



*sustainability*



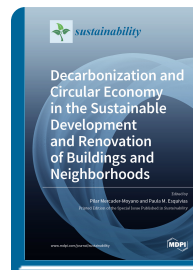
*Special Issue Reprint*

## **Decarbonization and Circular Economy in the Sustainable Development and Renovation of Buildings and Neighborhoods**

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In recent years, the building sector has been turning towards intervening in the existing city building stock. In fact, it is generally accepted that the refurbishment of buildings and urban regeneration based on sustainability must form the axis of reformulation of the building sector. At present, achieving sustainable urban development inevitably involves improving existing buildings, thereby preventing the need for city growth, and for the emptying of established neighborhoods. Furthermore, considering the whole life cycle, the great amount of greenhouse emissions derived from the construction sector is well known; thus, in order to reach a decarbonized society, it is important to provide eco-efficient construction materials and solutions, adding the principles of the circular economy and resource efficiency. Therefore, the theme of this Special Issue is the “Decarbonization and Circular Economy in the Sustainable Development and Renovation of Buildings and Neighborhoods” in response to the objectives not only raised in the Horizon 2020 but by all the people who seek a more sustainable world. This Special Issue of Sustainability focuses on, but is not limited to:

- Obtaining an overview of the environmental problems that arise from construction activity, focusing on refurbishment as an alternative to the current crisis in the construction sector, as well as on actions designed to minimize environmental effects on the environment;
- Searching for new alternatives to conventional construction solutions that minimize the environmental impact of the construction activity, improve indoor environmental quality of buildings, build or refurbish, always from a rentable and optimal cost in time, and implement economy and an efficient resource and waste management;
- Minimizing the use of material resources, energy consumption and CO<sub>2</sub> emissions in construction and looking for the proper management of construction and demolition waste and the opportunities for their recycling and reuse;
- Sustainable planning and urban development, for an ordered and sustainable growth.



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