

Context-Based Sustainability

A New Approach for Measuring, Managing and Reporting Corporate Sustainability Performance

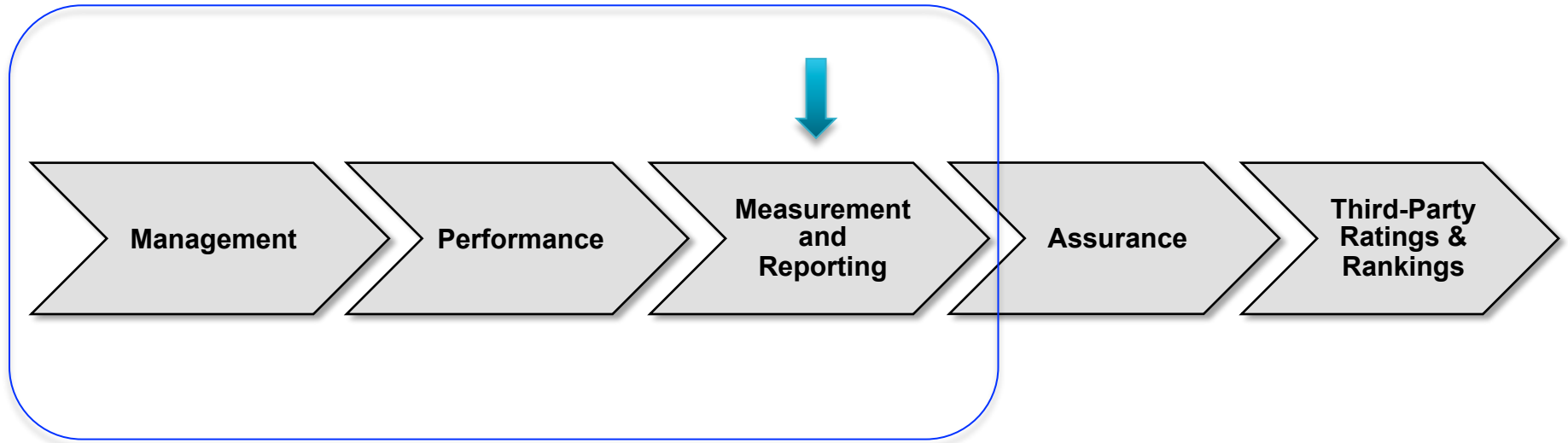
Presentation by
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at CSEAR, St. Andrews, Scotland

September 9, 2011

Quick Summary

1. Topic is non-financial/sustainability measurement and reporting and my thesis about how to do it
2. Quick introduction to the theory and practice of *context-based sustainability (CBS)*
3. A quick example or two
4. Synopsis of pros and cons
5. Evidence of growing acceptance of CBS
6. Current events in CBS

Scope of the Method



Sustainability Performance Value Chain

My Thesis

That most of what passes for mainstream practice in sustainability measurement, management and reporting in business amounts to no such thing, thanks to its failure to address impacts on vital capital resources relative to norms, standards or thresholds for what they need to be in order to be sustainable. A little bit like trying to assess profitability without taking costs into account.

Such norms, standards or thresholds constitute a critical type of context ('sustainability context') without which there can be no meaningful, true or authentic sustainability measurement, management or reporting!

My Thesis

That most of what passes for mainstream practice in sustainability measurement, management and reporting in business amounts to no such thing, thanks to its failure

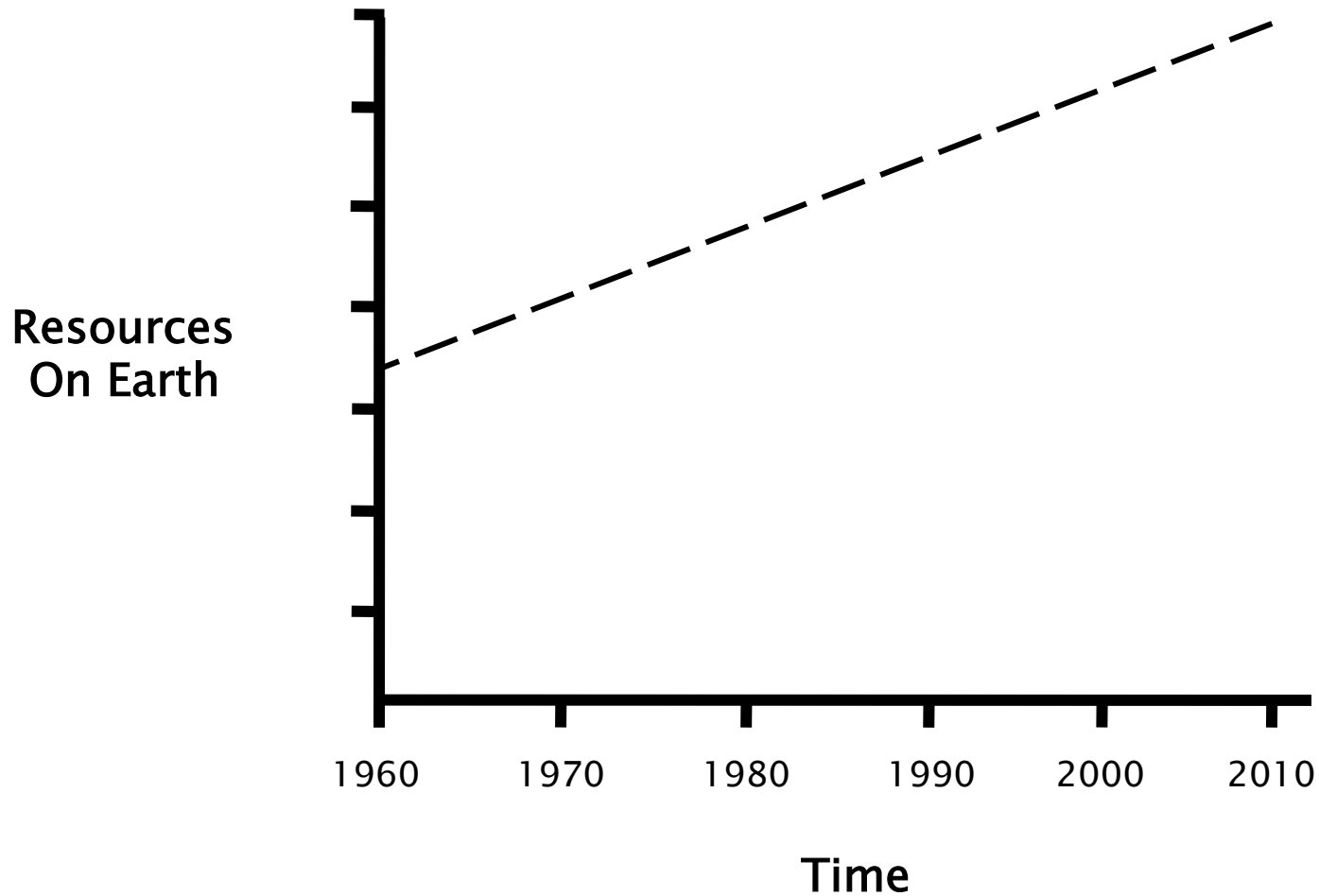
How best to include context in non-financial measurement, management and reporting, then is Arguably the most important research question facing corporate sustainability management (CSM) today!

Such norms, standards or thresholds constitute a critical type of context ('sustainability context') without which there can be no meaningful, true or authentic sustainability measurement, management or reporting!

What Is Sustainability Context?

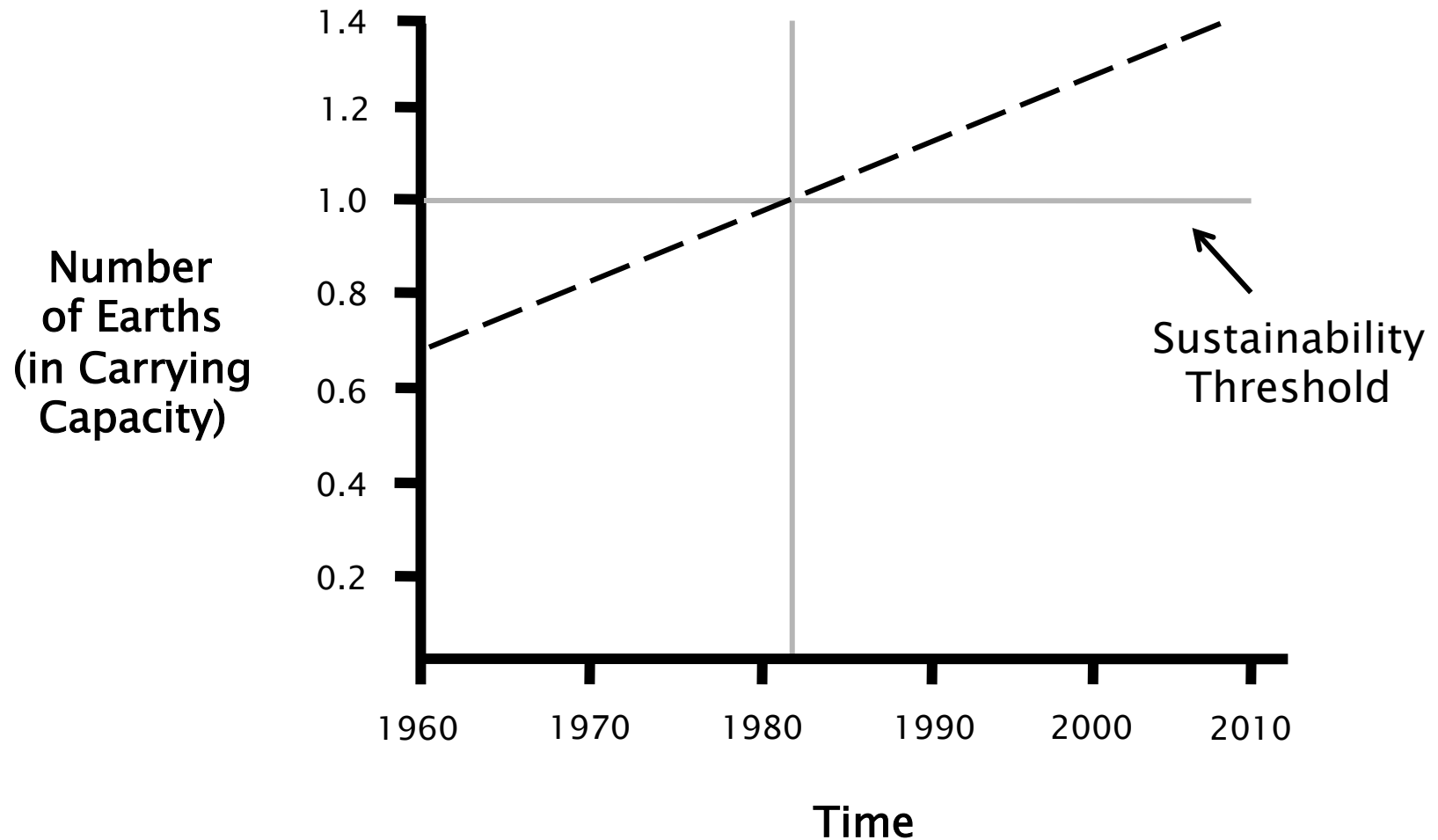
- ▶ Norms, standards or thresholds for what impacts on the carrying capacities of vital capital resources would have to be in order to be sustainable
 - Natural Capital
 - Human Capital
 - Social Capital
 - Constructed (or built) Capital
- ▶ Recognizing the supply and demand for such capitals as required to ensure stakeholder well-being gives rise to organization-specific duties and obligations to manage its impacts, accordingly
- ▶ This is what *sustainability context* is!

Quick example of context-free CSM...

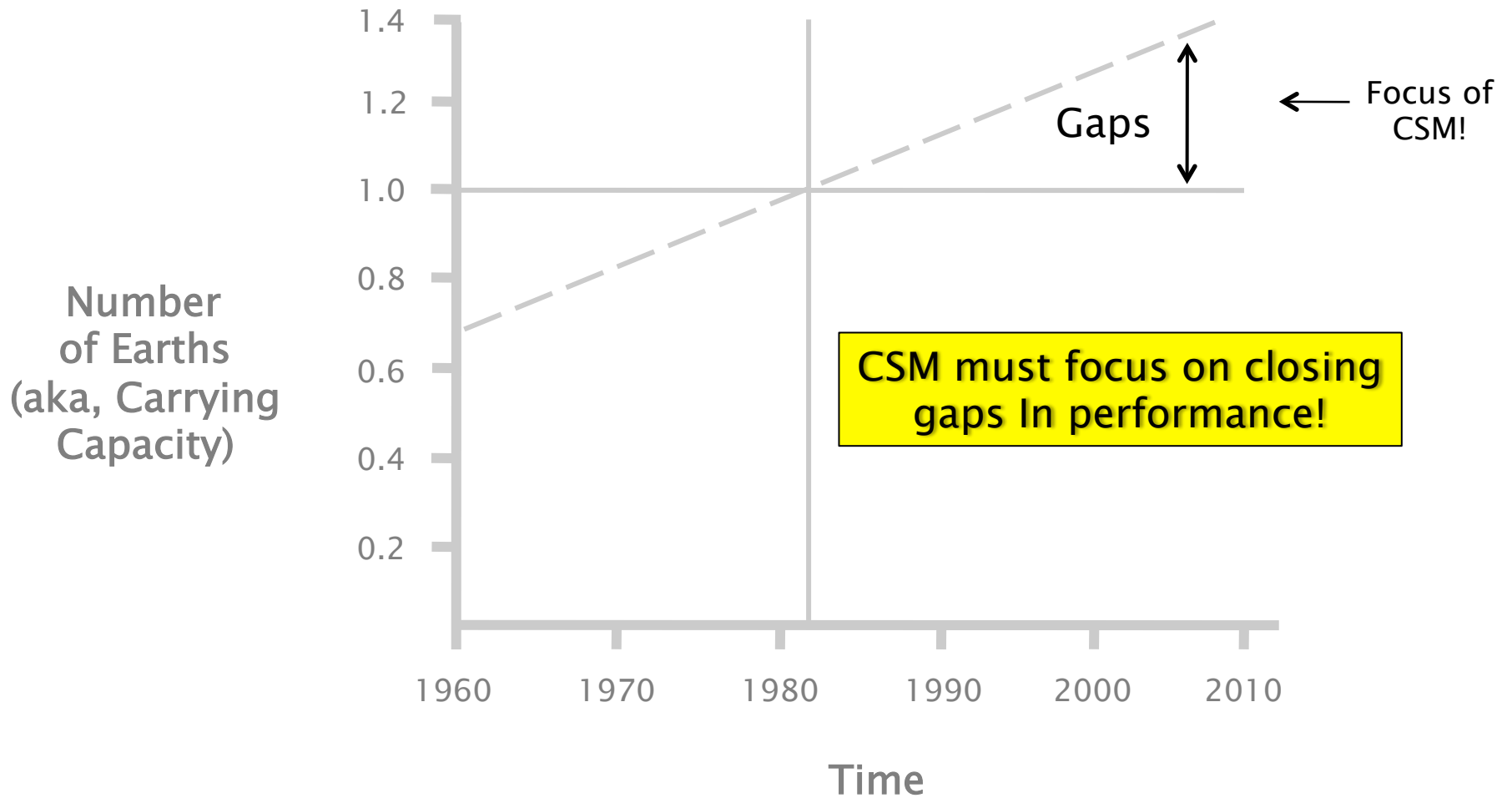


Source: Wackernagel et al, 2002

Context-based CSM, by contrast...



Source: Wackernagel et al, 2002



Source: Wackernagel et al, 2002

Setting Context in Organizations

- ▶ A 3-step process:
 1. Identify vital capitals an organization is having impact on, or ought to be having impact on, in ways that can affect stakeholder well-being (i.e., by affecting their carrying capacities)
 2. Identify the responsible populations for such capitals (i.e., are the responsibilities shared or exclusive?)
 3. Determine proportionate entitlements to and/or burden share for preserving, producing and/or maintaining the related capitals involved

This then establishes a basis for choosing norms, standards or thresholds that can be used in measuring and assessing performance

A General Specification Then Follows

Context-Based Metrics (CBMs)

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

(*Actual* impacts on vital capital)

(*Normative* impacts on vital capital)

Natural Capital: ≤ 1.0 = Sustainable; > 1.0 = Unsustainable

Anthro Capital*: ≥ 1.0 = Sustainable; < 1.0 = Unsustainable

*Human, social and constructed capitals

Area of Performance	What Cabot's Sustainability Metrics Must Measure	Type of Metric	Denominators	Numerators
Safe Food	Safety of Ingredients	Cause	Must be 100% Safe	Actual % Safe
	Quality of Manufacturing	Cause	Must Meet Defined SQF* Scores	Actual SQF* Scores
	Safety of Products	Effect	Must be 100% Safe	Actual % Safe
Customer Commitments	Commercial Performance	Effect	Must Achieve Defined Performance Scores	Actual Scores Received
Water Use	Water Use	Effect	Must Not Exceed Defined Levels of Use	Actual Levels of Water Use
Solid Wastes	Landfill Use	Effect	Must Not Exceed Defined Limits of Use	Actual Levels of Landfill Use
Employee Safety	Employee Safety Incidents	Effect	Must Not Exceed Defined # of Incidents	Actual # of Incidents
	Environmental Incidents	Effect	Must Not Exceed Defined # of Incidents	Actual # of Incidents

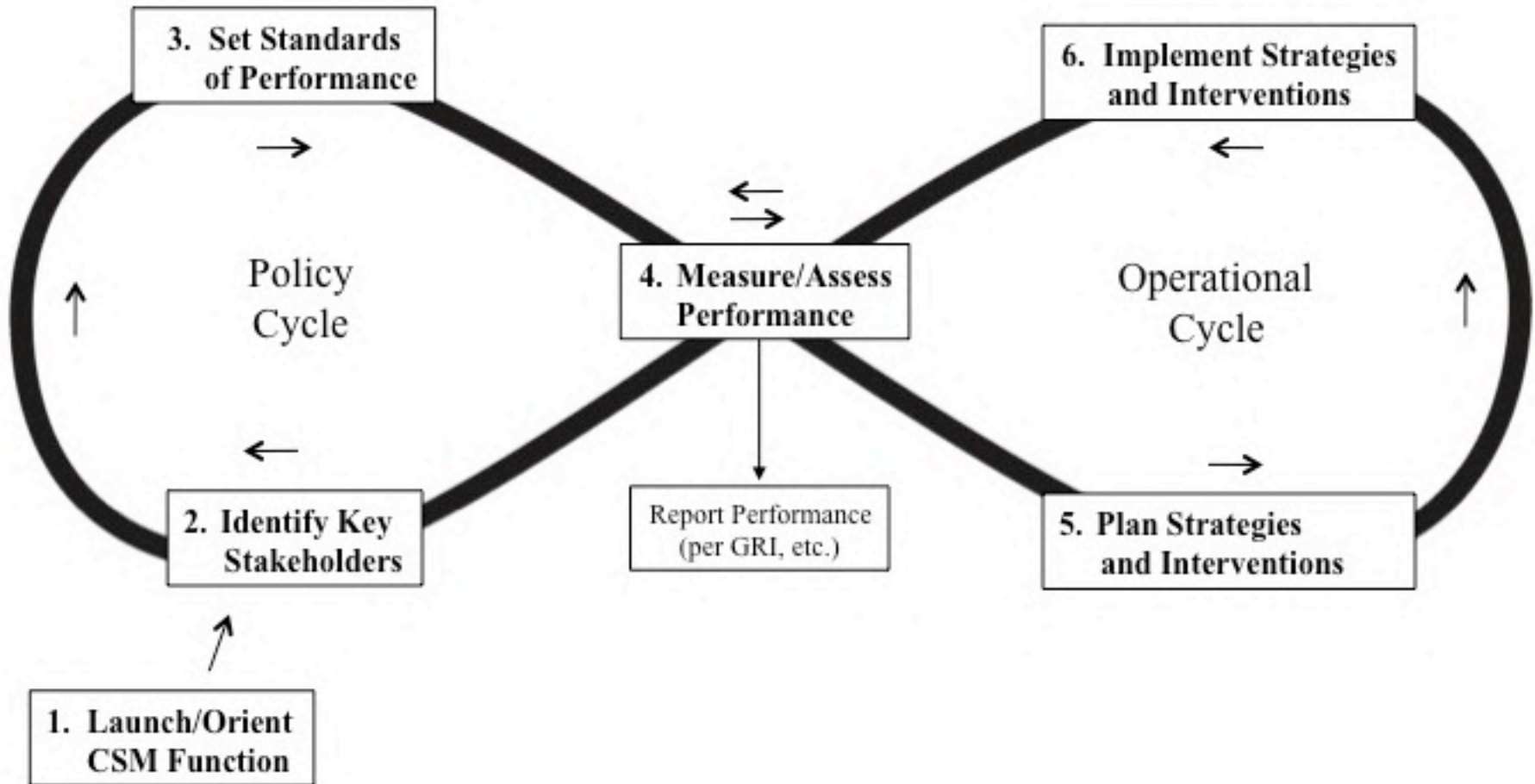
*Legend: SQF = Safe Quality Food, a 3rd-party certification standard.

Source: McElroy and Van Engelen, *Corporate Sustainability Management* (Earthscan, 2011)

Bottom Line	#	Area of Impact (Capital)*	Score	Sustainable?*
Environmental	1	Water (N)	0.9	Yes
	2	Toxic Air Emissions (N)	1.1	No
	3	Biodiversity (N)	1.4	No
Social	4	Climate Change Mitigation (H, S, C)	1.1	Yes
	5	Work/Life Balance (H,S)	1.0	Yes
	6	Roads and Highways (C)	0.7	No
Economic	7	Livable Wage (H)	1.5	Yes
	8	Fair Trade (H)	1.2	Yes
	9	Commercial Performance (H, S, C)	1.0	Yes
Legend: N = Natural Capital H = Human Capital S = Social Capital C = Constructed Capital	Environmental Bottom Line Score (Metrics 1-3)			0.33
	Social Bottom Line Score (Metrics 4-6)			0.66
	Economic Bottom Line Score (Metrics 7-9)			1.00
	Overall Sustainability Performance Score (Metrics 1-9)			0.67

Source: McElroy and Van Engelen, *Corporate Sustainability Management* (Earthscan, 2011)

The CSM Cycle



Source: McElroy and Van Engelen, *Corporate Sustainability Management* (Earthscan, 2011)

Some Pros and Cons of CBS

▶ Pros

- Takes impacts on the carrying capacities of vital capitals explicitly into account
- Takes impacts on human well-being (stakeholders) explicitly into account
- Allocates a fair and proportionate share of available resources and/or the burden of creating and maintaining them to specific organizations
- Makes it possible to produce numerical sustainability scores and to roll them into unified or blended non-financial bottom lines

▶ Cons

- Completely non-standardized and experimental at this time
- Information regarding current social and environmental conditions in the world can be ambiguous and/or hard to come by
- Allocation decisions about what's fair and proportionate can be highly controversial (i.e., organizational entitlements and/or duties)

CBS in Practice!

Ben & Jerry's Global Warming Social Footprint 2006-2007

	2006	2006	2007
Deliveries (pails/box) FTE-Time Employees	500	514	508
BNJ Total Number of People Feet	107	107	110
Global Population (Billions)	6,470	6,549	6,688
Global Population Increased to 2025 Baseline	1,000	1,322	1,344
Carbon Emissions Required to Stabilize CO₂ at 350ppm The Denominator			
Maximum Annual Global Emissions Allowed Under WGE 200 Scenario (bill/yr)	7,408	7,571	7,504
Allowable Annual Carbon Emissions Allowed to 2025 Baseline of WGE 200 Scenario	1,000	0,995	0,990
Annual Carbon Emissions Allowed Per Capita (pails/box at BNJ Under 200 ppm Scenario based on 2009 Baseline of 11.6 tCO ₂ /Person Foot Reduced for Global Population Growth)	11.6	10.97	10.78
Actual Net Carbon Emissions at BNJ's The Numerator			
Actual Annual Carbon Emissions at BNJ's (tCO ₂ /yr)	1,442	1,279	1,274
Set-aside Carbon Emissions at BNJ's (tCO ₂ The Numerator)		1,156	1,237
BNJ's Global Warming Social Footprint (CO₂ Stabilization-related Only)			
Actual Cumulative Carbon Emissions at BNJ's (tCO ₂ The Numerator)		1,156	1,237
Cumulative Carbon Emissions Allowed under WGE 200 Scenario, weighted (tCO ₂ The Denominator)		1,388	2,710
Global Warming Social Quotient (Expressed in Quotient Per Capita/People Foot perspective)		0.04	0.45



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Since 1919



SOCIAL FOOTPRINT



Global Warming
Footprint



General Mechanics, Inc. - Main Plant Water Sustainability Report - 2007

Ombient Scores		Score
ANALYSIS AT SUBURBAN LEVEL 4		
Economic		
Numerator	13,542,813	= 0.025 = Sustainable
Denominator	550,212,817	
Per Capita		
Numerator	13,542,813	= 0.245 = Sustainable
Denominator	55,229,092	
Intensity		
Numerator	13,542,813	= 250.278 (gallons per lb)
Denominator	54,111	

Bottom Line Type	#	Area of Impact (Capital Stock Type)*	Measure of/Basis for Denominator, e.g.
Environmental	1	Water (N)	Location-specific by watershed (USGS)
	2	Solid Waste (N)	Location-specific by landfill capacity
	3	Non-GHG Air Emissions (N)	Federal and state requirements
	4	Land/Habitat (N)	Do no harm (zero tolerance)
	5	Life/Biodiversity (N)	Do no harm (zero tolerance)
Social	6	Climate Change Mitigation (H, S, C)	GHG stabilization scenario
	7	Internal/External Social Programs (S)	Various, TBD
	8	Internal/External Infrastructure (C)	Various, TBD
	9	Direct Human Impacts (H)	Do no harm (zero tolerance)
	10	Direct Social Impacts (S)	Do no harm (zero tolerance)
Economic	11	Direct Infrastructure Impacts (C)	Do no harm (zero tolerance)
	12	Livable Wage (H)	Local standards
	13	Work/Family Balance (H, S)	e.g., FTE = ≤ 1.2
	14	Direct Human Impacts (H)	Do no harm (zero tolerance)
	15	Direct Social Impacts (S)	Do no harm (zero tolerance)
	16	Direct Infrastructure Impacts (C)	Do no harm (zero tolerance)



CSR Press Release



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Alerts



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Vermont NGO Calls on GRI to Enforce or Explain

Submitted by: [Center for Sustainable Organizations](#)

Categories: [Corporate Social Responsibility](#),
[Sustainability](#)

Posted: Sep 06, 2011 - 07:59 AM EST



THETFORD CENTER, Vt., Sep. 06 /CSRwire/ - The [Center for Sustainable Organizations \(CSO\)](#) launched a campaign today in which it calls upon the Global Reporting Initiative (GRI), the world's leading corporate sustainability reporting standard, to either enforce the 'sustainability context' principle in its guidelines or explain why it doesn't.

Motivated in part by GRI's own recent [Report or Explain Campaign](#), which exhorts companies to reveal their own sustainability performance or else publicly explain why they don't, CSO's call for GRI to explain why it doesn't enforce its own sustainability reporting guidelines is intended to address a major flaw in mainstream reporting: the absence of sustainability context in related efforts.

Shameless Plug:
Coming in November!

Thank you!

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