

Case studies: results and lessons

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Results from case study work

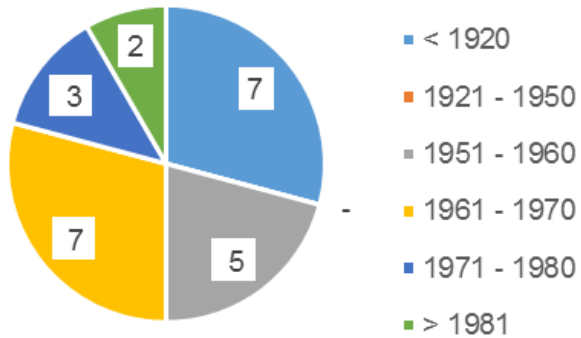
Case study buildings

Case studies

- 24 case study buildings
- 716 case study dwellings

Case study buildings

buildings per period

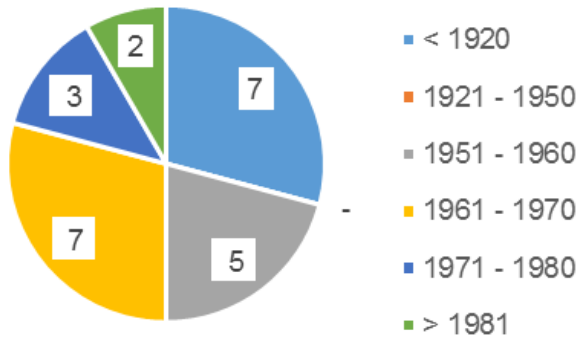


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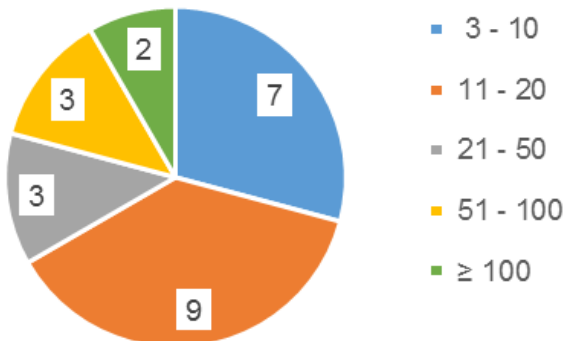
buildings per period



Case studies

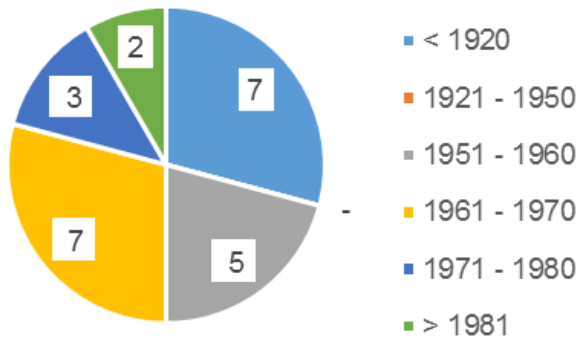
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- Range of building size: 4 – 131 flats per building

dwellings per building



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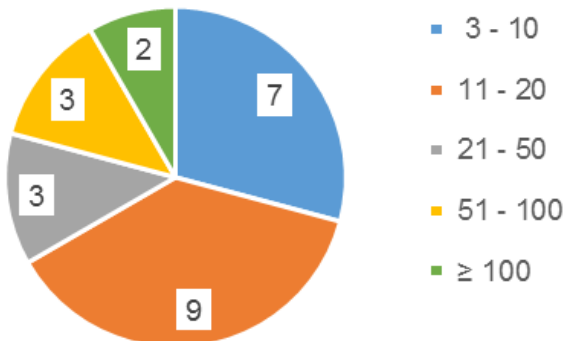
buildings per period



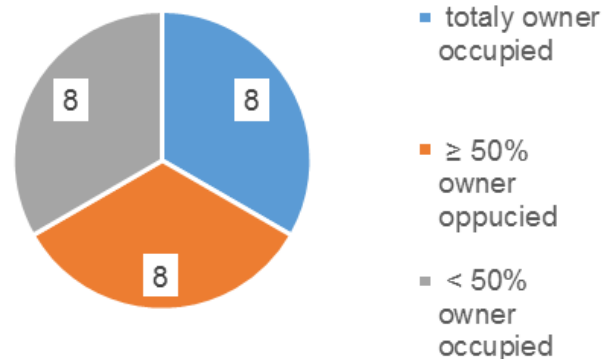
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- 7 historic buildings (2 listed buildings)
- Range of building size: 4 – 131 flats per building
- different ownership models

dwellings per building



legal relationship



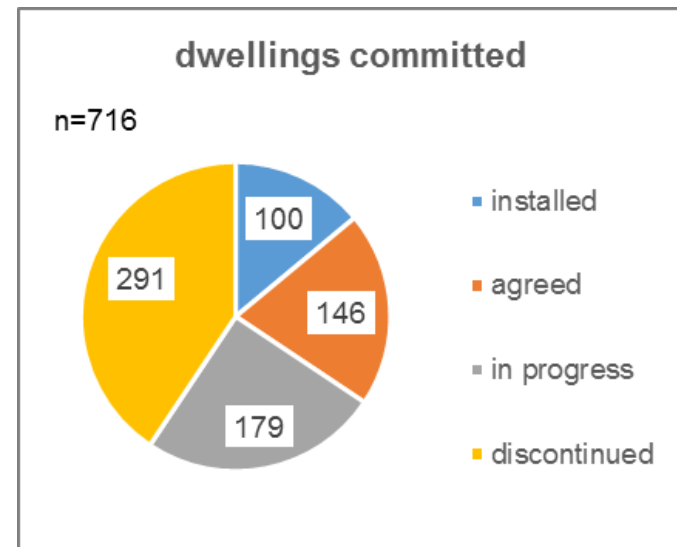
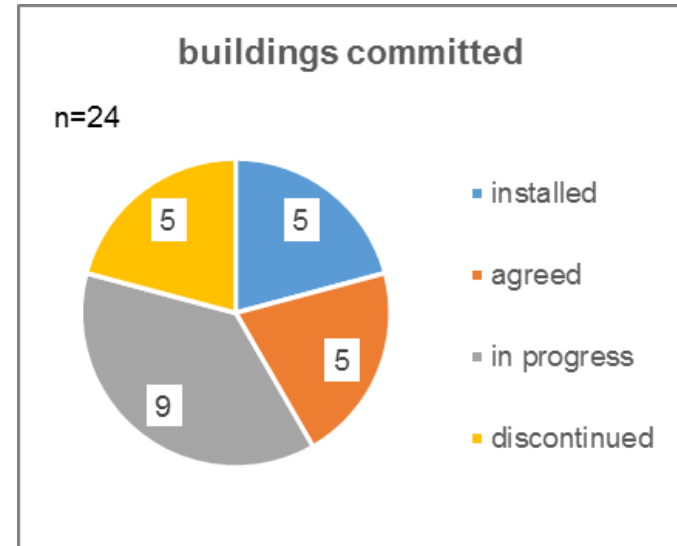
Commitments to energy efficiency

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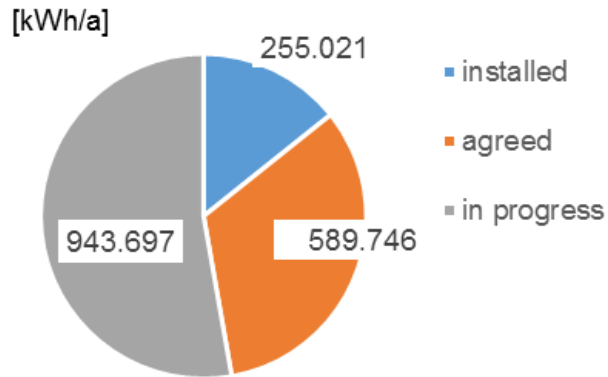
Achieved impact

- 10 buildings which have committed to implement energy efficiency measures
- 5 voted not to install measures
- 9 buildings are still in progress



Achieved savings

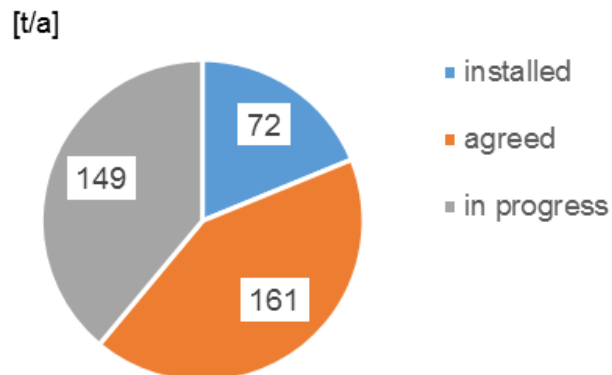
primary emission savings



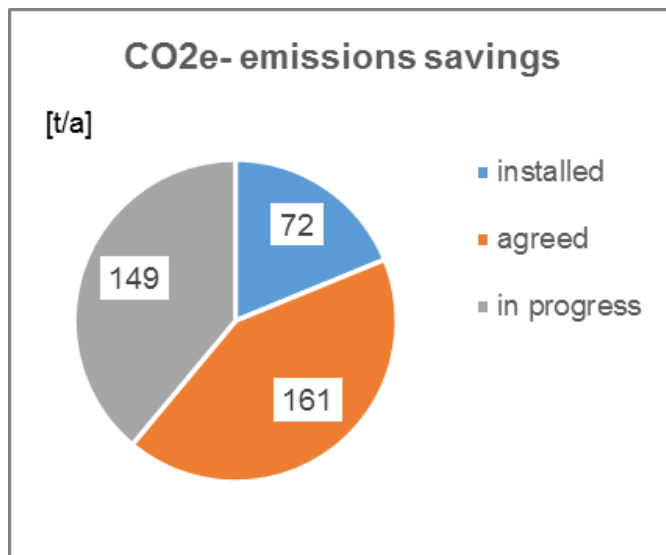
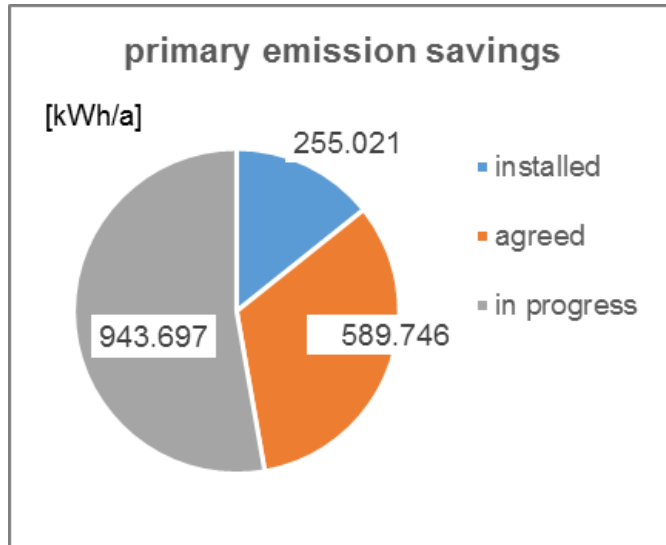
Achieved savings

- by installed measured:
 - 255.021 kWh primary energy
 - 72 tonnes CO_{2e}- emissions

CO_{2e}- emissions savings



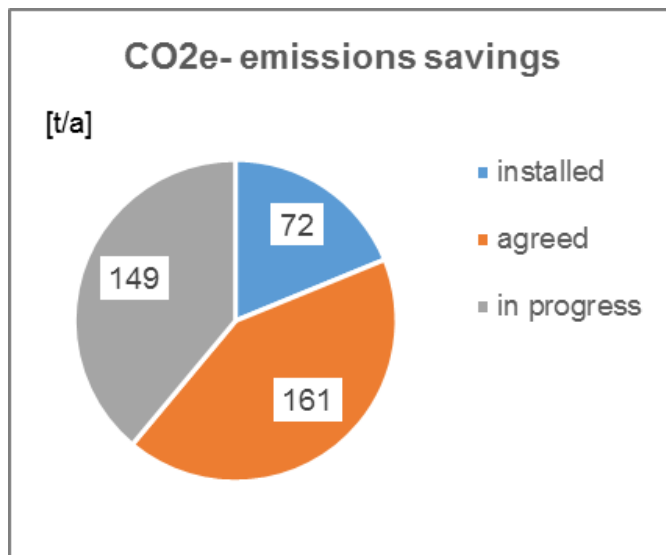
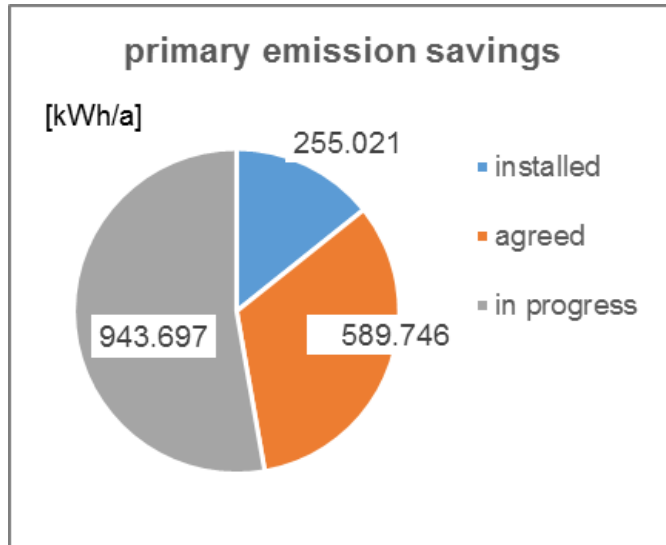
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- by agreed measured:
 - 589.746 kWh primary energy
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- Total:
 - 844.767 kWh primary energy
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- Total:
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 - 233 tonnes CO_{2e}- emissions
- Further saving potentials:
 - 943.697 kWh primary energy
 - 149 tonnes CO_{2e}- emissions

Successes: examples

Success story 1: Les Mouliniers, France



Success factors

- Demand for high EPC rating in rented properties
- Funding secured and owners could afford to contribute
- Small number of motivated owners who communicate regularly
- Impartial support provided by local energy agency

Package of
measures leads
to **72%**
energy saving

Success story 2: Vienna, Austria

Success factors

- Demand for maintenance work enables energy efficiency measures to be implemented more cost-effective
- Attractive funding available
- Some supportive owners helped to convince the community



Agreed on
2 out of 3
recommended
measures



Success story 3: Telford, Edinburgh



Success factors

- HEEPS:ABS funding
 - Free offer for residents
 - Time limited offer
- Variety of engagement methods – events, letters, door-knocking
- Trusted / impartial organisation



**25% saving on
energy bills – EWI
& LI**

Barriers: examples

Budapest, Hungary

Main challenges

- Funding
 - No Government funding
 - Owners cannot afford contributions
- Low energy prices mean payback is longer



Lyon, France



Main challenges

- Lot of private landlords
- Board members only meet once a year
 - Hardly communication in between
- Building is located within an protected area, therefore refurbishment needs special authorization
- Less available subsidies for landlords compared to occupied owners

Lessons learned

Success factors

Motivation & engagement

- Motivated leading person or group
- Consider energy- efficiency measures to go inline with necessary maintenance work

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- Defined processes for meetings and decision making
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Funding & finance

- Availability of attractive funding schemes
- Cost- effectiveness of the measures
- Financing strategy with breakdown to monthly cost

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Funding & finance

- Inadequate Government funding
- Changing funding landscape
- Lack of other funding sources e.g. maintenance funds, residents

Barriers

EPC

Barriers, why the EPC is the right mechanism trigger renovation:

- The overall understanding of the EPC content as well as the quality of recommendations are major weaknesses
- Recommendations for improvement measures are often poorly presented in the EPC and frequently too vague in respect to the specific building
- Calculations are repeatedly based on assumptions (i.e. regarding the materials) and not always accurate enough to provide reliable recommendations
- Single dwelling EPC do not provide sufficient information / recommendations regarding the common building parts
- A lack of appropriate information regarding costs and economic viability
- A lack of understanding the figures and recommendations
- A lack of knowledge regarding the EPC and its content as a whole
- EPC rating has low impact on the market

Thank you

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