

# Vacant Properties

The opportunity to  
increase housing stock and  
minimise carbon emissions

## IPAV

*'THE VOICE OF AUCTIONEERS  
AND VALUERS IN IRELAND'*

# 2023

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# NON C D B R T N

Increasing the utilisation of vacant houses and shops is desirable socially and in terms of meeting climate change targets. It is imminently achievable, with the right set of policies.

Amongst the many key findings emanating from ongoing work by UCD researchers in conjunction with Irish Green Building Council (1) on the carbon impact of the built environment has been their insights into the high level of embodied carbon in new builds by comparison with the refurbishment of existing properties.

We believe that the carbon advantages of utilising our existing housing stock puts a premium on improving the utilisation of vacant properties.

This paper outlines, in addition to the housing and social advantages, why it is imperative from a carbon perspective to utilise these properties.

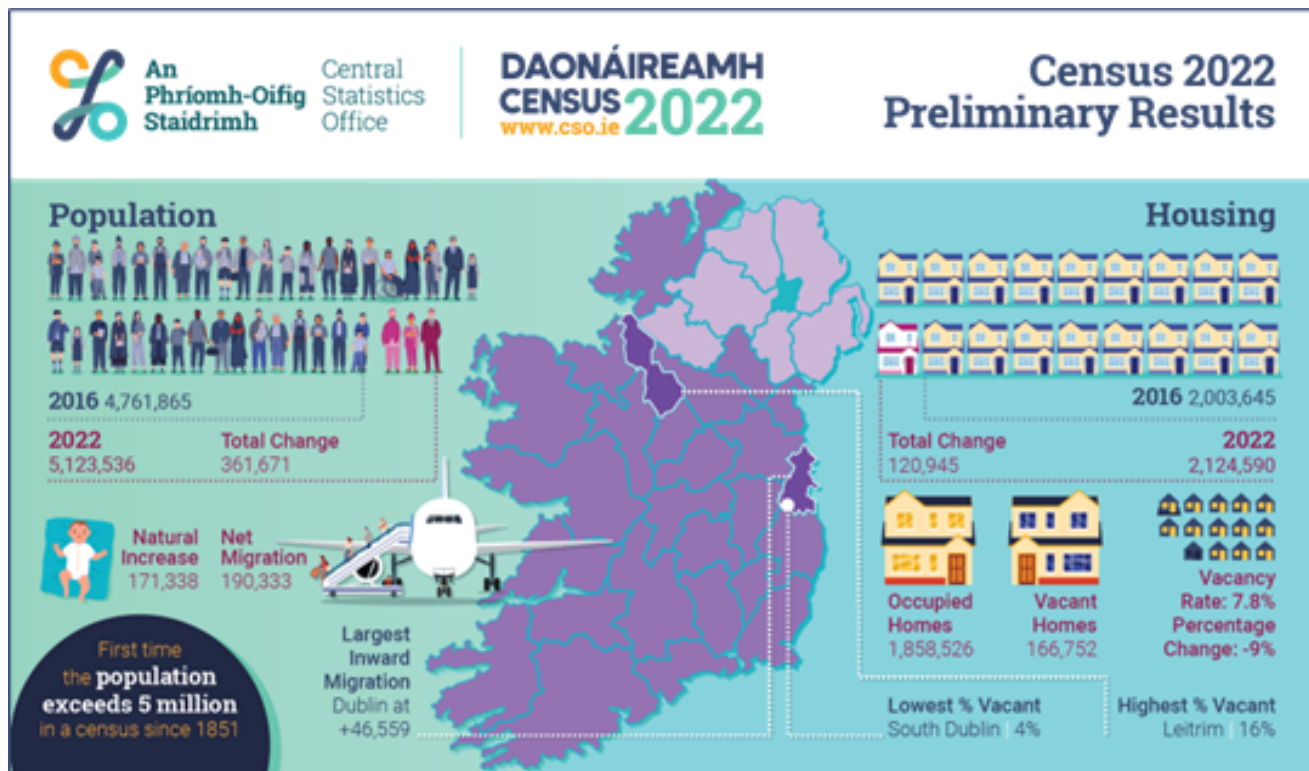
IPAV is determined to help Government and other stakeholders to address the housing market challenge. It is in the interests of all stakeholders to ensure that a properly functioning housing market is enabled. A key part of this is bringing vacant properties onto the market. Improving the supply of housing will enhance the overall competitiveness of the Irish economy.

(1)“Whole Life Carbon in Construction and the Built Environment in Ireland”, 2022, Richard O’Hegarty, Stephen Wall and Oliver Kinnane, for the IGBC. WLC-UCD-IGBC\_30.09.22\_V4.0\_MidRes

# VACANT HOMES AND SHOPS

According to Census 2016, there were 183,000 vacant dwellings in the country on the night of the Census, not including holiday homes. Of this figure, 140,000 were houses and 43,000 were apartments. The census captures vacant homes once every five years on a single night.

Preliminary figures released from Census 2022 which took place on the night of 3 April show there were 166,752 vacant homes, a drop of 9 per cent on the 2016 Census figures.



Source: Census 2022

State totals	2011	2016	2022	Actual change 2016 - 2022	% change 2016 - 2022
Housing stock	1,994,845	2,003,645	2,124,590	120,945	6
Occupied households	1,660,111	1,707,453	1,858,526	151,073	9
Temporarily absent	45,283	50,732	33,177	-17,555	-35
Unoccupied holiday homes	59,395	62,148	66,135	3,987	6
Vacant dwellings	230,056	183,312	166,752	-16,560	-9

Source: Census 2022

The reality is that Ireland has a shortage of housing, both for owner-occupier and rental purposes and there are a substantial number of vacant houses, derelict sites, and closed shops and other business premises around the country. The issue of vacant shops and business premises was exacerbated by COVID-19.

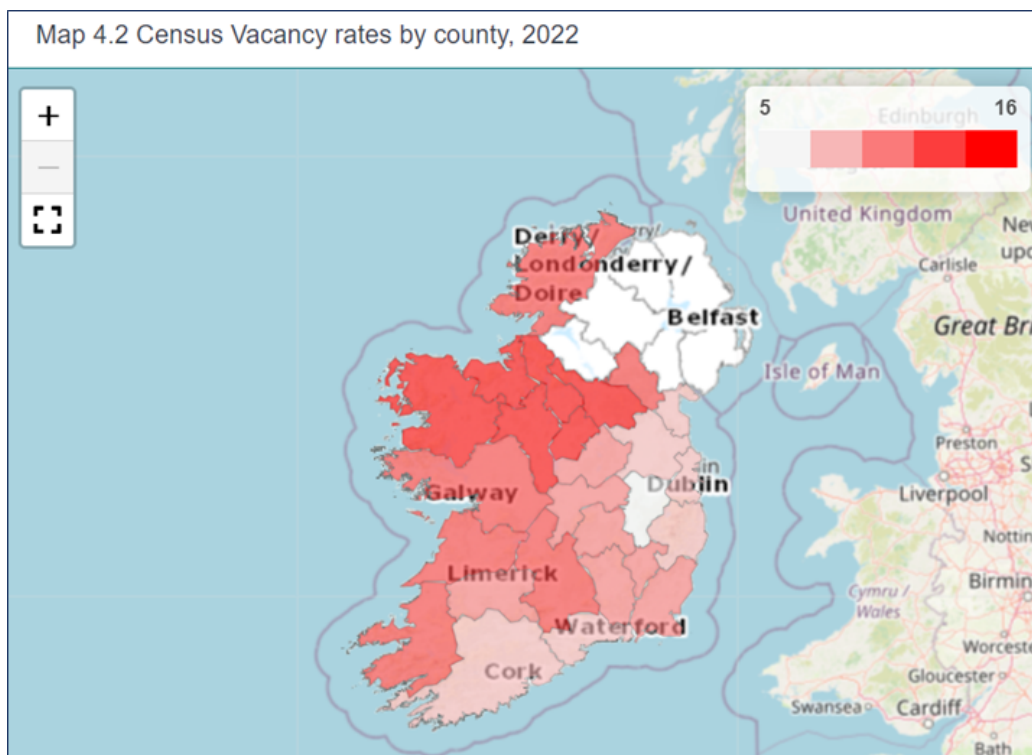
A strategy that would bring those vacant properties and business premises into the housing stock would make a significant contribution to relieving the housing crisis but could also make a powerful contribution to making towns, villages and cities living organisms again.

The Government published a ‘National Vacant Housing Reuse Strategy’ in 2018, which included objectives around having consistent data on vacancies and bringing forward workable measures to tackle the issue.

In the UK there are approx. 25 million homes and a 0.9% vacancy rate. In Ireland we have a 8% vacancy rate and a huge opportunity to get some of this back into liveable housing stock.

Vacancy rates across the country are unevenly distributed with the west and north west having the highest levels of vacancy.

### Vacancy rates by county

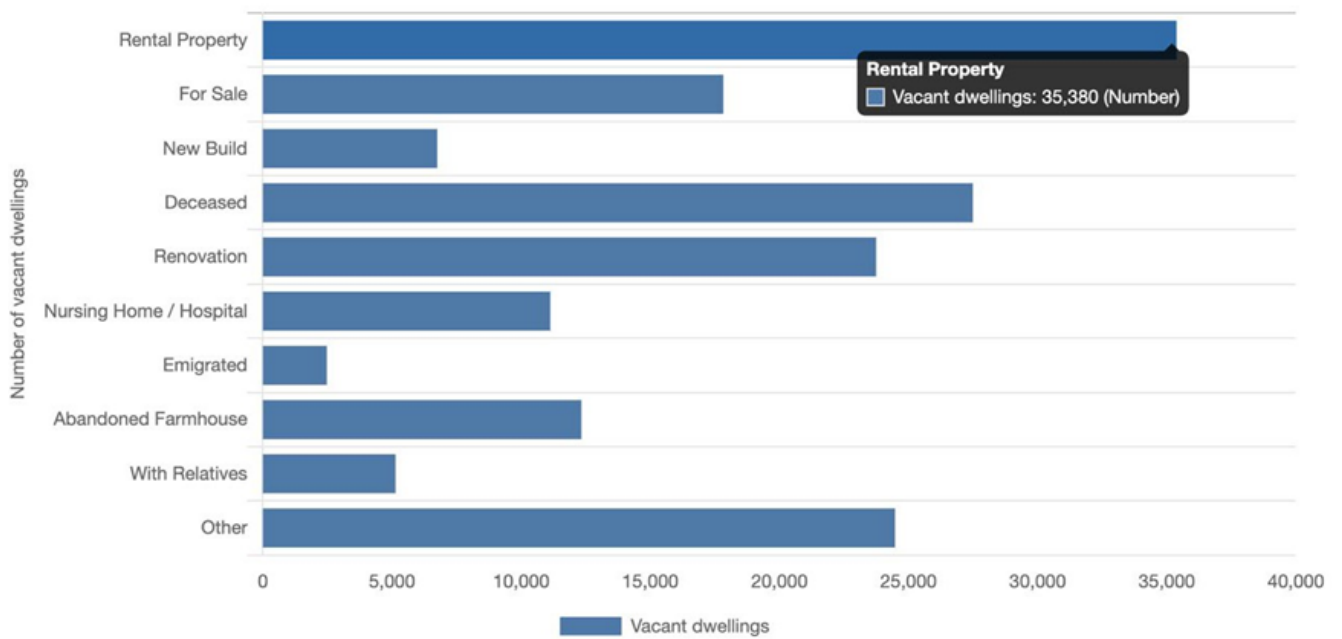


County	Percentage
Leitrim	15.5
Roscommon	13.4
Mayo	13.3
Longford	12.1
Cavan	11.8
Sligo	11.8
Donegal	11.4
Kerry	11.4
Monaghan	10.8
Galway	10.1
Clare	9.2
Tipperary	9.0
Westmeath	8.3
Offaly	8.3
Limerick	7.7
Kilkenny	7.7
Laois	7.6
Wexford	7.5
Carlow	7.2
Cork	7.1
Waterford	7.1
Louth	6.7
Wicklow	5.8
Meath	5.8
Dublin	5.5
Kildare	5.3

Source: Census 2022

The census returns for vacant properties provide some insight into the reasons for vacancy. While the data provides a useful overview it is not at the level of granular detail that would best inform policy making. There are no indications of the type of properties or their condition to indicate their potential for refurbishment. While it is expected that properties that are “For Sale” would be vacant it is unclear the status of some of the other categories such as “nursing home/hospital” or “other”.

Figure 4.2 Reasons for vacancy, 2022



© Central Statistics Office, Ireland  
<https://data.cso.ie/table/FP011>

**CONCLUSION:** In the context of a housing crisis we have significant underutilised stock of 167,000 vacant properties.

# THE BUILT ENVIRONMENT AND NATIONAL EMISSIONS

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The built environment accounts for 37% of national emissions (from UCD study). This is a very significant driver at a national level. Some of the key findings from the UCD study are:

01

Residential operational carbon accounts for 45% of built environment emissions per annum

02

400,000 new-build homes are planned

03

Concrete accounts for ~30-50% of materials-related emissions used in construction

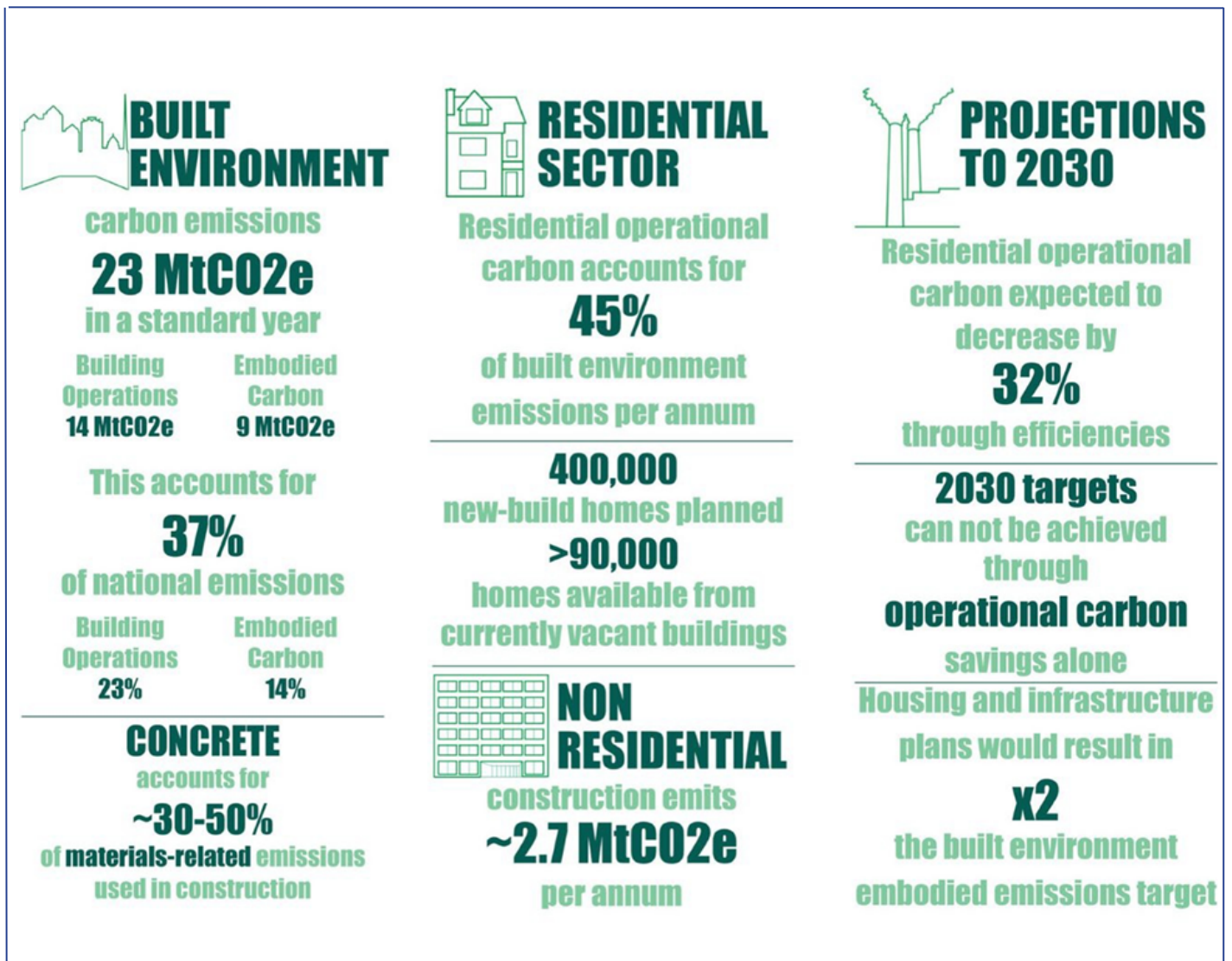
04

While residential operational carbon is expected to decrease by 32% through efficiencies the 2030 targets **cannot** be achieved through operational carbon savings alone

05

Housing and infrastructure plans would result in 2 times (2X) the built environment embodied emissions target. Our commitment to building new houses at the proposed scale (400,000 units) is in conflict with our objectives to reduce our embodied carbon emissions.

## Summary of Built environment in Ireland



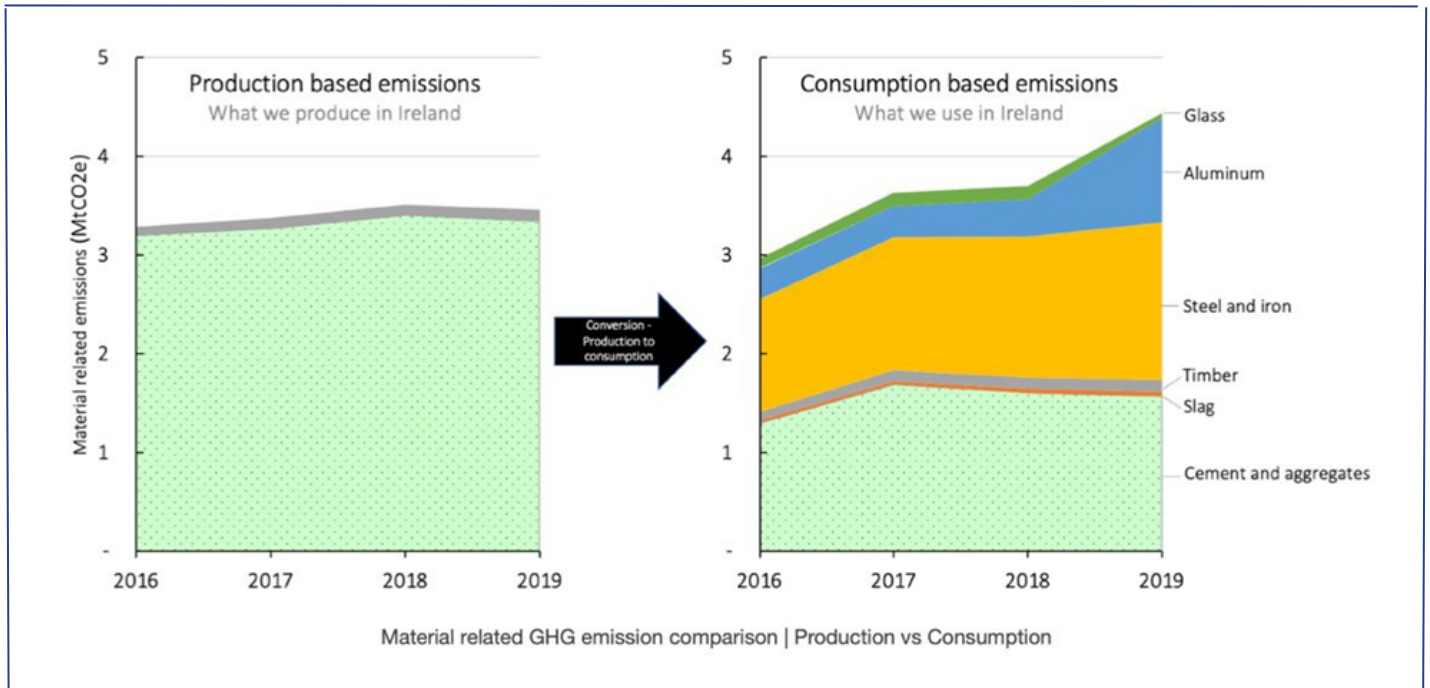
Source: "Whole Life Carbon in Construction and the Built Environment in Ireland", 2022, Richard O'Hegarty, Stephen Wall and Oliver Kinnane, for the IGBC.

Additional data shows that while our production based emissions (emissions created within Ireland) are largely related to production of cement and aggregates we consume a range of other materials that have to be imported (consumption based emissions).

These materials such as imported steel, iron and aluminium are significant drivers of our carbon emissions from new builds. Much of these materials are not needed for retrofits where existing structures are utilised.



## Production and consumption based emissions



Source: "Whole Life Carbon in Construction and the Built Environment in Ireland", 2022, Richard O'Hegarty, Stephen Wall and Oliver Kinnane, for the IGBC.

**CONCLUSION:** Our current plan for solving housing demand by focusing on new builds is not aligned with the national target to reduce emissions.

# CARBON COST OF A RETROFIT

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While there are limited case studies available on the carbon cost of retrofits those we do have are helpful in giving indicative values on the carbon costs of retrofits. One of the complications in calculating the carbon cost of retrofits is the variety of use case scenarios.

The UCD researchers took data from a case study to extrapolate to an average house. Some of the key data points from their research include:

01

Carbon cost of a home deep retrofit calculated at 25% that of a new build

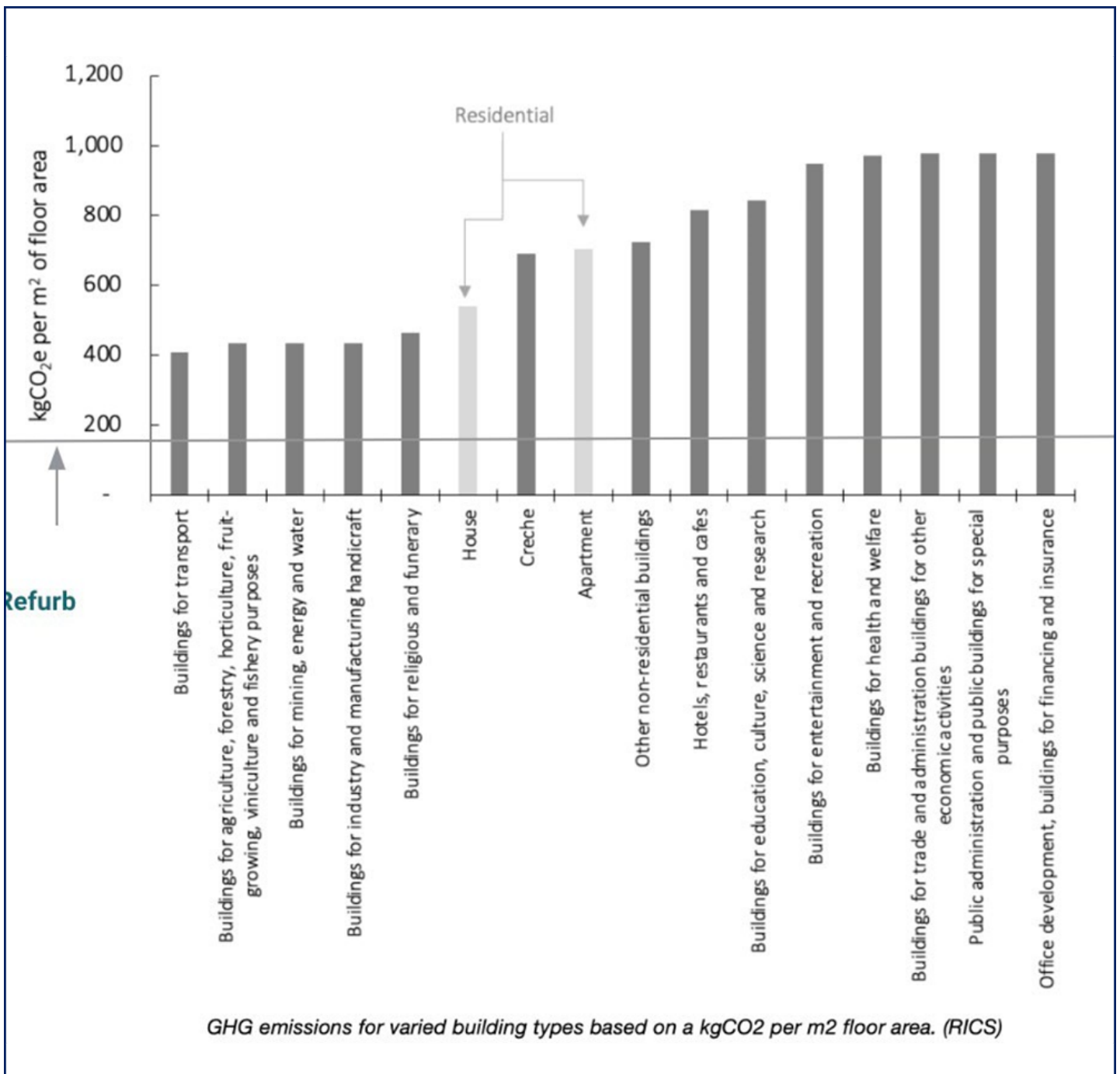
02

Average embodied carbon (EC) of a retrofit of 165kgCO<sub>2</sub>/m<sup>2</sup> – (based on an extrapolation to the average size of a house at 112m<sup>2</sup> (CSO))

The high embodied carbon (EC) of heat pumps in the case studies was primarily associated to refrigerant leaks throughout the lifecycle of the pumps. While this is prudent it is unclear if new builds are applying the same basis for calculating the EC of heat pumps and to what extent heat pumps are included in the carbon cost per M<sup>2</sup> of new builds.

Comparing to new builds it is clear that retrofits offer potential to reduce Embodied Carbon. Where it is estimated that a new build results in carbon emissions of 575 kgs per M<sup>2</sup> compared to the retrofit estimate of 165 kgs per M<sup>2</sup>.

## Comparison of different CO2 per M2 for different building types



Source: “Whole Life Carbon in Construction and the Built Environment in Ireland”, 2022, Richard O’Hegarty, Stephen Wall and Oliver Kinnane, for the IGBC.

**CONCLUSION:** Retrofits typically have much lower embodied carbon per M2 (less than 25%) than new builds. More research is required on quantifying and comparing the different options for retrofits and comparing the carbon impact with new builds. This will allow better decisions when comparing new builds and retrofits.

# OVER RELIANCE ON NEW BUILDS

Our current reliance on new builds comes at a significant carbon cost. Current plans are to build 400,000 new units. The average carbon required to build a new house is 64.4 Tonnes CO<sub>2</sub> compared to the average carbon cost of a retrofit at 18.5 Tonnes CO<sub>2</sub> kgs per m<sup>2</sup>.

## Comparing Embodied Carbon of New Builds and Retrofits

	Average floor area m <sup>2</sup>	Embodied carbon (kgs per m <sup>2</sup> )	Embodied carbon (Tonnes CO <sub>2</sub> )
New build	112	575	64.4
Retrofit	112	165	18.5

When we extrapolate this to the proposed 400,000 new houses then we can see that the new builds come with an embodied carbon cost of 26M tonnes of CO<sub>2</sub>. To put this in context the total annual emissions for the country of Ireland are just over 60M tonnes of CO<sub>2</sub>. The embodied carbon of the new builds represent almost half of a full years emissions for the country which is a very significant carbon cost.

Over time there will be an increasingly visible cost associated with the cost of carbon linked to new builds. As part of EU policy the government is already expected to incur financial penalties for not making its carbon emissions targets. Carbon Tax plays an important role in the Irish Government plan to reach carbon neutrality by 2050. A key element of this is a progressive increase in the Carbon Tax rate to €100 per tonne of CO<sub>2</sub> by 2030 (Finance Act 2020). Applying this rate would indicate an additional carbon cost of €2.6bn associated with the new builds in addition to not meeting our national emissions targets.

**CONCLUSION:** The carbon cost of building 400,000 new homes is estimated at 26M tonnes of CO<sub>2</sub>. This will make it difficult to achieve national emission targets. It will also likely incur financial penalties at an EU level. The estimated cost of the new builds at a carbon tax rate of €100 per tonne of CO<sub>2</sub> is €2.6bn.

# CARBON COST OF A RETROFIT

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*IPAV believes with the right encouragement and working together we could set an achievable target to bring back 25,000 vacant homes per year in Ireland to the liveable housing stock.*

IPAV is now setting out the following recommendations:

01

As a matter of priority the creation of a national database on vacant properties. This would provide an inventory of all vacant properties, current status and track progress towards bringing them into use.

02

When creating a national database the local knowledge of postmen and local estate agents should be utilised. They typically have very strong local knowledge that can be used in identifying the status of vacant properties.

03

That every county should have at least one full time vacant properties officer who would be responsible for knowing the status of vacant properties and lead plans to bring them back into use.

## Recommendations continued:

04

Creation of a task force across relevant stakeholders to address the opportunity of vacant properties. As the leading representative body for Auctioneers in the country our members have unparalleled access to local information on such properties. We believe bringing as many of these properties into use is critical to improving the availability of housing and reducing our carbon impact at a national level.

05

Further analysis and research (along the lines of the research conducted by UCD and IGBC) to understand the full carbon implications of different types of retrofits and their benefits by comparison with new builds. Given the wide variety of building types and states of repair of vacant properties it is important to understand the most cost effective ways of conducting these retrofits..

06

The introduction of realistic tax incentives to bring vacant homes and shops back into use. This must include a free, or amnesty period, for Capital Gains Tax. If owners are not encouraged to sell and given incentives, they simply will not sell vacant homes.

## Recommendations continued:

07

A government fund administered at low interest rates made available to purchasers of derelict or vacant homes until they get their new home into a liveable state and are in a position to re-mortgage it and repay the loan. Grants currently on offer, cannot be availed of if, initially, purchasers cannot draw down mortgages to purchase the property.

08

The introduction a non-repayable €50,000 purchase subsidy for First Time Buyers of derelict homes to be administered as per the Help-to-Buy Scheme.

09

The introduction of a non-repayable €20,000 purchase subsidy to First Time Buyers of vacant homes of more than 3 years to be administered as per the Help-to-Buy Scheme.



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