

Understanding the effectiveness of the Green Deal and the Energy Company Obligation; a study of policy impact on the retrofit supply chain.

Luke Gooding*1 and Mehreen Gul1

- 1. Royal Academy of Engineering Centre of Excellence in Sustainable Building Design, Heriot Watt University, Edinburgh, UK.
- * Corresponding author: Royal Academy of Engineering Centre of Excellence in Sustainable Building Design, Heriot Watt University, Edinburgh, UK. Img31@hw.ac.uk



Research Outline

- Part of a larger research project assessing retrofit policy impact upon the supply chain.
- Presentation covers initial data gathered from Green Deal/ECO assessors and installers.
- Linking on the ground data with existing literature detailing barriers to retrofit growth.



The Green Deal, an aims and results mismatch.

Limiting of government support in domestic retrofit

Focus on private industry delivery

The Green Deal

Results



Policy learning from the EERS sector

- The Energy Efficiency Retrofitting Services (EERS) sector have been enlisted with delivering the Green Deal.
 - Consisting of businesses focused on delivering the aims of policy and retrofitting existing housing stock, whilst also generating economic growth.
- On the ground policy learning, gathering data from EERS sector actors utilised to assess reasoning behind policy aim and results mismatch.
- Results contribute to ongoing policy learning, offering insight into the effectiveness of policy upon the financial, operational and growth characteristics of businesses.



Existing evidence regarding policy/ EERS sector ability mismatch

1994

• 100,000 Cavity Wall Insulation installations carried out.

2005

 Carbon Emission Reduction Target (CERT) pushed industry and promoted CWI, installations grew to 550,000.

Green Deal

- Green Deal funding for CWI less than CERT.
- Even if Green Deal could produce 550,000 per year, it would take 24 years to insulate the 13.1 million homes in need of treatment.



Barriers inhibiting energy efficiency at scale

Barriers limiting demand for EERS sector services.

- Imperfect information
- Form of information
- Credibility and trust
- •Inertia
- Bounded rationality
- Principal agent problem
- Building Heterogeneity

Barriers inhibiting the growth of the sector and limiting new business entrants into the industry

- •Hidden Costs and Access to Capital
- Organisational barriers



The power of the Green Deal to break down barriers, gathering data.

Semi- structured interviews with EERS sector practitioners operating with the Green Deal and ECO day to day.

Interviews covered:

- -Policy delivery
- -Delivery chain formation
- -Changes in industry
- -Market conditions and policy



Results

Barrier to Growth	Related respondent feedback
Principal agent problem	 Risk aversion tactics prevalent. Practitioner doubt in finance availability. Constricted operational space in market.
Transaction Costs	Significant due diligence required.Additional costs for rural retrofit.Resource heavy administration.
Credibility and trust	- Use of sub-contractors cause quality issues.
Inertia	- Additional contributions are required from end users.
Form of information	Tailoring of information prevalent.Tailoring is resource heavy.
Organisational barriers	 Fluctuating work volume encourages sub-contracting model. Need for more opportunities for SMEs.
Imperfect information	- Good communications enables information provision.
Bounded rationality	- Problem solving required to calculate interest rates.



Breaking down the barriers?

- Complex operational relationships are causing distrust and therefore risk aversion tactics.
- EERS sector business operations require numerous areas of overheads and costs, causing little sector growth.
- Policy/sector interactions show policy mechanisms are unsuited to drive innovation and additional capacity.
- Mixed opinions from businesses as to the effect of the policy on how the end user perceives the EERS sector.
- Confined boundaries limits overall impact of policy.



Thanks for listening, any questions?

Contact:

Luke Gooding Img31@hw.ac.uk