

## Workshop 3d

# Carbon net zero: the challenge for the housing sector and how technology can help

### Speakers:

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### Chaired by:

Stephen Chalmers

### Room:

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**NHMF**  
Maintenance  
Conference  
**2022**





[This is Earth in the next 100 years if we don't act on climate change | Ways to Change the World - YouTube](#)

# Scale of challenge



- Homes account for 23% of the UK total CO2 emissions
- £330bn needed to reach 2035 energy efficiency targets
- Policy interventions don't go far enough
- Taxation will without doubt be needed to meet targets

# Our Challenge

**KEY:**

Units: Single lettable dwellings

Cores: Internal communal areas of buildings

Buildings: Structures containing multiple lettable dwellings

Estates: Multiple buildings sharing the same common areas



## Victorian Properties



- 10101 Units
- 2486 Cores
- 2658 Buildings
- 215 Estates

- Most poor performing homes (4539 below EPC C)
- Second highest repairs per unit (4.46 repairs pupa)
- Most investment required (£16k pu over 10 years)
- Most homes in conservation area (59%)

**Typical issues:**

- Damp / mould
- Disrepairs
- Low energy performance



## 1900s to 1950s Properties



- 8527 Units
- 1464 Cores
- 1644 Buildings
- 333 Estates

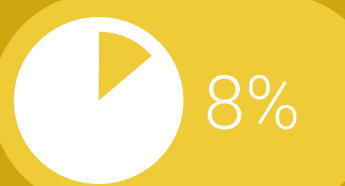
- Avg investment per annum
- 3802 homes below EPC C

**Typical issues:**

- Asbestos
- Disrepairs
- Leaks
- Low energy performance



## 1950s to 2000s Street Properties



- 5741 Units
- 119 Cores
- 310 Buildings

- Highest level of repairs (5.53 repairs pupa)
- Avg investment per annum
- 2967 homes below EPC C

**Typical issues:**

- Leaks
- Low energy performance
- Disrepairs
- Asbestos



## 1950s to 2000s Blocks



- 10419 Units
- 1002 Cores
- 942 Buildings
- 323 Estates

- Avg investment per annum
- 2428 homes below EPC C

**Typical issues:**

- Potential overheating
- Asbestos



## Post 2000s Schemes



- 33458 Units
- 1485 Cores
- 1141 Buildings
- 525 Estates

- Lowest level of repairs per unit (2.81 repairs pupa)
- High levels of defects
- Lowest level of investment required (£3.7k pu in 10 years)
- Good energy performance (2176 homes below EPC C)

**Typical issues:**

- Electrical and M&E issues
- Heat networks
- Leaks
- Potential overheating



# Energy performance by archetype



## Victorian Properties

4244

Homes below EPC C

£3,189

Avg cost per unit to reach EPC C

## 1900s-1950s properties

2862

Homes below EPC C

£1,662

Avg cost per unit to reach EPC C

## 1950s-2000s Street Properties

2474

Homes below EPC C

£1,145

Avg cost per unit to reach EPC C

## 1950s-2000s Blocks / Estates

1741

Homes below EPC C

£1,008

Avg cost per unit to reach EPC C

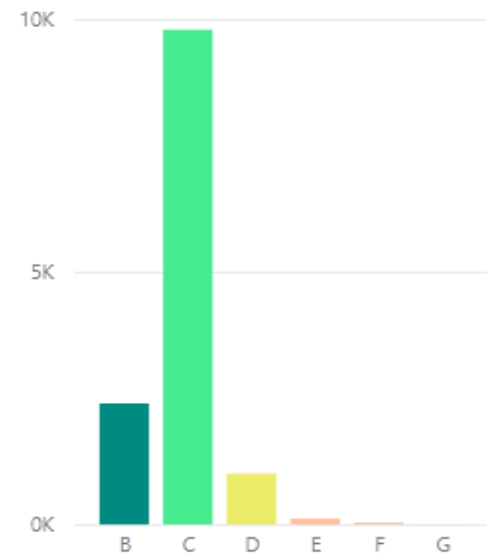
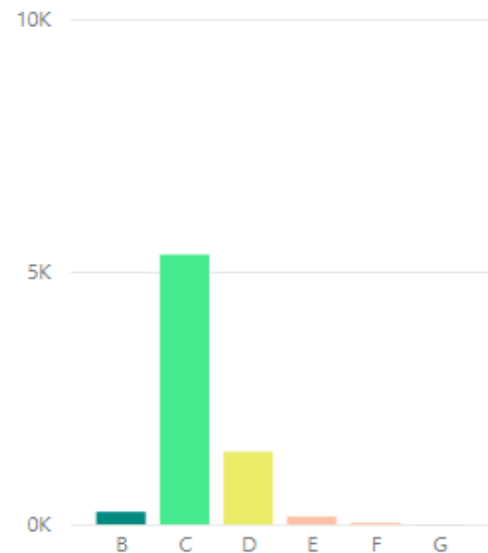
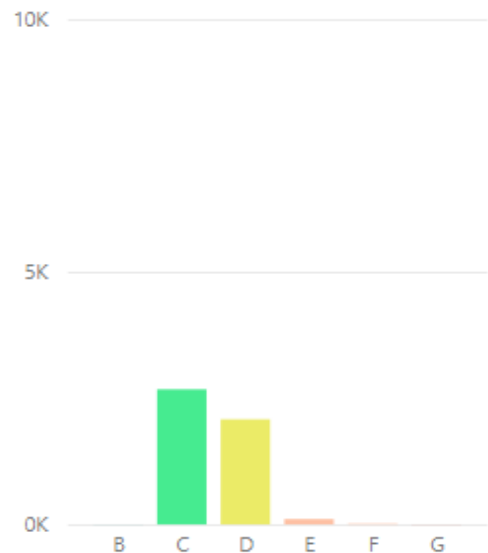
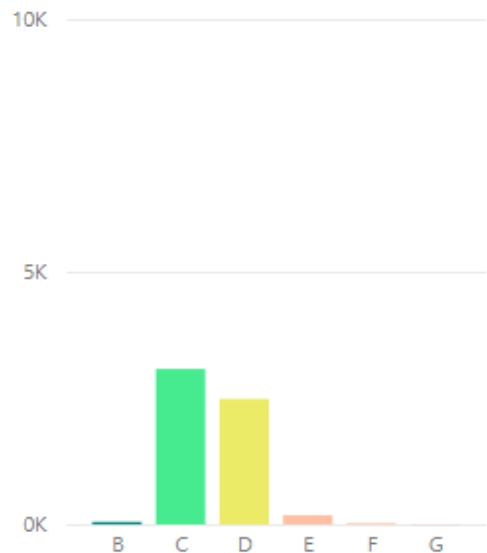
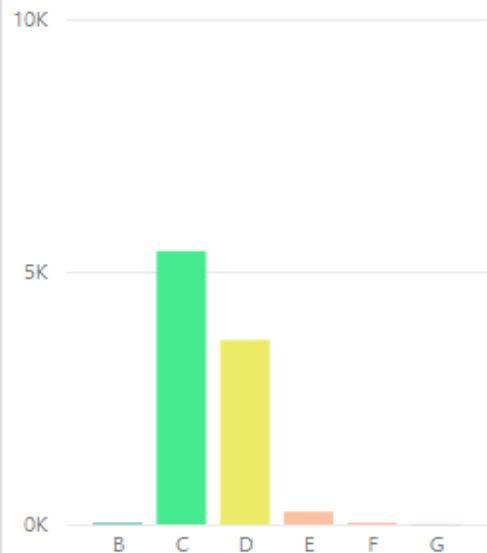
## Post 2000s Blocks / Estates

1250

Homes below EPC C

£611

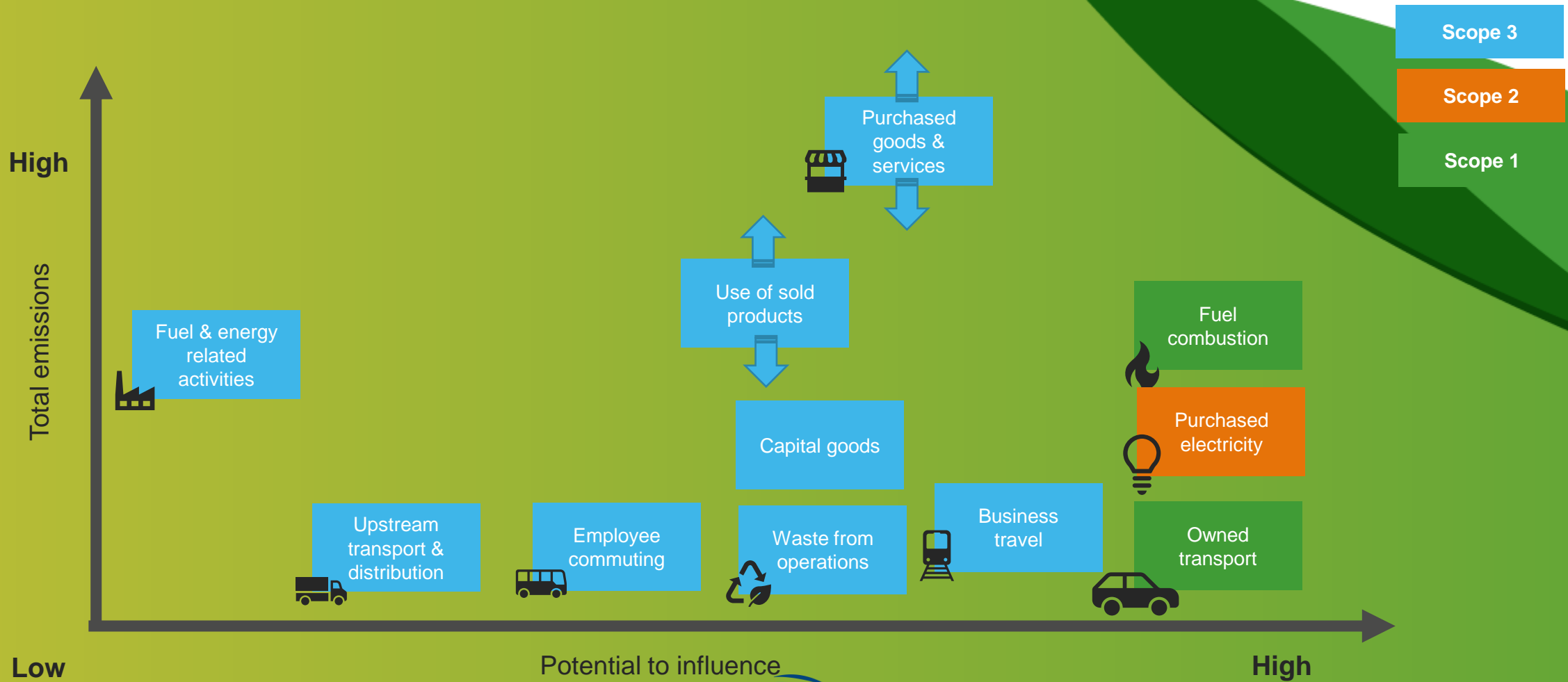
Avg cost per unit to reach EPC C



# Scope 1, 2, 3 Emissions



Level of influence vs total emissions



# Green Finance



- First green bond 2021
- £250 million – repaid over 15 years
- Focus on building homes to minimum EPC B
- Part of a wider ESG framework (SSSH)

The logo for Notting Hill Genesis is centered on a white background. It consists of a central green oval containing the text "Notting Hill Genesis" in white. This green oval is overlaid by a blue oval to its right and a yellow oval below it. A dark grey oval is also present, overlapping the green, blue, and yellow ovals. The background of the entire image features large, abstract, overlapping shapes in shades of teal, orange, and light green.

# Notting Hill Genesis