reflects the need to establish a management function for purposes of measuring, managing and reporting the sustainability performance of an organization in cases where such a function does not already exist. Of most importance is the need to intentionally ground the CSM function in a conceptual commitment to Context-Based Sustainability. This will necessarily lead to a context- and capital-based approach, both of which are prerequisites to the use of the SFM method.

### *Step 2 – Identify Key Stakeholders*

Because in CBS sustainability standards of performance are fundamentally tied to duties and obligations owed to stakeholders, it is important to first determine whom an organization’s stakeholders actually are. Generally speaking, stakeholders will either be determined on a de facto basis by virtue of those whose interests are directly affected by the operations of an organization or else on a more formal basis vis a vis parties with whom an organization has legal or contractual relations. The stakeholder definition provided above should be referenced here. Note that this step corresponds to the first of the six factors earlier listed for determining the sustainability context and standards of performance for an organization.

### *Step 3 – Set Standards of Performance*

In this step, the remaining five factors listed above for determining the sustainability context and standards of performance for an organization are considered. This leads to the identification of norms, standards or thresholds for what an organization’s impacts on vital capitals must be in order to be sustainable. This is the hallmark of CBS and differentiates it from all other approaches to sustainability management. Rather than simply measure, manage and report impacts on vital capitals in incremental terms, in CBS we set definitive standards of performance for impacts that must be achieved in order for organizational activities to be sustainable. Sustainable performance, therefore, consists of activities and their impacts that put neither the quality nor sufficiency of vital capitals at risk, nor human well-being either. In the case of the SFM, it is only impacts on human, social & relationship and constructed capitals that concern us, since those are the capitals that correspond to the social bottom line.

### *Step 4 – Measure/Assess Performance*

Once sustainability standards of performance have been defined, we then measure actual impacts on the capitals involved in order to assess the sustainability performance (S) of an organization. In CBS, the metrics we use to do so take the form of quotients: denominators express standards or normative (N) impacts defined in step 3, and numerators express actual (A) impacts ascertained in step 4 (see Figure 2).

$$S = \frac{A}{N}$$

**Where:**

**S = Sustainability performance**

**A = Actual impacts on the carrying capacity of a vital capital**

**N = Normative impacts on the carrying capacity of the same vital capital**

**Figure 2 – Context-Based Metrics**  
(Source: McElroy, 2008)

For social areas of impacts (i.e., impacts on human, social & relationship and constructed capitals), any quotient score of  $\geq 1.0$  signifies sustainable performance. This is because the three capitals involved are all anthropogenic and must be continually reproduced and maintained at no less than defined minimum levels of availability. Note that this contrasts with standards of performance for impacts on natural capitals, which are expressed in terms of maximums ( $\leq 1.0$  quotient scores), not minimums.

### *Step 5 – Plan Strategies and Interventions*

In cases where gaps are found between actual and normative performance, strategies and interventions are devised to close them. Here there are no predetermined or preconceived ways of doing so, and it is up to the individual SFM practitioner, therefore, to apply, test and evaluate alternative interventions of their own choosing. This step is characterized by open-ended trial and error accordingly.

### *Step 6 – Implement Strategies and Interventions*

Once strategies and interventions have been selected, the final step in the CSM Cycle consists of implementation. The Cycle is then repeated on a recursive basis, at the least by repeating steps 4 through 6. Step 4 is repeated to determine what the effects of step 6 have been, and step 5 is repeated in cases where gaps persist indicating the possible need for new strategies or interventions. It will also be the case that the identity of stakeholders will change over time and/or that standards of performance may also change. In such cases steps 2 and 3 may also need to be revisited. In this regard, steps 1 through 3 can be thought of as the Policy portion of the CSM Cycle and steps 4 through 6 as the Operational portion.

## **The Evolution and Use of the SFM**

When it was first conceived, the Social Footprint Method was so named by analogy to the Ecological Footprint Method (EFM) because of their common reference to thresholds in vital capitals. In the case of the EFM, the capital of interest is natural capital. From an EFM perspective, the ecological sustainability of human activity is a function of what its impacts on natural capital are, relative to thresholds in the availability or renewability of it. The capital theory literature behind this idea is at least three hundred years old.

In the case of the SFM, the same capital-based logic of making sustainability assessments applies, but the capitals involved are different. Instead of referring to impacts on natural capital, in the case of the SFM we refer to impacts on human, social & relationship and constructed capitals. As earlier explained, we also express sustainability standards of performance for impacts on these non-natural capitals in terms of minimum thresholds, not maximum thresholds as we do for natural capital. Again, that is because the capitals of interest in the SFM are anthropogenic.

Soon after the SFM was developed, its initial users came to the conclusion that a more useful implementation of the idea would be to combine it with something like the EFM or some other form of context-based ecological assessment. After all, assessing the sustainability performance of an organization would very rarely take the form of assessing its social impacts alone; assessing its environmental sustainability, too, would be of interest. This gave rise to the initial formulation of Context-Based Sustainability earlier described, in which the SFM was essentially embedded. The SFM as such thereby faded from view and became part of a broader method: CBS.

Now there is an even broader and more complete implementation of CBS called the MultiCapital Scorecard™, or MCS. Unlike earlier implementations of CBS, the MCS includes consideration of impacts on economic capitals. It therefore constitutes a more comprehensive implementation of the Triple Bottom Line concept. It is the world's first context-based integrated measurement and reporting system, an element of which is the SFM.

Many companies have used CBS methods in assessing their own sustainability performance over the years, including Ben & Jerry's, Cabot Creamery Cooperative (Agri-Mark, Inc.), Biogen Idec, Ford, EMC, Autodesk, Lockheed Martin, British Telecom and many others. The first and most emblematic applications of the SFM, however, were at Ben & Jerry's (2006) and Cabot (2007 and beyond).

The Ben & Jerry's application was referred to at the time as the Global Warming Social Footprint Method and focused only on the company's impacts on anthro capitals relative to climate change mitigation (i.e., what their impacts on anthro capitals would have to be in order to make science-based reductions in their greenhouse gas emissions possible).

Later on in 2014, Ben & Jerry's became the first company to pilot the MCS in which the SFM is embedded. Included in their pilot were the greenhouse gas application metric pioneered by them in 2006 and several other social



and economic measures, including conformance to fairtrade standards, gender parity practices (amongst employees) and multiple social activism campaigns.

At Cabot, the application of CBS over the years (including the SFM) has been equally deliberate if not more so. Using the SFM (as an element of CBS), they have addressed the social sustainability of their performance on multiple fronts, including product (food) safety, employee safety, commercial performance, and climate change mitigation in the Ben & Jerry's sense described above. A fairly comprehensive record of the Cabot implementation of CBS can be found in *Corporate Sustainability Management: the Art and Science of Managing Non-Financial Performance* (McElroy and Van Engelen, Earthscan, 2012).

## Summary

The Social Footprint Method is a procedure for assessing the social sustainability performance of organizations. As such it is a narrow application of Context-Based Sustainability (CBS), which is a particular approach to measuring, managing and reporting the sustainability performance of organizations that functions by assessing their impacts on the carrying capacities of vital capitals. In particular, impacts are assessed relative to sustainability norms, standards or thresholds for what they would have to be in order to be sustainable.

Norms for impacts on vital capitals thereby serve as sustainability standards of performance against which actual impacts can be compared. The standards chosen correspond to defined levels of well-being for specific stakeholder groups. In principle, CBS is predicated on the view that people rely on vital capitals for their well-being and any actions (or inactions) on the part of an organization that might put the quality or sufficiency of such capitals at risk (or the well-being of those who rely on them) are unsustainable. Organizations, in turn, have affirmative duties and obligations to manage their activities and impacts in ways that do not put vital capitals or stakeholder well-being at risk.

The particular capitals of interest in the case of the SFM are human, social & relationship and constructed (aka, built) capitals. Unlike natural capital, these three capitals are anthropogenic and can be referred to collectively as *anthro* capitals. And because they are human-made, related sustainability standards of performance are expressed in terms of minimums. To do this, context-based metrics are used in which denominators express standards of performance and numerators express actual impacts. Any quotient score of  $\geq 1.0$  signifies sustainable performance; anything less is unsustainable.

The practice of the SFM takes the form of a 6-step Corporate Sustainability Management Cycle (CSM Cycle). In general, the CSM Cycle is designed to formally define sustainability standards of performance for impacts on vital capitals and to measure, manage and report performance against them. In that regard, the logic of the CSM Cycle follows that of a gap analysis. Steps are taken to reveal gaps, if any, between actual and target impacts. Once revealed, gaps are addressed through strategies and interventions aimed at closing them, and the pattern is subsequently repeated for as long as it takes to achieve and maintain socially sustainable performance and the sufficiency of vital capitals.

While the SFM can be applied as a standalone method, it is more often embedded in a broader application of CBS in which economic and/or environmental impacts are also considered. The latest and most advanced implementation of CBS is the MultiCapital Scorecard™, the world's first context-based Triple Bottom Line measurement and reporting system. Both it and CBS can trace their roots to the SFM, all three of which, in turn, were inspired by the works of a long and distinguished list of capital and sustainability theorists over the past three hundred years.

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## Further Readings

- Ekins, P. (1992). A four-capital model of wealth creation. In P. Ekins and M. Max-Neef (eds) *Real-Life Economics* (Routledge, London).
- Elkington, J. (1997). *Cannibals With Forks – The Triple Bottom Line of 21<sup>st</sup> Century Business* (Capstone, Oxford).
- McElroy, M. (2002). Social innovation capital. *Journal of Intellectual Capital* (3,1), 30-39.
- McElroy, M. (2008). *Social Footprints*. Accessible online at: <https://www.rug.nl/research/portal/files/13147569/DISSERTATION-2.pdf>.
- McElroy, M. (2013). The carrying capacities of capitals. Accessible online at: <http://www.greenbiz.com/blog/2013/06/18/carrying-capacities-capitals>.
- McElroy, M. (2014). Multicapitalism and sustainability: together at last. Accessible online at: [http://www.sustainablebrands.com/news\\_and\\_views/next\\_economy/mark\\_mcelroy/sustainability\\_multicapitalism\\_-\\_together\\_last](http://www.sustainablebrands.com/news_and_views/next_economy/mark_mcelroy/sustainability_multicapitalism_-_together_last).
- McElroy, M., Jorna, R. and Van Engelen, J. (2006). Rethinking social capital theory: a knowledge management perspective. *Journal of Knowledge Management* (10, 5), 124-136.
- McElroy, M. & Van Engelen, J. (2012). *Corporate Sustainability Management: The Art and Science of Managing Non-Financial Performance* (Routledge, London).
- Porritt, J. (2005). *Capitalism As If the World Matters* (Earthscan, London).
- Thomas, M. and McElroy, M. (2016). *The MultiCapital Scorecard – Rethinking Organizational Performance* (Chelsea Green, White River Junction).

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## About the Author

Mark W. McElroy, PhD is the founder and Executive Director of the Center for Sustainable Organizations in Woodstock, VT. He is: 1) creator of the Social Footprint Method, 2) creator of the Context-Based Sustainability framework that lies behind it, and 3) co-creator of the MultiCapital Scorecard method, a context-based Triple Bottom Line performance accounting system developed with Martin Thomas in the UK. Dr. McElroy can be reached by email at [mmcelroy@vermontel.net](mailto:mmcelroy@vermontel.net).