

Social networks and household energy efficiency

The role of place & the strength of ties in community interventions

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Background

Reasons for research

–National policy aims:

- 29% reduction in CO₂ emissions from domestic sector by 2020
- 80% reduction in CO₂ emissions *overall* by 2050

–Common belief that lack of knowledge is partially responsible for slow change

Two key theories

1. Diffusion of innovations = The process by which an innovation is communicated through certain channels over time among members of a social system (Rogers, 2003)
2. Social capital (social networks) = resources embedded in a social structure which are accessed and/or mobilised in purposive actions (Lin 1999).



Background: relevance of communities

Role of place

- Most energy policy is national, but recent focus on communities
- Intermediaries
 - Facilitate local initiatives & foster local connections,
 - Help build trust which government or energy companies would not be able to do so well at that level

Strength of ties

- Weak ties (acquaintance, colleagues, etc)
 - Important for information diffusion, as we tend to know all information within our strong ties
- Strong ties (family, friends)
 - Important for information diffusion as information coming from them more influential

Background: case study communities

- Three communities
- Data collection in 2008/2009
- Mixed methods
 - Quantitative = postal survey with households
 - Qualitative = focus groups with households and community groups



Qualitative evidence (Focus groups)

- Focus groups
 - 1 focus group in each community with local energy efficiency group
 - 1 (or more) focus group in each community with householders
- Seemed to indicate that householders in villages *trusted* the intermediaries (in particular in English and Scottish communities)
- Community of communities

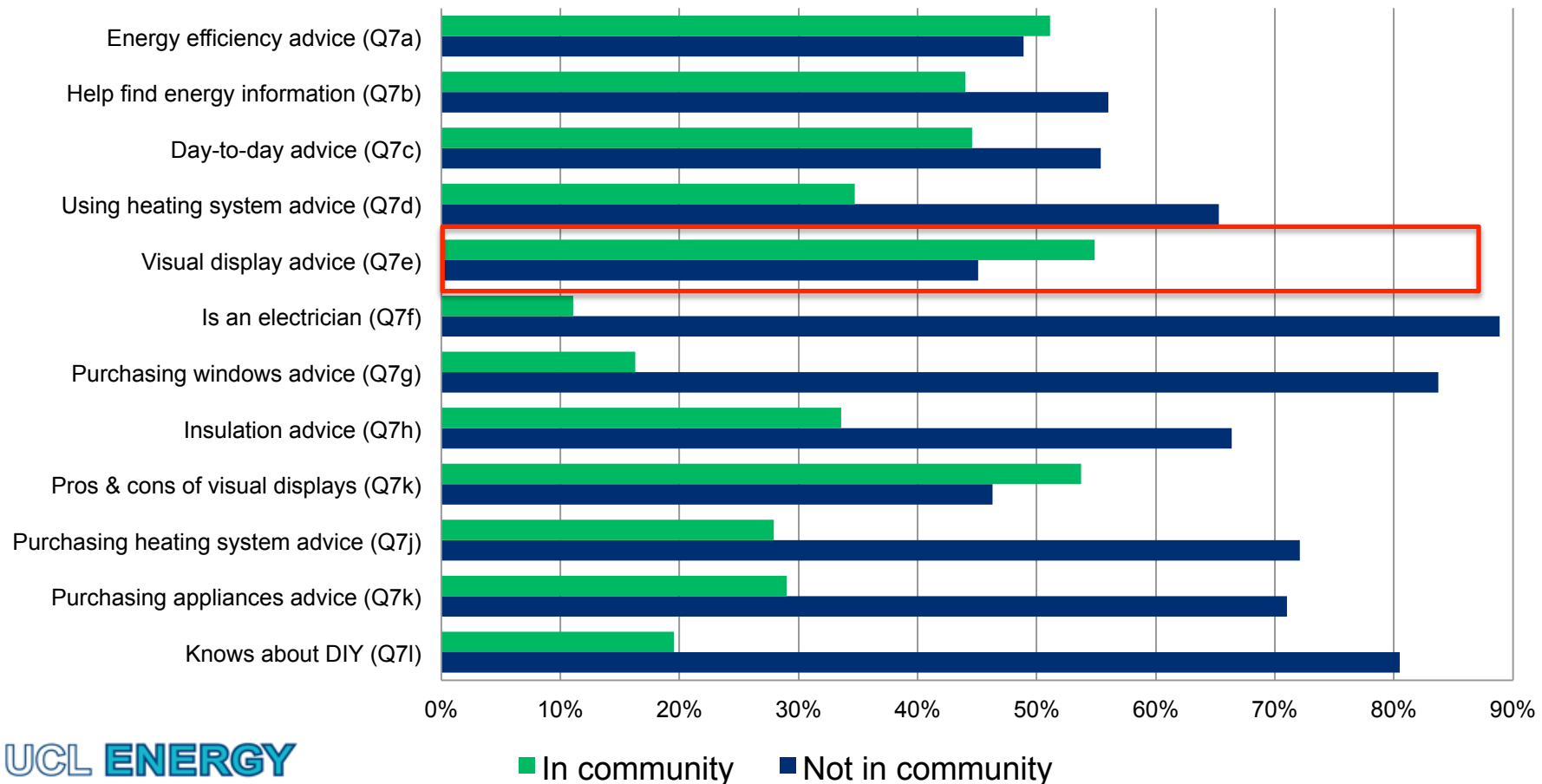
Quantitative evidence: Measuring social capital (embedded resources)

- Who could people *potentially* approach for energy efficiency information?
- Measured with a “Resource Generator”

Do you know anyone who ...		How do you know them? Please tick as many as apply									
		No	Yes		Immediate Family	Wider family	Friend	Neighbour	In A lyth but not immediate neighbour	Colleague	Acquaintance
a	... would give you sound advice on energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	If yes →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	... would help you find information on energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	If yes →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

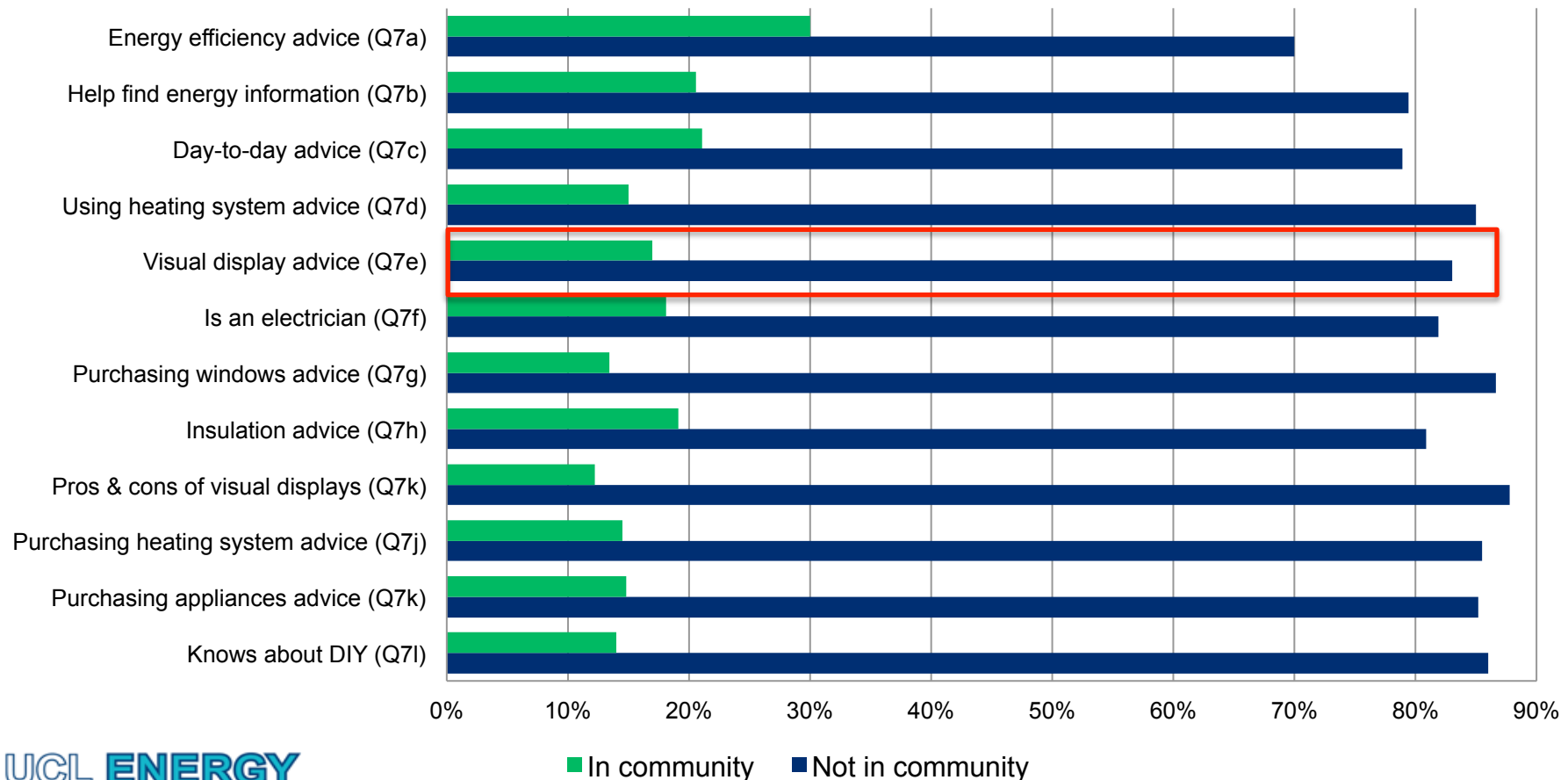
Quantitative evidence: The role of place – *potential* energy efficiency info

English village



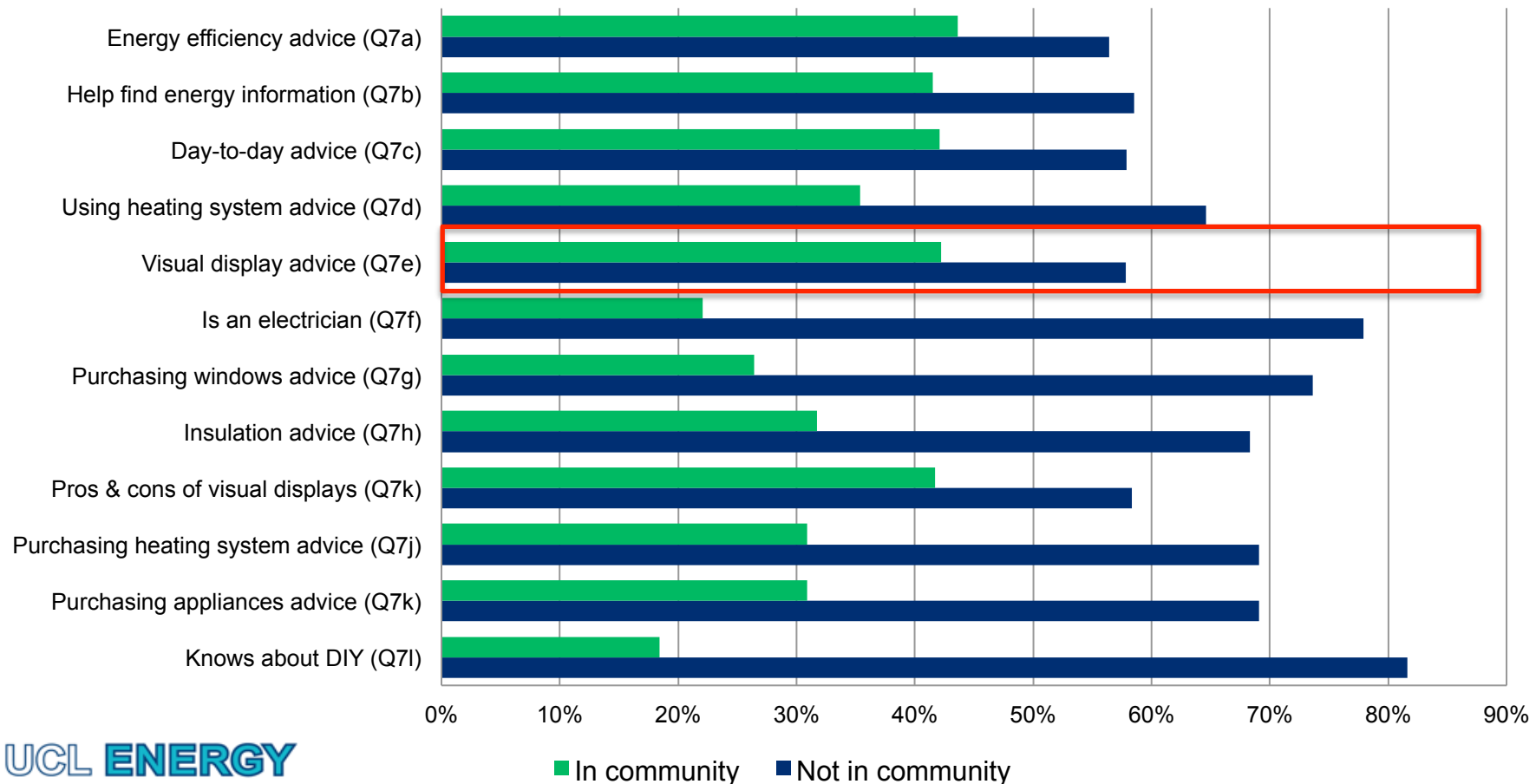
The role of place – *potential* energy efficiency info (cont.)

Welsh village



The role of place – *potential* energy efficiency info (cont.)

Scottish town



Quantitative evidence: Measuring social capital (contact resources)

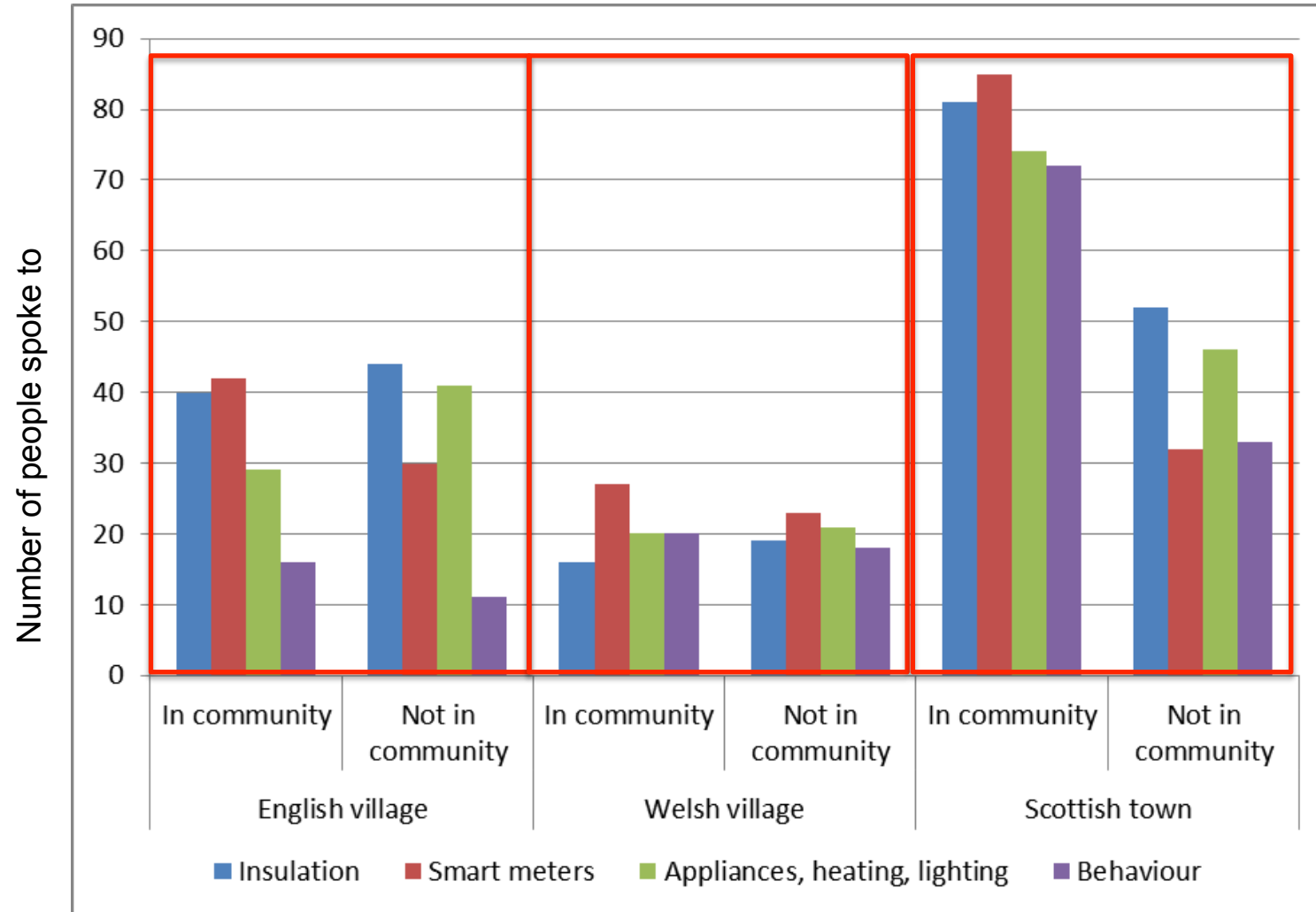
- Who have people *already* approached for energy information?
- Measured with a Name Generator

Questions 10-12: Please list up to THREE (3) people with whom you discussed insulation, or draught-proofing, or windows to get information since Sept 2007, filling in their first name (or initial) and surname initial, and answer the corresponding questions, ticking only **one box for each (a, b & c).**

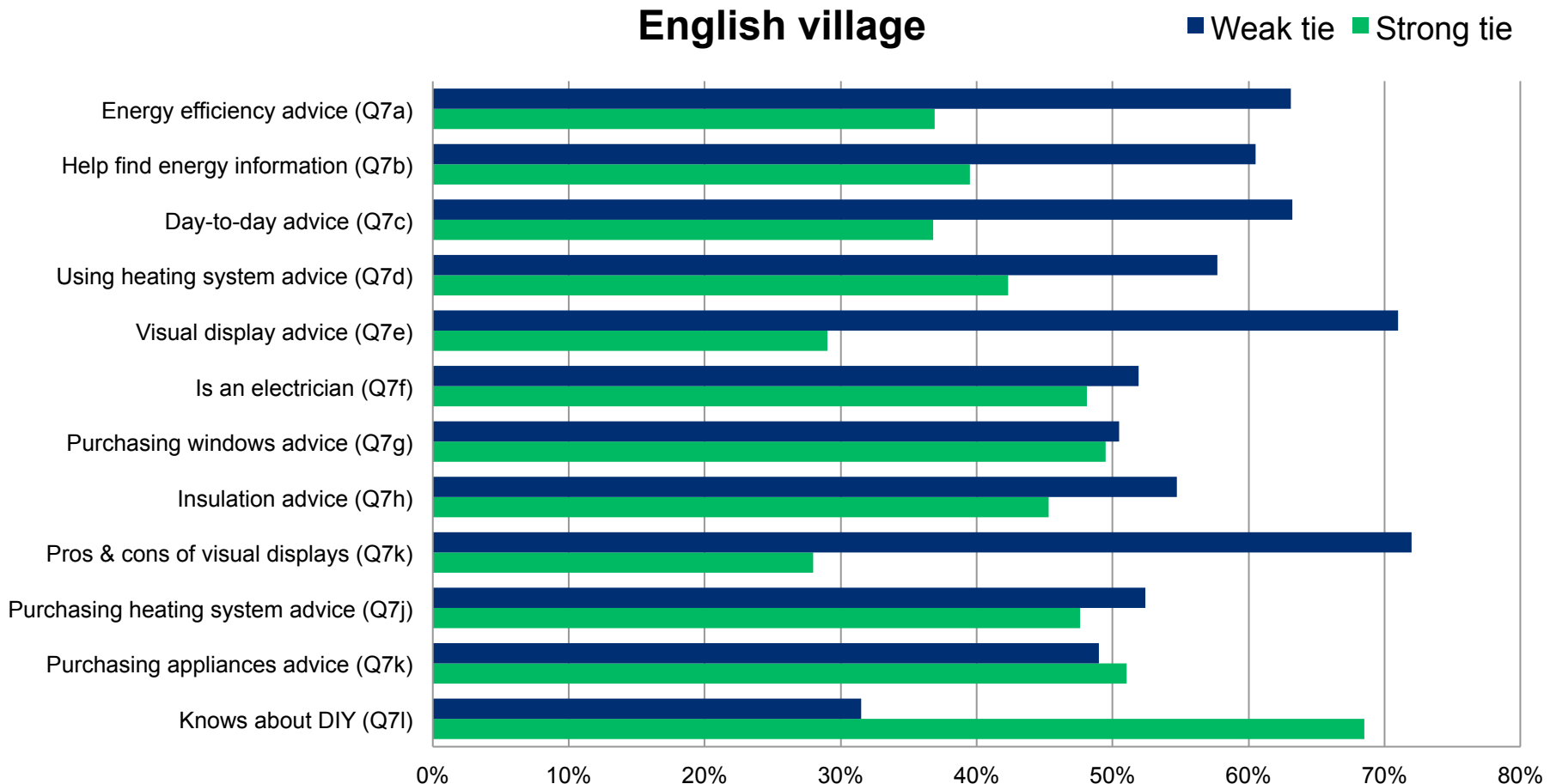
First Person

10	First Name or initial	Surname Initial				
	_____	_____				
a	Did this person seem in favour of insulation, draught-proofing, or changing windows, or not?		In favour <input type="checkbox"/>	Neutral <input type="checkbox"/>	Not in favour <input type="checkbox"/>	Don't know <input type="checkbox"/>
b	How do you know them?		Immediate family <input type="checkbox"/>	Wider family <input type="checkbox"/>	Friend <input type="checkbox"/>	Neighbour <input type="checkbox"/>
			Colleague <input type="checkbox"/>	Acquaintance <input type="checkbox"/>		
c	Do they live in Alyth?		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Don't know <input type="checkbox"/>	

The role of place – *actual* energy efficiency info

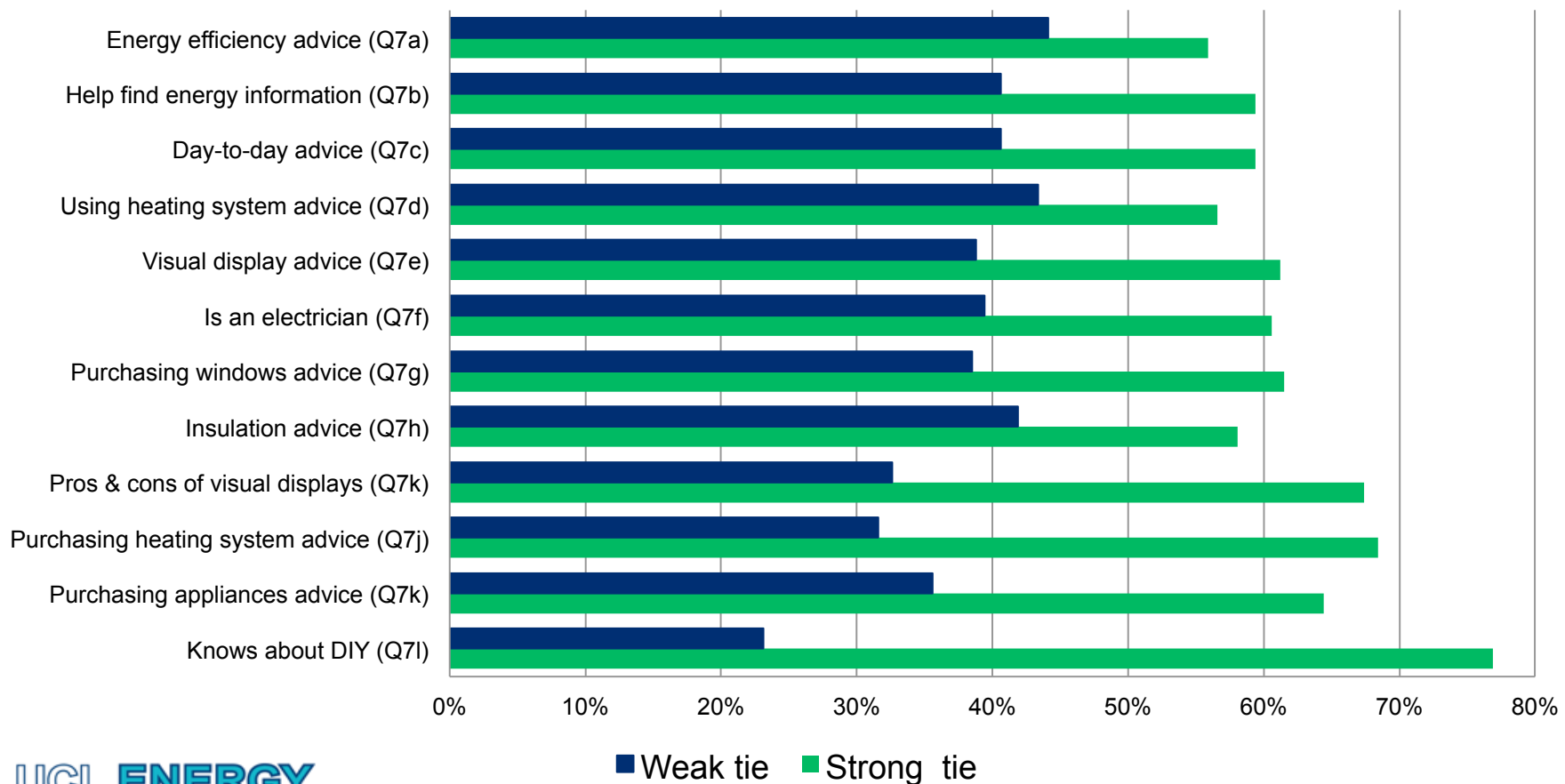


Quantitative evidence: The strength of ties – *potential* energy efficiency info



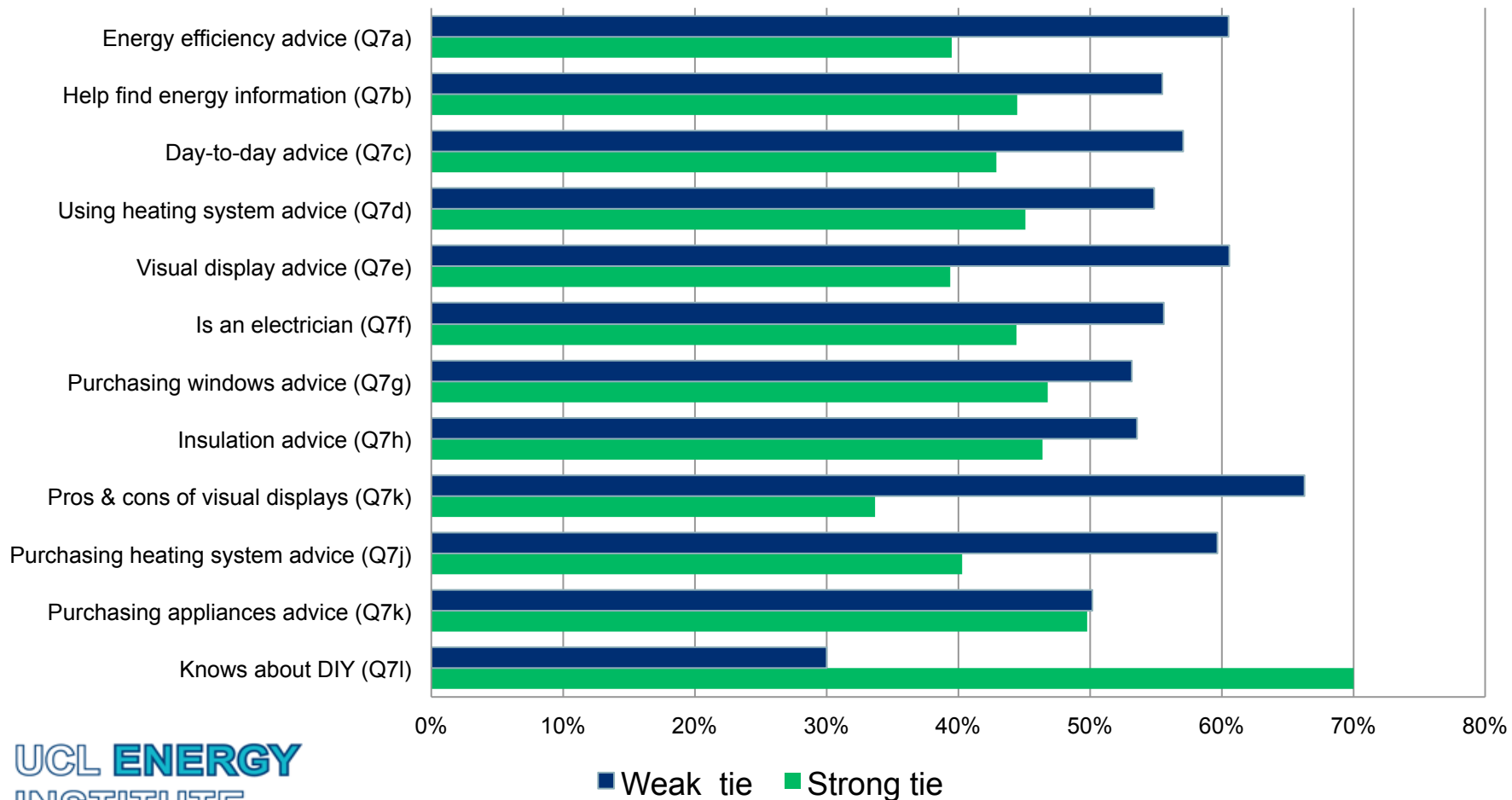
The strength of ties – *potential* energy efficiency info (cont.)

Welsh village

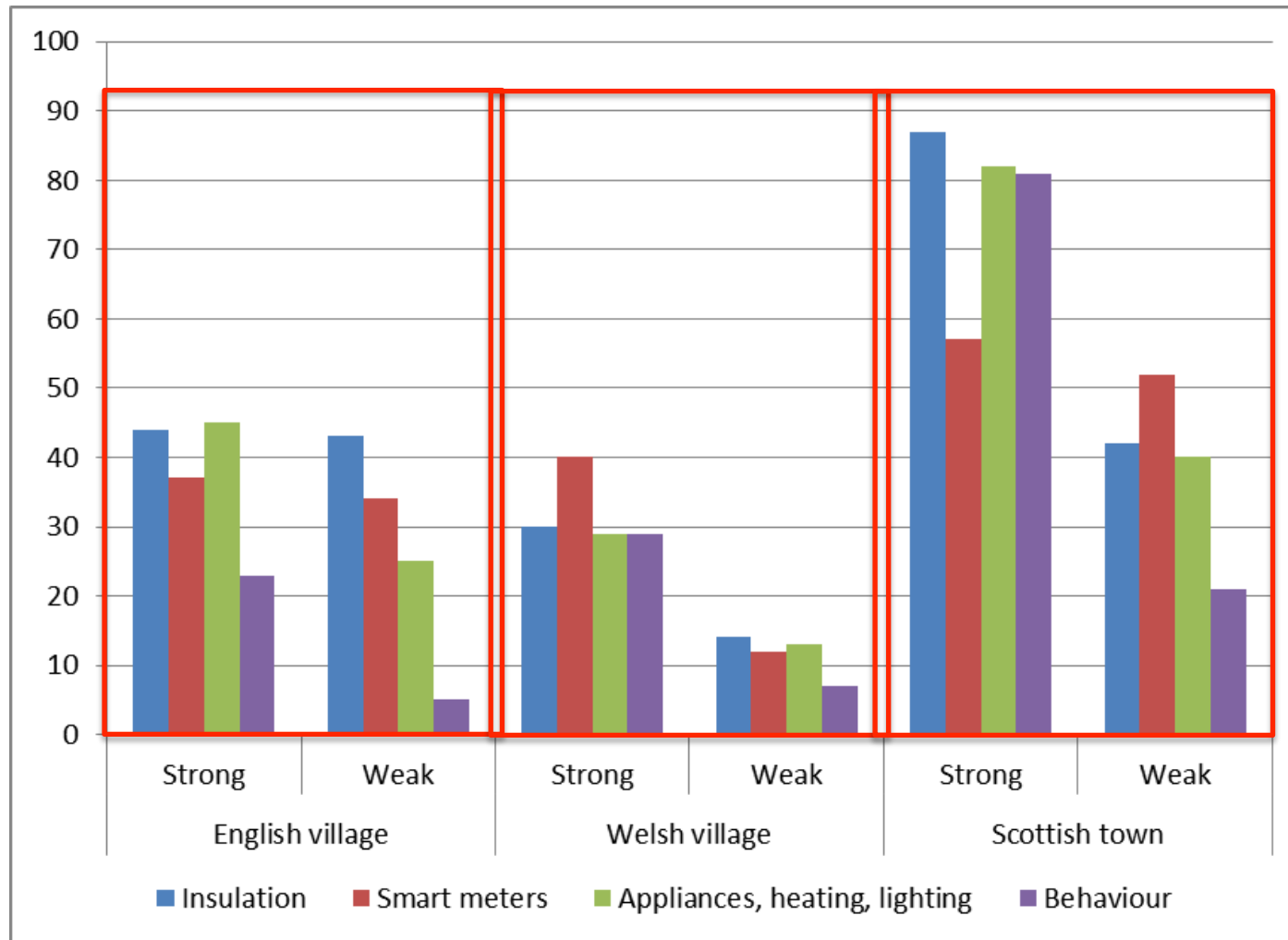


The strength of ties – *potential* energy efficiency info (cont.)

Scottish town

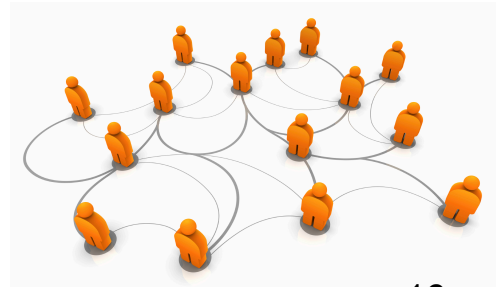


The strength of ties – *actual* energy efficiency info



Discussion

- Householders seek information differently according to:
 - Innovation type!
 - Community / socio-cultural factors
- Potential vs. actual info resources
 - English and Scottish community reported having sought advice mostly from strong ties but could imagine to rather seek it from weak ties
- Community-focus of the interventions appears to influence information-seeking of householders
- Are intermediaries particularly useful resources of information for *newer* innovations?



Thank you for listening!

Acknowledgements

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Appendix

- No correlation between ROLE OF PLACE and STRENGTH OF TIE when examining each community and each innovation group

		English community		Welsh community		Scottish community	
		Stong tie	Weak tie	Stong tie	Weak tie	Stong tie	Weak tie
Insulation etc.	In village	24	18	14	6	67	40
	Not in village	25	22	13	8	41	21
Smart meters etc.	In village	20	21	20	7	48	36
	Not in village	20	4	19	3	15	16
Appliances, heating, lighting	In village	20	10	13	7	63	34
	Not in village	27	13	18	5	36	15
Behaviour	In village	13	3	17	3	56	12
	Not in village	8	0	11	5	23	8