PUBLIC DRAFT

Leadership Standards Campaign | North America Framework

DRAFT Leadership Principles
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DRAFT Leadership Standards & Disclosure Tools

(Draft Leadership Standards and Disclosure Tools are currently underdevelopment. The table of contents includes these areas of future work to give readers a sense of the final product.)

August 17, 2011

Contents

Purpose

The purpose of the Leadership Standards Campaign ("the Campaign") is to cut through the growing noise and confusion surrounding "green" standards, tools, labels and claims. National environmental groups, Corporations and other leadership organizations are forming the Campaign in order to identify and elevate those standards and tools that truly drive market transformation to sustainability.

Background

The sustainability standards and environmental disclosure tools market is in jeopardy of being swamped by the proliferation of mediocre standards and tools. This is detrimental to the sustainability movement as a whole and to 20+ years of advances in the green building movement. The current, confused state of sustainability standards and disclosure tools demands a leadership campaign to provide market clarity, especially given that worldwide ecological and social degradation continues at a disturbing rate; as evidenced by disruptive dangerous climate change, wide-ranging habitat destruction, toxic residue accumulation and resource drawdown coupled with systemic social injustice.

The Leadership Standards Campaign clearly identify Core Leadership Standards and Tools that are making a difference in transforming status quo practice towards sustainability and regeneration. The Campaign also identifies Next Generation Standards and Tools that are pushing the boundaries of practice into previously uncharted areas of development, practice, innovation, and regeneration.

Performance Standards & Disclosure Tools Clarification

The Leadership Standards Campaign differentiates between “performance standards” whose basic purpose is to define and label minimum levels of environmental and social performance, and “disclosure tools” whose basic purpose is to assess and disclose the measurable environmental impacts of products and processes. The Campaign recognizes that some standards that primarily define minimum performance thresholds also incorporate methods of environmental assessment and disclosure, and that some tools that primarily assess and disclose environmental impacts also incorporate performance standards, i.e. through weighting impacts differently if a product is certified to a given standard. Nevertheless, the distinction between performance standards and disclosure tools appears useful and perhaps even fundamental, as the two are commonly confused today.

Performance standards and disclosure tools have the potential to work together synergistically to create a powerful dynamic for market transformation. The two can complement one another as change drivers because, where disclosure tools reveal opportunities for improvement with regard to specific materials, their manufacturers will tend to be motivated to address them; and if a leadership performance standard and certification system exist for that product/industry, they can promote best practices as well as address site-specific ecological and social impacts for which many disclosure tools currently fail to account.

Notes on Standards: Standards frequently include both qualitative and quantitative measures including both subjective non-science-based indicators and objective science-based indicators. Standards frequently and openly tolerate a reasoned amount of 'soft' science indicators. Not all things of importance or value can be directly measured. The use of qualitative and quantitative indicators provides for wider influence.

For all their advantages, performance standards have limitations in that they generally do not disclose specific environmental or human health impacts in a way that allows for the informed comparison of products (including buildings) certified to the standard. This is because performance standards operate by establishing minimum thresholds for the use of environmental claims or eco-labels, but there can be very different pathways to achieving this threshold, and once it is achieved two products that qualify for the same claim/eco-label may in fact have very different levels of actual performance or impact.

Notes on Disclosure Tools: Disclosure Tools primarily include quantitative measures with a focus on objective and science-based assessment and analysis. They lean heavily towards

'hard' science indicators, which improves their accuracy but also limits their influence to things that can be measured.

The campaign recognizes the limitations imposed on Disclosure Tools due to a lack of 'hard science' data in many areas including, but not limited to, social equity and economics. Disclosure tools are also subject to manipulation due to a lack of widely accepted standards for LCA modeling boundaries, LCIA indicators and transparency.

The Campaign believes that while Disclosure Tools can be helpful in supporting decisions around product selection and process improvement, at this time they are not a substitute for Performance Standards due their limitations and this should be recognized by those that utilize them for decision making.

Leadership Standards & Disclosure Tools Identification

Current environmental, social and market conditions require the process for identifying Leadership Performance Standards and Disclosure Tools to be effective but efficient. Time is of the essence. The proposed method for identifying Leadership Standards and Disclosure Tools is through a two-step comparative analysis that builds from years of experience and pre-existing evaluation criteria,[1] quickly getting to the core issues that define true leadership. It is recognized that leadership standard and disclosure tool selection will require qualitative judgment on the part of the reviewers, in part due to the necessary inclusion of qualitative parameters within the paradigm of sustainability and partly due to the need for efficient decision making that precludes excessively exacting analysis of quantitative data and criteria.

The leadership identification steps are proposed as follows:

> **Step One:** Compare performance standards and disclosure tools to the two sets of 7 Principles outlined below. Performance standards and disclosure tools should meet all of these 7 Principles. If no standard in a given class/area or tool meets all 7 Principles, consideration will be given to the highest ranking standard or tool, but it is also recognized that a particular class/area may not have a leadership standard.
>
> **Step Two:** Compare the different standards and tools meeting the 7 Principles outlined below that have the same basic intent, scale and purpose. The standard or tool with the highest aggregate performance criteria (as determined by the Campaign) will be indentified as a Leadership Performance Standard or Disclosure Tool. It is possible to have more than one Leadership Performance Standard in a class or area only if there is no recognizable difference in performance and if all meet the 7 Principles outlined below. Similarly, it is possible to have more than one Leadership Disclosure Tool only if there is no recognizable distinction in performance and if all meet the 7 Principles outlined below.

The intention is to start with a few standards and tools, and review more over time as appropriate. The Campaign will allow for equivalency petitions by standard and tool development organizations, however, the burden of demonstrating equivalency is the responsibility of the petitioner.

Status reviews will be undertaken at least every 3 years and leadership status can lapse. *In order to maintain their status, standards and tools must correct any LSC indentified issue of substance within a determined timeline based on the severity, the urgency and the circumstance. The corrective timeline will be determined by the LSC in collaboration with the standard or tool development organization. Three (3) years would be considered a common*

maximum corrective period, with less being preferred, unless a longer period is identified by the LSC.

It is recognized that Leadership Standards and Tools often function at two levels; those that are progressive and promote widespread, assertive market transformation and those which are truly pioneering in their work but may as a consequence have less market uptake. For the Leadership Standards Campaign, these two types of Standards and Tools are categorized as the following:

> **Type 1: Core Leadership** Performance Standards & Disclosure Tools push the market to meaningfully stretch beyond status quo practice while driving widespread market change.
>
> **Type 2: Next Generation Leadership** Performance Standards & Disclosure Tools reach far beyond status quo practice and/or transparency and disclosure, helping to drive continuous improvement in Core Leadership Standards and Tools and to transform markets.

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[1]Pre-existing criteria for identifying and selecting Leadership Standards were reviewed and used in the development of this document. Contained in the Appendix, is a history of the development of these Pre-existing Criteria and a summary of each. These Pre-existing Criteria are :

- Perkins+Will Criteria for the Identification of Leadership Standards for Sustainable Forestry (2010)
- Sustainable Product Certification Criteria developed as part of the record for the approved US and Canada Green Building Councils' LEED Certified Sustainable Product Innovation Credit (2007 & 2010), and as part of the Australia and New Zealand Green Building Council Green Star approval of credit for certified sustainable products (2011)
- Australia and New Zealand Green Building Council Criteria for Evaluating Product Certification (2010)
- Standards Attribute Evaluation Developed for Internal GSA Briefings on Implementation of the Climate Change / Green House Gas Executive Order (2010)
- Green Standard Ecolibrary Matrix (2008-2010)

Type 1 | Core Leadership Performance Standards

PRINCIPLES

DRAFT Principles for Identification of Core Leadership Standards
(All Principles should be met to qualify as a Leadership Standard except as noted in the Standards Identification section):

1. **Multi-attribute, Comprehensive + Precautionary:** Standards should be multi-attribute, address all stages of development/production for products or structures, and address the three E's of Sustainability: Environment, Economy and Equity (Social Equity).

   Standards should embrace a Precautionary Approach. A 'Precautionary Approach' is defined for this document as the following: If an action or policy has a suspected risk of causing harm to the public or to the environment, as supported by rationally informed logic and good indicators, and even in the *absence* of *absolute* scientific consensus that the action or policy is harmful, the burden of proof that it is *not harmful* falls on those taking the action. Those taking action are responsible for assessing the impacts of their actions on the environment, the economy and equity. The results should be reasonably transparent and available for public review.

2. **Best in Class and Assertive:** Standards should be the best in their class, establishing a high performance threshold across multiple attributes as compared to other standards (excluding the Next Generation Leadership Standards indentified by the Leadership Standards Campaign). Not all performance indicators will be quantifiable; some will be qualitative in nature. However, qualitative criteria should have defined methods for demonstrating compliance.

   The standard must clearly and substantially reach beyond common or status quo practice across a range of key areas including, but not limited to: climate pollution drivers, environmental and human health toxicants, resource and natural capital conservation, environmental and social equity protection, public goods (and service) advancement.

3. **Diverse and Balanced:** The process must have meaningful participation (w/ voting privileges) by a range of participants providing authentic and fully balanced representation for environmental, economic and social interest groups. No party or category shall be allowed to dominate.

   Vested financial interests cannot dominate the standards process. Clear rules preventing domination are a requirement. The LSC recognizes that Trade Associations primarily and inherently act in the economic interests of their members only and they sometimes implement tasks their members are unwilling to undertake due to a loss of public goodwill. The inherent role of Trade Associations can make them less vested in the spirit of cooperation, collaboration and consensus. Excessive influence by Trade Associations therefore undermines the core values of transparency and balance embraced by the LSC. Therefore trade associations should only be represented in the process by one or more of their Members as provided by ANSI approved operating procedures for accredited standards developers

4. **Consensus Based:** The standard must be developed as a consensus document under the auspices of or in the true spirit of ISEAL, ISO, ANSI or similar guidance structures so as to facilitate widespread market acceptance, uptake and change due to the inclusion of multiple perspectives and interests, which in turn tends to widen the base of support.

5. Transparent: All criteria set by the standard, quantitative and qualitative, along with methods of measurement and / or compliance verification required to meet them, including interpretive rulings, must be readily available and visible to all. The criteria and methods of measurement and / or compliance verification must be comprehensible by a reasonably wide audience to help validate claims of compliance.

6. **Meaningful Compliance Thresholds w/ Continuous Upward Improvement:** Complying with the standard must require meeting minimum performance thresholds[1] that represent meaningful improvements to actual in-field performance across multiple attributes and they must be measureable and / or verifiable.

   Standards should demonstrate noticeable and continuous upward improvements relative to the speed and scale of market transformation. Upward improvement is defined as a never-ending and evolving increase in quality, performance and accountability in process, service and in-field outcomes. Standards should evolve to ever higher levels of performance.

7. **Development Organization must be designed to benefit the public welfare:** Standards should be developed and maintained by Non-Profit Public Charity / 501(c)(3) entities. The Campaign recognizes that by law, 501(c)(3) organizations must act in the public interest, serve a charitable purpose, and strictly limit their lobbying and political contributions, thereby meaningfully reducing conflict of interest risks and increasing the potential for the organization to authentically protect and enhance the public interest. It is also recognized that this status does not guarantee the integrity of an organization and for-profit entities can clearly act to serve the public interest. Therefore the Campaign will allow for equivalency petitions by non-501(c)(3) entities. The burden of equivalency is the responsibility of the petitioner.

   In addition, certification audits to the Standard should be conducted *in situ* by a qualified independent third party.

Type 2 | Next Generation Leadership Performance Standards

[1] These compliance thresholds are frequently referred to as prerequisites, but may be defined under other names.

PRINCIPLES

DRAFT Principles for Identification of Next Generation Leadership Performance Standards

(All Principles should be met to qualify as a Leadership Next Generation Standard except as noted in the Standards Identification section):

1. **Pre-cautionary & Clear in Focus**
   Next Generation Leadership Performance Standards may be single-attribute, with an emphasis on a single area, I.E. environment, economy and / or equity (Social Equity), but they should be clear as to their purpose and intent.

   Single Attribute standards cannot claim to be 'Sustainable.'

   Next Generation Standards should embrace a Precautionary Approach. A 'Precautionary Approach' is defined as the following: If an action or policy has a suspected risk of causing harm to the public or to the environment, as supported by rationally informed logic and good evidence, and even in the *absence* of *absolute* scientific consensus that the action or policy is harmful, the burden of proof that it is *not harmful* falls on those taking the action. Those taking action are responsible for assessing the impacts of their actions on the environment, the economy and equity. The results should be reasonably transparent and available for public review.

2. **Better than Core Leadership Standards, Pioneering, Transformative:** Next Generation Standards should establish performance thresholds that are a step above the Tier 1 Core Leadership Standard(s) in their class/area, and they may be disruptive to the market, pushing the boundaries of innovation, development, and regeneration. It is recognized that Next Generation Standards may become Core Leadership Standards as the evolutionary cycle towards Sustainability, Restoration and Regeneration advances. Core Leadership Standards of today, which were previously Next Generation, may become mainstream, only to be replaced by emerging standards recognized today as Next Generation.

   The standard must clearly and substantially reach beyond status quo practice across a range of key areas including, but not limited to: climate pollution drivers, environmental and human health toxicants, resource and natural capital conservation, environmental and social equity protection, public goods and service advancement.

3. **Diverse, Balanced:** The process must have meaningful participation by a range of participants with authentic and balanced representation for the environment, the economy and the public welfare. The influence of any vested financial interests must be visibly and effectively managed and disclosed.

4. **Peer Review and Comments:** The standard and criteria should include opportunities for peer review and comments.

5. **Transparent:** All criteria, quantitative and qualitative, along with methods of measurement and / or compliance verification required to meet the standard, including interpretive rulings, must be readily available and visible to all. The criteria and methods of measurement and / or compliance verification must be comprehensible by a reasonably wide audience to help ensure validity and claims of compliance.

6. **Meaningful Compliance Thresholds:** Complying with the standard must require very significant improvements to actual in-field performance above the baseline of common practice.

7. **Serves the Public Interest:** Next Generation Tools must clearly seek to serve the publics best interest above all other considerations. **Third Party Certification or Professional Licensure Certification:** Certifications should be provided by an independent third party with verification *in situ.*

APPENDIX

Reliance on Extensive and Long Term Work on Pre-Existing Criteria Evaluating Leadership Standards & Disclosure Tools

CONTENTS

Pre-existing criteria for identifying Leadership Standards were reviewed and used in the development of the Leadership Standards Criteria in this document:

- Perkins+Will Criteria for the Identification of Leadership Standards for Sustainable Forestry (2010)
- Sustainable Product Certification Criteria developed as part of the record for the approved US and Canada Green Building Councils' LEED Certified Sustainable Product Innovation Credit (2007 & 2010), and as part of the Australia and New Zealand Green Building Council Green Star approval of credit for certified sustainable products (2011)
- Australia and New Zealand Green Building Council Criteria for Evaluating Product Certification (2010)
- Standards Attribute Evaluation Developed for Internal GSA Briefings on Implementation of the Climate Change / Green House Gas Executive Order (2010)
- Green Standard Ecolibrary Matrix (2008-2010)

A detailed summary of each of these Pre-Existing Criteria is covered after the following Criteria History.

Pre-Existing Criteria History. Starting in 2005, extensive work was conducted in comparative evaluation identifying leadership standards and tools. Initial communications on the need began within the US Green Building Council's LEED Steering Committee and identified the need for additional leadership standards inclusion within green building rating systems. Steering Committee Members were concerned about the proliferation of standards and tools that were not leading to significant environmental improvement, but simply represented the status quo and confused the market. A rational basis was desired for including leadership standards and tools in green building rating systems.

In 2006 in response to the decision of the US Green Building Council (USGBC) Board to include sustainable product standards for LEED Credit, Sustainable Products Certification Criteria were developed for LEED Steering Committee and Materials Technical Advisory Group, for decision-making for sustainable products adoption for LEED Innovation Credit that occurred in 2007.

In 2009-2010, the Canada Green Building Council also used the Sustainable Product Certification Criteria for approval of the Sustainable Product Credit as part of LEED Canada Innovation Credit, and in 2011, the Australia and New Zealand Green Building Councils used the Criteria as part of approval of the Sustainable Product Certification Assessment Scheme.

Using the Sustainable Products Certification Criteria that was part of the basis for adopting the LEED Certified Sustainable Products Credit, the Green Standard in 2008 developed its first Matrix comparing green building and certified sustainable product standards and tools. The Matrix was introduced at the NeoCon interior design tradeshow and updated through October 2010.

Based on a request by a leading Australia environmental group, the Green Building Council of Australia (GBCA) initiated in 2009 a year-long consensus process culminating with the approved 2010 Product Certification Assessment Scheme for the *Green Star* building rating system used in Australia and New Zealand. Sustainable product certification schemes can file and complete a rigorous application and evaluation process that has resulted in the approval of

a number of schemes for *Green Star* credit. In 2011, GBCA approved the sustainable product certification product scheme.

In response to the US Green Building Council Wood Evaluation process, Perkins+Will developed in October 2010, the Forest Certification Benchmark identifying the important environmental and social attributes of a leadership certified wood standard.

In January 2010, GSA requested a briefing of its key procurement and operations staff to provide education on certified sustainable products standards and tools that could be used for Executive Order 13514, reducing federal agency and vendors' greenhouse gas emissions / climate pollution. As part of this process, attributes of a number of standards were evaluated and covered in the education of GSA professionals including for climate pollution reductions.

Perkins+Will Forest Certification Benchmark as Supported by Design & Environmental Leaders. Perkins+Will advocates for industry practices and standards that optimize ecological synergies and embrace the spirit of green building. Specifically, this means pursuing the triple bottom line of ecological integrity, economic vitality and social balance. In order to deliver sustainable buildings, architects, designers and builders need sustainable products and we need continuous improvement. The FSC certification standards are a good basis from which to build.

Perkins+Will calls upon the USGBC to continue its leadership in green building. Therefore, the Firm developed updated comments for inclusion in the USGBC proposed forest benchmark that the Firm believes meet or exceed the certification standards currently promulgated by FSC. The Firm also added optional credits that exceed FSC and address carbon accounting, tightened validation criteria for ecologically warranted clearcutting, and non-forest ecosystem conversions.

Certification Body Governance: The Perkins+Will proposal restores it to its previous status allocating a maximum of 1/3 of all votes to for-profit forest owners, producers, government bodies and other entities with a commercial interest in the sale of forest products.

Respects the rights of local indigenous people: Several line-items around indigenous rights are offered as Credits (e.g., they are optional) such as Tenure Rights, Special Aboriginal Sites, Traditional Knowledge and Land Tenure. These line-items should all be Prerequisites (required without exception).

Clearcutting: Establishing ecologically appropriate clearcut limits is complex and should be based on the specific conditions of the area. Perkins+Will proposed that along with using ecological assessments to set the appropriate size, any clearcut greater than 40 acres must be justified by scientific rationale.

Pesticides, Herbicides and Pre-cautionary Substances: Some herbicides banned in the EU for persistent groundwater contamination, endocrine disruption and carcinogenicity are widely used in the US and in other parts of the world. The Perkins+Will Certification Benchmark re-establishes the limitations on the use of Pre-cautionary Substances equal to FSC criteria, prohibiting the use of substances recognized as highly hazardous, even if they are legal.

Genetically Modified Organisms (GMO's): Application of the Pre-cautionary Principle, which the USGBC identifies as a guiding principle should inform the Prerequisite for GMO's. FSC bans GMO's and this ban should be retained due to a lack of control over GMO's once modified plants and their genetic material are introduced into the environment.

Illegal Logging: USGBC proposed Prerequisites for illegal logging should be strengthened to include 2nd and 3rd-party verification of all sources coming from areas prone to illegal logging.

Perkins+Will recommends creating a 2nd Tier Regenerative Forestry Benchmark that is better than FSC and could include Carbon Calculations, Old Growth Restoration, eco-system conversions and plantations; Perkins+Will has included provisions to calculate net carbon uptake when managing forests. Other proposals include restoring lost old-growth forest, limiting the conversion of any natural eco-system to forest or other non-forest uses, plantation conversion back to natural forest after harvest and limiting ecologically appropriate clearcuts to 20 acres without scientific rationale, follow up evaluations and public observation.

Perkins+Will's Certification Benchmark principles advocating for maintaining the FSC Standard in LEED were also supported by the A+D Sustainable Design Leaders Group and leading environmental groups including HOK, Gensler, AECOM, Burt Hill, Leo A. Daley. Thirty-seven of the world's leading design firms supported this position.

The A+D Sustainable Design Leaders Group was formed in 2008 and represents approximately 50 of the largest architecture and design firms in the country, over 17,000 staff, 6,600 LEED AP's, and more than 1,400 LEED registered projects. The group meets annually for a leadership summit, and discusses major issues on sustainable design, and exchange new ideas. Its regional groups meet regularly throughout the year, with an on-line forum enabling continuous sharing of expertise to further advance environmentally responsible design practices.

To ensure rigorous sustainable forestry management requirements. the A+D Sustainable Design Leaders Group supported FSC as the minimum compliance level for the benchmark, including the independent third-party and chain of custody criteria.

Sixteen leading environmental groups also supported Perkins+Will's Certification Matrix principles including the National Wildlife Federation, Sierra Club, Greenpeace, and Natural Resources Defense Council.

Sustainable Product Certification Criteria. Twenty-four criteria are identified for leadership sustainable product standards and tools covering:

- Pollution Reduction Minimums
- Reporting & Labeling Requirements
- Certification Process

These criteria were developed from and approved in a consensus process accredited and audited by the American National Standards Institute as a result of five national consensus votes of approval. The SMaRT Sustainable Product Standard that requires FSC Certified Wood as a prerequisite, meets all 24 Criteria. The Criteria are identified below.

Sustainable Product Certification Criteria

The Criteria in this Chart were prepared through an ANSI Accredited consensus process by a balanced range of professionals, through which five consensus Ballot votes were approved for five separate certified sustainable product standards including building products. These Standards meet all 24 criteria below and include the SMART© Sustainable Building Product Standard, SMART© Flooring Standard, SMART© Fabric Standard and the SMART© Apparel Standard

	Criteria	Nature of Criteria	Why are These Criteria Important?
	Pollution Reduction Minimums		
1	Sustainable: triple bottom line	Covers environment, economy & social equity over global supply chain	Has the highest market value, and also covers child labor, human rights, worker conditions & community
2	Climate Change Pollution Reductions	Measurable climate pollution reductions including by global warming potential, Green-e Power, efficiency & reuse	Helps stop irreversible dangerous climate change preventing global collapse
3	Encourages No or de Minimus Toxins Including Endocrine Disruptors	Organic biobased products with EPA Best Management Practices	Such a Performance Based approach works since not all endocrine disruptors have been tested & identified
4	ISO Compliant Life Cycle Assessment (LCA)	Requires evaluation of multiple (12) environmental impacts over product's life / all stages & pollution reductions from LCA baseline	Ensures pollution reductions over product's life & FTC compliance for sustainable, green, or EPP product label
5	Requires Product Reuse / Reclamation Consistent With FTC Requirements	Eliminates raw materials extraction stage & reduces manufacturing & disposal	Substantially reduces climate change & other pollution saving natural resources
6	Eliminates Stockholm Treaty Toxic Chemicals	Thirteen highly toxic chemicals banned by International Treaty	Helps protect global public health & environment
7	Requires Product Performance Durability	Specifies required product performance standards for certified product	Extends product life preventing pollution, & builds consumer confidence
	Reporting and Labeling Requirements		
8	Meets Federal Trade Commission (FTC) Environmental Marketing Requirements	Legally mandated for all environmental product labels / communications by manufacturers or third parties	Requires accuracy & prevents unlawful greenwash & misleading labels / communications
9	ISO 14020 Environmental Label Principles	Requires accurate, transparent, scientific, & life cycle based labels	Ensures accurate, effective & credible product labels
10	Meets ISO 14024 Environmental Label Requirements	Requirements for third party product labels ensuring scientific accuracy, transparency, LCA approach, compliance & verification	Ensures accurate, effective & credible product labels
11	Meets ISO 14021 Environmental Label Requirements	Requirements for manufacturer self declaration labels similar to ISO 14024	Ensures accurate, effective & credible product labels
12	Meets EPA Requirements for EPP Product Certifiers	Requires FTC Compliance, transparent process, LCA approach, public involvement, peer review & facility inspection	Ensures accurate, effective & credible product labels
	Certification Process		
13	Consensus: ANSI Accredited Process	Follows ANSI Essential Requirements for due process	Reduces risk & uncertainty so large product purchasers adopt including government & capital markets
14	Transparent	Public access to criteria & methodology	Helps ensure accuracy for FTC compliance, & public accountability
15	Independent Certification	Independent evaluation of requirements & public conclusion that they are met	Helps ensure accuracy for FTC compliance, & public accountability
16	Third Party Global Auditing: manufacturer & supplier facilities	An independent contractor to the Certifier, reviews any aspect of product certification at its discretion	Facility audits ensure foreign manufacturer or supplier "paper" certification is not misleading or a sham
17	Decertification for Noncompliance	Decertification provision with due process for failure to correct material errors including those from audit	Allows corrections of substantial errors including those only discoverable from global third party audit
18	Rules Preventing Industry Trade Association Dominance	Leadership standard setting a high bar	Environmental improvement substantially beyond the status quo
19	Approved Standard	Government & capital markets require before adoption	Ensures buy in & consensus
20	Performance Based: tangible impact measures	Specific chemical pollutants are reduced. No specified products, technology, or government noncompliance.	Stimulates innovation & thus encouraged by Federal Policy
21	Reasonable Costs Associated With Use & Implementation	Identified certification & auditing fees & multiple compliance / certification levels. Allows certification of product platforms with identical environmental attributes.	Allows greatest market adoption & most extensive pollution reductions
22	Accessibility	Many & any product can be certified or assessed	Ensures coverage of all products & materials & greatest pollution reductions
23	Requires Continuous Improvement	Specific provision for periodic improvement / revision of standard or tool	Adapts to changes in the market & state of knowledge
24	Multiple Levels of Compliance / Certification	Specified credits or points for minimum certification and for higher achievement levels	Allows greatest participation by manufacturers, stimulates competition, provides greatest market adoption & thus greatest pollution reductions

Prepared by the SMART© Sustainable Materials Rating Technology Committees with support of the Institute for Market Transformation to Sustainability April 2007

Australia & New Zealand Product Certification Assessment.

Some 26 comprehensive criteria as summarized below, must be complied with as determined by the outside third party expert Green Star Committee and Green Building Council of Australia professional staff, in order to award Green Star green building credit.

- **SCHEME CRITERIA**

    - apply only to voluntary third-party certification schemes that conduct product-focused environmental and social assessment
    - base product assessments on multi-criteria, performance-based standards that require a product life cycle approach;
    - award a licence that authorises the use of a label on products; and
    - award a licence and label that is representative of overall environmental preference of a product within product categories.

- **GOVERNANCE AND TRANSPARENCY**

    1. Independent Assessment
        - Products or materials shall be assessed by a party independent of the scheme.
        - The scheme shall ensure certification decisions are free of conflicts of interest from parties with vested interests.
        - Assessments shall be performed by accredited auditors registered by RABQSA (in Australia) or other national or international auditor accreditation systems.

    2. Environmental Claims
        - Claims made by the scheme on behalf of a certified product or its manufacturer or supplier shall be compliant with ISO 14021 'Environmental Labels and Declarations – Self-Declared Environmental Claims' (Type II Environmental Labelling) requirements, OR the Global Reporting Initiative's 'Sustainability Reporting Guidelines'.

    3. Transparent Methodology
        - Schemes shall provide a publicly available and transparent methodology for the assessment of products or materials with a clear pass/fail, or tiered structure (e.g. Level 1, Level 2, Level 3) for the award of certification.

    4. Conflict Resolution
        - The applicant scheme shall have a conflict resolution process in place with procedures to manage disputes regarding compliance between an applicant and the auditing body. Procedures shall be publicly available and ensure that the conflict resolution process
            - is independent and free from conflicts of interest
            - is completed in a timely manner provides an opportunity for appeal by the aggrieved party; and
            - includes a provision to make public the outcome of the grievance resolution process.

- **STANDARD DEVELOPMENT**

1. The standard must apply to an entire product category (e.g. carpet) rather than a product sub-category (e.g. nylon, modular, or wool carpet)

2. Life Cycle Assessment-based
   - The scheme shall use science-based data to set pass or fail limit and benchmarks.
   - All targets, limits or benchmarks in the standard shall be clearly identified.

3. Stakeholder Representation
   - The scheme shall demonstrate that it has invited all relevant stakeholders to be involved in the development of the standard and that all reasonable efforts have been made to address concerns of stakeholders as per the guidelines of:
     - Part I - Criteria for Evaluating Product Certification Schemes v2 13.07.10
     - the ISEAL 'Code of Good Practice for Setting Social and Environmental Standards'; OR
     - the guidelines for balanced representation from the Australian
     - Accreditation Board for Standards Development Organisations (ABSDO 2007); OR
     - other international frameworks applicable to certification schemes as described in Section 2.2 of this document.

4. Decision Making

   The scheme shall ensure that:
   - the standard development process includes strategies for seeking consensus among stakeholders expressing interest in the topic of the standard under development;
   - documented procedures exist to guide decision making in the absence of consensus; and
   - procedures for decision making are publicly available and easily accessible to any interested stakeholders.

5. Public Comment
   - The scheme shall provide at least one round of public review/comment period by interested parties for the development and revision of standards.
   - Comment period shall be for a minimum of 30 days.
   - The scheme shall take into account comments received from the comment period.
   - Written synopsis of comments shall be compiled and made publicly available.

6. Stated Objectives
   - The scheme shall clearly and explicitly specify the social, environmental and/or economic objectives of a standard.

7. Criteria
   - Standards shall be expressed in terms of a combination of process, management and performance criteria rather than design or descriptive characteristics.

- Standards shall not favour a particular technology or patent(s).
- The detail of compliance requirements to all criteria must be publicly available and must clearly outline the exact requirements for achieving compliance with each criterion.
- Compliance requirement details shall be included within the standard document itself for each criterion.
- Compliance requirement details shall be included within the standard
- document itself for each criterion.

8. Representative of Best Practice
    - The scheme shall establish standards that encourage improvements above and beyond regulatory standards.
    - The scheme shall ensure that the standard development process includes a review of existing international and national regulations and standards that are relevant to the standard under development.
    - The findings of this review shall be used to inform environmental and social performance-based benchmarks in the standard.

9. Publicly Available

    The scheme shall ensure that:
    - all approved standards are published and publicly available;
    - standard-setting procedures and summaries of work programmes are publicly available;
    - a contact point for standard-related enquiries is available; and
    - standards are reviewed and updated according to a publicly
    - communicated schedule of regular review.

10. Procedures

    The scheme shall ensure that:
    - documented procedures are available to all interested parties on the standard development and certification process; and
    - procedures include a complaints resolution mechanism for interested parties that may object to the standard development process or outcomes of the developed or revised standard.

11. Harmonisation

    The scheme shall pursue harmonisation between standards by
    - synchronising the requirements of other similar standards operated by the same scheme, or similar national and international standards.
    - The scheme shall document any differences between its standard(s) and other similar national or international standards and provide justification for these differences.

PRIORITY AREAS OF CONCERN

a. PAC-1 GREENHOUSE GASES (GHG)
    i. Greenhouse Gas Accounting – The standard shall require public reporting of the comprehensive product life cycle greenhouse gas footprint. Reporting to be based on a ‘per functional unit’ basis.

b. PAC-2 TOXICITY

i. Carcinogens – Part II Mandatory Requirement – The standard shall restrict user exposure to substances recognised as carcinogenic to less then the NOAEL (No Observable Adverse Effect Level) or zero if the NOAEL is unknown. The standard shall refer to the following lists and classifications of carcinogens:
   1. The International Agency for Research on Cancer (IARC) of the World Health Organisation (WHO) class 1 and 2a;
   2. EU Consolidated list of C/M/R Substances Category 1 and Category 2; and Appropriate R phases: (e.g. R45- R49).

ii. Acutely Toxic Substances – The standard shall address all acutely toxic substances that are relevant to the products covered by the scope of the standard, in accordance with Additional Guidance below. The Acutely Toxic Substances criterion of the Toxicity PAC is comprised of two parts: Part I - Criteria for Evaluating Product Certification Schemes v2 13.07.10. Acutely toxic substances – The standard shall:
   1. expressly prohibit the use of agents listed in Annex III of the Rotterdam Convention;
   2. either prohibit or provide appropriate restrictions on relevant agents listed in the OSHA List of Highly Hazardous Chemicals, Toxics and Reactives; and
   3. Either prohibit or provide appropriate restrictions on the release of agents carrying the following Risk Phrases:
      a. R26 – 28 inclusive: (Highly Toxic):
      b. R26 Very toxic by inhalation,
      c. R27 Very toxic in contact with skin and
      d. R28 Very toxic if swallowed
      e. R50 – 59 inclusive: (Environmental Toxins):
      f. R50 Very toxic to aquatic organisms,
      g. R51 Toxic to aquatic organisms,
      h. R52 Harmful to aquatic organisms,
      i. R53 May cause long-term adverse effects in the aquatic environment,
      j. R54 Toxic to flora,
      k. R55 Toxic to fauna,
      l. R56 Toxic to soil organisms,
      m. R57 Toxic to bees,
      n. R58 May cause long-term adverse effects in the environment and
      o. R59 Dangerous to the ozone layer.

iii. Exposure to Toxic Substances – The standard shall require limitation of end user exposure (worth 50% of points available for this criterion); AND/OR

iv. Content of Toxic Substances – The standard shall require manufacturer to meet a well documented and justifiable industry

specific benchmark for material toxicity (worth 50% of points available for this criterion).

v. Heavy Metals – The standard shall restrict or set justifiable limits on the use of heavy metals. As a minimum: arsenic, cadmium, chromium, copper, lead, tin, mercury and antimony. The scheme must submit justification for limits implemented or allowances made.

vi. Hazardous Chemicals – The standard shall restrict the use of the following hazardous chemicals as they apply to the standard's relevant product group: endocrine disrupters, mutagens and teratogens, irritants and sensitising agents, persistent organic pollutants (POPs) and bio-accumulative chemicals. The scheme must justify which of these hazardous chemical classifications are applicable to the product group relevant to the standard under assessment.

vii. Exemption for formaldehyde – In the case of engineered wood products (e.g. composite wood products) the emissions of free formaldehyde from such products must be in conformance to limits listed in Appendix A.

viii. Industry-specific benchmarks – The applicant scheme is required to demonstrate that the relevant aspect of their standard(s) either exceeds industry-accepted benchmarks for the relevant product category, or establishes aspirational or best practice industry specific benchmarks. If no industry-agreed benchmark exists then the scheme is expected to create a justifiable aspirational benchmark deemed achievable by the industry affected.

ix. Justification of limits – For this criterion the emphasis is on the applicant to provide justification as to why an otherwise prohibited chemical should be allowed, and at what level, by the certification standard. Otherwise, complete prohibition is considered appropriate. Justifications shall be based on peer-reviewed international best practice science. This and other such justification must generate IAP confidence that sufficient rationale exists for limits applied.

c. PAC-3 MATERIAL EXTRACTION

- Resource Efficiency – The standard shall require manufacturers to gather data on material usage and waste generation of raw materials in a format that allows optimisation of the production process, along with a commitment to optimise the production process in accordance with the criteria set out below. Manufacturers shall optimise materials sourcing and production processes in accordance with resource and materials efficiency measures that reduce negative environmental impacts. Such measures shall address impacts from materials sourcing, use and disposal, as they apply to the product group that is applicable to the standard, and may include but are not limited to:
    - use of recycled materials or components;
    - sourcing of materials from rapidly-renewable resources;

- reduction of waste generated in the manufacturing process or incorporation of waste back into the production process;
- dematerialisation; and
- minimisation of harmful sourcing, farming or habitat destroying practices and use of practices that have a minimal or neutral impact on land use, biodiversity and soil erosion.

- PAC-4 WATER

  - Water Use Accounting – The standard shall require public reporting of the comprehensive product life cycle water footprint. Reporting shall be based on a 'per functional unit' basis

  - Water footprints are to be generated in accordance with LCA methodologies ISO 14040:2006 (Environmental management - Life cycle assessment - Principles and framework) and ISO 14044:2006 (Environmental management - Life cycle assessment - Requirements and guidelines). Functional unit, boundary conditions and methodologies applied are to be defined through the adoption of established 'Product Category Rules' (PCRs) for select product, or the creation of new PCR's. PCR's set the LCA-rules for data collection, methodology, calculations and presentation of the results. Refer to GEDNet Guidebook for more information (http://www.gednet.org/?page_id=8), in particular section 8.2.3

- PAC-5 SOCIAL AND ENVIRONMENTAL COMPLIANCE

  - Legal Compliance – Part II Mandatory Requirement – The standard shall require manufacturers to comply with relevant social and environmental legislation or other legal requirements of the countries in which they operate.

  - Compliant Supply Chain – The standard shall require manufacturers to seek external independent assurance from suppliers of whole of enterprise social compliance to International Labour Organisation (ILO) conventions. Public Reporting – The standard shall require manufacturers to conduct external independent public reporting in accordance with the Global Reporting Initiative (GRI) on the following topics as a minimum:
    - environment, human rights and labour.
    - Environmental Claims – The standard shall require public claims made by manufacturers regarding the product's environmental performance to be verified by the scheme as compliant with ISO 14021 'Environmental Labels and Declarations - Self-Declared Environmental Claims' (Type II Environmental Labelling) requirements, OR the Global Reporting Initiative's 'Sustainability Reporting Guidelines'.

  OR

  - Compliance to Social/Ethical Guidelines – The standard shall require whole-of-enterprise compliance with SA 8000.

- PAC-6 DURABILITY

  - Fitness for Purpose – The standard shall require products to comply with relevant national fitness for purpose standards.

- PAC-7 END OF LIFE

  - Product Stewardship Program – The standards shall require manufacturers and/or suppliers of certified products or materials to have a product stewardship program in place. This program shall be publicly available and entail providing contractual arrangements with their customers to take products back at the end of the product's inuse phase for some form of refurbishment, reuse or recycling as determined appropriate by the standard.

  - Verification of Product Stewardship Program Arrangements – The standards shall require verification that the necessary arrangements are in place to deliver the claims of the product stewardship program. This may include, but is not limited to, demonstration that contractual agreements exist between the manufacturer and / or supplier, wholesaler or retailer with third party recyclers, transport companies, charities, second-hand retailers and refurbishment companies.

  - Design for Disassembly – The standards shall include guidance on design for disassembly that requires manufacturers to design products in ways that enable their easy separation into base constituent materials to improve end of life reuse or recycling.

- PAC-8 PRODUCT EMISSIONS

  - Low VOC Emissions – The standard shall require certified products with applications in interior fitouts (e.g. furniture, floor coverings) to comply with the Total Volatile Organic Compound (TVOC) emission limit benchmarks stated in Appendix B.

SMaRT was approved in 2011 as complying with these requirements as a scheme and standard recognized under the Assessment Framework for Product Certification Schemes, thus qualifying for *Green Star* credit in Australia and New Zealand. SMaRT requires FSC Certified Wood as a prerequisite, and Green-e power and USDA Organic are among 41 different standards approved for credit under SMaRT.

Standards Attribute Evaluation Developed for Internal GSA Briefings on Implementation of the Climate Change / Green House Gas Executive Order (2010)

Fourteen green building and sustainable product single and multi-attribute standards and tools were evaluated showing their achievement levels for the following 15 criteria:

- Climate pollution reductions at manufacturing facility
- Climate pollution reductions at supplier facilities

- Life cycle assessment
- Rules against industry trade association dominance
- Third party certification
- Self certification
- Consensus
- Approved
- Transparency
- Number of pre-requisites and points for certification
- Stockholm Treaty Toxic Chemical Ban
- Reduction of Toxic Pollutants
- Reuse
- FTC Environmental Marketing Guide Compliance
- Triple Bottom Line: environment, economy & social equity

The Standards that ranked superior to all others based on these criteria were LEED, SMaRT & FSC Certified Wood.

Green Standard Ecolibrary Matrix (2008-2010)

Fifteen single and multi-attribute product standards and tools were independently evaluated based on the following 14 Criteria:

- Life Cycle Focus
- Criteria for Raw Material Sourcing & Manufacturing Operations
- Criteria for Product Use Phase
- Criteria for End-of-Life Management
- Comprehensive Criteria Set for Each Life Cycle Stage
- Criteria for ISO Compliant Full Product Life Cycle Assessment (LCA)
- Criteria for Reductions in Life Cycle Impacts
- Requires the Use of LCA for Certification
- Requires Independent Verification of LCA Data
- Publicly Available Assessment Methods and Performance Thresholds
- Third-Party Certification
- Publicly Available Summary of Results
- Multi-Stakeholder Development Process
- Public Standards Appeals Process

SMaRT scores the highest of all 14 standards and tools evaluated. The Green Standard is a nonprofit public charity.