Waking a Sleeping Giant?

Policy Tools to Improve the Energy Performance of Existing Dutch Houses

Lorraine Murphy & Frits Meijer

OTB Research Institute for the Built Environment, Delft University of Technology, the Netherlands



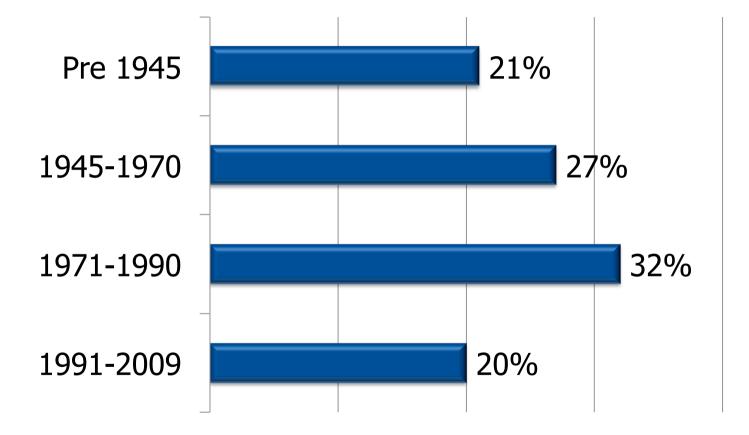
Challenge the future

Overview

- Dutch Housing Stock & Policy
- Research Overview
- Methodology
- Evaluation & Interview Results
 (Space heating & hot water private housing stock)
- Conclusions
- Questions



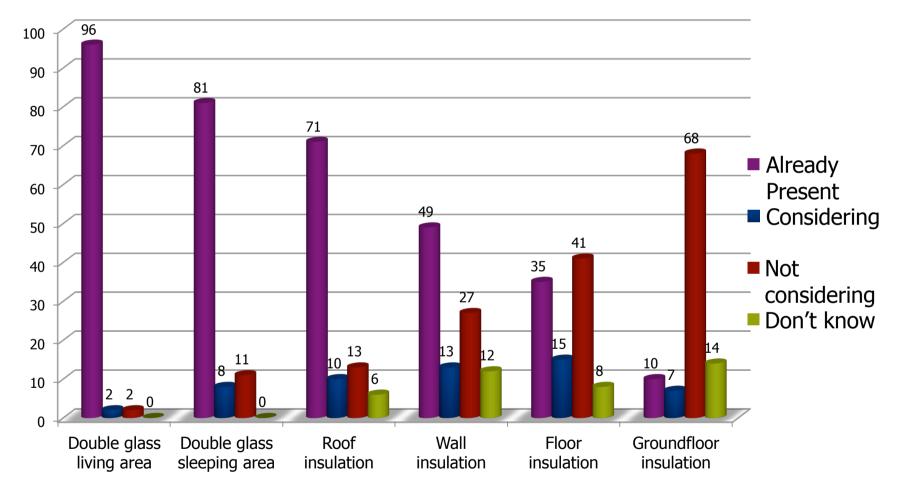
Age of the Dutch Housing Stock



Source: Syswov 2009 ABF Research B.V.



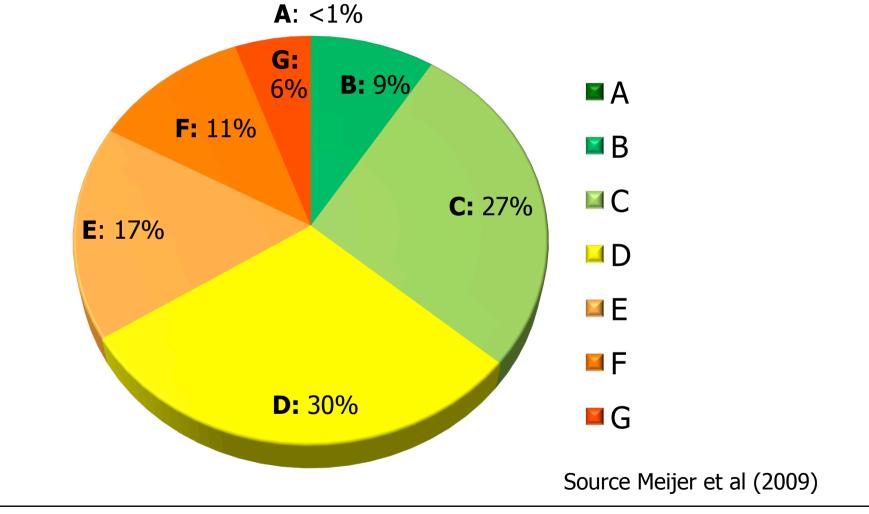
Insulation Status (pre 1980) houses



n=1,545Source: Schalkwijk & Mulder 2011 (TNS NIPO)



Recorded EPCs 2007-2009





Dutch Policy

- 20% GHG emissions reduction by 2020
- 14% sustainable energy consumption by 2020
- 2% energy efficiency improvement
- Role of the market
- Block for Block!





TUDelft

Evaluation of Current Instruments

Theory Based Evaluation



Published evaluations/data

•Stakeholder interviews (20 organisations)



Main National Policy Instruments for Private Housing

Energy Performance Certificate (Energy Label)

Covenant: More with Less (Meer Met Minder) MmM

Economic Tools

☑ Information Tools

National Building Regulations



Combined instrument packages

•Balance between obligating & incentivising

•Non-generic instruments

•Trias Energetica

•Whole house

Energy sufficiency



Energy Performance Certificate

Theory & Content

- Market demand
- 2008 & revised 2010
- No enforcement regime (yet) (16% sellers 2010)

Impact

- 2.7% price & shorter sale for A,B & C houses (Brounen & Kok)
- Cause-Effect? Measures-Recommendations (IDEAL EPBD) (5%?) (IMPACT)

Interviewees

- Weak tool but potential in obligation arrangement
- Enforcement >> impact



MmM Covenant

Theory & Content

- Market for energy efficiency
- (Alternative White Certificate Scheme)
- 2.4 million buildings 20-30% energy efficient 2008-2020 (500,000 by 2011 and 200-300,000 per annum)

Impact

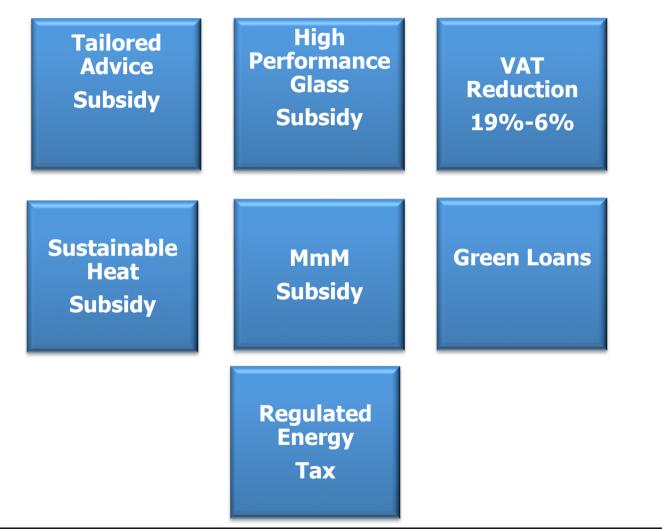
- MmM organisation-One Stop Shop, MmM Suppliers, MmM Subsidy
- Financing issues & unclear responsibilities (Schneider & Jharap 2010)

Interviewees

- Very critical targets not being achieved commitment issues
- Average EPC of 'B' discussion point

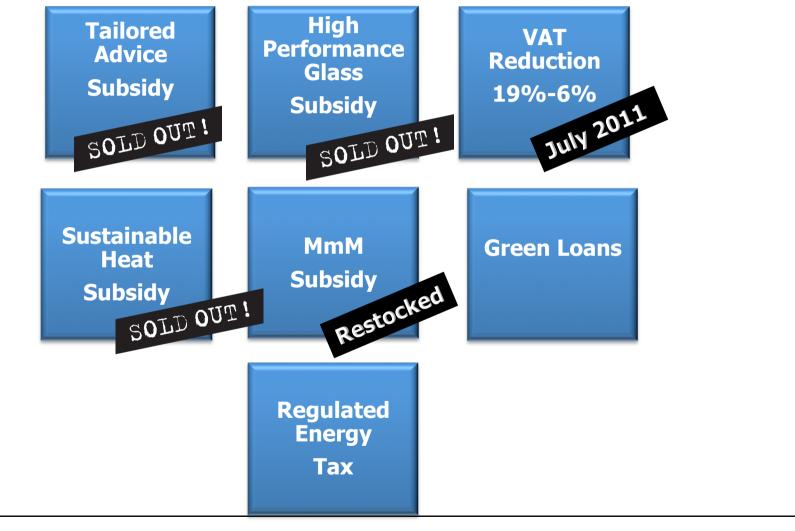


Economic Tools





Economic Tools





Economic Tools

Theory & Content

- Polluter pays
- Lower income groups/starters
- Develop market for renewable technologies

Impact

- Energy tax little impact (BZK 2010)
- Subsidies & green loans modest & temporary (Hamilton 2010; Noailly et al 2010)
- Lower income/starters? Renewables?

Interviewees

- 'Complex', 'Unpredictable', 'Temporary', 'Free Riders'
- MmM subsidy integrated concept







Information Tools

Theory

Remove information barrier

Impact

- MmM daily 3000 hits>4000 national campaign
- Milieu Centraal 2008: 5,400 questions, 2010: 24,000
- Tailored Advice Subsidy: 2009 27%, 2010 46% knew about had used

Interviewees

- Outside responsible bodies tools poorly considered
- Increasing interest from members/public
- More active tools required-`sending'



Building Regulations

Theory

- Establish legal standard
- Min. insulation standards during renovation
- No definition of major renovation

Impact

- Except complete renewal impact considered low
- Strengthen regs during renovation (IEA 2009)

Interviewees

- Only a minority considered potential
- Resource intensive & not effective



Conclusions

- Links needed between goals, instruments used to achieve goals & impact - cause & effect of instruments
- Some elements from some key concepts for some tools: instrument combinations, whole house but incomplete
- Interviewees reported current approach as **in-effective**, most common alternatives proposed:
- 1. Obligations with EPC linked to property tax mechanisms
- 2. Improve instruments-enforce EPC with long term financially attractive instruments



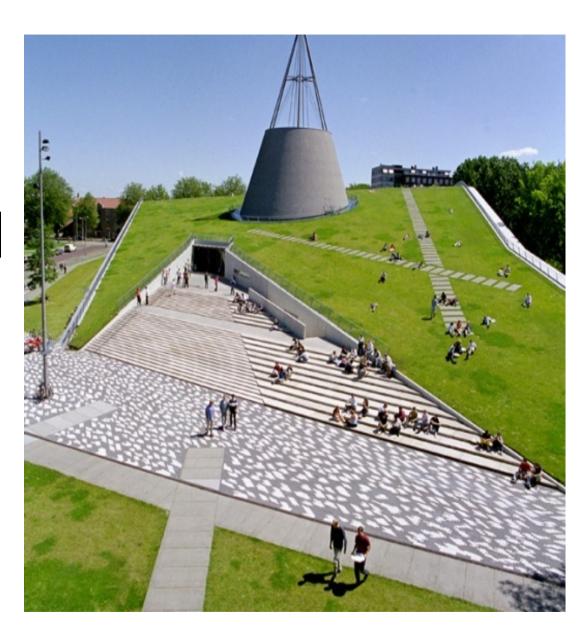
Questions

• What are your experiences with policy instruments?

- Establishing cause-effect?
- Is there (or is there debate on) obligating and/or incentivising householders?



Thank you for your attention



TUDelft