Executive Summary

Green Market Activity

The 2021 *World Green Building Trends Study* demonstrates the same commitment to increasing green building activity as have the previous studies in 2018, 2015 and 2012. As the chart at upper right shows, there is a high level of growth expected in the next three years among those who anticipate doing more than 60% of their projects green, and a corresponding reduction in those who plan on engaging in fewer than 15% green projects.

These findings show that green building continues to remain a global priority, likely driven by increasing extreme weather events and despite other rising concerns like the global pandemic.

Use of Rating Systems

While the study reveals a slight decline in the share of green projects that use a rating system, especially in long-standing green markets, it also clearly demonstrates that the vast majority of green projects still employ one. The respondents using one report that they value it most for its ability to create better-performing buildings, provide third-party verification that a building is green and offer marketing and competitive advantages.

Use of Green Products

Growth is expected in the use of green products and systems across nine different categories, with the top ones for anticipated use being electrical, mechanical, building automation systems, and thermal and moisture protection.

Influences on Green Building Markets

Environmental and Social Reasons for Building Green

Respondents to this study have been asked to rate the importance of the same set of environmental and social reasons for building green since 2012.

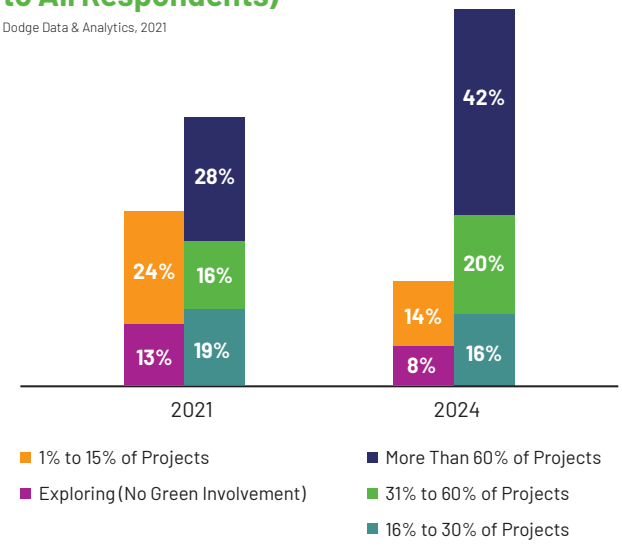
ENVIRONMENTAL REASONS

All of the environmental reasons for building green included in the study—reduce energy consumption, lower greenhouse gas emissions, improve indoor air quality, reduce water consumption and protect natural resources—are selected by over three quarters of the respondents as important, with reducing energy consumption topping the list at 87%.

- The environmental reason with the greatest and most consistent growth since 2012 is improved indoor air quality.

Level of Green Building Activity (According to All Respondents)

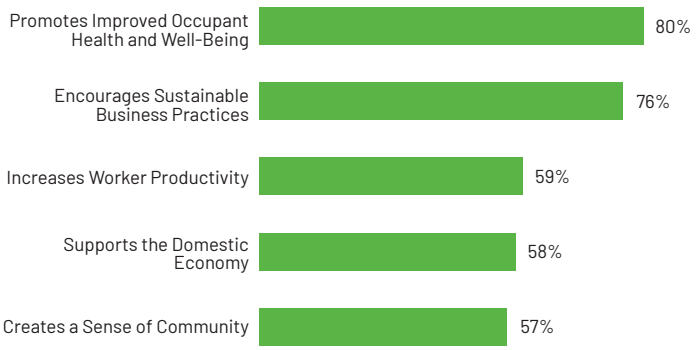
Dodge Data & Analytics, 2021



Social Reasons to Build Green

Rated Important/Very Important

Dodge Data & Analytics, 2021



SOCIAL REASONS

As the chart at lower right reveals, green building also continues to be driven by social reasons as well as environmental ones, with improved occupant health and well-being, and encouraging sustainable business practices the most dominant factors. However, increased worker productivity, supporting the domestic economy and creating a sense of community are also considered important influences by over half of respondents.

Executive Summary

Influences on Green Building Markets CONTINUED

Top Triggers for Increasing Green Building

The table at upper right shows that client demands are the top driver for construction industry practitioners, along with environmental regulations. Therefore, the triggers encouraging owners and investors to increase their green building efforts are critical to drive the industry forward. Lower operating costs is the top trigger for owners/investors, and it is also ranked first as the most important business benefit of building green globally.

In 2021, increasing green building because it is the right thing to do also increased compared with the findings in 2018, emerging in the top three for both practitioners and owners. This has no doubt been driven by greater concerns about the impacts of climate change and a more intense focus on healthier buildings driven by the pandemic. Creating healthier buildings also continues to be an important trigger, as it was in 2018, and improving occupant health and well-being remains one of the critical business benefits of green building, ranking nearly as high as operating cost savings.

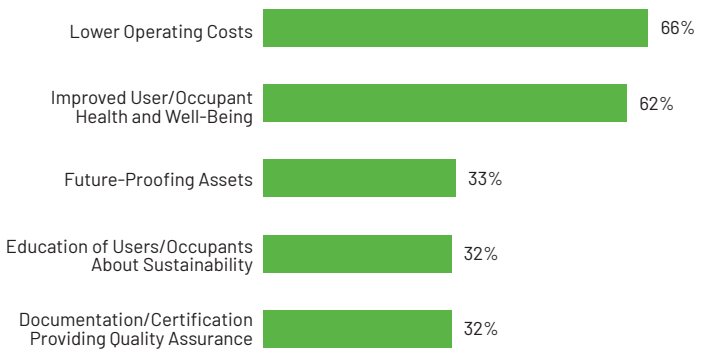
Top Triggers for Increasing Green Building Selected by One Quarter or More Respondents

Dodge Data & Analytics, 2021

Owners/Investors	Architects/Engineers/Contractors
1. Lower Operating Costs	1. Client Demands
2. Right Thing to Do	2. Environmental Regulations
3. Healthier Buildings	3. Right Thing to Do
4. Internal Corporate Commitment	4. Healthier Buildings
5. Environmental Regulations	5. Lower Operating Costs

Most Important Business Benefits of Green Building

Dodge Data & Analytics, 2021



Financial Benefits of Building Green

As the table at lower right shows, average operating cost savings within the first 12 months exceed 10% and the five-year cost savings exceed 16%. Owners and investors report 9% growth in building asset value due to investments in both new green buildings and green renovations/retrofits. Clearly, green buildings are helping to drive the operating cost savings sought, and provide more value to the asset owners.

IMPACT OF HIGH GREEN INVOLVEMENT

Respondents who do more than 60% of their projects green benefit from their increased knowledge of and experience with green building and are able to achieve better results.

- Those with a high level of green involvement track operating costs more often, with 71% reporting doing so compared with the global average of 59%.
- Therefore, it is particularly notable that they report operational cost savings of over 16% on new green buildings and retrofits in the first year, and over 20% on green renovations/retrofits.

These findings suggest that as organizations intensify their green building involvement, it can help them achieve the top benefits sought, which can encourage even greater investment, reinforcing a virtuous cycle.

Financial Benefits of Building Green, Compared With Traditional Buildings

Dodge Data & Analytics, 2021

	New Green Buildings	Green Renovation/Retrofit
Average Reduction in Operating Costs in Next 12 Months	10.5%	11.5%
Average Reduction in Operating Costs in Next 5 Years	16.9%	17%
Average Increase in Asset Value (According to Owners/Investors)	9.2%	9.1%

Executive Summary

Emerging Approaches to Building Green

Many strategies to improve building performance and the construction of green projects have gained in prominence since the 2012 survey, so in the current study, new questions were added to examine some of these approaches. The chart at right shows those selected among the top three most important by global respondents and the share who believe they will use them in the next five years.

- Strategies for reducing energy use and radically altering the built environment's carbon footprint top the list.
- New approaches for building, such as modular construction and design for disassembly and recovery, are also considered among the most important by at least one quarter, roughly the share that intend to employ them.

In addition, the study did a deeper dive on controlling embodied carbon, design for disassembly and recovery, and design for manufacturing and assembly.

Embodied Carbon

With embodied carbon ranking second in both importance and anticipated future engagement, it is clear that efforts to track and reduce it should continue to grow in the next few years.

- Most of the respondents (72%) are at least familiar with the concept of embodied carbon, and 34% are tracking it on some of their projects, with two thirds of them also seeking to reduce it.
- The top factors that will drive more engagement with dealing with embodied carbon are more information about how to reduce it and more building products/materials on offer that can help to do so.

Design for Disassembly and Recovery

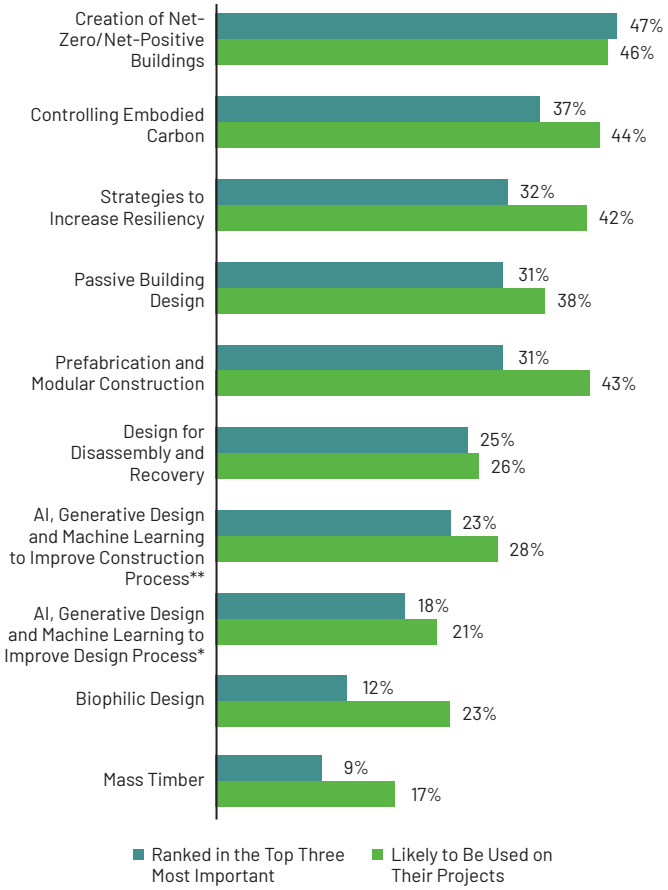
A critical way to reduce carbon and waste in the built environment is to have building products and buildings designed so that the various components can be reused when the building reaches the end of its lifecycle. Owners have the greatest influence in driving use of this approach, but fewer than half are currently familiar with it.

Design for Manufacturing and Assembly

A little over half of the global respondents are familiar with design for manufacturing and assembly (DfMA), and about two thirds of those who are familiar with it have used it on projects. However, use is still emerging, currently limited to 10% or fewer projects for the majority of those deploying this approach.

Most Important Approaches to Improve Sustainability in the Design and Construction Industry in the Next Five Years

Dodge Data & Analytics, 2021



*According to Architects and Owners
**According to Contractors and Owners