



Programme Area: Buildings

Project: Building Supply Chain for Mass Refurbishment of Houses

Title: Appendix 1 Summaries for the 10 Customer Segments – Early

Enterprisers

#### 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Please note this report was produced in 2011/2012 and its contents may be out of date.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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# Early Enterprisers - Early middle-aged parents likely to be involved in their children's education

- Age 36-50
- 2-3 dependent children aged 0-15
- Length of residency 3-10 years
- Detached housing
- New builds
- Owner occupied
- Found in smaller towns
- Mid to high Council Tax bands
- Intermediate management occupations; good incomes, degree educated
- · Claiming child benefit and tax credit
- · Career/ambition are key drivers
- · Online communications preferred
- Grocery shops in M&S and Waitrose with convenience stores also playing a role
- Familiar with green terms and issues of climate change
- Do not take action 'out of concern for the environment'
- Likely to be resistant to change their lifestyle even if they could be convinced it would help environmental issues
- Behaviours are dominated by lifestyles and dependence on cars potentially responsive to activity which would not impact on the norm/routine

#### **Mathias Grid Self Perceptions**

| Self perception Now                | Would like to be                            |
|------------------------------------|---|
| Professional couple                | Successful couple / household, high         |
| Career minded                      | achievers                                   |
| Value our home                     | Excellent home                              |
| Comfortable and happy in the home  | Better / bigger house in good neighbourhood |
| Interested in environmental issues | Better knowledge of environmental issues    |
| Place value in having a good car   | Better ties with other community            |
| Not particularly fuel conscious    | professionals                               |
| Responsible                        | Well educated and continuing to study       |
| Well educated                      |   |

| Perception I believe Others have of me now | Would like others to see me as         |  |  |
|--|--|--|--|
| Professional couple                        | Highly successful                      |  |  |
| Good house                                 | Good parents                           |  |  |
| Well off and greedy                        | Always looking to improve              |  |  |
| Can afford to be green                     | Socially engaged                       |  |  |
| Pushy Parents                              | Environmentally aware and do the right |  |  |
| Responsible                                | things                                 |  |  |
| Fairly sociable                            | Well qualified                         |  |  |
| Well educated                              |  |  |  |

#### **Benefits and Sacrifices**

|               | Benefits                     | Comments           | Sacrifices                    | Comments                        |
|---------------|------------------------------|--------------------|-------------------------------|---------------------------------|
| Doors and     | Improve Security             | As for sacrifices. | Capital Cost                  | This customer segment was       |
|               | Low maintenance              |                    | Disruption                    | predominantly motivated by      |
| Windows       | Impress the neighbours       |                    | Planning issues               | the financial implications of   |
|               | Aesthetic improvement        |                    |                               | retrofit.                       |
|               | Reduced draughts             |                    |                               |                                 |
|               | Reduced energy bill          |                    |                               | In all cases there had to be    |
|               | Improved comfort             |                    |                               | evidence of savings greater     |
|               | Potential financial saving   |                    |                               | than costs. Hence the           |
|               | Added value to property      |                    |                               | comments around reduced         |
| Insulation    | Potential external aesthetic |                    | Capital Cost                  | bills, financial savings, added |
|               | improvement                  |                    | Potential external aesthetic  | value across all 3 areas.       |
|               | Improved comfort             |                    | reduction                     |                                 |
|               | Reduced energy bill          |                    | Disruption                    | Clearly if positive financial   |
|               | Potential financial saving   |                    | Planning issues – if external | returns actions are deemed      |
|               | Added value to property      |                    | Constant upgrades             | benefits and vice versa.        |
| Hot water and | Improved control             |                    | Capital Cost                  |                                 |
|               | Improved comfort             |                    | Disruption                    |                                 |
| heating       | Reduced energy bill          |                    | Constant upgrades             |                                 |
|               | Potential financial saving   |                    |                               |                                 |
|               | Added value to property      |                    |                               |                                 |

## **Value Proposition**

|               | Through Life  | Installation  | Sale (Consent)   | Survey   | Pre Sale  |
|---------------|---|---|--|--|---|
| Functionality | Easy to upgrade and adapt. Regular / periodic upgrades provided as standard Provide updates HIP to be relevant until next upgrade | Up dates on progress Left as found for home condition No loss of existing services Ability to provide storage for key items | Cooling off period<br>Jargon free.<br>Clear contract and<br>explanations   | Establish accurate current levels of energy use / costs. Provide print out of what retro fit options will look like. Thermal images. | Single point of contact throughout. Various methods of communication available e.g. Internet, phone etc. On line – energy calculator to allow early idea of potential savings |
| Speed         | Immediate response  | 10 – 14 days  | No pressure / hard sell  | Minimum time inside the property.  | Be able to set dates for survey to mutual convenience   |
| Dependability | 24/7 one stop support<br>Regular inspection and<br>testing to ensure pre<br>determined savings are<br>being met.                  | No mistakes – right first<br>time<br>One team throughout<br>Accredited<br>Insurance cover                                   | Compensation agreements for late delivery. Brands to choose from. Same person as pre sale.                                 | Independent / accredited surveyor.   | Access to govt approved data. Brand associated with trust, quality, longevity   |
| Flexibility   | Transferable warranties i.e. stay with house  | Rigid programme to fit customer needs   | Ability to negotiate on the deal. Options with associated costs. Perks or bonuses e.g. holidays Be able to set works date. | Date set to our timetable  | Examples of products in show room or demo houses. Access to previous customers Options on what is available and relative savings, payback period.                             |
| Price         | Free servicing for 3 yrs<br>Low cost / realistic<br>upgrades.   | Set at point of sale  | Finance options: Interest<br>free and transferable<br>loans.<br>No hidden extras, set<br>price                             | Free   | Incentivise retro fit via lower council taxes or VAT free interventions. Information on incentives, grants and tax implications. Idea of ball park savings up front.          |

## **Supply Chain Building Blocks**

|               | Extract Raw  | Survey   | Design   | Component           | Primary                       |
|---------------|--|--|--|---------------------|-------------------------------|
|               | Materials  |  |  | Manufacture         | Distribution                  |
| Specification | Sustainable / Eco friendly                           | App based  | Future proof, with easy upgrades Design out waste Use basic standards which are designed up to suit requirements Quality specification |                     | Delivery to a single location |
| Speed         |  | Survey to Manufacture 3-<br>4 days<br>Concurrent design to<br>increase speed | Automatic ordering from design detail to assembly and on to consumables  | Maximise automation |                               |
| Reliability   | Compliance with standards as part of quality control | Trained / certified  |  | Maximise automation |                               |
| Flexibility   |  | Various form of IT communication   |  |                     |                               |
| Price         | Easily accessible to keep cost low 25-30%            | 1-2%   | No packaging   | 10-15%              | 3%                            |

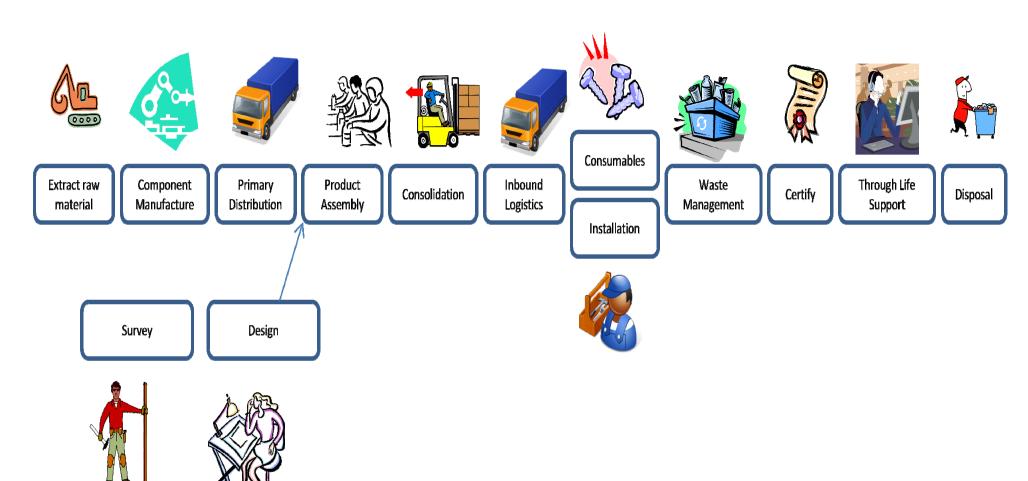
## **Supply Chain Building Blocks**

|               | Assembly                               | Consolidation                                   | Inbound Logistics   | Consumables                                 | Install  |
|---------------|--|---|---|---|--|
| Functionality | Made in 1 location                     |   | Electric vehicles. Designed to carry all necessary materials for project      | Breakdown between PPE and site consumables. |  |
| Speed         | Maximise automation                    |   |   |   | 10-14 days   |
| Dependability | Maximise automation<br>Quality control |   |   | Comes with product single delivery          | On time Trained / Accredited Single point of contact within team |
| Flexibility   |  | Regional Hubs based around good transport links | Installers to be able to collect as well as Hub to be able to deliver to site |   | Able to take key items to storage at regional hub                |
| Price         | 10-15%                                 |   |   |   | 30%  |

## **Supply Chain Building Blocks**

|               | Waste  | Certification   | Disposal   | Through Life<br>Support  |
|---------------|--|---|--|--|
| Functionality | Design out waste No or re-useable packaging. Waste to regional hub for re-use, re-sale | Issued by installers  | Waste to regional hub<br>for re-use, re-sale<br>Design to allow for<br>recyclable waste disposal | Duty of care to client for predetermined length of time  |
| Speed         |  | Produced on site prior to completion  |  |  |
| Dependability |  | Government approved,<br>Gas Safe, FENSA, NICEIC<br>Or new Green<br>Certification Scheme |  | Guarantees which are financially backed to save more the intervention costs. Single point of contact |
| Flexibility   |  | Sent to relevant govt bodies  |  |  |
| Price         | Income to be generated from waste materials  |   |  |  |

#### **Supply Chain Map.**



### **Supply Chain Enablers - Resources Processes and Values**

|           | Assembly  | Consolidation   | Inbound Logistics  | Consumables  | Install   |
|-----------|---|---|--|--|---|
| Resources | Finance Building Plant Labour   | Un / Loading facilities Warehousing Material recycling facility Haulage fleet and drivers Fuelling station / electric Security Storage Waste transfer / carriage licences | Electric vehicles –<br>designed for project pack<br>IT – Tracking, PDA, Sat<br>Nav etc         | PPE Fixings delivered with product Ancillaries to be held by install team Single merchant for consumables at fixed rates | Trained / Accredited multi<br>skilled team able to:<br>Work at height<br>Fit / test Gas<br>Fit / test Electrics<br>Fit windows<br>Fit insulation<br>Provide first aid<br>Speak occupant primary<br>language |
| Processes | Semi automated production line Training to meet required standards Quality control / management certification External audits | IT with link ordering -<br>assembly<br>Locations for PV or wind<br>Manage delivery and<br>collection<br>Insurances  | Delivery to be to point of use. Un / Loading Health and Safety considerations Risk assessments |  |   |
| Values    | Innovation / research and development   | 24 hour facility  | H&S at work act Driving hours  |  |   |