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Sommario/riassunto	With the world's increasing focus on sustainability in the construction sector through green building systems, the U.S. Department of Agriculture (USDA) has been actively engaged in green building advocacy in the United States through USDA Tall Wood Building competitions and follow-up research on use of mass timber for nonresidential buildings. The USDA Forest Service, Forest Product Laboratory (FPL) funded the study of environmental performance of the pioneer mass timber building (the John W. Olver Design Building) built at University of Massachusetts Amherst in 2016. The Athena Sustainable Materials Institute conducted the whole building life cycle assessment (LCA) using the Impact Estimator for Building software. Secondly, the reported LCA results led to development of an environmental building declaration (EBD) in conformance with European

standard EN 15978. Environmental building declarations summarize the embodied and operational environmental impacts during the full building life cycle. An EBD is much like an environmental product declaration (EPD) which is intended for marketing and educational use, but instead of covering individual products like an EPD, an EBD covers the whole building. Lastly, the LCA results of the Design Building were then compared with a functionally equivalent steel and concrete building to acquire the whole building LCA credit in Leadership in Energy and Environmental Design (LEED) v.4 for green buildings. With the mass timber use in the Design Building, the building qualified for the whole building LCA credit in LEED v4. With this project, FPL is helping to standardize environmental performance reporting and advanced mass timber building sustainability.