

Transformation and Revitalization of Under-Used or Abandoned Areas

The Adaptive Reuse Unit in **Dublin City Council** has established a new housing development mechanism that is creating social housing by converting vacant commercial property in Dublin City to apartments. The Adaptive Reuse Programme will address vacancy and dereliction by promoting regeneration, and deliver on climate action targets by achieving reductions in embodied carbon emissions.

1. The Problem: Understanding the Space

14% of commercial buildings in Dublin are vacant and underused. When upper floor vacancy is taken into account, the commercial vacancy level rises to 29% in some areas of Dublin city. This is creating a vacancy and dereliction problem in the city. However, this problem offers an opportunity for the creation of new homes in the city core at reduced financial cost and carbon cost when compared with new build housing development. This opportunity has been explored by Dublin City Council with five proposed projects having received funding approval. Three vacant buildings have been purchased by Dublin City Council so far, and conversion projects are underway.

The type of buildings that are vacant in Dublin are typically smaller historic buildings that are classed as protected structures. These can be costly and complex to convert to housing and many have been vacant for years. With Dublin City Council leading the way in redeveloping these buildings for residential use, the barriers to adaptive reuse projects can be addressed and new design guidance and targeted financial supports can be developed to promote private sector engagement with this initiative.



2. Strategy, Methodology or Approach

Before purchasing a building, the Adaptive Reuse Unit carries out a detailed feasibility study to ensure that there is a viable design solution to convert a vacant commercial building to apartments. The team works with private architect firms to develop designs and prepare cost estimates before applying for funding for the project. Collaboration with many departments in Dublin City Council is required, including conservation officers, fire officers and planners. Once funding is approved, the property can be purchased and the project to create new homes can commence. Where a project involves a mixed use development, separate funding must be sought for the commercial units within the building.

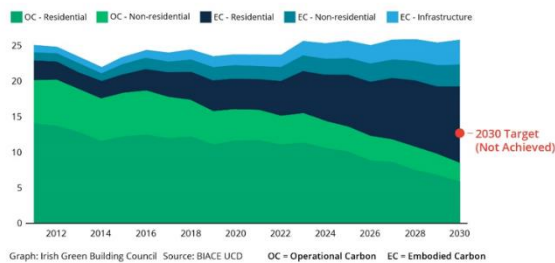
Once the building is purchased, temporary use of the building is arranged if possible until the detailed design process is completed and a contractor is engaged to carry out the works.

3. Results and Impact: The Transformation

The reuse of existing buildings to create new homes will be a key factor in achieving carbon reduction targets set for 2030. The Irish Green Building Council’s Roadmap to 2030 requires that over one third of Ireland’s new homes to be built by 2030 must be created from existing buildings. The Adaptive Reuse Programme presents an opportunity for the transformation of areas of Dublin City with high office use back to thriving residential areas. Georgian Buildings in Dublin were originally built for residential use. However, since the 1940s many buildings were converted to office use and these areas of the city are lacking in vibrancy. Now, with these buildings becoming available for repurposing, there is an opportunity to recreate these parts of Dublin, delivering on the 15 minute city concept, creating homes beside office locations, schools and city parks, and bringing culture back to areas where it is needed.

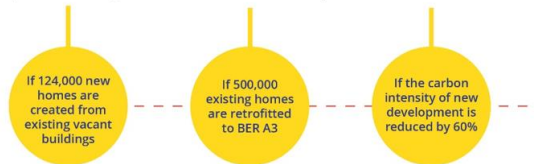
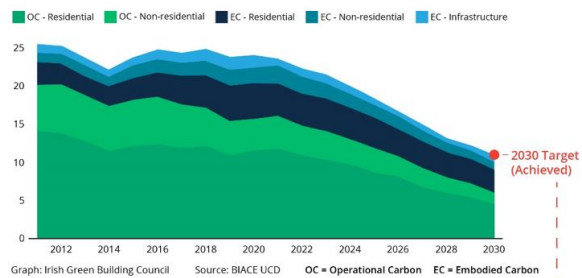
IGBC Modelled Scenario A: If Embodied Carbon is Not Addressed in Planned Development to 2030

Outcome: Failure to Meet Climate Action Target Resulting in Fines of Approx. €3-6 billion



IGBC Modelled Scenario B: Roadmap to Achieve 2030 Climate Action Targets by Addressing Embodied Carbon

Outcome: Success at Achieving Climate Action Targets: No Fines Payable & Systems Established to Ensure 2050 Targets can be Achieved



4. Lesson Learned

A lesson learned so far is that, if appropriate buildings are selected and vacant properties can be purchased at a reasonable price, it is less expensive to create new apartments from converting existing buildings than it is to undertake new build apartment developments in Dublin. From 14 feasibility studies completed, the estimated cost is €460,000 per apartment. This is higher than the average cost of new build apartments in Dublin at present.

