



Programme Area: Buildings

Project: Building Supply Chain for Mass Refurbishment of Houses

Title: Appendix 5 – Workshop Presentation 8th September 2011

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Please note this report was produced in 2011/2012 and its contents may be out of date.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 4.2 – Draft Supply Chain Scenarios.

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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Whole House Retrofit For Thermal Efficiency. “Installation Process”

Paul Cook 8th September 2011
Total Flow Ltd.



Summary of WP 4.0 and 4.1

Work Package 4.0 delivered a summary of the existing supply chain

Work Package 4.1 delivered :

- Draft Value propositions for 10 customer segments
- Draft “Ideal state” supply chain design to deliver the needs of mass scale whole house retrofit.
- Gaps between the ideal and current state supply chains
- Contrasts with France and Germany
- Lessons from previous national roll out programmes

WP 4.1 Highlights

Key ingredients to a successful value proposition

- Trusted brand / delivery / support is essential – Single provider
- Disruption must be minimised – one team for installation
- Effective processes to minimise time and cost and maximise quality
- Evaluating potential for energy savings - visible / measurable benefits
- linking retrofit to other value adding works in the home (ie. Loft conversion)
- Providing information to customer and the supply chain
- Providing robust standard work for retrofit works - no surprises

WP 4.2 Process - Workshop

Whole house installation Process

Based on our knowledge of whole house refurbishment :-

- What is required to complete a retrofit of a whole house
- What are the process steps are needed to deliver?
- What information flows are needed?
- What competences are required to deliver the retrofit ?

Process For Today

Split into 2 syndicate teams and consider:-

Team 1 looks at the process needed for the installation of External wall insulation and whole house retrofit

Team 2 looks at the process needed for the installation of Internal walls and whole house retrofit

Whole house retrofit includes:

- Replacement doors and windows
- Floor insulation
- Primary heat source and controls, zone control - voltage optimisation
- Roof insulation
- Added value items (room in roof etc.)

Teams

Tim Hall (Total Flow) EWI

David Lake (Wates)

Henrietta Lynch (UCL)

Seb Junemann (Peabody)

Pete Rayson (Total Flow)

Richard Smith (Total Flow) IWI

John Anderson (Wates)

Chris Woods(Wates)

Warren Pope (BRE)

Catherine Bowser (TotalFlow)

Required outputs

- Each team considers:
 - **What process steps are needed to install the measures for their intervention**
 - **Each team please produce a process map**
 - **Use a post it note to represent each process step and information flow (cover - people, parts, plant, information...)**

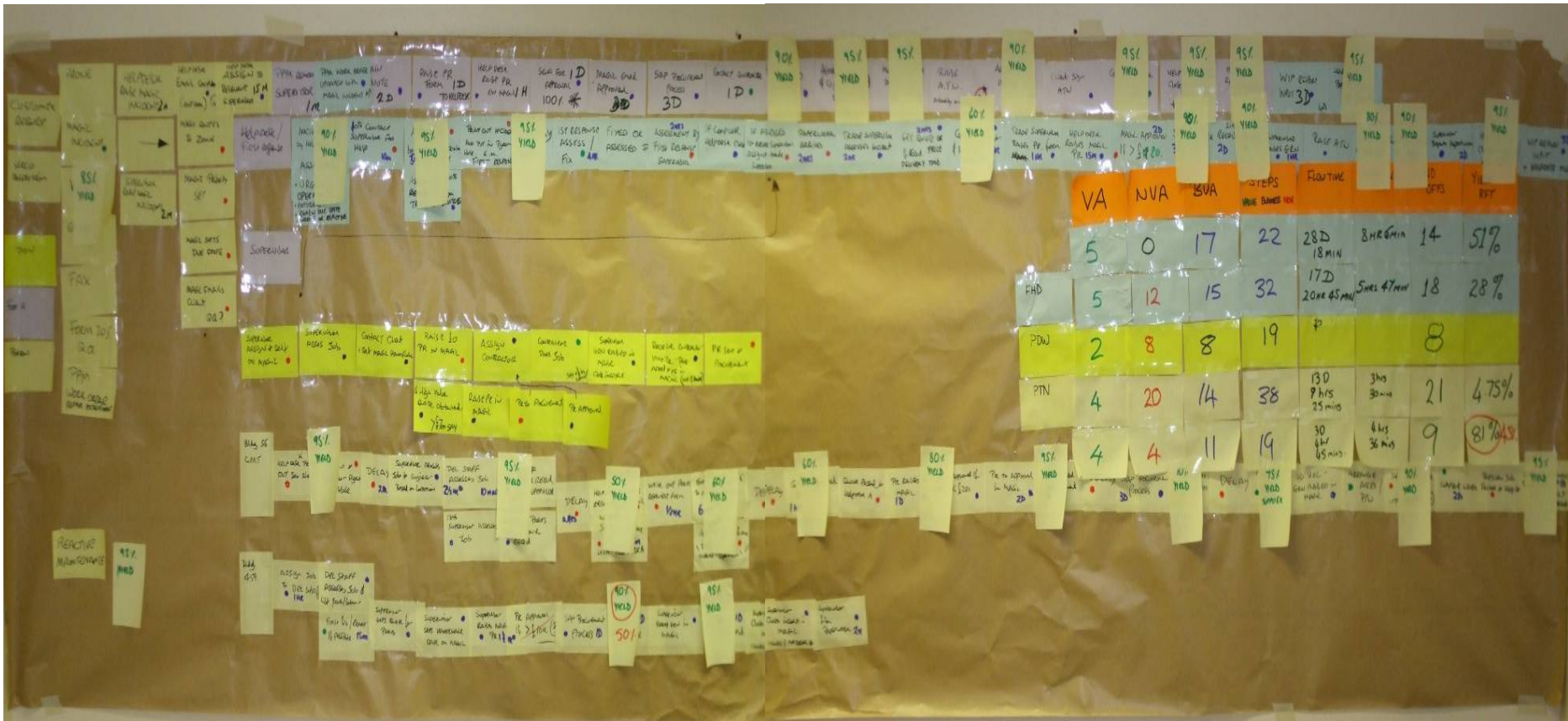
Today's process Part 1

Think through:

- What process steps are needed to install the retrofit measures?
- What activities can happen in parallel ?
- What steps can be combined ?

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Example process map.



Part 2

Consider risks in the installation process

- What Tasks are hard to carry out and hence prone to errors ?
- How can these tasks be simplified or mechanised ?
- How can the process be mechanised or systematised to prevent errors?

Part 3

- Estimate the time to complete each process step, include waiting as well as process time if applicable
- Total the number of process steps and record
- Add the number of hand offs (where the process moves from one person or organisation / body to another) and highlight them
- Highlight any dependencies and where work can be done in parallel with other tasks
- Define the competences required to complete each process step

Challenges

What are the main challenges?

What kind of organisation is capable of carrying out the retrofit installation?

What are the competences required?

What personal and organisational competences are required for the installation work

Review

- Review of the day and Comments.

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Thank You