

## Report on sustainability reporting and reporting tools

14 November 2011

Report prepared by Ralph Pina, Director: Information Technology (Development)

### Contents

Report on sustainability reporting and reporting tools .....	1
Brief .....	1
Sustainability and integrated reporting .....	1
Reporting frameworks and standards .....	2
Vendors, tools and suites.....	5
Conclusions and recommendations.....	7
References .....	8

### Brief

The original brief was to scan the market for tools/applications that can help the university to determine and report on its carbon footprint. However, it was decided that a focus on carbon footprint is too narrow an approach and secondly, that the “landscape” of sustainability reporting needs to be better understood before recommendations for reporting tools or applications can be made.

### Sustainability and integrated reporting

Superficially, reporting on sustainability can be considered along a continuum from a narrow to a comprehensive scope: from reporting on carbon footprint and emissions, through sustainability reporting, to integrated reporting (or connected reporting).

The King Code of Governance Principles (Institute of Directors in Southern Africa, 2009) in South Africa, or King III – with which the university also attempts to comply – recommends that corporations and organisations should report on their sustainability but goes further to require that "the leadership of a company embraces the notion of integrated sustainability performance and reporting". In fact, Professor Mervyn King, the author of King III, is the chairman of the International Integrated Reporting Committee (IIRC) whose goal it is to create a globally accepted framework and standards for integrated reporting (International Integrated Reporting Committee, 2011). According to the IIRC, while there are standard-setting bodies for financial reporting and frameworks and guidelines for environmental, social and governance (ESG) reporting, no single body exists to integrate these elements into a universally accepted integrated reporting framework.

Why the need for integrated reporting? In the words of the IIRC:

*“Integrated Reporting demonstrates the linkages between an organization’s strategy, governance and financial performance and the social, environmental and economic context within which it operates. By reinforcing these connections, Integrated Reporting can help business to take more sustainable decisions and enable investors and other stakeholders to understand how an organization is really performing.”*

The work of the IIRC has barely begun however. It has produced a discussion paper, was to present proposals to the G20 ministers last month, and is about to embark on a pilot programme with 40 international corporations. The two pilot phases will run for two years.

Consequently, while it needs to be borne in mind that we are evolving towards a future of integrated reporting, frameworks and standards exist currently for reporting on carbon emissions and sustainability. One of the frameworks that the IIRC will be building on is the Global Reporting Initiative (GRI) which has become a *de facto* sustainability reporting standard (South African Institute of Chartered Accountants, 2011).

Most reporting frameworks are tailored for corporations and while the fundamental purposes of sustainability reporting, namely assessing the status of and progress towards sustainability and accounting to and communicating with stakeholders (Lozano, 2006: 963), hold true for both corporations and universities, an important additional outcome for universities is to be able to benchmark with other universities, locally and internationally.

Similarly Shriberg (2002), in a comprehensive study of sustainability assessment tools for the higher education sector, also stresses the importance of moving beyond mere reporting to identifying and prioritising issues related to sustainability, to ensuring comparability in order to measure status and progress, and to measuring processes and motivation (governance) in order to answer the “why” and “how” questions.

It is also clear from a review of sustainability vendors, tools and suites (Mingay & Stokes, 2011), that the corporate sector is moving beyond reporting to tools that minimise risks and make them visible, analyse and optimise energy and emission abatement scenarios, communicate business value and “monetize current and future energy and emission costs”, amongst other purposes. In other words, the transition underway is from “compliance to sustainable business intelligence” because sustainability is increasingly viewed as a potential profit centre (Stokes, 2011).

## Reporting frameworks and standards

The Carbon Disclosure Standards Board (CDSB) quotes the KPMG “Carrots and sticks” report in noting that there are 142 country standards and laws on sustainability in 30 countries; and quotes a report from the European Commission Directorate – General Environment that found 30 major schemes that focus on greenhouse gas (GHG) reporting (Guthrie, 2011).

Given the proliferation and fragmentation of reporting frameworks and standards, the following section is neither exhaustive nor comprehensive, but attempts to present a concise overview of the most important ones.

Starting from the narrow scope of carbon emissions accounting and reporting, the following frameworks are commonly used in the absence of a global accounting standard:

- The **GHG Protocol** ([www.ghgprotocol.org](http://www.ghgprotocol.org)), which was developed by the World Business Council for Sustainable Development (WBCSD) and the World Resources Institute (WRI). It is regarded as the *de facto* standard for GHG emissions quantification and management (South African Institute of Chartered Accountants, 2011b). The GHG Protocol's Corporate Standard is the basis for ISO 14064-1: *Specification with Guidance at the Organization Level for Quantification and Reporting of Greenhouse Gas Emissions and Removals*.
- The CDSB ([www.cdsb.net](http://www.cdsb.net)) has developed the **Climate Change Reporting Framework** – and also collaborates with the IIRC.
- The **Carbon Disclosure Project (CDP)** ([www.cdproject.net](http://www.cdproject.net)) claims to host the largest database of corporate GHG emissions, water use and climate change strategy disclosures by “thousands of organizations”. It uses GHG Protocol standards.

In the realm of sustainability reporting, as mentioned earlier, the **GRI** ([www.globalreporting.org](http://www.globalreporting.org)) is the *de facto* global reporting standard for corporations. King III refers to it by name and much of the IIRC's work is based on it.

However, the Association for the Advancement of Sustainability in Higher Education (AASHE) in North America has developed a **Sustainability Tracking, Assessment and Reporting System (STARS - <https://stars.aashe.org/>)** which has become the *preferred sustainability reporting tool amongst universities* in the United States and Canada (Association for the Advancement of Sustainability in Higher Education, 2011). STARS is developed for universities by universities and addresses sustainability as it pertains to universities' particular mission. Stellenbosch University is an international member of AASHE.

In the following table, a rudimentary attempt is made to map STARS' reporting categories against those of the GRI.

GRI G3.1			STARS	
Economic	Direct Economic Impacts	<ul style="list-style-type: none"> <li>• Economic performance</li> <li>• Market presence</li> <li>• Indirect economic impacts</li> </ul>		
Environmental	Environmental	<ul style="list-style-type: none"> <li>• Materials</li> <li>• Energy</li> <li>• Water</li> <li>• Biodiversity</li> <li>• Emissions,</li> </ul>	Operations	<ul style="list-style-type: none"> <li>• Buildings</li> <li>• Energy</li> <li>• Water</li> <li>• Grounds</li> <li>• Climate</li> </ul>

GRI G3.1			STARS	
		effluents, and waste Compliance <ul style="list-style-type: none"> <li>• Products and services</li> <li>• Transport</li> <li>• Overall</li> </ul>		(emissions) <ul style="list-style-type: none"> <li>• Waste</li> <li>• Dining services (food)</li> <li>• Purchasing</li> <li>• Transportation</li> </ul>
Social	Labour Practices and Decent Work	<ul style="list-style-type: none"> <li>• Employment Labour/management relations</li> <li>• Health and safety</li> <li>• Training and education</li> <li>• Diversity and opportunity</li> <li>• Equal remuneration for women and men</li> </ul>	Planning, Administration & Engagement	<ul style="list-style-type: none"> <li>• Diversity &amp; affordability</li> <li>• Human resources</li> </ul>
	Human Rights	<ul style="list-style-type: none"> <li>• Investment &amp; Procurement practices</li> <li>• Non-discrimination</li> <li>• Freedom of association and collective bargaining</li> <li>• Child labour</li> <li>• Forced and compulsory labour</li> <li>• Disciplinary practices</li> <li>• Security practices</li> <li>• Indigenous rights</li> <li>• Assessment</li> <li>• Remediation</li> </ul>		<ul style="list-style-type: none"> <li>• Coordination &amp; Planning</li> </ul>
	Society	<ul style="list-style-type: none"> <li>• Local Community</li> <li>• Corruption</li> <li>• Public policy</li> <li>• Anti-competitive behaviour</li> <li>• Compliance</li> </ul>		<ul style="list-style-type: none"> <li>• Investment</li> <li>• Public Engagement</li> </ul>

GRI G3.1			STARS	
	Product Responsibility	<ul style="list-style-type: none"> <li>• Customer health and safety</li> <li>• Products and service labeling</li> <li>• Marketing communications</li> <li>• Customer privacy</li> <li>• Compliance</li> </ul>		
			Education & Research	<ul style="list-style-type: none"> <li>• Co-curricular Education</li> <li>• Curriculum</li> <li>• Research</li> </ul>

**Table 1: Simple mapping of STARS to GRI G3.1 (Global Reporting Initiative, 2011; Association for the Advancement of Sustainability in Higher Education, 2011b)**

STARS largely ignores economic sustainability but hones in on the embedding of ecological sustainability in Education and Research, the core "businesses" of a university. The latter point is vital and often overlooked.

The largest and best overlap between STARS and GRI is in the environmental sustainability categories. Here STARS' Climate (GHG emissions inventory, reduction and offsets) assessment requires that measurements adhere to the GHG Protocol's Corporate Accounting and Reporting Standards (Association for the Advancement of Sustainability in Higher Education, 2011b: 100), while the GRI recommends that emissions reporting be aligned with the GHG Protocol.

STARS requires compliance with a number of certification standards for an institution to obtain "credits", but some of these are particular to North America, or are not widely applicable in southern Africa. Examples are Leadership in Energy and Environmental Design (LEED), Green-e Energy, EcoSeal, amongst others. However, AASHE's international STARS pilot, which is aimed at universities outside North America, allows international institutions to omit these credits or, one assumes, to substitute with local certifications (Association for the Advancement of Sustainability in Higher Education, 2011c). For example, instead of LEED the Green Star certifications by the Green Building Council of South Africa (GBCSA) could conceivably be used. Others such as the Electronic Product Environmental Assessment Tool (EPEAT) and Fair Trade would be applicable in South Africa.

## Vendors, tools and suites

Sustainability management suites and tools have proliferated and vendors approach the market in different ways. Some are niche players (such as Greenstone which focuses exclusively on aggregating and reporting); others are emerging vendors; some (such as Enviance, Enablon) are established environmental, health and safety (EHS) system vendors; while the megavendors such as Oracle and Microsoft are adding sustainability management and reporting tools to their established enterprise resource management (ERP) suites, albeit in a low-key manner (Mingay & Stokes, 2011). As compliance

and disclosure requirements increase, so the large vendors can be expected to position and improve their offerings more aggressively.

With the exception of Oracle and Microsoft almost all the others supply cloud-based solutions (software-as-a-service – SaaS), while some additionally offer specialist consulting and support which could include verification and review of data, system boundary analysis and data collection, amongst others.

The following table summarises the solutions from a sample of vendors.

Vendor	Tool/Application/ Suite	Model	Functions	Reporting
<b>Sustainable IT</b>	The Carbon Report <a href="http://www.sustainableit.co.za/sample-page/carbon-footprint-software/">http://www.sustainableit.co.za/sample-page/carbon-footprint-software/</a>	Cloud-based service. Annual subscription.	GHG only. Purports to make data gathering and reporting simple. Consultant support (verification & review) and training.	GHG Protocol
<b>Greenstone</b>	Acco <sub>2</sub> unt <a href="http://www.greenstonecarbon.com/software.php">http://www.greenstonecarbon.com/software.php</a>	Cloud-based service. Annual subscription.	Carbon accounting. Focus on aggregation and reporting. Expert support.	Various including CDP, GHG
<b>Enablon</b>	SD-CSR (Sustainable Development – Corporate Social Responsibility) GHG-MS <a href="http://enablon.com/products/overview.aspx">http://enablon.com/products/overview.aspx</a>	Cloud-based service or on-premises software.	Sustainability data collection, consolidation, reporting, management. Mature.	GRI, CDP certified
<b>Microsoft</b>	Environmental Sustainability Dashboard for Dynamics AX <a href="http://www.microsoft.com/dynamics/en/gulf/environment.aspx">http://www.microsoft.com/dynamics/en/gulf/environment.aspx</a>	Requires Dynamics AX ERP suite. Licence software.	Energy consumption & GHG emissions tracking.	Based on GRI
<b>Enviance</b>	Environmental ERP <a href="http://www.enviance.com/products/ghg-software.aspx">http://www.enviance.com/products/ghg-software.aspx</a>	Cloud-based service. Includes mobile solutions. Subscription.	Measure, manage and report GHG emissions, environmental, health and safety (EHS) data, and other environmental information	US EPA GHG rule
<b>ENXSUITE</b>	ENXSUITE	Cloud-based service.	Energy	GRI, CDP

Vendor	Tool/Application/ Suite	Model	Functions	Reporting
	<a href="http://enxsuite.com/solutions/overview">http://enxsuite.com/solutions/overview</a>	Subscription.	performance management. Executive-level tools.	
<b>Credit360</b>	Credit360 modules: Energy & Carbon, EHS, CSR, Compliance <a href="http://www.credit360.com/crredit/site/home.acds">http://www.credit360.com/crredit/site/home.acds</a>	Cloud-based service. Subscription	Data collection, tracking, managing, reporting, communication. Support and training.	GHG, GRI, CDP certified.
<b>Oracle</b>	Oracle Environmental Accounting and Reporting <a href="http://www.oracle.com/us/products/applications/green/accounting-reporting-410442.html">http://www.oracle.com/us/products/applications/green/accounting-reporting-410442.html</a>	Requires Oracle E-Business Suite 12.1+. Licenced software.	Automated and manual environmental data collection (mainly GHG emissions); tracking; compliance; reporting; opportunities.	GHG, CDP

Table 2: Vendors, suites and tools

CDP and STARS require participants to report via the assessment websites where data is captured, reviewed and disclosed online. However, these databases are the final destination for calculated, aggregated and analysed information which is usually, but not necessarily, prepared using the application suites and tools supplied by vendors. For example a suite may draw energy purchasing data from an organisation's financial or procurement system, apply GHG emissions factors and produce a carbon footprint indication. As mentioned previously, reporting and disclosure are initial outcomes while analysis, management and decision-support are what some of the suites and tools now offer and support.

## Conclusions and recommendations

Before any decision on sustainability software and tools can be made, the university's sustainability strategy and goals must be clearly understood. For instance, does it merely want to report on sustainability criteria to stakeholders like alumni, donors, the council, students, etc.? Or does it simply want to disclose its carbon footprint publicly? Or does it want to determine and prioritise sustainability issues, set goals and track and manage improvements? Would the foregoing apply only to operations and campus life, or to the academic realm as well? Or is the idea of a "sustainable university" transformative in nature"? And so forth.

One of the university's four Strategic Focus Areas is "sustainability". However, if one notes Prof Jan Botha's attempt (Institutional Planning and Research Division, 2011: 16) to map its Strategic Management Indicators ("SBAs") and strategic targets to the four Strategic Focus Areas, it is clear that

there are currently only financial indicators that map to “sustainability”. Clearly, there are major opportunities to define an array of sustainability indicators and set relevant targets that would give real substance to the sustainability focus area. The frameworks that have been mentioned in this report comprehensively define such indicators – which go some way beyond those included in the Sustainability Scorecard that students initiated two years ago via the now-defunct Sustainability Think Tank (STT).

The effort required to collect, collate and analyse data in order to meaningfully populate these indicators must not be underestimated either. A sustainability application suite will not provide the “magic bullet”; data still has to be measured or collected. Similarly, the implementation of such a suite would not be trivial and would be analogous, in time and effort, to implementing a human resources management system for instance.

Consequently, any **choice of a sustainability application suite should be delayed** until the university’s sustainability strategy has been determined.

I would submit, however, that it is necessary for the university to **select and implement a sustainability assessment and reporting framework** in order to identify sustainability indicators, help it develop its strategy, assess progress, report to stakeholders and benchmark against similar institutions. Thorough planning and resourcing of the project to adopt such a framework is a prerequisite. It may transpire that using a cloud-based sustainability service in order to collect, collate and analyse data prior to submission will be useful if implemented in a low-risk, limited-commitment manner.

For the university, STARS would be the right framework if sustainability is to be assessed and tracked in a wider sense than merely for operations – as it should be. AASHE is offering international universities the opportunity to register for the STARS International Pilot at no cost before 31 December 2011. The offer is limited to 50 institutions. These institutions will not be eligible for STARS ratings but would have their STARS report published on the STARS website. Again however, such a step requires a commitment from the university to adequately plan and resource the effort.

## References

Association for the Advancement of Sustainability in Higher Education (AASHE). 2011. Sustainability, tracking and rating system STARS. AASHE [Internet]. Available: <https://stars.aashe.org/>. [Accessed: 2011, 3 November].

Association for the Advancement of Sustainability in Higher Education (AASHE). 2011b. *Sustainability, tracking and rating system STARS*. Version 1.1 Technical Manual, Administrative Update One, September. Available: [http://www.aashe.org/files/documents/STARS/stars\\_1.1\\_administrative\\_update\\_one\\_technical\\_manual.pdf](http://www.aashe.org/files/documents/STARS/stars_1.1_administrative_update_one_technical_manual.pdf).

Association for the Advancement of Sustainability in Higher Education (AASHE). 2011c. *Guidelines for STARS International Pilot*. October. Available: [http://www.aashe.org/files/documents/STARS/guidelines\\_for\\_stars\\_international\\_pilot.pdf](http://www.aashe.org/files/documents/STARS/guidelines_for_stars_international_pilot.pdf).

International Integrated Reporting Committee (IIRC). 2011. *Integrated Reporting* [Internet]. Available: <http://www.theiirc.org/>. [Accessed: 2011, 8 November].

Institute of Directors in Southern Africa (IDSA). 2009. *King Code of Governance for South Africa*.

Institutional Planning and Research Division. 2011. *Strategiese Inligting*. Bylae D tot die Inligtingkuratorsforum (IKF) agenda van 14 November 2011. Stellenbosch University. June, 11-17.

Global Reporting Initiative. 2011. *GRI Sustainability reporting guidelines G3.1 – Reference sheet* [Internet]. Available: <http://www.globalreporting.org/NR/rdonlyres/D8B503A9-070C-43DB-AD0F-5C4ACB1EBF39/0/G31RefSheet.pdf>. [Accessed: 2011, 17 October].

Guthrie, L. 2011. *Key aspects of international regulation and carbon reporting* [Internet]. CDP Webinar. Climate Disclosure Standards Board, April. Available: <http://www.cdsb.net/climate-change-reporting-framework/why-we-need-a-framework/webinar/>. [Accessed: 2011, 11 November].

Lozano, R. 2006. A tool for a Graphical Assessment of Sustainability in Universities (GASU). *Journal of Cleaner Production*, 14, 963-972.

Mingay, S. & Stokes, S. 2011. Hype cycle for sustainability and green IT. *Gartner* [Internet]. Available: <http://my.gartner.com/portal/server.pt?open=512&objID=260&mode=2&PageID=3460702&resId=1755715> [requires sign-on at <http://www.sun.ac.za/gartner>]. [Accessed: 2011, 8 November].

Stokes, S. 2011. Emerging trends that will shape the sustainable business market ecosystem. *Gartner* [Internet]. Available: <http://my.gartner.com/portal/server.pt?open=512&objID=260&mode=2&PageID=3460702> [requires sign-on at <http://www.sun.ac.za/gartner>]. [Accessed: 2011, 8 November].

Shriberg, M. P. 2002. Institutional assessment tools for sustainability in higher education: strengths, weaknesses, and implications for practice and theory. *Higher Education Policy*, 15(2002), 153 – 167.

South African Institute of Chartered Accountants (SAICA). 2011. The Global Reporting Initiative. *Sustainability South Africa* [Internet]. Available: <http://www.sustainabilitysa.org/sustainabilityreporting/GlobalReportingInitiativeGRI.aspx>. [Accessed: 2011, 17 October].

South African Institute of Chartered Accountants (SAICA). 2011b. Measuring and reporting. *Sustainability South Africa* [Internet]. Available: <http://www.sustainabilitysa.org/GHGemissions/MeasuringandReporting.aspx>. [Accessed: 2011 17 October].