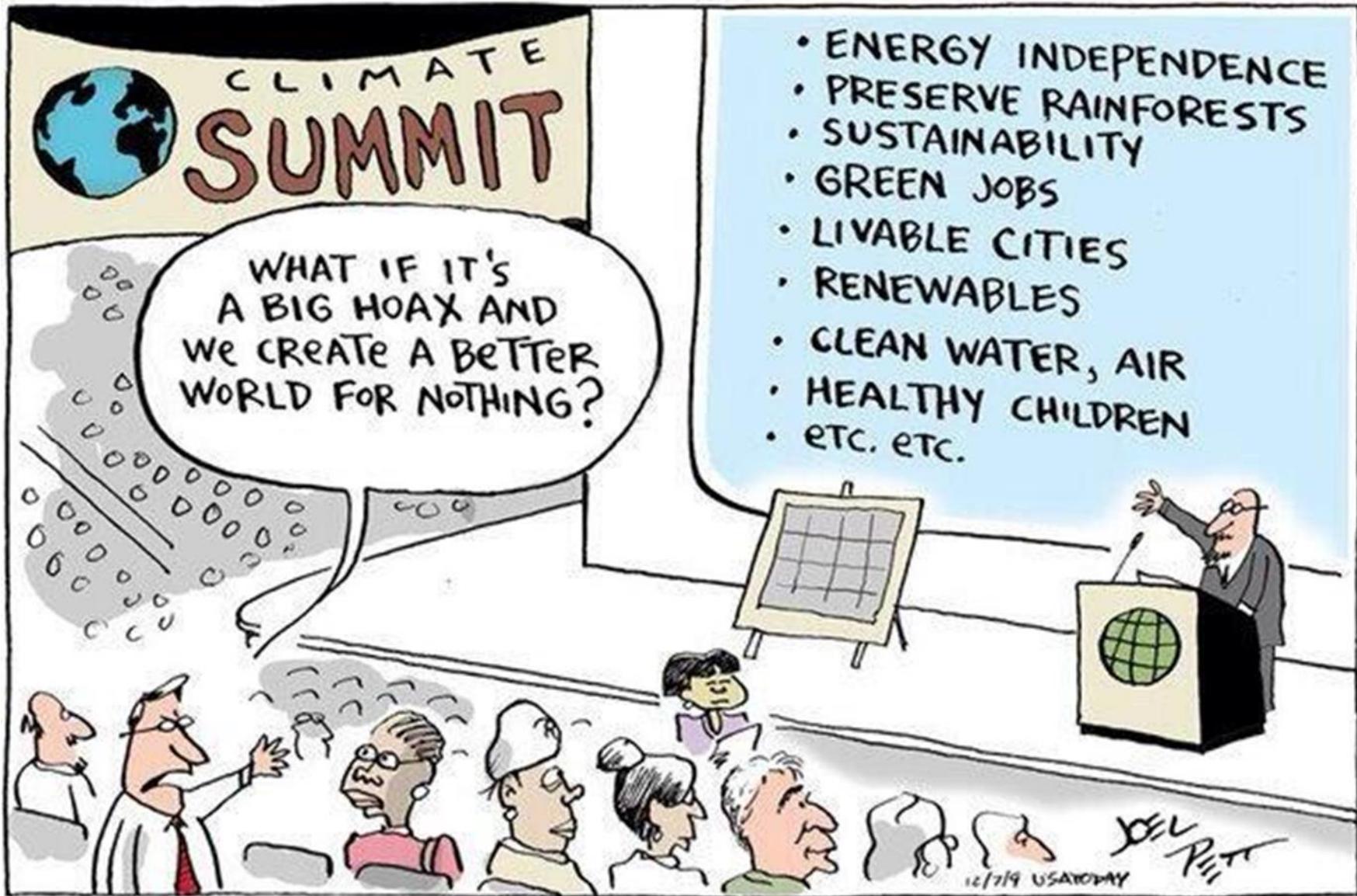


# The Diploma in Domestic Retrofit Coordination and Risk Management

David Pierpoint  
Chief Executive, The Retrofit Academy CIC  
29<sup>th</sup> June 2016



THE RETROFIT ACADEMY  
www.retrofitacademy.org



CLIMATE  
**SUMMIT**

WHAT IF IT'S  
A BIG HOAX AND  
WE CREATE A BETTER  
WORLD FOR NOTHING?

- ENERGY INDEPENDENCE
- PRESERVE RAINFORESTS
- SUSTAINABILITY
- GREEN JOBS
- LIVABLE CITIES
- RENEWABLES
- CLEAN WATER, AIR
- HEALTHY CHILDREN
- etc. etc.



# The Retrofit Academy

- Formed out of the CoRE ERDF project
- Community Interest Company
- Owned by consortia of national partners
- Exclusive training content
- Simple vision and purpose

“The Retrofit Academy is a Community Interest Company which equips built environment and housing professionals with the skills and knowledge to retrofit existing buildings effectively.”

## Partners



## Training Partners



# Achievements

Since 2013, The Retrofit Academy and CoRE have trained more than 500 built environment and housing professionals. This has substantially increased the levels of energy literacy, and understanding of the risks and mitigations of retrofit.

We have influenced two major government reviews to ensure a greater focus on quality and consumer protection.

We have championed the need for Retrofit Coordinators, gaining the endorsement of the RIBA and other professional bodies.



# Retrofit Academy Training

## COURSE TUTORS

All of the courses are designed and delivered by some of the UK's leading experts in low energy retrofit. They have decades of experience in successfully delivering retrofit projects, are widely respected in their specialist fields. Candidate feedback is universally positive about the calibre of our tutors.

<p><b>Dr Peter Rickaby</b></p> <p>Peter is an experienced BIP and HERS Assessor and trainer, an accredited Low Carbon Energy Assessor through CIBSE, and a BREEAM Accredited Professional.</p> 	<p><b>Russell Smith</b></p> <p>Russell is the Founder and Managing Director of award-winning consultancy The Fly Projects, a company dedicated to transforming the existing housing stock.</p> 	<p><b>Robert Prewett</b></p> <p>Robert Prewett is a Director at Prewett Stubbins architects, a practice that has a strong focus on low energy design, in particular retrofit work to existing buildings.</p> 
<p><b>Dr Sarah Price</b></p> <p>Dr Sarah Price, a Certified Professional Consultant has worked for Encraft since 2010 after completing her PhD in Molecular Physics at the University of Birmingham.</p> 	<p><b>Mark Elton</b></p> <p>Mark joined Sustainable By Design LLP in May 2015, bringing with him over 18 years of experience in low energy architecture, working on projects across the country.</p> 	<p><b>Heleen Brown</b></p> <p>Heleen joined Encraft in 2007 and has a Masters in Physics with Theoretical Physics. Heleen now heads the Building Physics practice at Encraft and is a certified Passivhaus Consultant.</p> 
<p><b>Valentina Marinconi</b></p> <p>Valentina is a research engineer in building projects at the Bartlett School of Graduate Studies.</p> 	<p><b>John Willoughby</b></p> <p>John Willoughby is an energy and environmental design consultant based in Gloucestershire.</p> 	<p><b>Alan Pither</b></p> <p>Alan has been professionally involved in energy efficiency assessment and advice since 1988, running a small company based in Shropshire since 2000.</p> 
<p><b>Clive Rowland</b></p> <p>Part of Rickaby Thompson's Retrofit team, Clive works with housing associations and local government housing departments, looking at stock profiling, energy efficiency and carbon dioxide reduction.</p> 	<p><b>Matt Cotton</b></p> <p>Matt Cotton is Director of Tave &amp; Co, an independent engineering and sustainability consultancy based in London.</p> 	



- Retrofit trainers
  - Practising architects, engineers, energy consultants and building physicists with extensive experience of retrofit
- Training materials and exercises
  - Drawn from practical experience of retrofit combined with learning from programmes such as *Retrofit for the Future*
- Accreditations
  - Via University of Salford (in progress)
  - RIBA CPD certified (6 hours per unit)



# The Retrofit Coordinator

## What is a Retrofit Coordinator?

- A qualified expert in retrofit capable of:
  - Managing the retrofit process from end to end
  - Assuring quality of design and installation
  - Controlling risk and protecting the client's interest

## Why use a Retrofit Coordinator?

- To deploy appropriate skills and experience to
  - Ensure correct assessment and option evaluation
  - Implement a well integrated retrofit package
  - Provide quality assurance and risk management



# HM Government's Endorsement

"I am of the view that a Retrofit Co-ordinator (or competent person, or responsible designer) role is necessary to take responsibility for ensuring that a correctly designed and executed solution is delivered."

## "Recommendation 7: Retrofit Co-ordinator

Retrofit co-ordinators to be appointed for all SWI projects, with clearly defined responsibilities – internal and external reporting lines to be related to the complexity and size of the scheme."



## SOLID WALL INSULATION Unlocking Demand and Driving Up Standards

A report to the Green Construction Board and Government  
by the Chief Construction Adviser  
Peter Hansford FREng

November 2015



# The Retrofit Coordinator Diploma

- RC01 Introduction to Domestic Retrofit *Peter Rickaby + Alan Pither*
- RC02 Assessing Dwellings for Retrofit *Clive Rowland + Robert Prewett*
- RC03 The Business Case for Retrofit *Matt Cotton + Russell Smith*
- RC04 Building Fabric Retrofit *Mark Elton + Peter Rickaby + Russell Smith*
- RC05 Building Services Retrofit *John Willoughby + Alan Clarke*
- RC06 Airtightness and Ventilation for Retrofit *Peter Rickaby + Ian Orme*
- RC07 Retrofit Building Physics *Valentina Marincioni + Sarah Price*
- RC08 Retrofit Coordination and Risk Management *Robert Prewett + Peter Rickaby*



RETROFIT COORDINATOR

THE  
RETROFIT  
ACADEMY

ACCREDITED PROFESSIONAL

# Future Activities

- In the next 12 – 18 months:
- Accreditation as a PG Diploma
- Blended Learning
- Retrofit Coordinator Plus
- Retrofit Technician Qualifications
- Degree Apprenticeship

RETROFIT COORDINATOR PLUS

THE  
RETROFIT  
ACADEMY

ACCREDITED PROFESSIONAL

# Evidence of Poor Practice

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#brelive

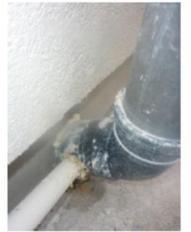
## Industry standard details



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## Current Practice

- Little if any design, shocking workmanship
- Ventilation provision not considered
- Steady state condensation risk
- Little consideration of context and location
- Dictated by the lowest price not what is suitable



bre

#brelive

## Workmanship issues

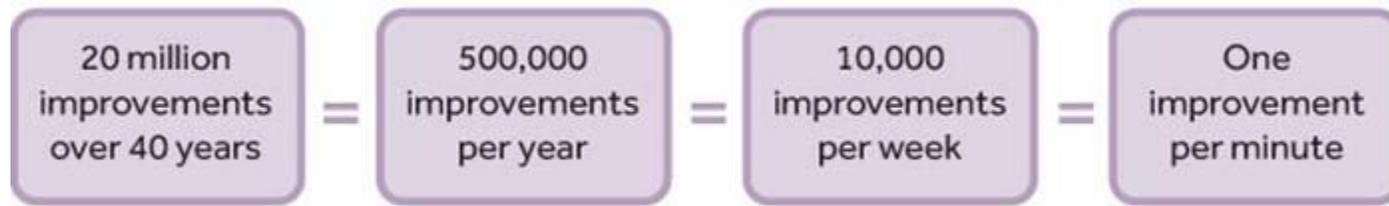




# The Bonfield Review

- Signing up to a comprehensive Consumer Charter.
- Undertaking installations or assessments in accordance with defined Codes of Practice.
- A Quality Mark for the domestic retrofit sector.
- Providing agreed standards for advice.
- A simplified, single redress process for the industry sector.
- A stronger more consistent level of core competency training.
- A robust, consistent and efficient quality assurance framework.

# The Retrofit Opportunity



# Fuel Poverty

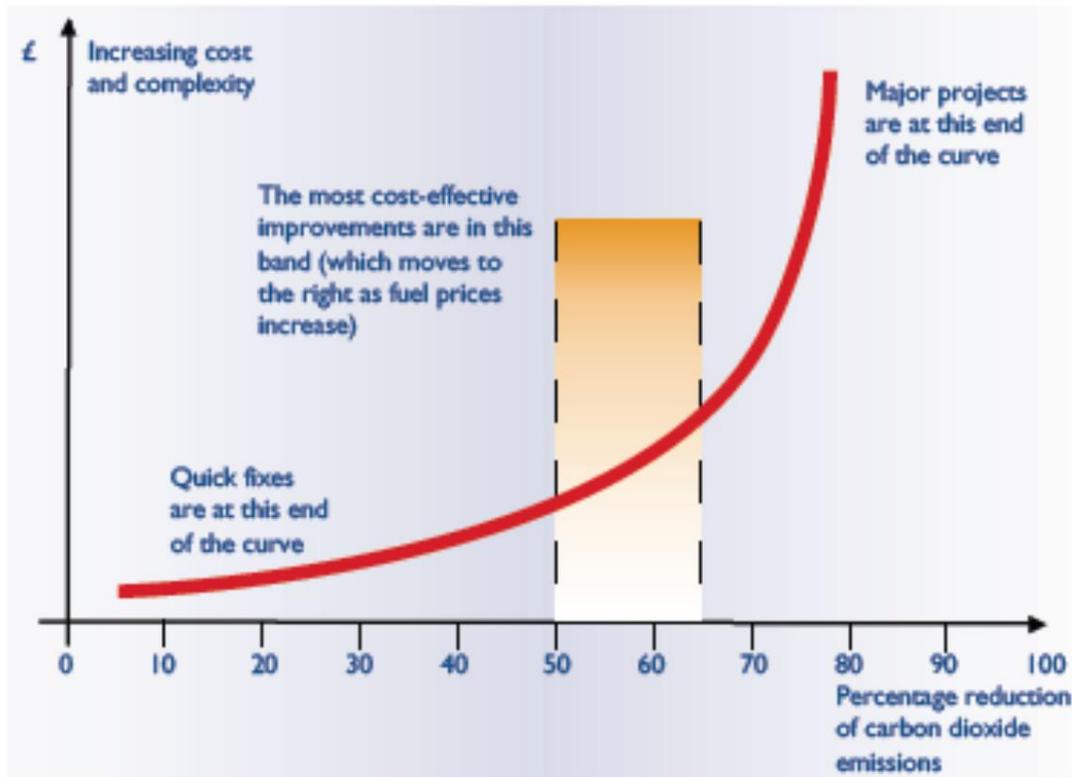
- 2.35 million (10.4% of households) on the new LIHC definition in 2013
  - Average fuel poverty gap £374
- Highest percentages in those:
  - on pre-payment meters: 21%
  - in solid wall homes: 16%
  - not on mains gas: 14%

- The Fuel Poverty (England) Regulations 2014 set fuel poverty targets to achieve minimum energy efficiency rating of:
  - Band C by 2030
  - Band D by 2025
  - Band E by 2020

	No. of homes	Percentage
England	2.73 million	12%
Scotland	0.94 million	39%
Wales	0.4 million	30%
Northern Ireland	0.3 million	42%
<b>Total</b>	<b>4.5 million</b>	<b>17%</b>



# Cost Efficient Retrofit



## What's not in the target zone?

- Unaffordable and unnecessary
  - *Retrofit for the Future (C80) standard*, e.g.
    - Wall and floor U values  $\leq 0.15 \text{ W/m}^2\text{K}$
    - Air permeability  $< 1 \text{ m}^3/\text{m}^2\text{h @ 50 Pa}$
    - Aerogel and vacuum insulation boards ( $> \text{£}200/\text{m}^2$ )
    - Exhaust air heat pumps
- Not good enough
  - Uncoordinated incremental measures, e.g.
    - Cavity fill (on its own)
    - Uninsulated solid walls or ground floors
    - Inadequate air tightness and ventilation
    - Over-reliance on fossil fuels



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# Benefits of Retrofit to Social Landlords / Local Authorities

- Creating jobs and stimulating the local economy
- Maximising the value from and impact of RMI programmes
- Saving money as an intelligent commissioner and client
- Increasing asset and portfolio values through planned investment
- Reducing latent defects and streamlining the process
- Minimising time-consuming customer complaints
- Reducing fuel bills, helping residents to keep up with rental payments
- Future-proofing the asset such that problems are not stored up for tomorrow
- Improving resident health - keeping people in work and out of rent arrears



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# Course Dates and Prices



25% off course fees for ALEO SE  
– these courses only!!

Date	Unit	Tutor
7th September	Introduction to Domestic Retrofit	Peter Rickaby
15th September	Assessing Dwellings for Retrofit	Clive Rowland
26th September	The Business Case for Retrofit	Russell Smith
13th October	Building Fabric and Solid Walls	Mark Elton
19th October	Building Services	John Willoughby
3rd November	Ventilation and Airtightness	Peter Rickaby
10th November	Retrofit Building Physics	Sarah Price
17th November	Retrofit Coordination and Risk Management and Exam	Bob Prewett

Whole Diploma (8 units) plus Exam	Standard: £2,000 plus VAT Early Bird: £1,760 plus VAT
Individual Units	Standard: £290 per day Early Bird: £250 per day

## Notes

Early Bird rates available until 30<sup>th</sup> April 2016

10% discounts available to members of: SHIFT, FMB, INCA, AECB

Lunch and refreshments are provided.



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