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The Challenge of Housing Refurbishment in Northern Ireland

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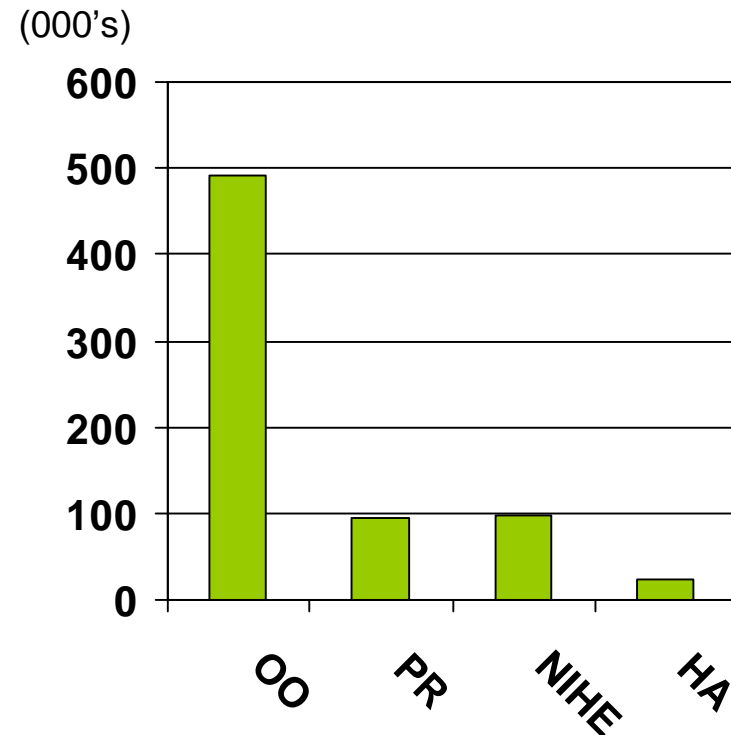
NIHE

Background

- **Government has established targets**
 - 60% reduction in CO₂ by 2050
 - 20% electricity supply from renewables by 2020
- **Housing has key part to play**
 - About 30% UK's CO₂ emissions are from housing
 - New housing to be “carbon neutral” by 2016 (Code 6 CSH)
 - But, existing stock is where problems (and opportunities) are greatest
 - 2/3 of the housing present in 2050 are here now

The NI Housing Stock (2006 HCS)

- **705,000 dwellings**
 - Most are owner occupied (70%)
 - But one sixth are social rented (17%)
 - NIHE – 97,000
 - HA – 23,000
- Our focus is the social stock



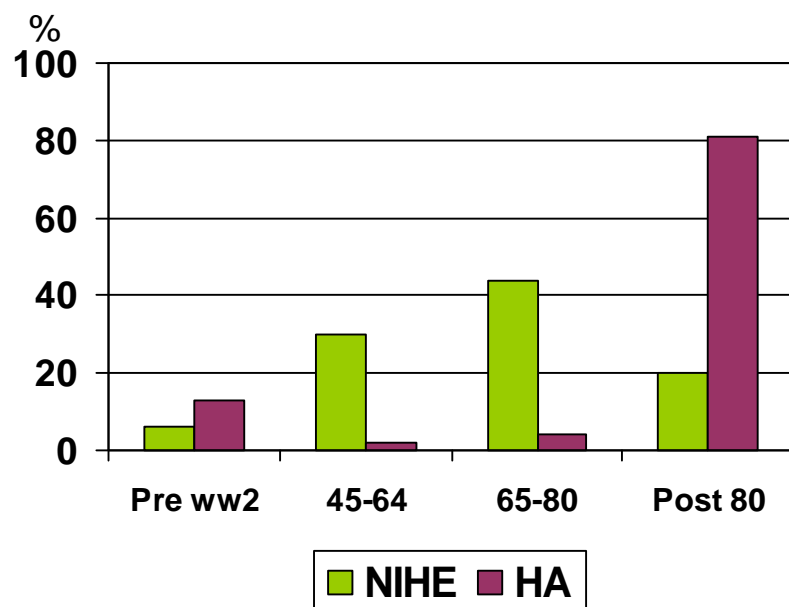
The social stock ...

- **is younger than the private stock**
 - is mostly post ww2 (92% compared to 70%)
 - strongly over-represented in the 1965-1980 category (36% compared to 21%)
- **and it has a different type profile**
 - terraced types (45% compared to 29%)
 - flats (26% compared to 4%).
- **But there are important differences between NIHE & HA stock**

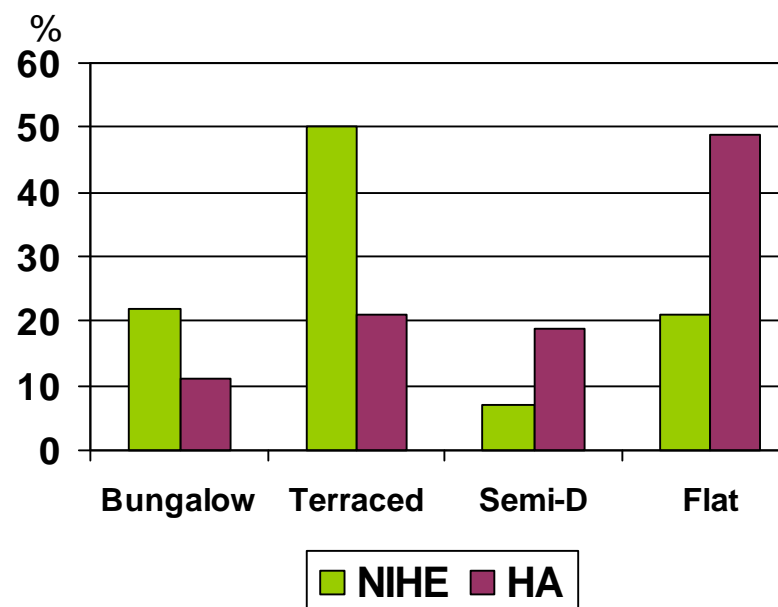
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The Social Rented Stock

Dwelling Age



Dwelling Type



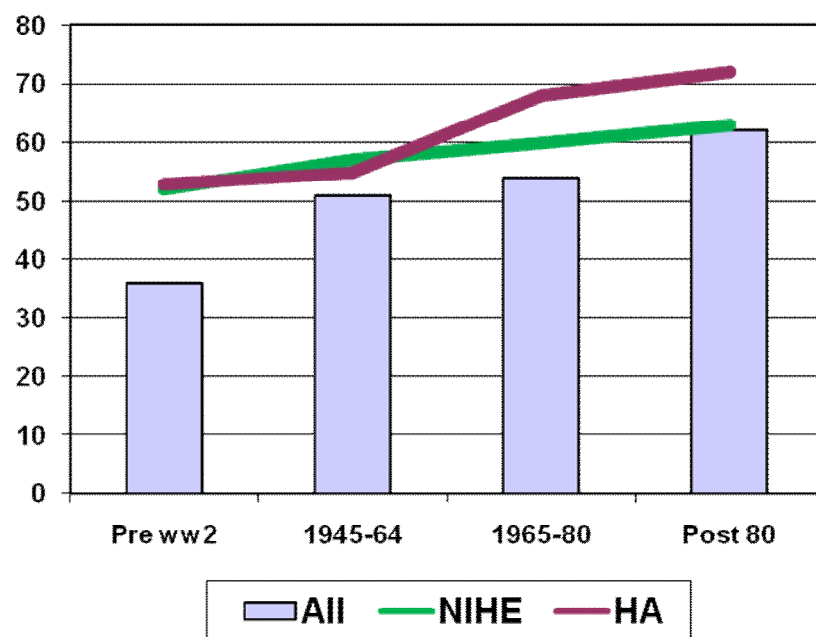
Social Housing & Energy Performance

- **Generally**
 - Social housing outperforms the private sector
 - SAP averages 61 compared to 50
- **But, again, big differences**
 - according to age & dwelling type
 - between NIHE & housing associations

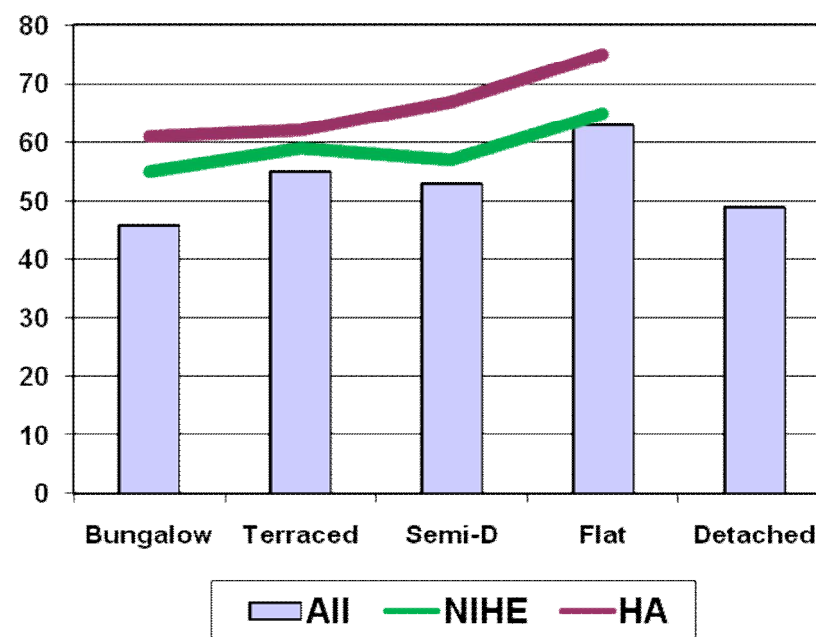
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Variations in SAP Rating

By Age



By Type



Retrofitting is important but...

- **Physical issues associated with the stock are only part (a big part) of the equation**
- **Lifestyle and behaviour are also important**
 - **Average household domestic energy use 1971-2001 up 36% but**
 - **Water heating (-13%) & cooking (-54%) DOWN**
 - **Space heating (+11%) & lighting / appliances / consumer electronics (+67%) UP**
 - **TV is one of the biggest offenders**
 - **And don't think social tenants don't own many consumer durables / electronics; THEY DO**

Concluding comments

- **Issues with retrofitting**
 - Working in an existing, occupied stock
 - Are limitations to what can be achieved
 - Costs in retrofit often greater than new build
 - Uncertainty about future maintainability (new build also)
- **But potential benefits are significant**
 - Make a positive environmental impact
 - Help reduce running costs for tenants
 - Help reduce fuel poverty