The Repair of Buildings and Bridges with Composites (RB2C) is a National Science Foundation Industry-University Cooperative Research Center. Based at the University of Missouri-Rolla (UMR), the center is an integral part of the Center for Infrastructure Engineering Studies (CIES). RB2C focuses on addressing the needs of the construction industry in the areas of rehabilitation and strengthening of existing structures using the novel, untapped potential of advanced composite materials and technologies.

The center makes possible the opportunity to integrate the knowledge, experience, interests, and resources of industry partners with university research. Industry partners provide expertise and resources in the design and application of advanced composites; University partners provide technical expertise and research resources. The center creates a forum for technology development and transfer that could not be achieved alone by any of the individual participants.

In 2002, RB2C became a multi-university center when North Carolina State University (NCSU) joined forces with UMR. The mission of RB2C is to provide an opportunity for cooperative research between university researchers and industrial partners to develop appropriate advanced composite technologies for the repair of buildings and civil infrastructure.

Structural retrofit work has come to the forefront of industry practice in response to the aging of buildings and civil infrastructure worldwide. In addition, codes have gone through major revisions to ensure that structures can better withstand natural phenomena, such as earthquakes. These two forces create a great need for more effective materials, methods, and techniques for structural rehabilitation.