French policies for energy efficiency in buildings

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The building sector: Leverage of the French Energy Transition

Commitment to cut GHG by 2050 to 75%

- to lower final energy consumption to 50% below 2012 levels by 2050
- to increase the share of renewables in the energy consumption to 32% in 2030

Building sector: 45% of final energy consumption, 60% of heating consumption, and 27% of GHG
Low performance level at EU level (focus on residential)

Unit consumption per m² for space heating scaled to EU average climate

Source: ODYSSEE MURE project
What are the main success drivers in Ireland and the Netherlands?

Ireland
- Fuel substitution (e.g. coal/peat to oil/gas)
- High construction rate with tighter regulations in 90’s
- Insulation programs

The Netherlands
- Building codes and very active policy (2.5 million dwellings from 1978 to 1987)
- Large diffusion of condensing boilers
- Extensive insulation measures in existing dwellings
Why such a discrepancy in France?

• ¾ of stock was built without building code (BC)
• 1% of the stock renewed each year (nZEB requirement)
• BC requirement on renovation only since 2005

➔ Substantial energy savings will be needed from new and especially existing buildings during the next several decades

Dwellings according to construction date in France

Source: ZEBRA project
Renovating the French building stock: A national priority (the targets)

- To reduce the final energy consumption in the building sector by 28% in 2030
- To bring the entire building stock to the nZEB levels by 2050,
- And prior 2025 all private residential buildings >330 kWh/m2/yr must have undergone an energy renovation
Renovating the French building stock: A national priority (the means)

- **Complete policy package:**
  - Regulatory: building code, EPC, etc.
  - Incentive: soft loan, credit tax, white certificate, etc.
  - Targeted programs dedicated to fight against fuel poverty
  - Communication: one stop shops

- **The National Plan:** 14 bn€ euros over 5 years to promote and accelerate the thermal renovation of buildings (incl 4.8 bn€ targeting public sector buildings).
To massify renovation:
500,000 retrofitted buildings/yr

To vitalize/attract renovation with step-by-step approach:
quick wins with lower financial constraint, but:

- May not be optimal and eventually involve higher costs
- May lead to more discomfort and disruptions for consumers

→ nZEB compatible
## Successes and Challenges

<table>
<thead>
<tr>
<th>Successes</th>
<th>and</th>
<th>Challenges</th>
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<tbody>
<tr>
<td>• individual coaching;</td>
<td></td>
<td>• ...still 40% of thermal renovation are light</td>
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<td>• Popular incentives (+fuel poverty target);</td>
<td></td>
<td>• ➔ avoid lock-in effect and incentivise deeper renovation</td>
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<td>• Training for professionals</td>
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<td>• Make renovation more sexy!</td>
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<td>France has one of the highest annual renovation rates (ZEBRA2020)...</td>
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<td>• Barriers: no clear definition &amp; compliance; split incentive dilemma;</td>
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<td>poor quality of EPC...</td>
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My guess about France positioning in the ACEEE international scoreboard?

France is a good candidate

Made a lot of effort to catch up!!

If France keeps going this way the country will achieve your goals
Thank you for your attention!

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