

SD&A: Computers & electronic products

OconEco warehouses data on business sustainability at a detailed level; *SD&A* distill and map them to suit specified templates. The prototype discussed here maps data on US resident businesses¹ to the Global Reporting Initiative (GRI).² It produces benchmarks for GRI-type indicators at the level OconEco considers necessary to judge *materiality*³ or which of many possible indicators apply to a client. This involves “drilling down” industry classifications,⁴ to manufacturers of computers and electronics in this example, and more detail than GRI specifies.⁵

SD&A uses a quantitative benchmarking tool, *Key Sustainability Indicators for business (KSI^b)*, as much as possible. However, templates like GRI accept and often can only be satisfied by text. OconEco has a tool that culls text from the client’s existing documents, *SDR^{prep}*. Templates may also expect a business to gauge its role in communities where it operates, which can require considerable data on those communities. OconEco has a tool for this, too, *Key Sustainability Indicators for communities (KSI^c)*. The tools can be used separately but there are synergies when they are combined. The term *SD&A* is used to describe the synergistic package.

The benchmarks OconEco uses to determine materiality are built from details resident businesses routinely report to US Federal agencies—usually published only after aggregation to some level of industry classification to ensure *confidentiality*. Reporting templates like GRI try piercing the veil of confidentiality where indicators may be material to sustainability. OconEco sees reporting as a step after *SD&A* identifies which indicators, at what level of detail, are material to a specific client. Where confidentiality is an additional reporting filter a good report editor should be able to sidestep the issue by conveying what is material in words rather than numbers.

Since *SD&A* benchmarks recast data from Federal reports, any business operating in the US has the detailed data necessary to compile its comparators. New data collection systems aren’t needed until and unless an unsatisfied materiality concern has been specified. However, existing data are not designed to mesh, fitting the pieces together is time consuming and tedious without OconEco’s proprietary *SD&A*.

Unlike GRI, which favors reporting “raw” data, say revenue in dollars, *SD&A* benchmarks and a reporter’s comparators have to be normalized (e.g., revenue as dollars per full time employee equivalent). Sustainability metrics also entail conversions, like equating electricity in kilowatt-hours to greenhouse gas emissions, automated by *SD&A*. There are options for how clients submit data to OconEco to complete comparators for the “Your company data” column of tables discussed below, depending on how much of this detail the client is willing to manage itself to avoid sending OconEco the details (on a strictly confidential basis).

¹ It actually contains considerable data for other OECD countries but not yet financial accounting details crucial to OconEco’s measures of business sustainability.

² See <http://www.globalreporting.org/Home>. Another template in development will map data to relevant standards of the International Standards Organization, including those of Social Responsibility—currently in draft.

³ Page 8 of GRI’s *G3 Sustainability Reporting Guidelines* provides a good explanation of similarities and differences between materiality in financial and sustainability reporting.

⁴ Most are available at the 3-digit level of the North American Industrial Classification System (NAICS) or finer grain classifications. OconEco handles “crosswalks” to the Standard Industrial Classification (SIC) that is being phased out as well as the blending of data from various sources.

⁵ It should be noted that GRI uses the term, indicator, loosely. It often requires a verbal rather than numeric response and usually requires an array of indicators when it can be quantified.

SD&A surrounds its data tables with texts that verbalize OconEco’s semi-automated outliers analyses of industry performance relative to its “super-sector” and then all US enterprises.⁶ Clients may request a similar verbal digest of their own data, once provided. A client may also have it generate “auto-text” about communities where it operates (from **KSI**) and from its word-oriented databases (10-Ks submitted to SEC, websites, etc., processed with **SDR^{prep}**). What follows includes indications of where these would fit in the GRI template defining sections and subsections of the prototype.

1. Economic

The economic dimension of sustainability concerns the organization’s impacts on the economic conditions of its stakeholders and on economic systems at local, national, and global levels. GRI G3 Guidelines⁷

GRI considers three aspects of economic sustainability: performance, market presence, and indirect economic impacts. The first two sound like conventional financial concepts but in fact call for different indicators. OconEco clients receive a detailed explanation of similarities and differences as part of our explanation for how we modify GRI terminology to satisfy the objective of above quote.

a. Performance

GRI highlights four facets of economic performance: direct economic value, implications of climate change, structure of retirement plans, and government financial assistance.

GRI EC1 indicator (set) details its measure of direct economic value and by references implies that it accords with International Financial Reporting Standards (IFRS). In fact the term is used mainly in environmental accounting to position the system of national accounting (SNA) concept of value added in a broader measure that includes “externalities.” Neither “direct economic value” nor the SNA concept of value added is mentioned in IFRS or its US equivalent (FASB); even national accountants haven’t agreed on the usefulness, let alone quantification methods, for such a broad measure. OconEco therefore recasts GRI’s EC1 to SNA terms and derives benchmarks (Table 1) mainly from US Census Bureau reports on the quinquennial economic census plus annual surveys of manufacturing and services, refinement by Bureau of Economic Analysis (BEA), etc. Unless otherwise specified, these are the sources for data in this subsection.

SNA data suggest US manufacturers of computers and electronic products are unsustainable unless

GRI+ concept	Your company here	Computer & electronic products	Manufacturing	Nonfarm nonfin. Enterprises
	\$/full time employee equivalent			
Revenue	...	294,190	320,551	162,349
Economic value distributed	...	301,294	300,563	150,929
Intermediate consumption	...	189,785	212,854	78,937
Energy inputs	...	2,086	5,081	3,689
Material inputs	...	100,877	158,187	37,311
Purchased service	...	86,823	49,585	37,937
Compensation of employees	...	99,891	66,414	50,380
Payments to providers of capital	...	970	8,502	11,882
Interest paid (net)	...	1,767	2,548	1,707
Noncorp. Net income	...	-1,178	4,892	8,007
Corp. dividends (net)	...	380	1,062	2,167
Payments to government	...	9,538	11,377	9,090
Taxes on Production & trade	...	3,052	3,637	6,536
Corporate income tax	...	6,485	7,740	2,554
Current transfers (net)	...	1,110	1,416	640
Charitable contributions	...	199	338	93
Economic value retained	...	-7,104	19,988	11,420

Sources: US Bureau of Economic Data (http://www.bea.gov/industry/gdpbyind_data.htm) 2005 data; and IRS 2004 for

⁶ Nonfarm nonfinancial enterprises are the broadest benchmark except for financial institutions, separated because their financial accounts are inherently different from those of all other enterprises.

⁷ See page 25 of document at <http://www.globalreporting.org/ReportingFramework/G3Guidelines/>.

fundamentals change. Table 1 shows the “bottom line,” economic value retained by corporation in the industry, was negative despite paying below average dividends; noncorporate enterprises also showed negative net income in 2005 (results were similar in the previous few years). Here and in later tables OconEco’s benchmarks go beyond GRI to add details useful for strategic thinking but not necessarily for publication. In Table 1, for example, GRI specification ends at the level of italicized rows but OconEco allows clients to “drill down” a level deeper.

The industry is a bit below the average for manufacturers, in revenue per full time employee equivalent (FTE). However, workers are paid much more. This combination, lower revenue per worker and above average compensation of employees, is unsustainable.

The composition of intermediate consumption is quite different in this industry, compared to the average manufacturer. The low requirement for energy and material inputs means environmental concerns should be manageable but it also reduces scope for improving economic sustainability by handling these inputs more efficiently. A high proportion of purchased services, along with high compensation of employees, suggest sustainability depends on how corporations in this industry handle its social aspects. These issues are discussed in more detail in later sections.

SD&A goes beyond GRI’s concept of economic performance because “identification of wealth acts as a conceptual anchor to determining revenues and expenses that result from the flow of wealth during the period.”⁸ In keeping with its approach to EC1, above, OconEco does so in SNA terms. SNA differs from Generally Accepted Accounting Practices (GAAP) in a number of ways but most significantly by valuing assets and liabilities at market prices.⁹ While a more rigorous approach is in development, the prototype **SD&A** provides a rough idea of what is involved by splicing market capitalization measures to IRS reports on business balance sheets.

The IRS measures (book assets and financial liabilities in Table 2), show that manufacturers of computer and electronics produce revenue with a smaller portfolio than manufacturers in general or all enterprises. They also have a lower price/earnings ratio (market capitalization in Table 2); the “bottom line” is that shareholders’ ascribe less non-GAAP intangible value to computer and electronic manufacturers than manufacturers or enterprises in general. This is consistent with the sustainability concern raised by Table 1.

It should be noted that SNA data on tangible assets paint a different picture. By these measures, computer and electronics manufacturers require significantly more tangible assets (essentially depreciable assets and inventories in Table 2) than

OconEco concept	Your company here	Computer & electronic products	Manufacturing	Nonfarm nonfin. Enterprises
		(% of revenue)		
Book assets	...	118	155	202
Loans & liquid assets	...	56	62	97
Other Investments	...	23	46	53
Depreciable assets + inventories	...	13	18	21
Intangibles (amortizable)	...	14	12	13
Land & depletable assets	...	1	1	2
Other assets	...	11	17	16
Non-GAAP intangibles, net	...	364	580	675
Financial Liabilities	...	52	86	129
Market capitalization	...	430	649	748
Sources: IRS (http://www.irs.gov/taxstats/index.html) and Reuters (http://www.irs.gov/taxstats/index.html)				

⁸ Study Pursuant to Section 108(d) of the Sarbanes-Oxley Act of 2002 on the Adoption by the United States Financial Reporting System of a Principles-Based Accounting System; SEC, 2003; <http://www.sec.gov/news/studies/principlesbasedstand.htm#3b>

⁹ Clients may obtain a paper detailing differences between GAAP and SNA accounting, which also discusses ideas like Enhanced Business Reporting (<http://www.ebr360.org/>).