

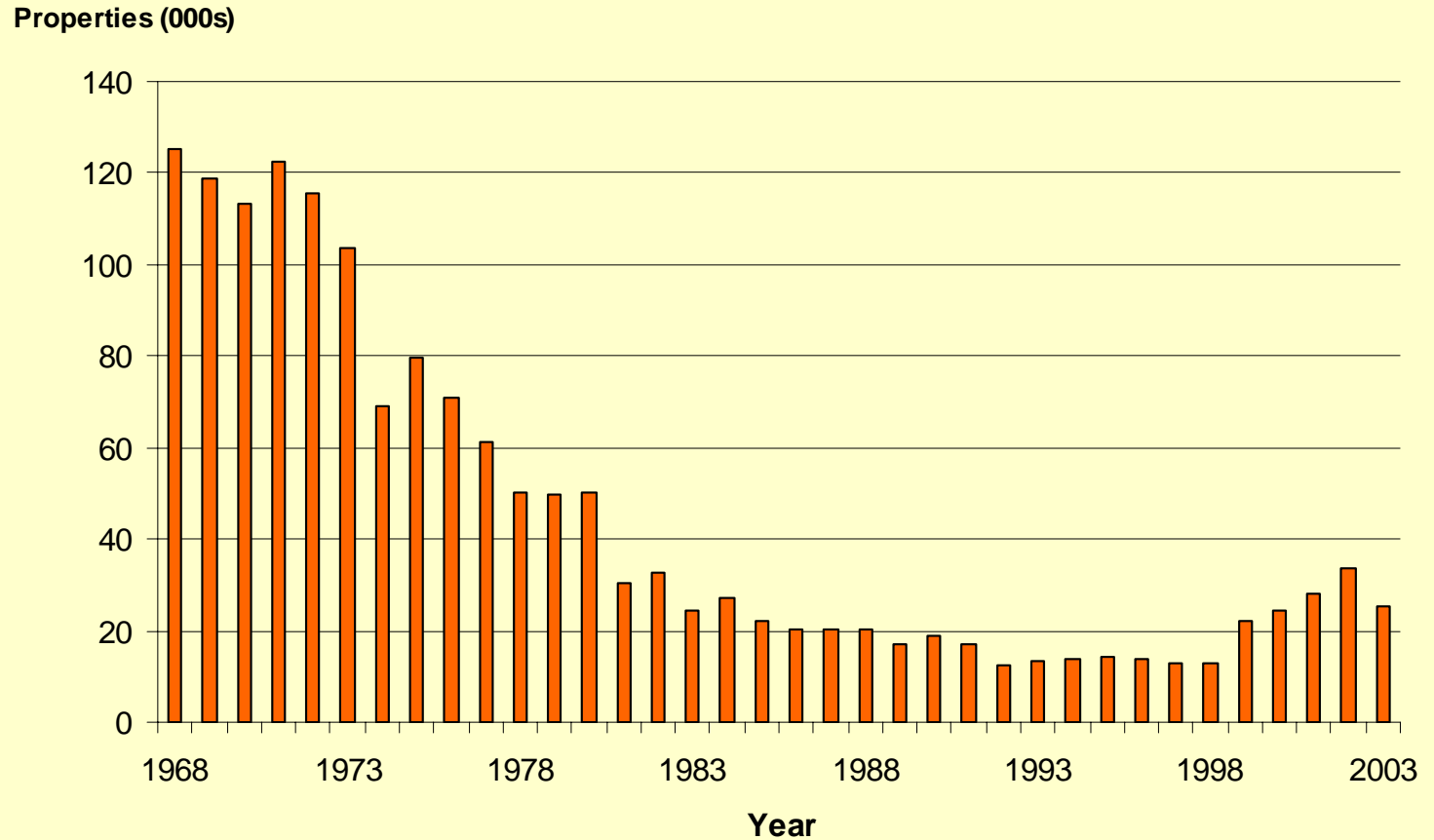
When is demolition appropriate?

RIBA South-East, 11 November 2008

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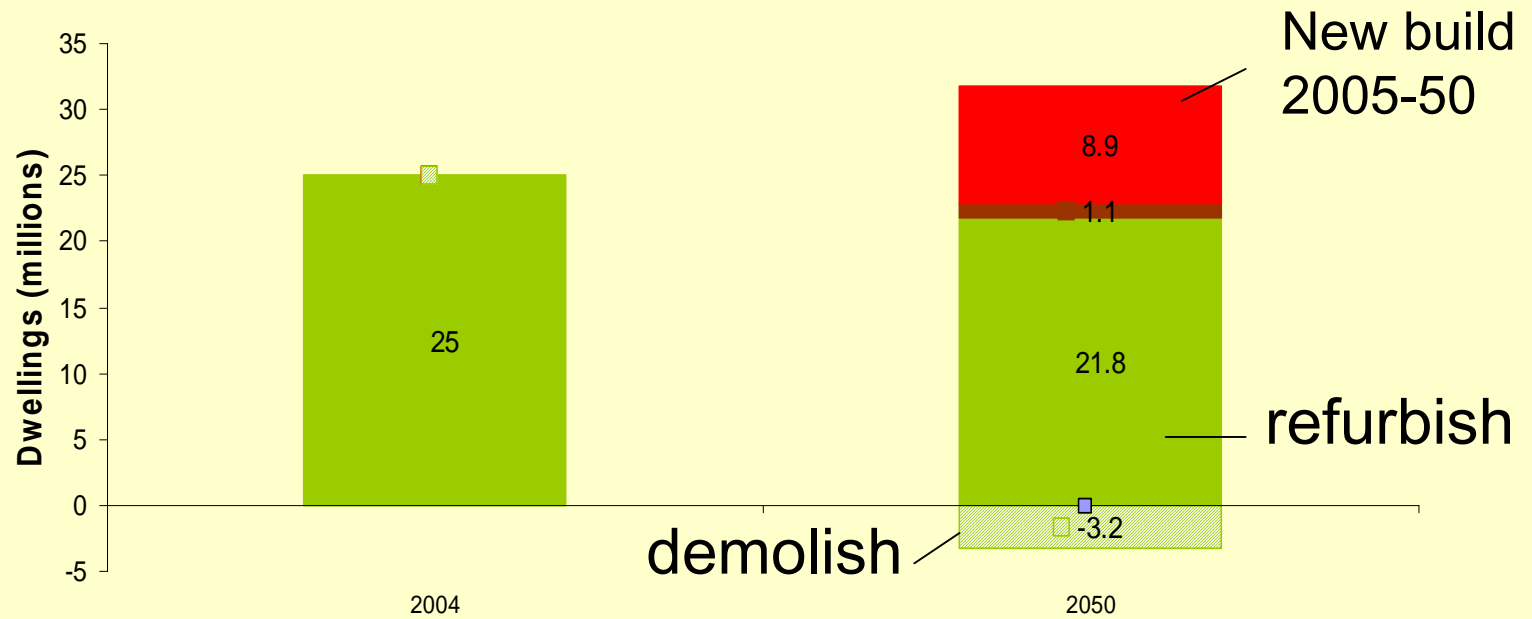
Demolition rates - UK



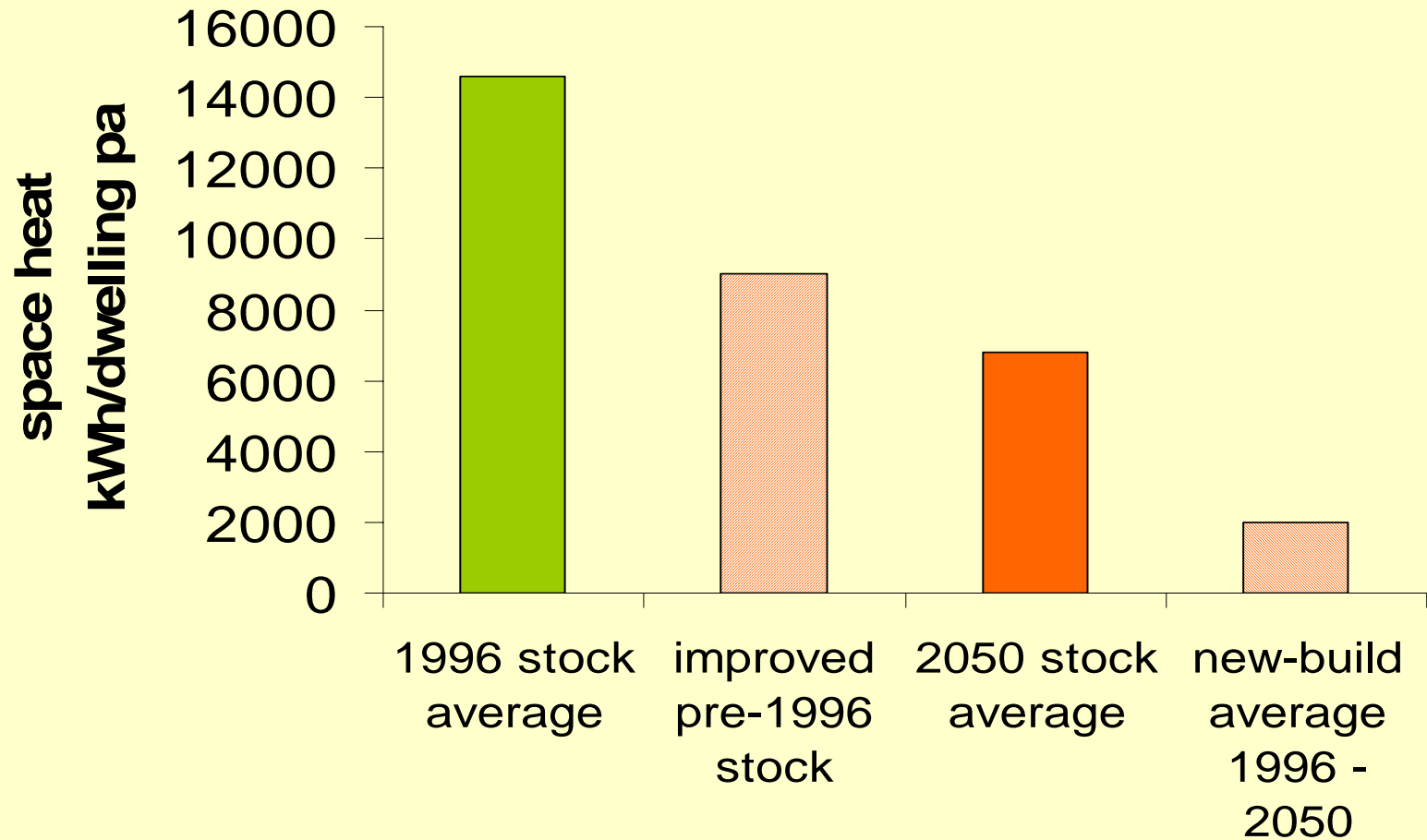
Implications

- 25m homes / 25,000 demolitions pa = 1,000 years for stock turnover
- 25m homes / 80,000 demolitions pa = 313 years for stock turnover

Housing stock changes UK, 2004–2050



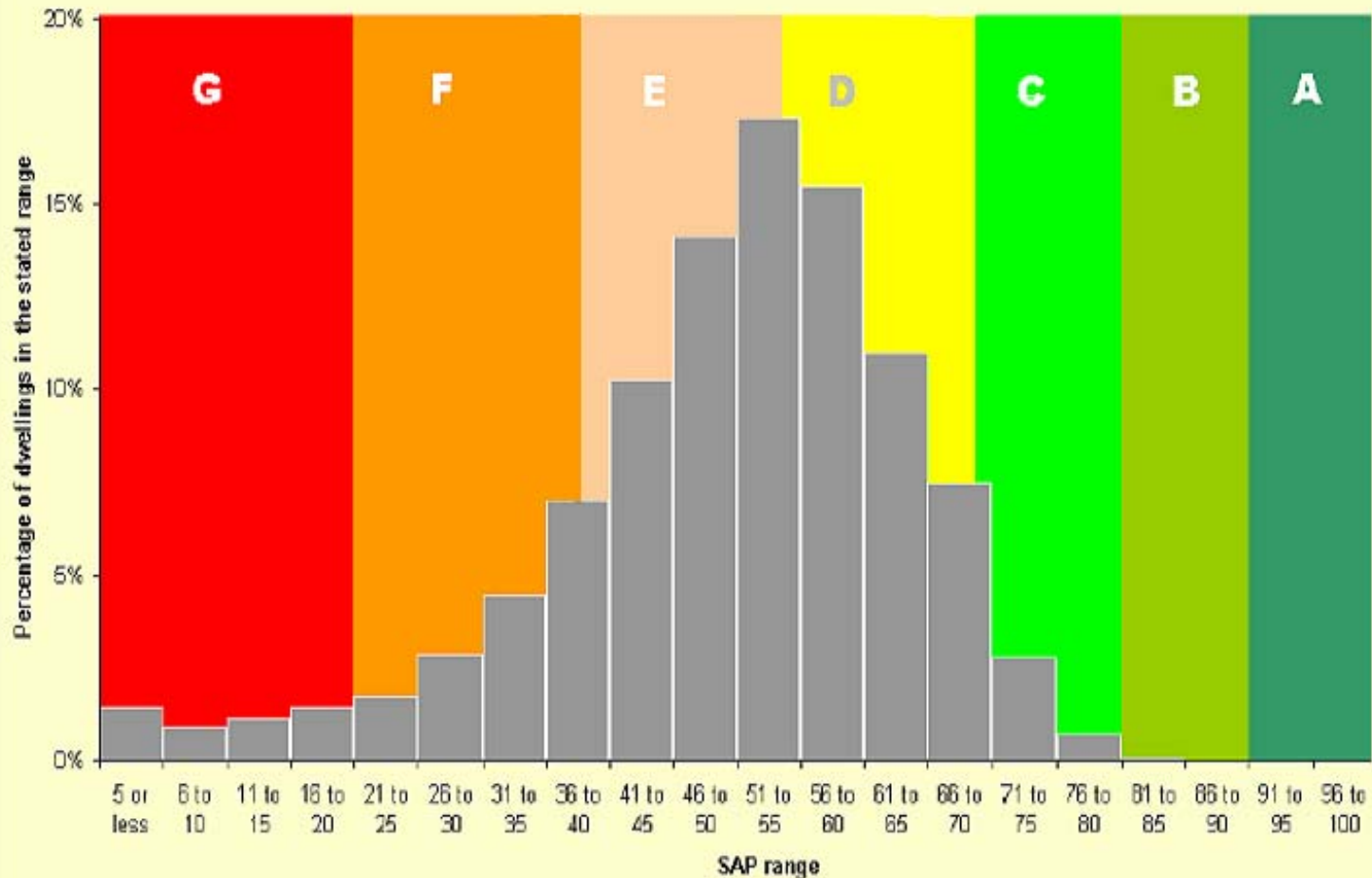
Fabric improvements by 2050



Standards of existing homes

	1996 kWh	40% house kWh
Heating	14,600	9,000
Hot water	5,000	5,000
Lights and appliances	3,700	1,680
Total	23,300	15,680 67%

Minimum standards



Unhealthy housing

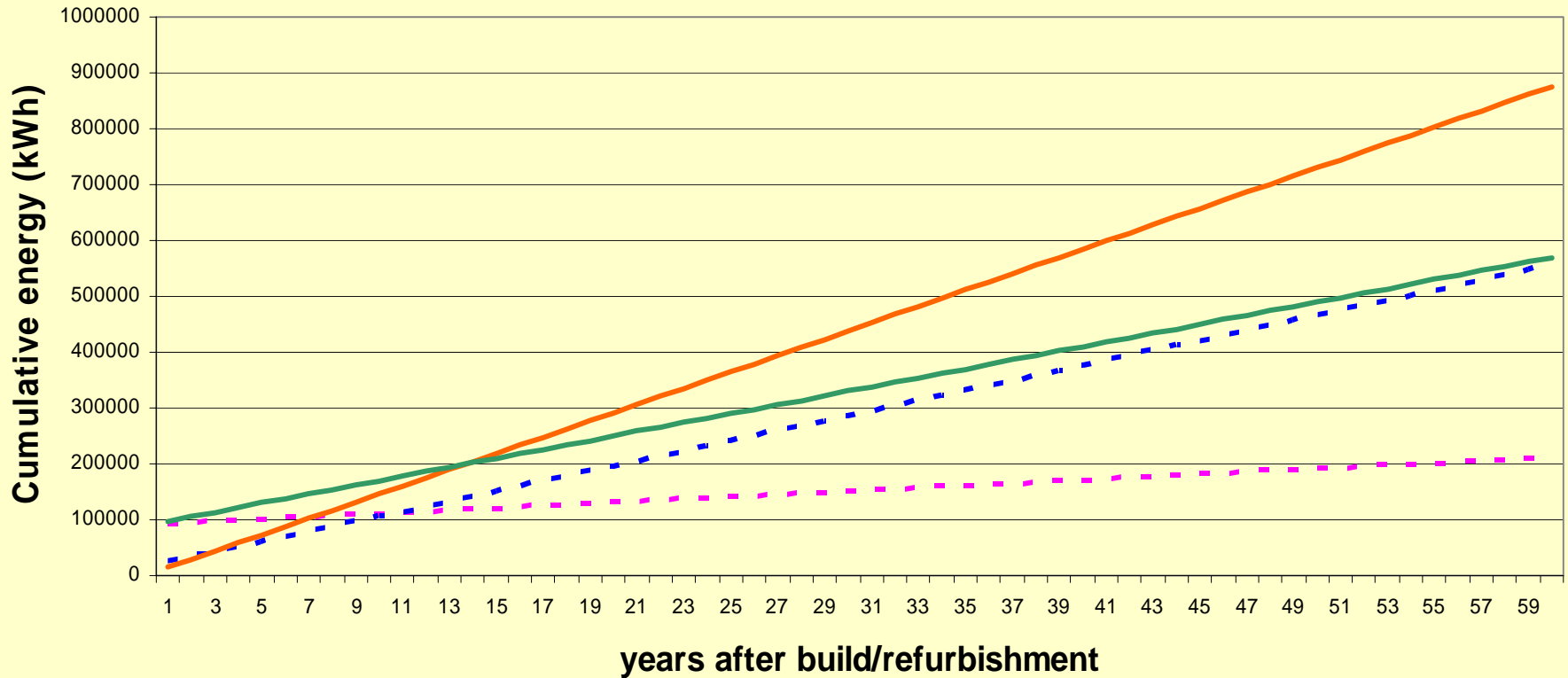
- <SAP 35 = Category 1 Hazard for excess cold, under Housing, Health and Safety Rating System
- 3m properties in UK
- Identifiable through energy performance certificates
- Often homes of the fuel poor

Heritage

- 1.2m homes in conservation areas
- And 300,000 listed residential buildings
- Overlap unclear
- 5% of all homes
- 25% of pre-1919
- Sacrosanct ?

Refurbish or replace?

Embodied and operational (space heating)
energy use



- - - new low-C - - - existing - 40House refurb - - - existing - no refurb - - - Gallions Ecopark

Demolition interactions

- Need more homes
 - Two options: spread out or greater density
- Reduce take of greenfields if rebuild to greater density on cleared sites
- Cleared sites = demolition
- Create new, strong communities vs gentrification

Communities

- Greater density of people
- More vibrant
- Less transport, partly because mixed use
- More chp and community energy
- Energy islands
- Local priorities
- Carbon targets

Thank you

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**Oxford University is the 16th largest user of
green electricity in Europe**