Devon Sustainable Building Initiative
www.sustainablebuild.org

Ecos trust

Low Carbon Existing Homes conference

The Corn Exchange, Exeter

14 July 2009





Low Carbon Existing Homes

The regional perspective: challenges and opportunities in the South West

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Head of Energy Saving Trust South West

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What we do

Our Mission:

- **Lead 60 million people to act on climate change**

Our Vision:

- **Every home becomes a low carbon home**

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Why low carbon homes?
43% of emissions; most cost effective

- More ***energy efficient housing***
- Lower energy ***consumer products***
- More ***renewable energy*** and more ***microgeneration***
- An increase in ***energy saving behaviour***
- Sustainable low carbon personal ***transport***
- More efficient use of ***water***
- Less ***waste*** generated

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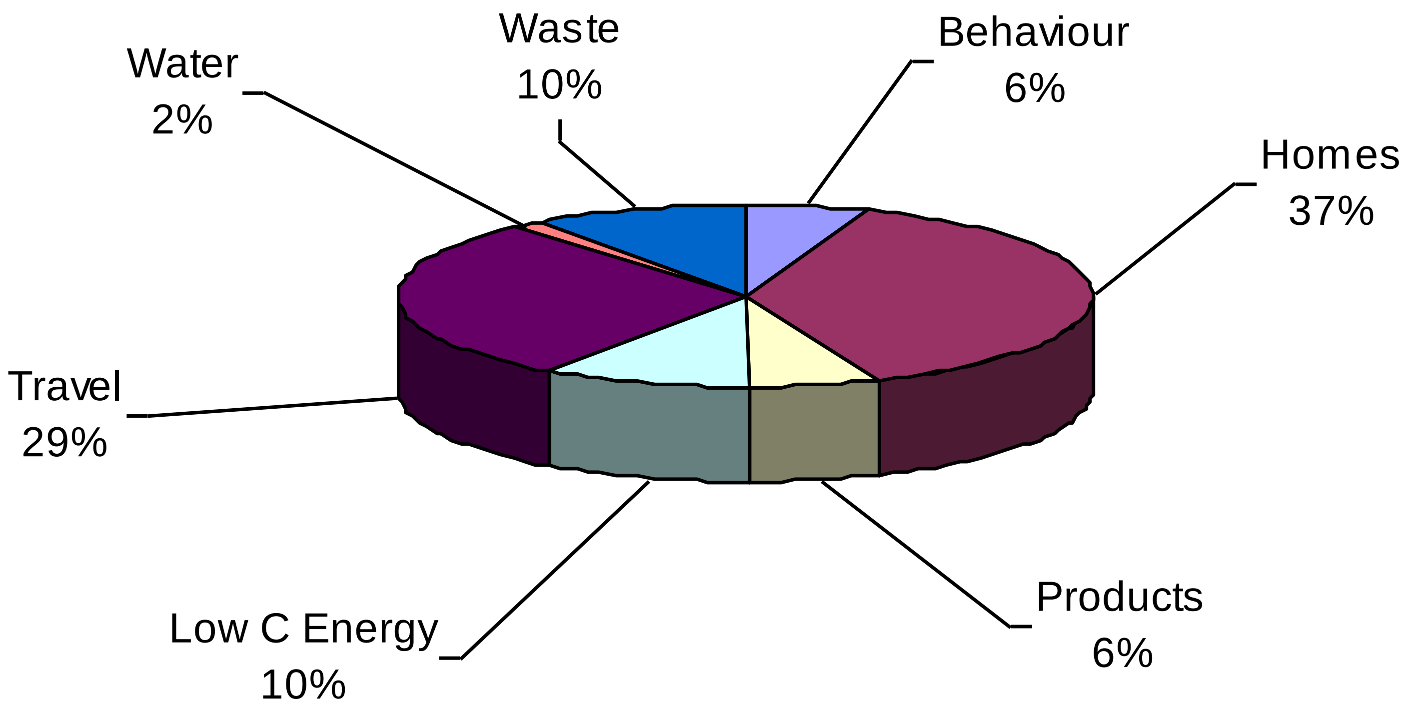
Why these areas?

Annual Savings Potential at 2020



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Context

- 34%+ reduction by 2020 – statutory UK target
- 80%+ reduction by 2050 – statutory UK target
- www.onehundredmonths.org
- Domestic Housing and Transport – frontline carbon reduction solutions: ‘quick’, cost effective
- economic and social benefits – jobs, fuel poverty
- SW ‘Road to 2020’ RE – use 26tWh less energy

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SW Context

- Relatively green region
- Good strategy, but capacity to deliver?
- Large, diverse region, low incomes, low funding
- Structural change pending – SNR, Local Government Reorganisations, general election
- **SW Carbon emissions, 2006 -** 42.36mtonnes

SW Housing Stock

- The most energy inefficient housing of all English regions
- Highest proportion of homes failing the decent homes standard on thermal performance
- 37% hard to treat properties (3rd highest region), 16% off gas grid, 6% protected buildings

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SW Context

Measure	Number
Total number of households	2,121,100
Total adult population	5,067,800
Wall Type	
Cavity Walls	1,497,500
- Filled	691,200
- Unfilled	766,000
Solid (assume all uninsulated)	591,800
Other - includes cavity walls which cannot be filled due to possible rain penetration	72,100
Loft Insulation	
Estimated no's of lofts	1,906,600
- Uninsulated	49,400
- 100mm or less	1,114,900
- Over 100mm	742,300

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SW house type and tenure

House type	
Detached	625,700
Semi detached	596,000
Terraced	602,400
Flats - purpose built + converted	297,000
Tenure	
Owner occupied	1,608,300
Privately rented/other	209,800
Local authority	156,800
RSL	146,200
Vacant dwellings	143,500

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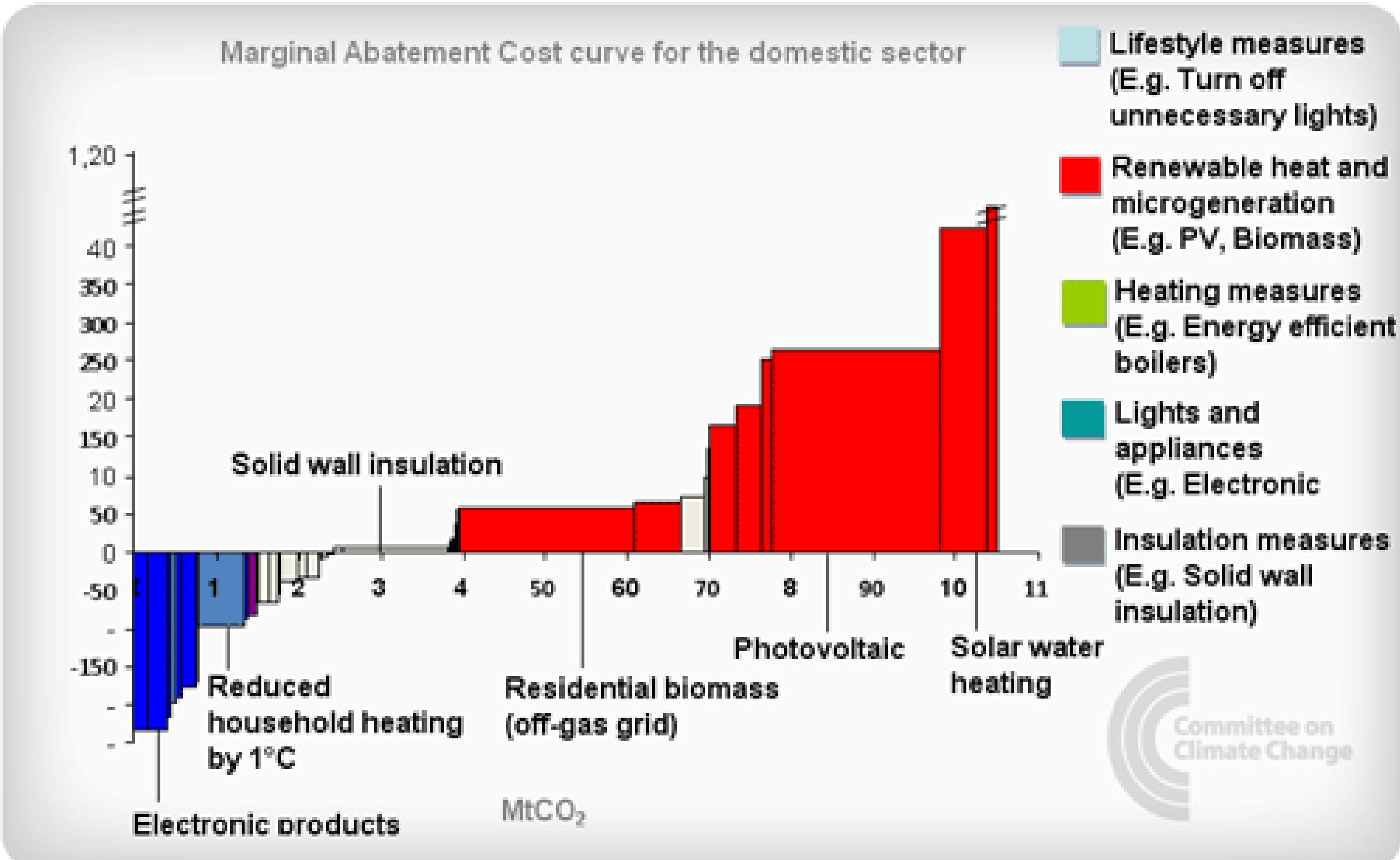
Carbon and £ - how much?



*(Committee for Climate Change)

Microgeneration – grants to SW households from 2006 (Low Carbon Building Programme)

South West	No. of applications	Grants Awarded
Air Source Heat Pump	50	£44,920
Biomass Room Heater/Stove (Automated Wood Pellet Feed)	5	£2,766
Ground Source Heat Pump	130	£155,527
Small Scale Hydro	2	£7,100
Solar Photovoltaic	390	£1,515,595
Solar Thermal Hot Water	1417	£566,181
Wind Turbine	114	£214,481
Wood Fuelled Boiler System	155	£229,682
Total	**2263**	**£2,736,255.56**

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SW costs & impacts

	Potential measures	Jobs	Total cost	GVA	Annual cost saving	CO2 saving	% SW total CO2
Cavity Wall Insulation	766,000	4,352	£344m	£120m	£89m	433,556	1.0
Loft Insulation top ups	1,164,300	7,099	£407m	£142m	£65m	241,010	0.6
Solid wall	591,800	67,263	£3,846m	£1,346m	£236m	1,124,420	2.7
Micro-generation	673,100	44,627	£3,365m	£1,178m	£134m	471,170	1.1
Total	**3,195,200**	**123,342**	**£7,962m**	**£2,786m**	**£524m**	**674,566**	**5.4**

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Routes to market?

- Whole house?
- Trigger points?
- Household demand driven?
- Area based?
- Community driven?

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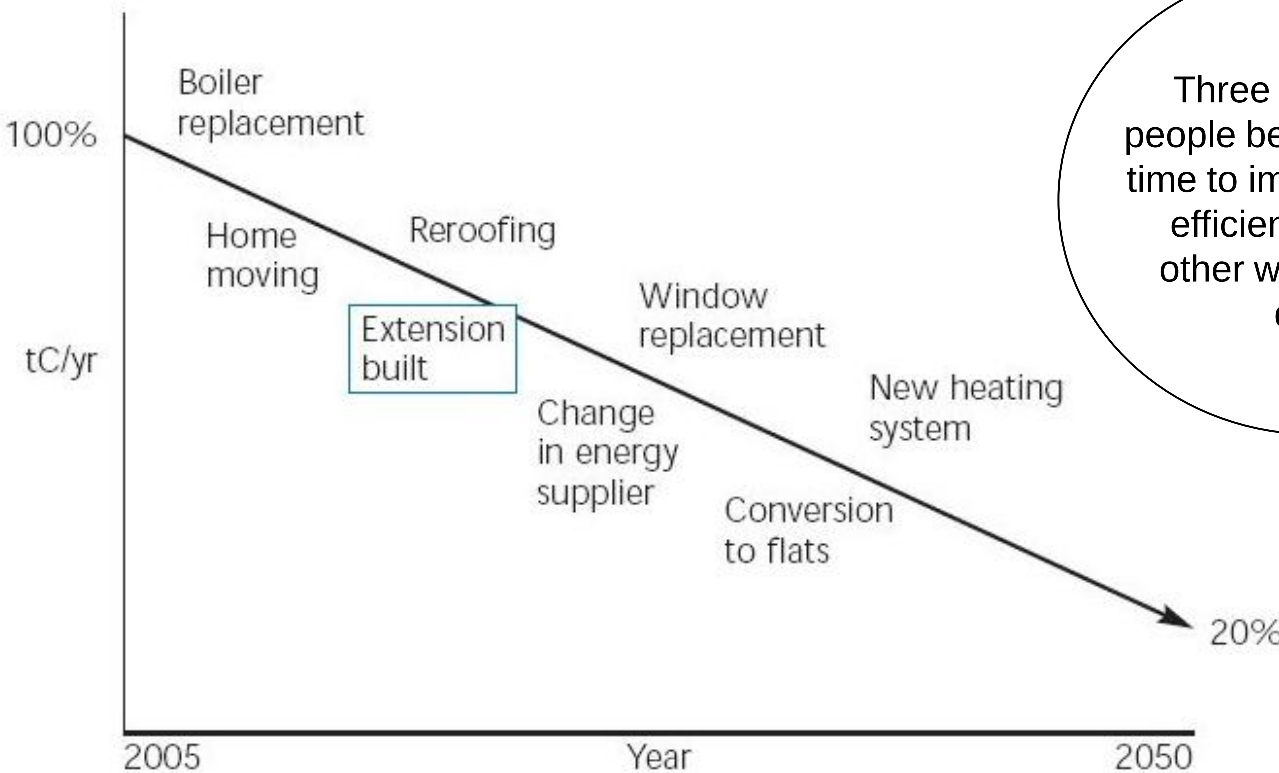
Trigger points: opportunities for improvements over the lifetime of a home



Three quarters of people believe the best time to improve energy efficiency is when other work is being done

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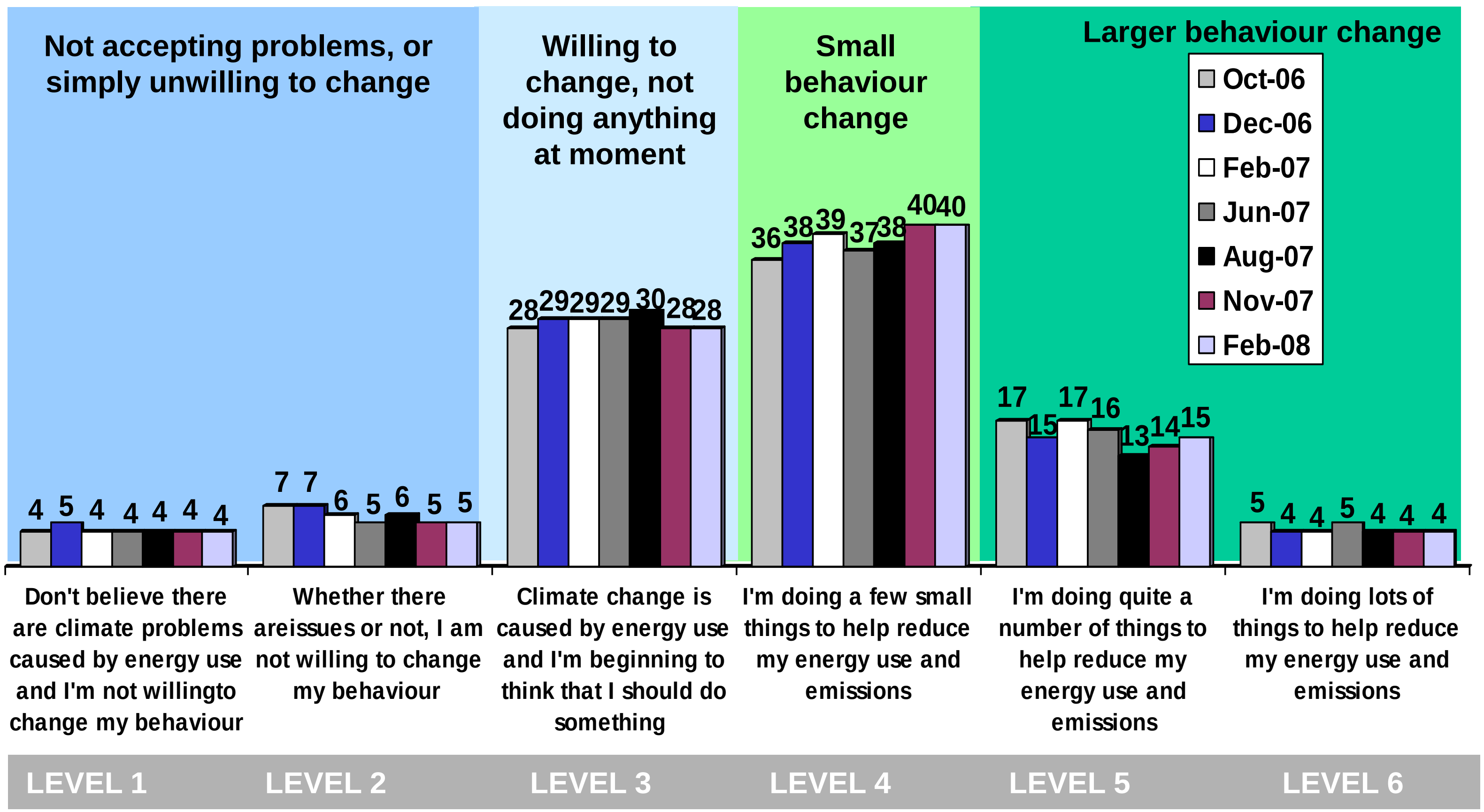
All relies on attitudes and behaviour

Overall attitude to climate change and energy use over time



How do we make it happen?

Cheaper measures – CWI & LI

- Area based schemes
- Reduce cost - £99?
- Free insulation for all? The Kirklees model
- Local authorities critical

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How do we make it happen?

Expensive measures – SWI & microgen

1. Demand stimulus and support
2. Supply chain development
3. Free, impartial customer advice
4. Actively managed, area based

Active Management
•Independent, customer focused, area and community based

Business support
•Practical, business focused

Customer support
•Free, independent advice,
•home survey, on-going support

Supply
•Know-how, training,
Skills
•Accreditation, guarantees,
Insurance,
•Access to markets

Demand
•Financial mechanisms
•Marketing
•Demonstration sites

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SW pioneers

- Stroud Homes for 2050
- Ecos Renew
- Refit West
- SW EU Economic programmes

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Government help tomorrow? - we want:

- ***Consumer advice*** from single trusted source – Energy Saving Trust advice centres
- ***Help with capital costs***, e.g. low interest loans and PAYS
- ***Feed in Tariffs*** for microgeneration – including up front payments
- ***Economic recovery*** – recognise jobs from housing refurbishment, not just large scale industrial solutions
- ***Transport*** – importance of modal shift & behaviour change (drive less/ drive smart) as well car technology

Government documents to be launched 15th July 2009

- Low Carbon Transition Plan (DECC white paper aka summer package)
- Low Carbon Industrial Strategy (joint DECC and BIS – the new name for BERR)
- Carbon Reduction Strategy for Transport (DfT)

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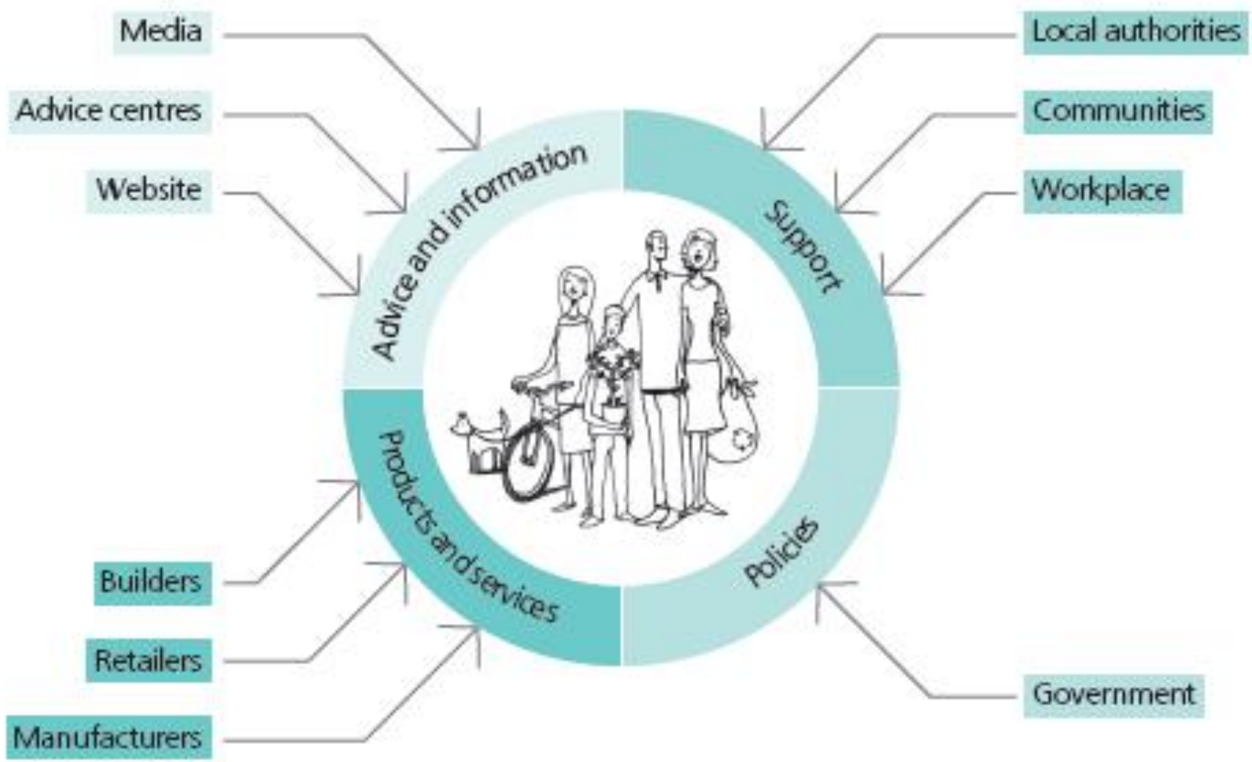
What do we need to make a low carbon lifestyle a reality?



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SW Priorities

1. Increasing speed of delivery of ‘cheaper’ measures (i.e. Cavity wall and loft insulation
2. Developing the market and supply chain for ‘expensive’ measures (solid wall insulation, micro-generation)
3. Low Carbon Living culture change

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free impartial advice
for
action on climate change

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