

WHO IS LEADING THE GREEN BUILDING MOVEMENT? Competition and Innovation

The market for green building rating systems has become increasingly competitive, and there is compelling evidence that competition is good for the green building movement—driving innovation, lowering costs, and benefiting the ultimate consumer, which in this case is our shared environment. Consider the following advances that competition has helped to motivate since the Green Building Initiative (GBI) was launched at the end of 2004.

Market Development Attribute	Green Building Initiative Green Globes™	US Green Building Council LEED®	Comments
<p><i>Engaging the Mainstream Design and Building Community:</i></p> <p>Mainstream adoption of green building practices will facilitate achievement of energy and climate change goals.</p>	<p><u>Since 2004 Inception:</u></p> <p>Mainstream designers and builders have been the GBI's sole focus since its inception.</p>	<p><u>Since Inception:</u></p> <p>USGBC targets the top 25% of the commercial market.</p> <p><u>April 2006:</u></p> <p>USGBC announces a partnership with the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) and the Illuminating Engineering Society of North America (IESNA) to develop new minimum performance standards targeted at the mainstream market.</p>	<p>While LEED will continue to be targeted to the 25% of the commercial market, USGBC and its partners are now developing a new standard for the mainstream market.</p>
<p><i>Technological Innovation:</i></p> <p>To ease adoption of green building practices, rating systems must take full advantage of advances in technology.</p>	<p><u>Since 2004 Inception:</u></p> <p>The Green Globes system is web-based, online and fully interactive. Status reports are generated during the building design process to facilitate communication between the design team, building owners, contractors and occupants. Support materials required for third-party verification consist of customary construction documentation.</p>	<p><u>April 1, 2006:</u></p> <p>USGBC announces conversion of its paper-based documentation system to electronic filing in an effort to overcome criticism of the volumes of reports that needed to be filed.</p>	<p>Green Globes is fully interactive, incorporating online guidance, providing practical and user-friendly tools. LEED's online capabilities are limited to the submission of documentation.</p>

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<p><i>True Consensus-based Standard – Acquiring American National Standards Institute (ANSI) Accreditation:</i></p> <p>The increased rigor required to obtain ANSI accreditation is essential to ensure objectivity and transparency in standards development.</p>	<p><u>September 22, 2005:</u></p> <p>The GBI becomes the first green building organization to become an ANSI Accredited Standards Developer.</p>	<p><u>November 26, 2006:</u></p> <p>More than a year later, the USGBC achieves ANSI Accredited Standards Developer status.</p>	<p>Objectivity and transparency in standards development are essential considering that governments are considering incorporating Green Globes and LEED into laws and regulations. Federal government agencies generally are required to use true consensus-based standards when they are available.</p>
<p><i>True Consensus-based Standard – Bringing the Rating System through the Formal (ANSI) Process</i></p> <p>Bringing a rating system through the ANSI process is essential to ensure that the system is impartial and that all stakeholders' views have been fairly considered.</p>	<p><u>May 2006:</u></p> <p>GBI announces the formation of a Technical Committee to begin the formal consensus-based process to establish Green Globes as an American National Standard under ANSI. The Technical Committee and subcommittees, which includes environmental groups, EPA, and GSA representatives, is on track to complete the process by early 2008.</p> <p><u>February 9, 2007:</u></p> <p>On the residential side, the National Association of Home Builders announces that it will use the NAHB Research Center, an ANSI-accredited standards developer, to gain ANSI recognition of its Model Green Home Building Guidelines.</p>	<p><u>To Date:</u></p> <p>USGBC has not announced whether it will use its ANSI-accredited rules in the development of future editions of LEED. Existing editions of LEED (such as LEED NC 2.2) were developed under a different set of rules.</p> <p><u>To Date:</u></p> <p>USGBC has not announced whether it will bring LEED Homes, currently in the pilot phase, through the new ANSI-approved consensus-based process.</p>	<p>While existing editions of LEED were not developed through an ANSI-approved process, USGBC is participating with ASHRAE and IESNA to develop a new green building standard, using ASHRAE's ANSI procedures. Work on this new standard is scheduled for completion in 2009.</p>

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<p><i>Integration of Life Cycle Assessment (LCA):</i></p> <p>LCA offers a science-based impartial method to assess the environmental impacts of materials and assemblies over the course of their entire lives.</p>	<p><u>February 27, 2007:</u></p> <p>GBI authorizes the developers of a GBI-commissioned software tool that provides LCA results on 400 common building assemblies to make a generic version available free of charge. The new tool can be integrated into other rating systems and is available to the entire sustainable design and construction community. The tool allows easy comparison of alternate design scenarios and is being reviewed by the Green Globes ANSI Technical Committee for inclusion in Green Globes.</p>	<p><u>February 13, 2007:</u></p> <p>A USGBC working group develops initial recommendations on incorporating LCA in LEED. USGBC has a goal of completing an LCA plan by the end of 2007.</p>	<p>The GBI-commissioned tool will enable the green building community to take advantage of LCA and it is anticipated that it will be incorporated into Green Globes through the ANSI process, scheduled for completion in early 2008. While USGBC intends to complete its LCA plan by the end of 2007, it is unclear how long it will take to implement the plan.</p>
<p><i>Existing Buildings:</i></p> <p>Some existing buildings do not perform according to their design intent. To avoid this problem, practical and cost-effective tools are required to evaluate performance over the long term.</p>	<p><u>January 2007:</u></p> <p>The GBI begins pilot testing Green Globes for Continual Improvement of Existing Buildings (CIEB), which allows building owners to document actual building baseline performance and monitor the success of improvements. In the first six weeks after the launch of the pilot, the GBI registered 111 users and 34 buildings began the assessment process.</p>	<p><u>Late 2005:</u></p> <p>USGBC launches LEED for Existing Buildings (LEED-EB). Ninety-three buildings are registered with the program and 13 have been certified.</p>	<p>LEED-EB does not directly document performance of a building already certified under LEED for New Construction. One must perform such documentation manually, whereas Green Globes allows for a seamless transition through Planning, Design, and Construction, and then onto Operation and Maintenance (with both tools).</p>

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<p><i>Energy-efficiency and Climate Change:</i></p> <p>Buildings are responsible for approximately 39% of the energy consumed in the United States. Due to concerns about climate change -- and the role of fossil fuel consumption on climate change – building owners are being called upon to increase energy-efficiency with verifiable results.</p>	<p><u>Since 2004 Inception:</u></p> <p>Green Globes requires buildings to meet a minimum energy performance target of 75% based on the comparable EPA Target Finder building.</p> <p><u>January 2007:</u></p> <p>Through the pilot for Green Globes-CIEB, GBI is providing a tool that helps to facilitate a significant reduction in energy consumption and measures how closely building design intent matches actual operational performance.</p> <p><u>February 2007:</u></p> <p>The LCA software tool described on the first page measures the global warming potential and other environmental impacts of common building assemblies and allows designers to make environmentally-sensitive choices.</p>	<p><u>November 15, 2006:</u></p> <p>USGBC announces a major climate change initiative that includes proposals and recommendations to bring further focus on green buildings and their impact on climate.</p> <p><u>February 8, 2007:</u></p> <p>As part of its climate change initiative, USGBC invites public comment on the first draft of language requiring all LEED projects to obtain a minimum of 2 points in the Optimize Energy Performance credit.</p>	<p>Both GBI and USGBC are increasing their consideration of energy efficiency and climate change impacts. GBI's approach uses the Department of Energy's existing database on building performance as a benchmark, while USGBC's focus is on projecting reductions in consumption based on achieving a percentage better than code or ASHRAE 90.</p>