



Programme Area: Buildings

Project: Building Supply Chain for Mass Refurbishment of Houses

Title: Appendix 1 Summaries for the 10 Customer Segments – Greener Graduates

Abstract:

Please note this report was produced in 2011/2012 and its contents may be out of date. This document is an appendix of deliverable D4.1 of the Optimising Thermal Efficiency of Existing Housing Project.

Context:

This project looked at designing a supply chain solution to improve the energy efficiency of the vast majority of the 26 million UK homes which will still be in use by 2050. It looked to identify ways in which the refurbishment and retrofitting of existing residential properties can be accelerated by industrialising the processes of design, supply and implementation, while stimulating demand from householders by exploiting additional opportunities that come with extensive building refurbishment. The project developed a top-to-bottom process, using a method of analysing the most cost-effective package of measures suitable for a particular property, through to how these will be installed with the minimum disruption to the householder. This includes identifying the skills required of the people on the ground as well as the optimum material distribution networks to supply them with exactly what is required and when.

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Greener Graduates - Well educated singles living in purpose built flats

- 26-40
- Urban residents
- Singles, multi-occupancy, living as a couple households
- Length of residency 1-5 years
- Purpose built and converted flats
- High levels of ethnic and religious diversity
- New build properties; predominantly 2002-2005
- More likely to be owner occupied; approx 25% privately rented
- Early career - Intermediate occupations, good levels of self-employment, tertiary educated
- Receptive to online communications
- Mix of grocery shopping destinations – most likely to do with lifestyles and convenience
- Relatively good incomes Not benefit claimants
- High levels of knowledge and awareness
- Good attitudes but behaviours lagging
- Choose *some* environmentally friendly actions e.g. buying organic meat and eco-friendly goods but this could potentially be a consequence of lifestyle
- Compulsion to do something would be the main driver

Mathias Grid- Perceptions

Self perception Now	Would like to be
Well educated Good career Comfortably off Environmentally aware Energy conscious Want to do the right thing Technologically engaged Socially engaged	Better educated / qualified Excellent career with prospects Better off financially Does the right thing environmentally and tells others Excellent social life Want family in future

Perception I believe Others have of me now	Would like others to see me as
Good qualifications / job Environmentally aware Socially connected OK financially Technologically astute Got a swish flat and some gadgets Wasteful / flash	High achiever with great career Understands environmental issues and does the right thing Technology wizard Well off Centre of the social scene Got a great flat and all the gadgets

Benefits and Sacrifices

	Benefits	Sacrifices
Windows and doors	<p>Keeping original features, embodied carbon , heritage. Security. None (just changed them). Low energy bills Noise reduction. Low impact living / emissions Light / daylight improvement. Aesthetics Reduced Draughts. Thermal Comfort Cool factor – “upgrade” for older houses Upgrade of a cheaply purchased older property</p>	<p>Up Front cost Increased rent. Aesthetics of affordable products Loss of light and views (smaller windows / wider frames) Ventilation issues (open-ability). Non smash-able if you lock self out Isolation from neighbours (acoustic) Disruption during installation / redecoration Time spent calling agents Hard to find information I trust and installer / supplier So many choices If you don’t know the industry unsure of standards to look for If first in social group (early adopters) there’s is no guidance, no one to ask</p>
Insulation	<p>Acoustic – flat shares and between flats Added useable space from loft Low impact living Lower energy bills Aesthetics, int and ext. Thermal comfort Opportunity to improve dilapidated finishes (int and ext) make “cooler” Exposure of original finishes and features Increased property value Reduced condensation issues</p>	<p>Loss of space Conservation and heritage issues Planning hassle Cost Time Disruption Builders / installers need to be educated Discovery of things ou don’t want to think about Cowboy installers Information unintelligible to most buyers – spec’s need to be simpler Sources available don’t solve heritage properties Climate change Future proofing Need to educate supporters</p>
Primary Heat Source	<p>Work with smart meter and programmable controls. Unlimited hot water. Warm house immediately Controllable system. Don’t want to waste energy Don’t want high fuel bills. More space (no hot water tank) Reliable hot showers. Using less water / energy Potential to use renewable. Removal of radiators to get more space (under-floor heating) Controlling my own space / zones. Remotely controllable systems (I-Phone app) Hest recovery. Feeling better about yourself and your choices</p>	<p>Disruption. Cost.. Loss of drying space System bugs , faulty controls Convincing non green flatmates / landlords Higher rent Understanding the systems Payback risk Incentives may lead to inappropriate installations Need t educate occupants Dissemination of research essential Conflicting claims of different systems – difficult to work out</p>

Value Proposition

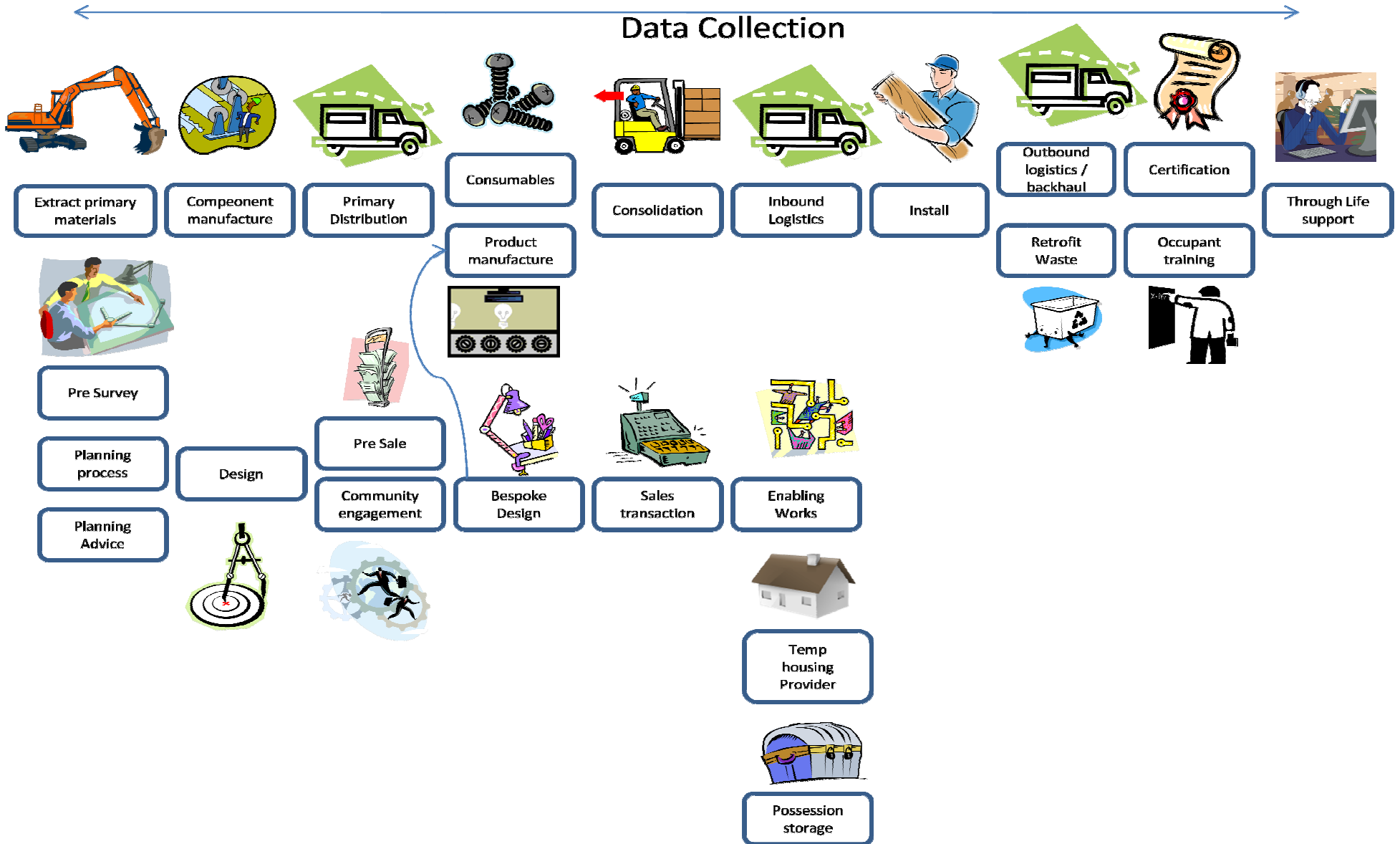
	Pre Sale	Pre Survey	Generic Design	Detailed Survey
Functionality	<p>Generating interest Background stuff Signposting information on where to look Print, media, on line, exhibitions, go compare.com for retrofit. Moneysaving expert.com No hard sell</p>	<p>Up Front before anything agreed to 2 stage, want report specific to my house Monitoring post completion Preparatory materials pre-survey, self survey prep for expected costs before home visit, part based on EPC or similar but dependable tool House information only What / where / how it works Narrowing down options Civic duty like census Low, med, high priority Both for you and government to find markets Link to tax banding, EPC, National grid strategy, council tax bill Survey format / self assessment - incentivised</p>	<p>How much will I save What will it look like How long will it take Physical examples Successful occupied demonstration projects Case studies to visit (pilots in each area) Open house volunteers in exch. for free retrofit Option to phase, full or part house</p>	<p>Detailed report and proposal Construction type, Pre existing problems and Risks Energy use Cold bridging Appliances / lighting Planning issues Waste mgt. Audit Finance options and Cost certainty Homeowner to give available info on house and boiler Thermal imaging, sonic guns Future proof packages open to future improvement Savings, energy reduction est. Water use Thermal comfort improvement est. Thermal lag/overheating risk</p>
Speed	<p>My own pace</p>	<p>10-20 minutes Fast processing of results Borough by borough rollout</p>	<p>Quick Access to info, on line, chat support</p>	<p>1 day for survey 1 week for detailed report</p>
Dependability	<p>Quality of information</p>	<p>Reliability of feedback Categories of feedback Categories, eg. Carbon or energy savings Surveyor standard of expertise? Trained person / friends /knowledgeable Tesco / waitrose /EON / EST Independent, qualified, not money making, trustworthy Professional</p>	<p>No overpromises How much will I save</p>	<p>Certification / accreditation Tolerance for measurements? Guarantee of time and price Check material supply and labour before specifying lead time. Do we need drawings?</p>

		<p>Well trained and accredited</p> <p>Transparent training programme of substantial length (6 months?)</p> <p>No sales pressure</p> <p>Cambridge city council</p> <p>Green bank surveyors</p> <p>Company that will be there years from now. Longevity of brand</p> <p>No return visits –get it right first time.</p> <p>Government will always be there</p> <p>Cost certainty</p>		
Flexibility	Range of Media	<p>Different access routes, on line, paper, personal contact</p> <p>Bronze, Silver, Gold packages</p> <p>Choice of survey providers</p> <p>Choice of level of survey</p> <p>No hidden costs, advice in what is possible / available and options</p> <p>Survey data consistent and transferrable to other providers – you can get all the data</p> <p>Schedule flexibility – time</p> <p>Mix and match options</p>	<p>Options for phasing / full or part house</p> <p>Options for packages</p>	<p>Scheduling time. Part DIY options</p> <p>Price drops.</p> <p>Do you need me there the whole time?</p>
Cost	Free	<p>Neighbourhood discounts</p> <p>I would pay for a detailed survey – Cost of certainty</p> <p>Cost absorbed in later works</p> <p>Fixed base / fixed cost ?</p>	Free	£200 Max. Subsidies needed

Value Proposition - Continued.

	Sale	Installation	Through life
Functionality	Cooling off period (14D) Simple process. jargon free. Specific promises, delivery date. Check material availability / alternatives when making schedule promises. Environmental credentials, embodied energy rating, sustainable materials. Helpful freebies (combisave, time / temp TRV's, LED bulbs)	No disruption. Don't mind moving out if schedule is reliable. Need to trust that I can be away while workers are in my home. One person personally responsible. Point out other works needed without making it a sales opportunity. Independence from energy process Lessened dependence on fuel / mains gas and electric.	Fit and forget. Maintenance-free. Controllability and remote control. simple controls. Easy to change for occupancy / behaviour changes
Speed	Proposal with design input within 1 week	1 week max. If 2 months accommodation needs to be provided. >1 month out of my home is a lot (too much) Rather it took longer and it was right (not quickly and badly)	Same day service. 1 day max wait for parts.
Dependability	Use only Certified of materials and components	Must trust Installers so I can go on out / away while work done. Guarantee that work gets done on time. Clearing up after and fixing anything that gets broken. Local tradespeople.	Leasing of systems. Warranty – or managed service. People fixing must know the system. People turn up on time. Does what was promised.
Flexibility	Illustrate different options in real time. Help in refining choices	Fit in with my schedule / holiday plans	Different access routes to support. Controllability – configurability .. Specific time slots, early / late.
Cost	Nominate a time for validity of proposal. Nominate start time for works.	Don't want to pay rent if I have to move out or rent covers cost of re-housing. Leasing not buying.	All inclusive. Flexible payment, bill, Direct Debit, Mortgage. Transparency / Trust issues. Options for me to choose.

Greener Graduates Supply Chain



Supply Chain Building Blocks Sale and Detailed Survey worked through.

	Sale	Detailed Survey
Functionality	<p>Cooling off period. Free to ask questions No pressure. Lightweight simple jargon free Specific promises, delivery date. Check material and labour availability / alternatives, One stop shop for all components (Ikea). Transparency of options implications Future proofing. Environmental accreditation Helpful freebies (combi save, Time and temp TRV's LED lamps) Combined contract for Gas, electric, water, grey water, Cable, satellite</p>	<p>No disruption. Will move out if schedule is reliable. Must trust I can be away while workers are there. Work that can be done while I am not there. One person responsible Point out other works without making it a sales opportunity Less dependence on fuel / mains elec and gas Independence from energy prices</p>
Dependability	<p>Certification of materials and components</p>	<p>Installers I can trust so I can go on holiday while work being done Rust work done on time Making good after fixing anything that gets broken Assurance that installation will deliver. Quality and legally sourced parts Good brand, Good quality M+S over Tesco</p>
Flexibility	<p>Test different options in real time and know implications on other values Decision making support</p>	<p>Factoring in holiday schedule</p>
Speed		<p>1 week max, short lead in times If 2 months accommodation needs to be provided Being out of house for 1 month is a lot, would rather it took longer and was right</p>
Cost	<p>Nominate time for validity of proposal Nominate a start time for works</p>	<p>Price includes risk factor. Survey guarantees price to some extent Transparent pricing]Future proofed against carbon rationing. Payback in carbon savings Ethical financial products Isolation from rising fuel prices Ethical finance products Flexible payment options / finance products for refurb £50 per month for 10K up front refurb Payback based on enrgy savings Need to completely pay back ? Not if it improves Quality Of Life..</p>

RPV Enablers - Covering Detailed Survey Only.

	Detailed Survey
Resources	Funding subsidy for detailed survey Accredited training courses DIY survey manual Accredited Knowledgeable Surveyors Trainers – building – financial – waste – electrical – market – planning – construction Assessment tools Measurement Tools Thermal cameras etc. Customer service / engagement Reliable suppliers Information / data and products Centralised database with agreed parameters – public Information sources, fact sheets, on line, libraries etc. Financial products Standard templates for data gathering and reporting Insurance for retrofit delivery Green bank Software for modelling energy performance Consolidation of existing tools as opposed to reinventing the wheel One stop shop, good market data
Processes	Establish KPI's Certified / Traceable process for quoted prices Lifestyle assessment Data collection for the house survey , areas, sizes, construction Google earth and streetmaps link into survey Data processing of image info Marketing campaign Education process Survey process reinforces customer engagement process Link between detailed survey and bespoke design Chain of retrofitted properties to decant people into Resource planning process – skills and materials
Values	Service standards – professional impartial non sales advice Tailor approach to customer value Multi skilled Encouraging involvement – DIY assessors Sustainability awareness Impartial advice – willingness to recommend competitors Industry working as a whole Giving money back Beyond fixed price > price drop benefits Early adoptors Greenness Treating clients as individuals Bespoke approach Belief in Climate Change