ADAPTIVE REUSE AS A STRATEGY FOR THE DECARBONISATION OF THE BUILT ENVIRONMENT

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The latest iIPCC Report on Change
Climate Change 2022 leaves no room for
doubts: “It is unequivocal that human influence has warmed the atmosphere, the ocean and land. There have been rapid and widespread changes in the atmosphere, ocean, cryosphere, and biosphere. Ultimately, humans we are responsible for a climate crisis that threatens our own well-being and the health of the planet. Only a forceful and hasty **reduction of greenhouse gases** can prevent
the catastrophe. Therefore, the main objective must be **zero emissions**.

The construction sector that is responsible a
European level of 40% of energy consumption and 36% of carbon emissions
CO_2
derived from energy, plays a
important role in this long-awaited decarbonization. One of the strategies and practices that have evolved the most in recent years, is **the adaptive reuse**. In essence,
It is about reusing an existing structure or building, whatever its been, giving it a different use for which it was built or designed originally, instead of building a new one.

When reusing and retrofitting an existing building,
In addition to saving material resources, the environmental footprint is reduced since avoid further embedded carbon emissions, i.e. emissions from processes industries that produced it.

Some of the **advantages** of adaptive reuse are:

•**Preservation of heritage.** They are buildings
that link us to our past and identity so they become
cultural and architectural heritage

•**Reduction of quantity and costs of construction materials.** In the midst of a crisis of raw material supply, reducing the cost of materials results in essential for the stability of the sector.

•**Promotion of sustainability**. Demolish existing buildings for
construction of new ones creates a lot of waste and perpetuates the linear model of current construction.

•**Urban regeneration .** Projects such as the High Line in New York, a disused elevated railway line converted into a linear park with gardens, viewpoints, public cultural spaces and new commerce, demonstrate the capacity of urban revitalization of the community that these interventions have.

•**Conservation of the energy**. The
construction of new buildings has much more embodied energy than

adaptive reuse.

Success stories have multiplied exponentially
the last years. According to a 2017 Deloitte study, it is estimated that by 2030, 90% of the
Real estate development will involve adaptive reuse.

Among the most significant international projects we can highlight:

•TaiKwun Center for Heritage and Art by Herzog & de

•POST Houston by OMA

•The Bentway, a public space below Gardiner in Toronto

•Rehabilitation of the 1862 Shipyard in Shanghai by Kengo Kuma

•Astoriahuset Y Nybrogatan 17 in Stockholm by 3XN ARCHITECTS

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There are no comments yet.