

## Designing a sustainable future

With an increasing understanding of the economic benefits of sustainable design and construction, the market for sustainable design and construction is strong and is only showing signs that it will continue to grow.

Consider these findings from a U.S. Green Building Council study:

- The green building sector is outpacing overall construction growth in the U.S. and will account for more than 2.3 million American jobs in 2015.
- The green building industry contributes more than \$134.3 billion in labor income to working Americans.
- By 2018, green construction will account for more than 3.3 million U.S. jobs and generate \$190.3 billion in labor earnings.



Additionally, a report by BBC Research forecasts the U.S. market for green building materials will reach nearly \$69 billion by 2019, growing at a compound annual growth rate of 9.5 percent over the period 2014-2019.

### More than the environment

Sustainability goes beyond natural resources and the environment. Today, many companies view sustainability much broader, encompassing environmental, socio-cultural, technological, economic and public policy initiatives.

“Each of these areas plays an essential role in sustainability and all must be addressed in order to achieve a truly sustainable design,” says Brad McAllister, WAP Sustainability Consultants. “As an industry, we’re not just looking at the design and construction process, but also at how the materials and techniques used can affect structures’ long-term impacts on the people who use them.”

### Sustainability trends and key initiatives

This deeper dive into sustainability has spurred a number of industry initiatives. Below is a snapshot of some of the leading efforts:

- **LEED v4:** The Leadership in Energy & Environmental Design (LEED) standards have been the touchstone for sustainable design and construction. It is the most widely recognized sustainability rating system in the U.S. While the 2009 LEED version 3 continues to be the go-to standard for green design, the industry is preparing for the more stringent LEED version 4 standards that will become mandatory in October 2016. The biggest shift in LEED v4 is that it calls for disclosure of the content in various building materials to limit exposure to “chemicals of concern” that may affect health. Therefore, with LEED v4, architects must also consider what the contents of the building will have in the long run. The products chosen for a building—including door hardware—can all contribute to achieving LEED v4 certification.

- **Environmental Product Declarations (EPD):** An EPD provides quantifiable environmental details on a product’s impact on the environment. Verified by an independent third party, EPDs include information on raw material acquisition, energy use and efficiency, materials and chemical content, emissions to air, soil and water, and waste generation. EPDs are required in LEED V4, and some of the larger architectural and design firms require them, even if the building project is not LEED. EPDs must be renewed on a yearly basis.
- **Health Product Declaration (HPD):** An HPD provides full disclosure of the potential chemicals of concern in products by comparing product ingredients to a wide variety of “hazard” lists published by government authorities and scientific associations. This open standard was developed to provide a consistent reporting format that increases the quality and availability of product content and health information.
- **Product Life Cycle Analysis (LCA):** LCAs provide a comprehensive, balanced, quantified, science-based look at significant product environmental impacts—ultimately, raising the bar to new standards. LCAs are quickly becoming regarded as one of the most effective ways to demonstrate a product’s environmental attributes. They must be renewed every five years and are a prerequisite to completing EPDs.
- **Living Building Challenge:** While the Living Building Challenge from International Living Future Institute does not have the same market momentum that LEED does, it is gaining traction as what some consider a more stringent, forward-thinking measure of sustainability. With seven performance categories—place, water, energy, health & happiness, materials, equity and beauty—it focuses on both the resources used in buildings, as well as the output of the buildings on the environment.
- **Cradle to Cradle:** The Cradle to Cradle framework focuses on using safe materials that can be disassembled and recycled as technical nutrients or composted as biological nutrients. The materials and manufacturing practices of each product are assessed in five categories: material health, material reutilization, renewable energy use, water stewardship and social responsibility. While Cradle to Cradle goes beyond disclosure only, it can be used to achieve some of the same credits that HPDs achieve.



### Where door hardware fits in

Allegion recognizes the role door hardware has in contributing to the design and construction of environmentally safe and sustainable structures. By using LCAs and EPDs, we aim to provide architects with the information they need to make decisions regarding their own sustainable building concepts and green solutions. We now have EPDs for many of Allegion’s products, which allow us to meet LEED v4.

“We recognize the importance of sustainability and are working diligently to assist architects and designers,” says Tim Weller, Manager of Codes, Standards and Sustainability at Allegion. “We aim to provide them with the information they need to select products that contribute points toward LEED certification and help them achieve their overall goals for sustainable building concepts and green solutions.”

These products include those branded Schlage, Von Duprin and LCN, with documentation on Steelcraft, Falcon, Ives and Glynn-Johnson coming later this year. We’re obtaining EPDs and life cycle assessments for all products in a phased approach—with most demanded products being prioritized first. We are producing documents on a regular basis, so be sure to check back or contact your local rep if you don’t see what you need. Additionally, we’re fielding requests for LEED v4, Living Building Challenge and materials compliance with Red Label list as we receive them.

[View Allegion’s EPDs and other sustainability reporting](#)



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### **EPDs: A smart choice even if not required**

Whether or not you're required to achieve LEED, it is worth considering products with EPDs.

"EPDs are transparency documents. While they can help companies tap new markets, they are not in themselves marketing pieces." says McAllister. "By requesting EPDs and related documentation, architects, designers and project owners begin to encourage product manufacturers to understand the major environmental hot-spots throughout the life-cycle impacts of their products. They require manufacturers to ask questions they never asked before and to view their product from a different perspective. In short, EPDs are much more than pieces of documentation, they are agents of change towards a sustainable manufacturing future."

[Contact an Allegion spec writer](#) (or call 877-929-4350) today for assistance on your building projects.

## **About Allegion**

Allegion (NYSE: ALLE) creates peace of mind by pioneering safety and security. As a \$2 billion provider of security solutions for homes and businesses, Allegion employs more than 8,000 people and sells products in more than 120 countries across the world. Allegion comprises more than 25 global brands, including strategic brands CISA®, Interflex®, LCN®, Schlage® and Von Duprin®. For more, visit [www.allegion.com](http://www.allegion.com).

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