

Futureproof: Training SME contractors to be Retrofit Champions

STBA conference
8th October 2020

Our key partners:



FUTURE PROOF



THE **Green**
REGISTER
OF CONSTRUCTION PROFESSIONALS

Our home retrofit service
helps homeowners and builders to carry out
energy saving improvements
and refurbishments.



Futureproof aims:



- **DEMAND** - Centre for Sustainable Energy: Energy advisors to homeowners
- **SUPPLY** - The Green Register's training programme increases the number of SME contractors who are skilled in sustainable retrofit
- CSE give confidence to homeowners that contractors are knowledgeable & can deliver quality retrofit
- Put the two together...
- = BETTER RETROFIT & BETTER BUILDINGS



The current situation

- 27+ million homes in the UK, many of which are not up to current buildings standards
- Inadequate insulation = high energy bills = higher carbon emissions
- Prevalence of damp & mould = poor indoor air quality = bad for human health & well being
- No incentives to improve the quality of homes



Improving existing homes:

- **Lack of understanding & skills** in good quality building techniques, especially in existing buildings
- The Green Deal
- www.eachhomecounts.com (December 2016)
- Centre for Sustainable Energy can demonstrate that there is plenty of **demand** from the 'able to pay' sector
- **Supply**: Futureproof training will increase the number of skilled contractors to do the work



What is preventing contractors becoming more skilled in retrofit?

- Many builders are busy, why would they need to change building practices?
- Insufficient enforcement of legislation
- No regulation or licencing for builders
- Many clients still want the cheapest solution which results in poor quality, unsustainable solutions



Initial Futureproof activity

- Identify the incentives that will attract SME contractors to our training
- Identify the SME contractors who will want to attend
- Design a training course that appeals to SME's



Exploratory Meeting with builders, May 2019



- Presented ideas for training – formats, timings, content
- Asked builders to identify barriers to attending training



1. Builders lose out on pay to attend training off site

- The training will be more attractive if it is:
 - held on site
 - towards the end of the working day
 - focussed on practical learning
- January 2019 – started paying builders to offer Futureproof site visits & practical demonstrations
- Early May 2019, offered to pay SME's to attend



2. No incentive to learn about sustainable building

- Appeal to their *pride* in the work
- Offer a ready-made customer base who want above average building quality (CSE)
- Concern that they do not know enough
 - Futureproof training gives SME's confidence to talk to their customers
- SME's need to keep up with current info (don't get left behind...)
- Training would be designed to suit their needs (content, format, timing)



3. Would like to be part of a network of knowledgeable, committed builders

- Training sessions present opportunities to share ideas & network with like-minded builders
- Futureproof Whatsapp group chat:
 - share ideas
 - resources
 - labour
 - respond to technical issues
 - sourcing materials



4. Building Control

- Local Authority BCO's & AI's in direct competition
- Poor quality work not identified - non-compliant projects 'pass' Building Regulations
- Three LA BCO's attended 9th May 2019 networking event
- Training offered to two local authorities in WoE area - more planned



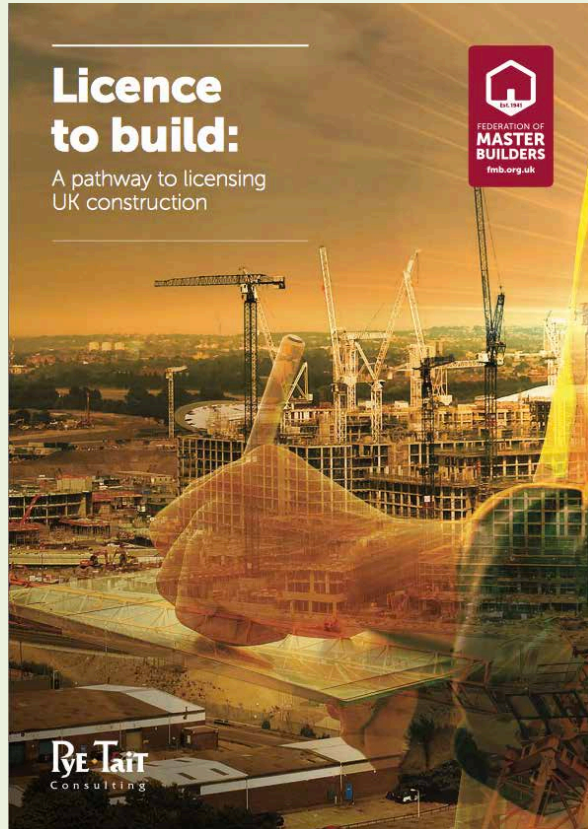
5. Existing training does not lead to a certificate/qualification

Responses to FMB 'Licence to Build' research recognises the value in training:

- Attendance can prove that SME's are better qualified than their peers
- It can lead to higher income/status within the industry
- 77% of FMB members want a licencing scheme



FMB 'Licence to Build' Research



- There is a real appetite for a licencing scheme
- **Cowboy builders, rogue traders, shoddy work, Grenfell**
- Quality, trust, respect, pride, reputation, confidence, competence, being ahead of the curve
- Standards & Competence task force
- Trial of licence for SME's working on retrofit projects - tbc
- www.fmb.org.uk/media/40313/fmb-report-licence-to-build.pdf?utm_source=Report&utm_medium=pdf&utm_campaign=licencetobuild



But its more than 'just' training builders...its about making connections:

CITB

Federation of Master Builders

National Federation of Builders

Catrin Maby's research

Builder's Merchants

Retrofit Academy

STBA

Local Authorities

BCC, B&NES, S Glouc, N Som. ++

RIBA

Future Economy Network

Trustmark

AECB

Low Carbon Homes

CPD Essentials

Carbon Coop

Green Building Store

Regen & Energiesprong

FourWalls, Bristol

Manufacturers/suppliers

Planet Mark



Networking Site visits Best Practice



Practical + theory sessions, materials



The Whole House Approach



Passing on the learning to other SME's - **2020 Toolbox talks**

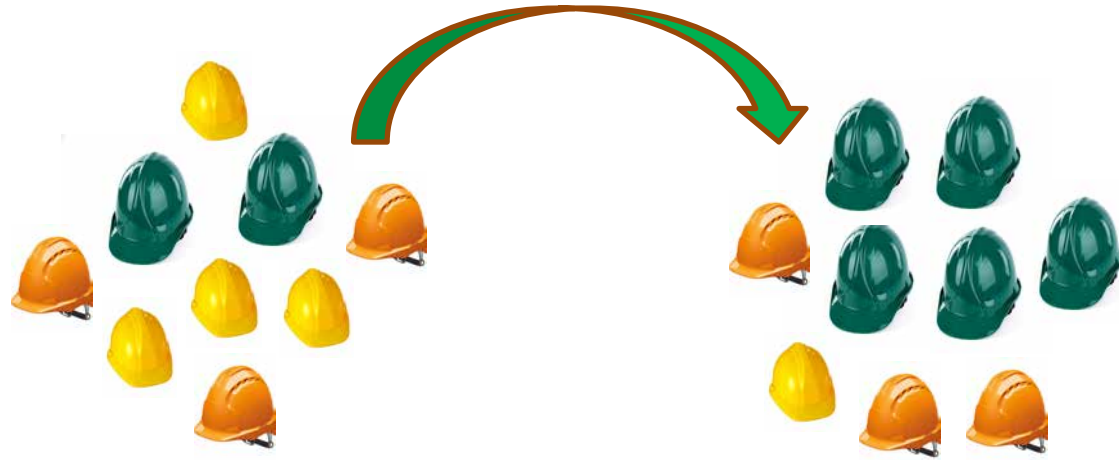
1. Airtightness
2. Moisture control & detailing
3. Rooflights, windows, doors (heritage), SWI
4. Ventilation & Overheating
5. LCT & heating
6. Materials/Waste/Lime/IAQ/finishes
7. Water conservation
8. Insulation/SWI



1. TGR identifies a core group of builders to train- varying degrees of skills/understanding but all keen to learn



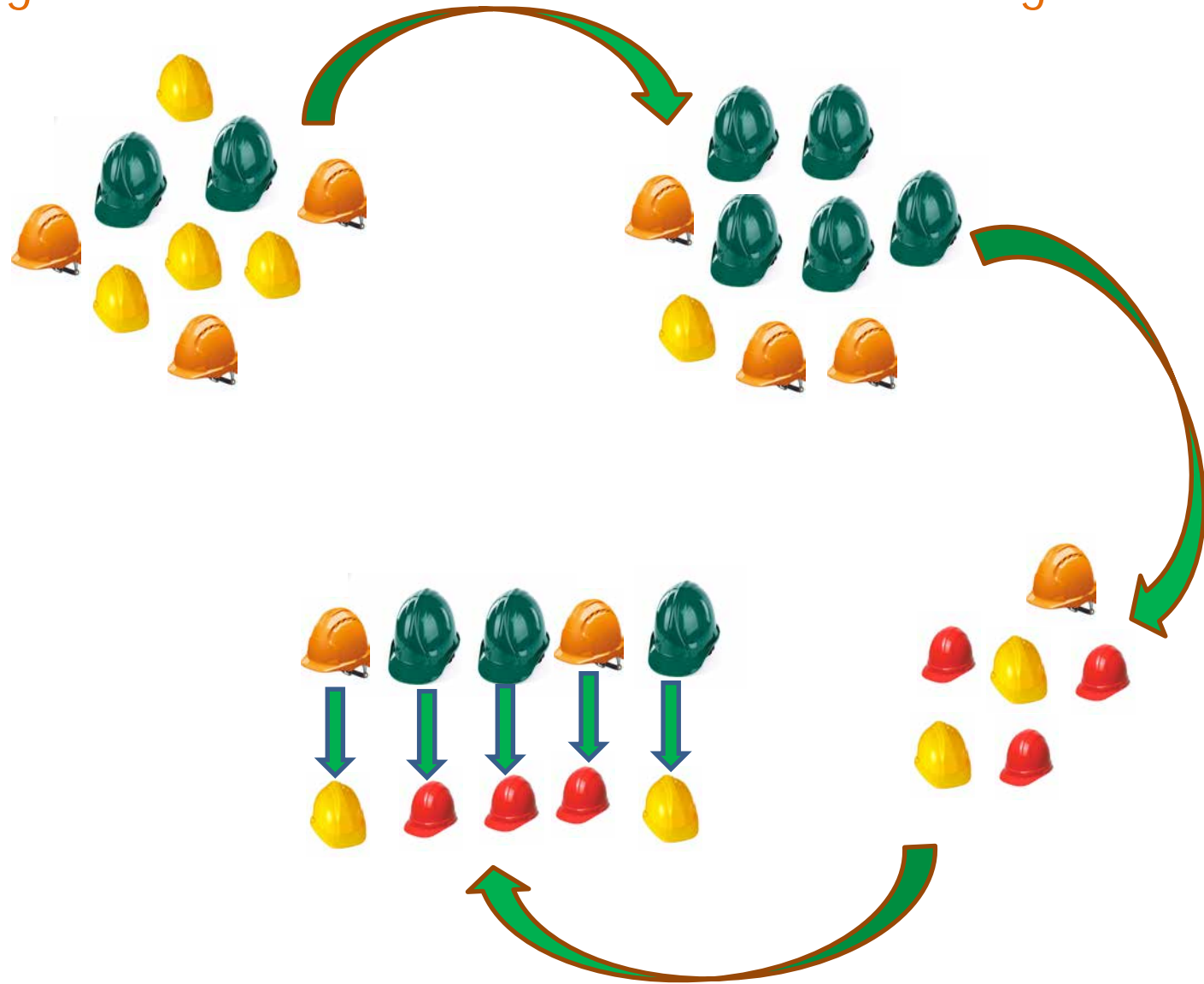
2. Trainee builders become 'FABs' - Futureproof Associated Builders



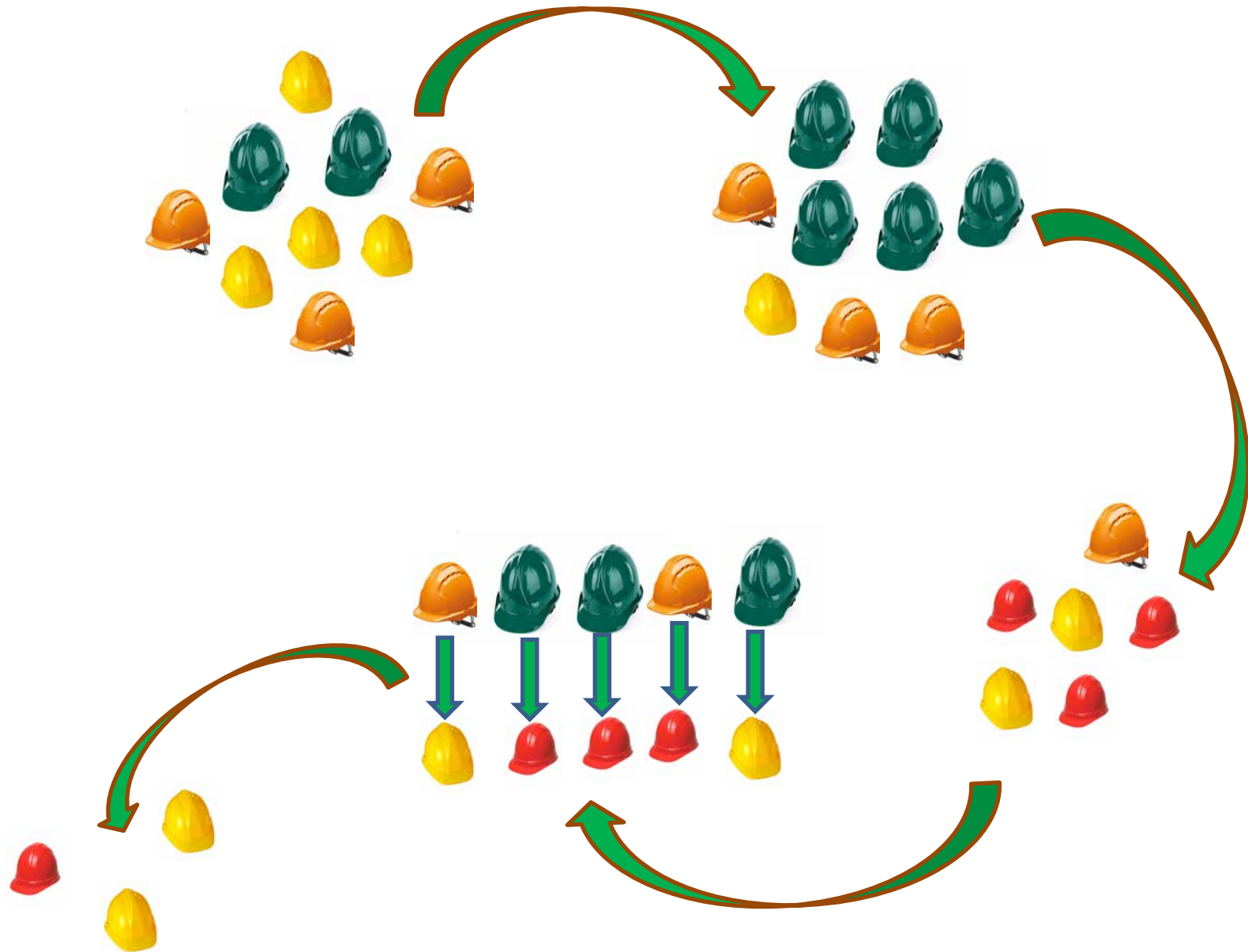
3. Builders register for Toolbox talks, delivered by FABs



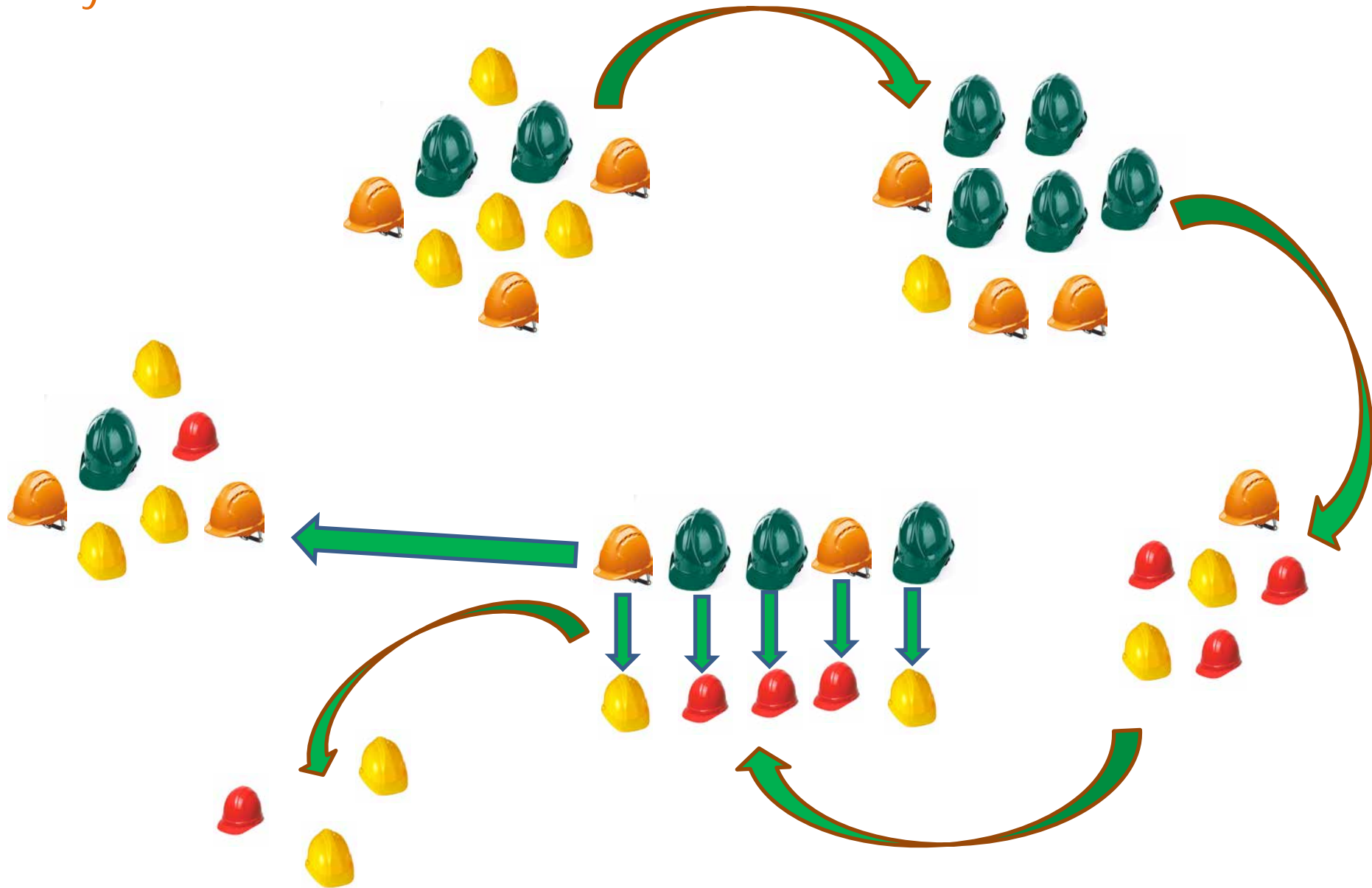
4. FABs deliver peer-to-peer toolbox talks on site to builders wanting to learn more about sustainable building



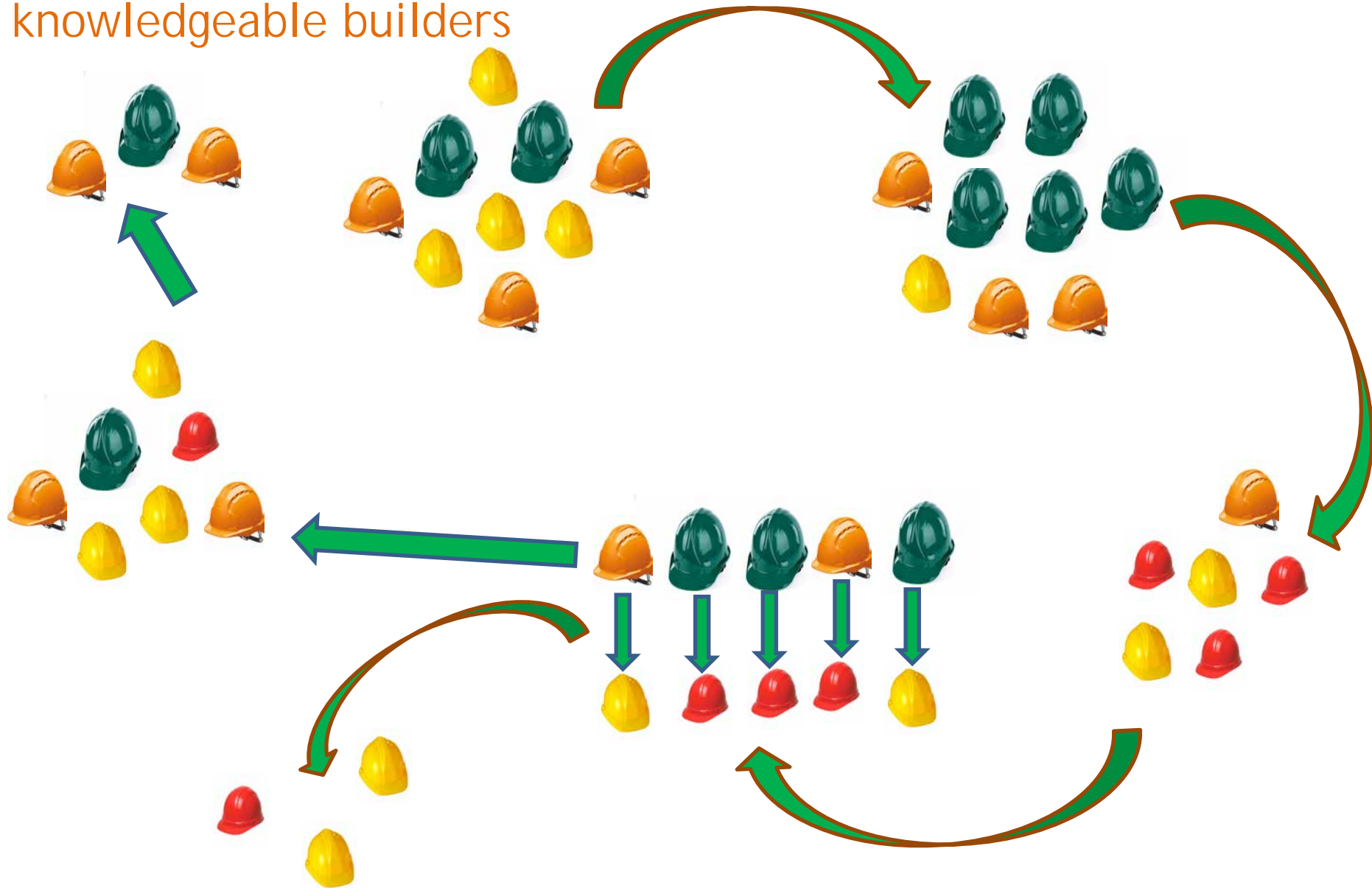
5. Some toolbox talk recipients will continue 'business as usual'



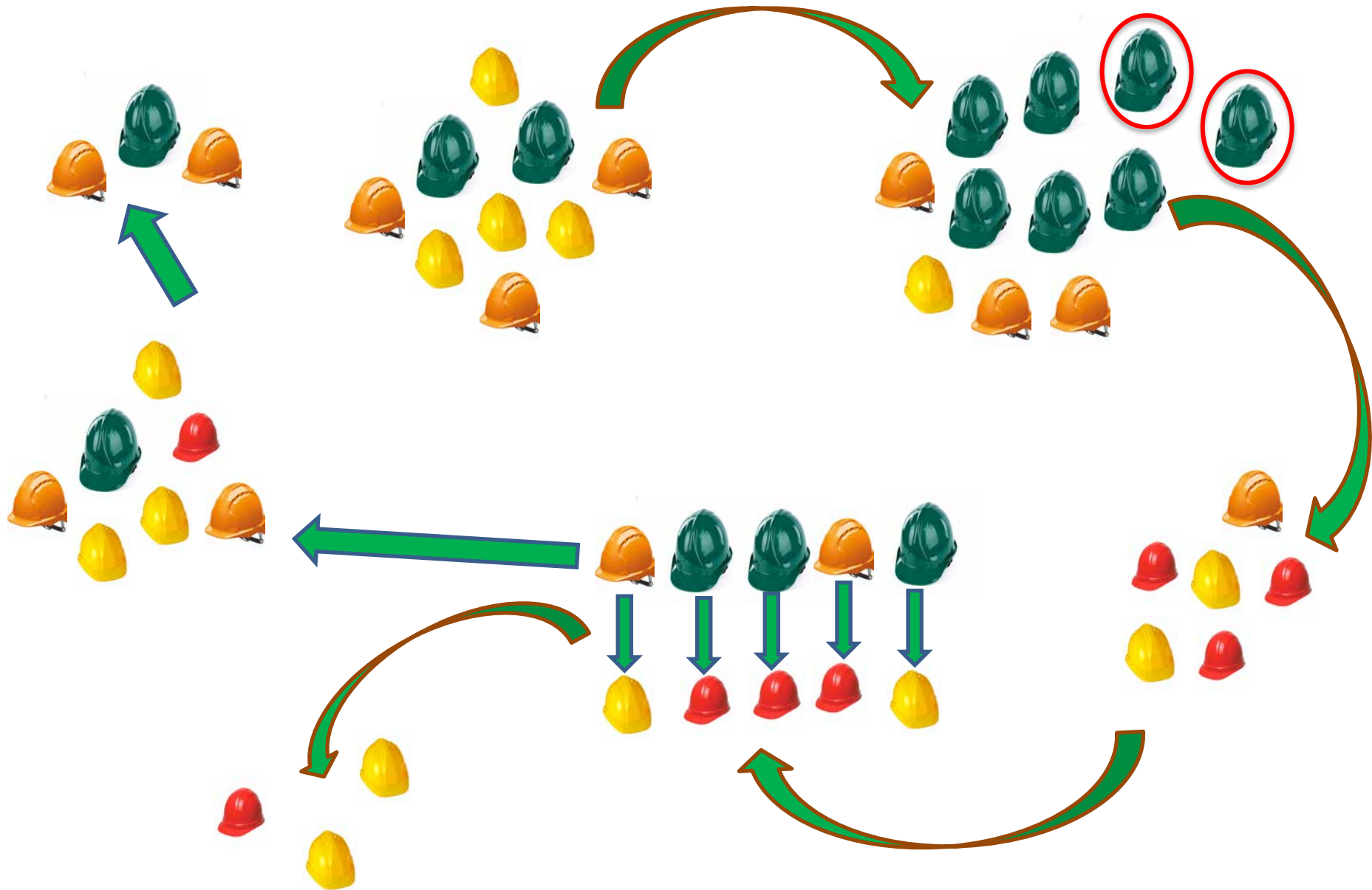
5. Some toolbox talk recipients will put into practice what they have learnt



5. Some toolbox talk recipients will become interested in becoming FABs, thereby increasing the pool of trained, knowledgeable builders



The pool of trained, knowledgeable builders increases





BUILDERS' BOOK



An illustrated guide to building energy efficient homes



Pollard Thomas Edwards



SERVICES GUIDE

An illustrated guide to building services in new homes



Pollard Thomas Edwards



THERMAL BRIDGING GUIDE

An introductory guide to thermal bridging in homes



c4ci
Consultancy Construction Innovation



Futureproof is helping local firms develop skills & knowledge in energy saving retrofit work.

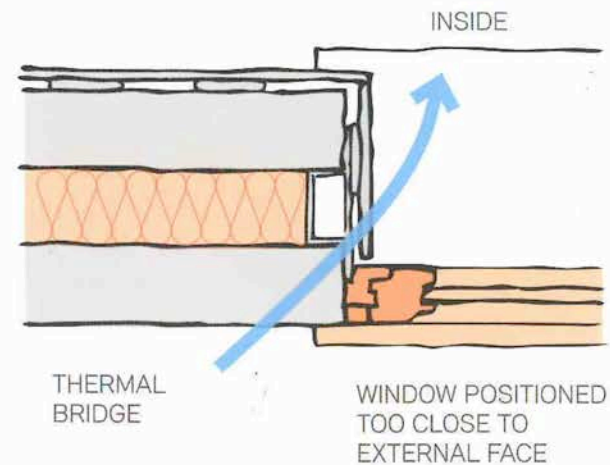


PROBLEM TO AVOID

WINDOWS INSTALLED FORWARD OF DESIGN POSITION



NO OVERLAP OF WINDOW AND CAVITY



WINDOW INSTALLATION

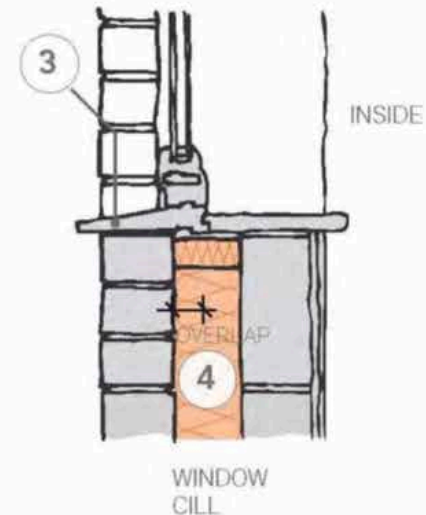
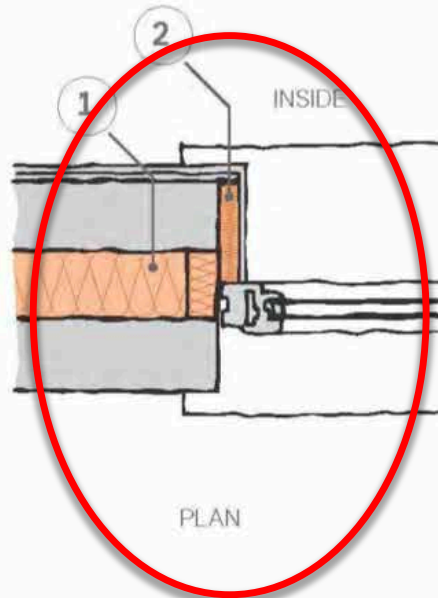


9.0



WHAT TO DO?

- Close the cavity with tightly packed insulation (1)
- Insulation to window reveal (2)
- Window fitter to provide cill to suit set back of frame (3)
- Less than 10mm tolerance between window frame and structural opening
- Overlap frame with cavity as much as possible - minimum 30mm (4)
- Check trickle vent sizes as design
- Use continuous cavity closer



GOOD PRACTICE

A large overlap with cavity will improve thermal performance. For improved airtightness, use air barrier tapes between the window/door and structure



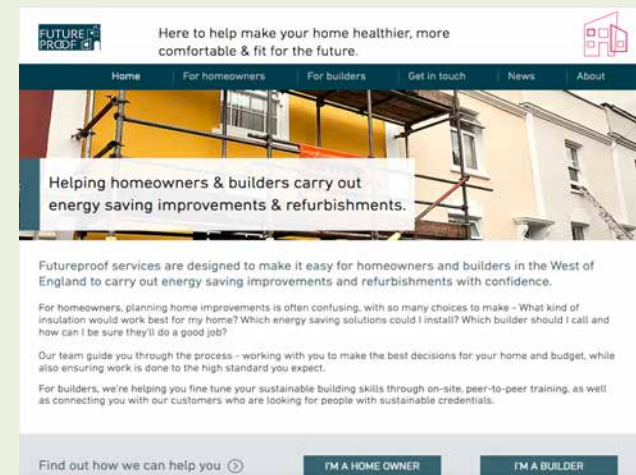
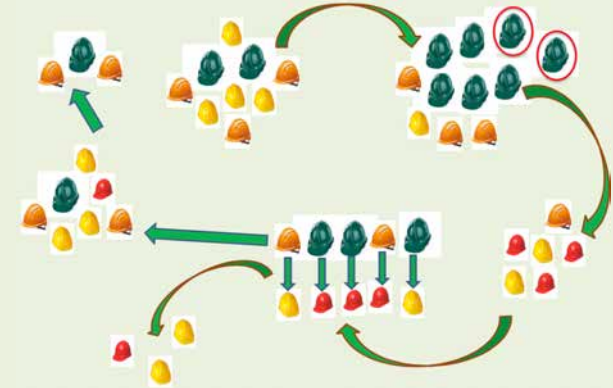
Achievements in 2019

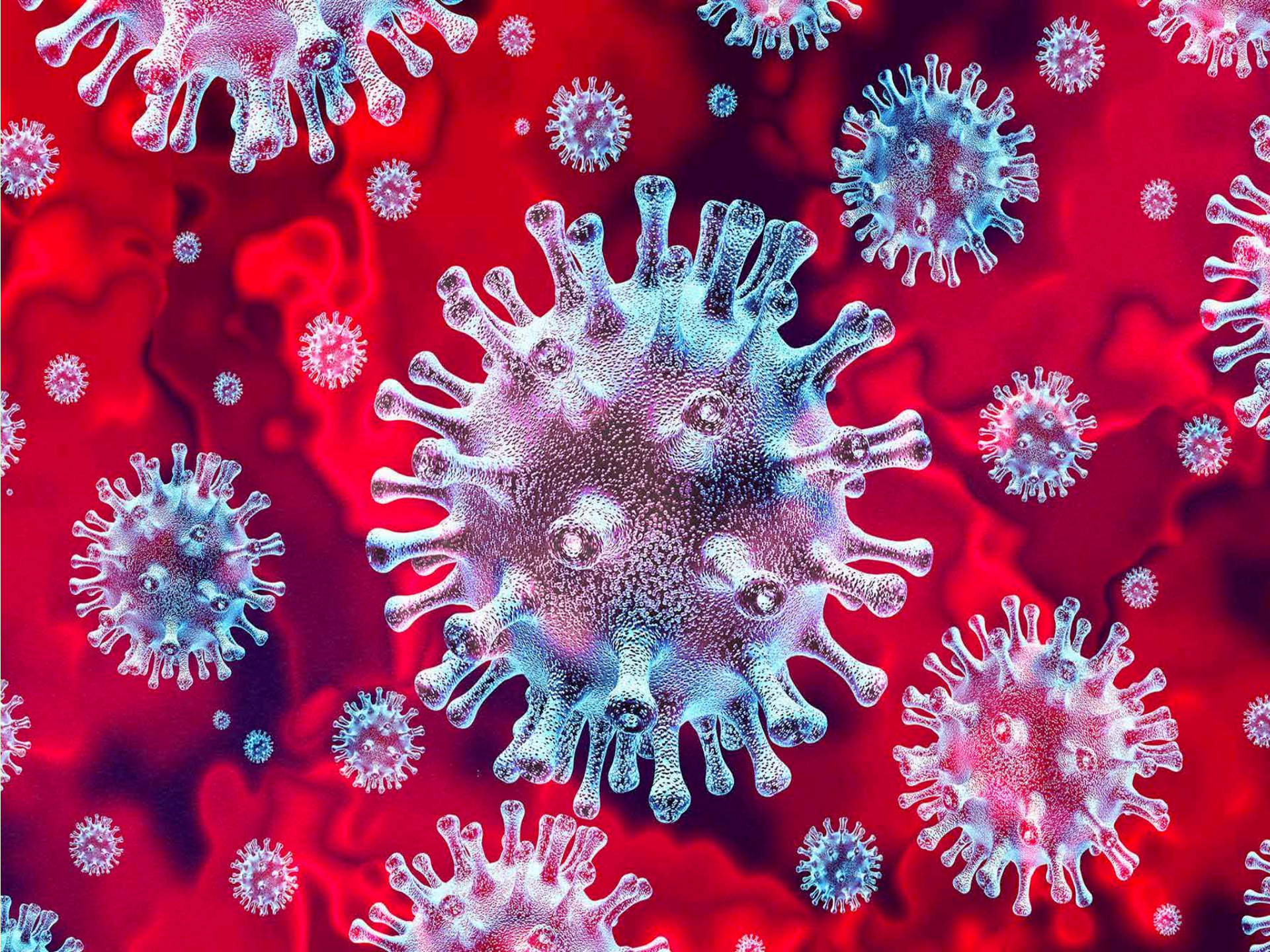
- Resource section on Futureproof website:
 - Glossary of terms
 - Interactive house
 - CSE Fact sheets
 - Technical information, training presentations & videos (2020)
- Provide FABs with literature and samples pack
- End of Year 2019 celebration & awards



2020 and beyond

- Ongoing, rolling programme of training FABs in 2020
- Over 50 FABs registered
- Design and delivery of training programme:
 - Level one & two - core topics + optional subjects
 - Formalising the learning outcomes - assessment after each training session
 - Learning Management System





2020 and beyond



- Rapid conversion to live streamed, interactive online learning
- Blended learning: 80% of FABs would like a mix of online learning and practical workshops
- Location no longer a limitation – Futureproof will become a nationwide programme of sustainable building training
- CITB Skills & Training fund



Our Future

- Green recovery...?
- Economic imperative
- Retrofit at scale
- Support from Local Authorities
- Futureproof training available for all SME's in the UK
- Futureproof provides SME's with skills, understanding and confidence to build better, more sustainable buildings



www.futureproof.uk.net

