

Sustainability

Ask 10 people for a definition of Sustainability and you'll probably get at least 12 different answers. Our understanding and application of "Green" begins with the familiar Think Globally/Act Locally premise:



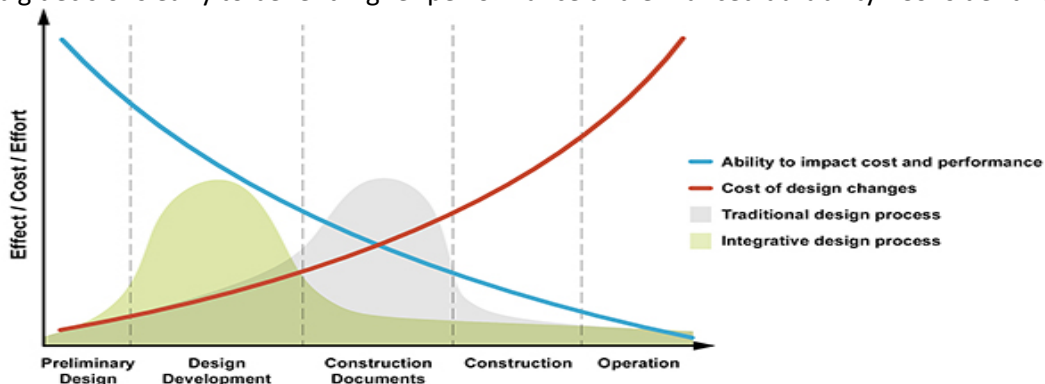
So the above are the United Nations Sustainable Development Goals, which present "a challenge for humanity to decouple economic growth from climate change, poverty and inequality." Based on these:



...the World Green Building Council developed a series of related statements about Sustainable building performance and benefits that significantly contribute to meeting this challenge. And based on these:



...many global (and competing) standards and certifications have been created, most with a "points and checklist" system (like a building nutritional label). Which one to use? Here's the thing: it's not about paperwork, there is no magic system. Instead, it's about perspective and approach, and especially about making big decisions early to benefit higher performance and enhanced durability. Consider this chart:



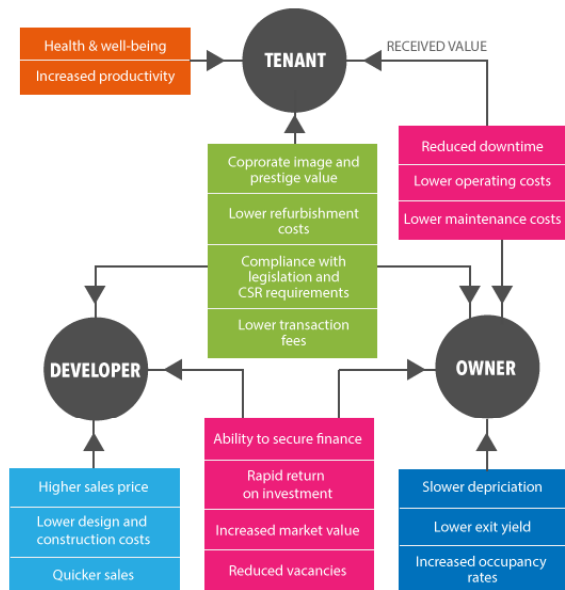
...which tells us Sustainable decisions made early have a huge positive impact on building cost and performance. So what do we use at Innova? Yes, we can do/have done Earthcraft, LEED, Energy Star, etc. but in general all programs to identify and clarify Green Building use some variation on the 7 Principles to the right.

And that's about it. We simply review and apply these at the beginning of a planning and design process (there are some illustrations below) with a creative eye to the unique opportunities for each project, each site, and within each budget.

1. For example, not every budget supports photovoltaics, but every project can be planned for painless future installation, and energy efficient fixtures have been cost/feature-competitive for decades.
2. We've re-thought roofs to both collect rainwater for re-use in landscaping and internal "graywater" systems, and as green infrastructure to reduce flooding.
3. Many building products now feature a reduced extraction and manufacturing "carbon footprint," and their consumer retail goods have great recycled content.
4. Great Indoor Air Quality is possible via quality mechanical engineering, but also by specifying low-VOC materials and features like windows that open.
5. "Resiliency" implies an endurance, while "Sustainability" is about continuance... but they are related in terms of how a building performs over the long haul.
6. We've created significantly more profit for a new neighborhood development by re-designing the site access and layout to maximize the natural features, while increasing the number of lots and improving nearby traffic patterns.
7. The "Business Case" graphic at right is based on building life cycle, from design to sourcing to construction to operating costs of both the building itself and the people who work/live/study/shop there.



The Business Case for Green Building



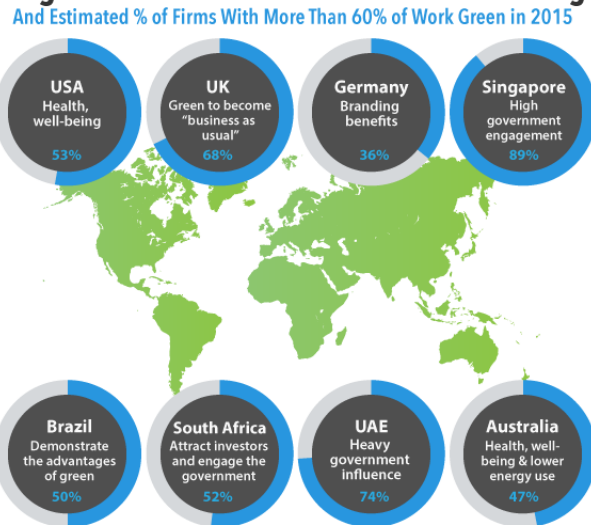
Source: World Green Building Council, 2013

Payback Time for Green Investments in Years



Source: McGraw-Hill Construction, 2013

Regional Business Drivers for Green Building



Source: McGraw-Hill Construction, 2013