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Sommario/riassunto Building stakeholders need practical metrics, data, and tools to support

decisions related to sustainable building designs, technologies, standards, and codes. The Engineering Laboratory of the National Institute of Standards and Technology (NIST) has addressed this high priority national need by extending its metrics and tools for sustainable building products, known as Building for Environmental and Economic Sustainability (BEES), to whole-buildings. Wholebuilding sustainability metrics have been developed based on innovative extensions to lifecycle assessment (LCA) and life-cycle costing (LCC) approaches involving whole-building energy simulations. The measurement system evaluates the sustainability of both the materials and the energy used

by a building over time. It assesses the carbon footprint of buildings as

well as 11 other environmental performance metrics, and integrates economic performance metrics to yield science-based measures of the business case for investment choices in high-performance green buildings.