

Conference Report 2022



STBA & SPAB Conference 2022

Wednesday 12th October

Sustaining Buildings

Edinburgh



The logo for VELUX, with the word 'VELUX' in white on a red background.

Sustainable Traditional Building Alliance and Society for the Protection of Ancient Buildings Scotland

Sustaining Buildings Conference Report 2022

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Set within Edinburgh's historic centre for contemporary arts, 'Dovecot Studios', and presented by a host of STBA and SPAB's guest experts, 2022's conference was a highly anticipated event.

Experts were chosen to present at Conference on topics covering: 'Scottish Policy & Practice'; 'Research'; 'Education and Training', and 'Comfort'.

In addition to updating the delegates of the sector's latest news or informing them on groundbreaking projects and research, these sessions prepared the audience for not just the Q&A's to follow but ultimately, the convening workshop.

The last session of Conference - the Workshop - was an interactive meeting with presenters and delegates collectively drawing down on the pertinent factors affecting the industry and was facilitated by **Bobby Jewell of Architects Climate Action Network and ACAN Scotland, Ailsa MacFarlane of Built Environment Forum Scotland and Glo Lo and Scott Mculay of ACAN Scotland.**



click above for highlights of 'Sustaining Buildings' 2022

Conference's guests varied from a diverse field of professionals from the built environment: architects, building conservationists, community sustainability organisations, building service engineers, not-for-profit independent retrofit advisors, building surveyors, senior technical advisors, designers and sustainability consultants.

The recommendations set out in the following pages are direct comments from delegates and speakers, collated as their own experiences in the sector as professionals or consumers.

We are grateful to our expert speakers and facilitators for their significant contributions and to all delegates for their support.

Following the presentations from our experts the Conference floor area was divided up into three discussion groups with open questions to debate: comments from this live consultation form the recommendations below.

Discussion 1

Scottish Policy & Practice

Discussion 2

Research, Education and Training

Discussion 3

Focus on: Thermal Comfort and Fuel Poverty

Q1. Identify Targets

Blue Sky Visioning, what do you think we should aim for, having listened to the presentations today?

Q2. Barriers

What barriers are there for achieving these targets?

Q3. Actions

What actions can we collectively take to overcome obstacles and reach the identified targets in Q1?

Facilitated by



Interactive Workshop exploring gaps in policy and practice



- Policy & Advocacy
- Represent Members: professions, civic Scotland, communities of place, interest and specialism, and funders



- National focus
- Debate, advocate and inform



- Lobby politicians, advocating for the place of our existing and historic environment across policy areas and outcomes

- Listen – connecting



Originally launched as protest and provocation, the Anthropocene Architecture School today functions as an agile education platform: teaching across the U.K. and internationally.

It supports built environment professionals, students, educators, and learners of any interested kind by creating and facilitating spaces to learn about and share responses to the Climate and Ecological Emergency, sharing its methods openly.

The project reimagines what architectural education could be: fusing climate literacies, explorations of agency, and opportunities for the radical imagination into its methods and workshops.

Scottish Policy & Practice

“Future longevity and use of built heritage assets are at risk if bespoke interventions are not considered”

- Ann-Marie Fallon, Architype

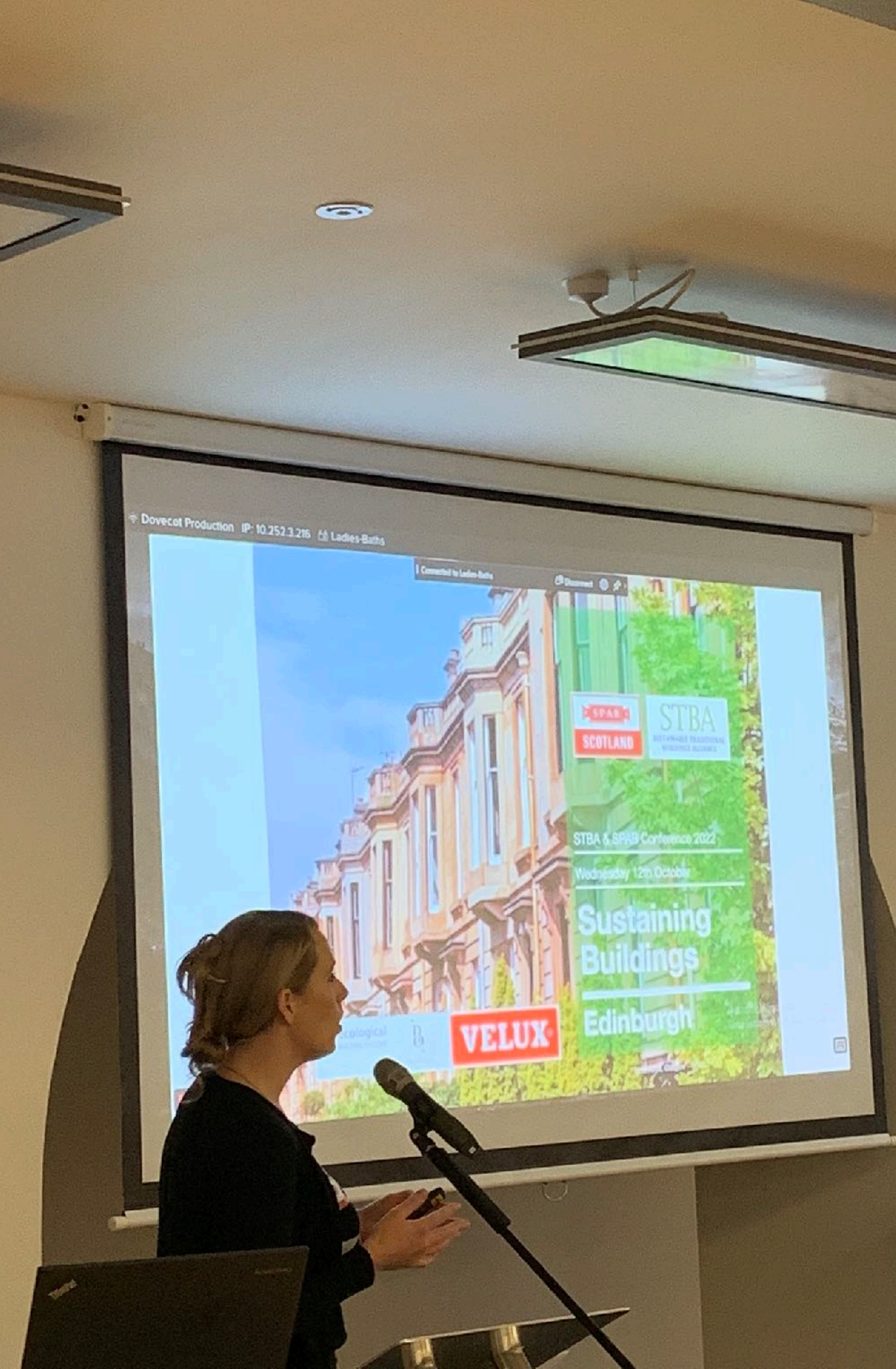
“Real world information & making Post Occupation Evaluation accessible helped us to understand: how buildings, and especially the indoor environments they enclose, affect human health, wellbeing, productivity and learning”

- Scott Abercombie and Barbara Lantschner, John Gilbert Architects

High demand for skills: “Training and qualifications in retrofit is needed – at scale”

Conservation retrofit: “Less invasive - will cost less - more likely to be done”

- Roger Curtis, Historic Environment Scotland





Scottish Policy & Practice

Discussion 01 Scottish Policy & Practice

Take a few minutes to introduce yourselves, please keep it brief.
Nominate at least one Notetaker



(10 mins) #Q1. Identify Targets
Blue Sky Visioning, what do you think we should aim for, having listened to the presentations today?

Notes:

- NATIONAL RETROFIT STANDARD
- RE-CONFIGURE STANDARDS: BBA BSI etc. independent testing.
- PLANNING TO DEFAULT TO RETAINING EXISTING BUILDINGS
- OUTRIGHT BAN OF CERTAIN PRODUCTS/MATERIALS ON SOLID-WALL CONSTRUCTION
- APPLY THE WELSH GOVT "WELL BEING OF FUTURE GENERATIONS ACT" ACROSS WHOLE UK
- REMOVE/LOWER BARRIERS TO ENTRY FOR NEW PRODUCTS by wood fibre

(10 mins) #Q2. Barriers
What barriers are there for achieving these targets?

Notes:

- VESTED INTERESTS & LOBBYING.
- FALSE ECONOMIES OF CHEAPER INADEQUATE ALTERNATIVES
- CHANGES TO BUILDING STANDARDS MADE ON AN "INDUSTRY CONSENSUS" BASIS
- CONSTRUCTION INDUSTRY LED BY MARKET FORCES - WON'T CHANGE VOLUNTARILY
- RETROFIT TRAINING IS INSUFFICIENT TO PROVIDE QUALIFIED TRADES (BARRIER)
- SOME PEOPLE WANT TO GET RID OF BUILDING STANDARDS ENTIRELY
- PERCEPTION OF RETROFIT BEING MORE EXPENSIVE THAN NEW BUILD

(10 mins) #Q3. Actions
What actions can we collectively take to overcome obstacles and reach the identified targets in Q1?

Notes:

- START SPECIFYING NATURAL MATERIALS
- PROFESSIONAL BODIES SHOULD TO MORE INVOLVED ACTIVE..... (THEY ARE NOT VERY ACTIVE NOW...)
- LESS FOCUS ON INSULATION
- SCOTTISH/UK GOVT TO MAKE IT MANDATORY FOR NEW BUILD TO HAVE 10% REUSE MATERIALS
- AS PER BUILDING SAFETY BILL, NEW MATERIALS TESTING AUTHORITY TO HAVE SOLE RESPONSIBILITY FOR THIS I.E. NO 3RD PARTY TESTING
- PASSIVE OPTION BY DEFAULT eg. Ventilation + cooling. Specify
- ALL NEW BUILDINGS TO HAVE MATERIALS PASSPORT + LINKED TO MATERIALS RE-USE
- ALL GOVERNMENT BUILDINGS TO HAVE A % OF RECYCLED + NATURAL SUSTAINABLE MATERIALS

Sample of delegates' comments



Q1. Identify Targets

Policy

Planning to default retaining existing building

Apply the Welsh Govt. "Wellbeing of Future Generations Act" across whole UK

Reconfigure building standards: BBA / BSI / ..independent testing

outright ban of certain products / materials on solid wall construction

remove / lower barriers to entry for new products eg wood fibre

eradicate fuel poverty

National Retrofit Standard

climate resilient buildings

include adaptation in retrofit

30% land under good habitat management

benchmark + achieve good indoor air quality

zero emissions heating

maintaining significance of historic environment

make most polluting carbon intensive options less affordable

make best practice affordable

enforced POE (post occupancy evaluation)





Q2. Barriers

Education

changes to building standards made on an "industry consensus" basis
perception: retrofit is more expensive than new build
modelling & feeling discrepancy

Training

retrofit training is insufficient to provide qualified trades
lack of education of building owners

Finance

wages depreciating in real terms
funding/money
future market: inflation
increasing fuel prices
not valued by economic model
funding
r&d funding + risk
return on investment
wages depreciating in real terms





Q2. Barriers

Policy

- some people want to get rid of building regulations entirely
- building industry supply chains
- flawed & inappropriate existing policy (unintended consequences)
- legislation can turn 'greenwashing' into genuine ecological improvement
- confused legislative landscape
- industry not focused on repair
- constructions industry-led by market forces - won't change voluntarily
- culture of bailing out private sector
- building control
- short term thinking embedded in policy / practice
- vested interests and lobbying. False economies of cheaper/inappropriate alternatives
- joined up policy
- procurement
- capacity: enforcement
- accountable agencies
- EPCs
- conflicting individual interests - no 'greater good'
- pace at which change occurs
- lack of honesty (from Government)
- 'head in sand' culture needs step change





Scottish Policy & Practice

Q3. Action

Policy

building capacity of verifiers

better resource planning

evidence based decision making

BBA certificates for natural materials

large scale community retrofit

reuse capacity augmentation

(legal) Act that is legally binding & outcomes are monitored

benchmark rates of new build / demolition/retrofit by local authority

identify what good looks like

reward Low Zero Carbon innovation through planning

reuse capacity augmentation

BBA certificates for natural materials

policy streamlining & cleansing of incoherence

enforcement

challenge capitalist/materialistic agenda

encourage/support public to demand more & better

integrity

push for building/designing for future (not minimum regulations now) : incentivise

Policy

less focus on insulation

specify passive options as default e.g. ventilation & cooling

start specifying natural materials

professional bodies should be more involved (they are not very active now...)

Scottish / UK Gov. to make it mandatory for new build to have 10% reuse materials

all new buildings to have materials passport & linked to materials re-use

as per 'Building Safety Bill' new materials to have sole responsibility for this i.e. no 3rd party testing

all government buildings to have a percentage of recycled, renewable and sustainable materials



Q3. Action

Education

Education and Training

suitable retrofit qualification

learning from good practice

remember sam webb (architect)

Training

funding for training

looking outwards: learn from others

Finance

outcomes based funding

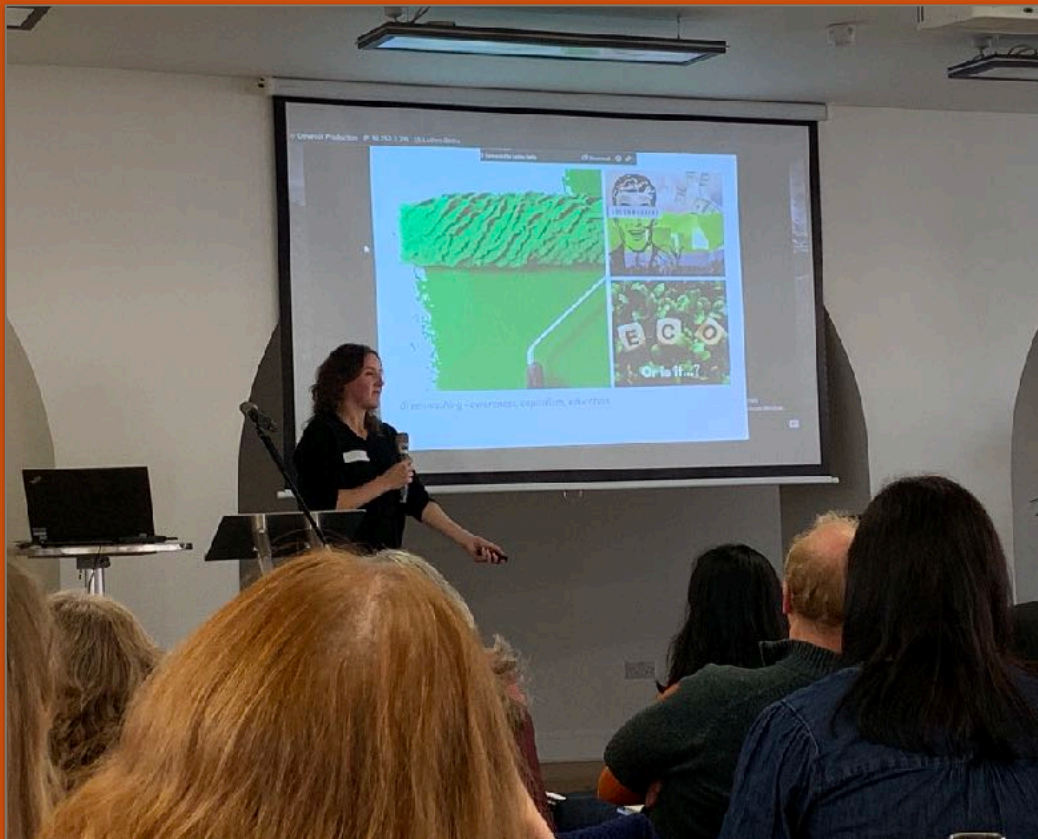
local retrofit investment to offset new build emissions

equalise or reverse VAT on new build & retrofit

carbon pricing tax

help 'building broker' business model to encourage circular economy

no vat on retrofit and on new build



Research, Education & Training

“Average Joe that runs a business needs guidance, incentives, education and encouragement to change his ways, update his skillset.”

- Kirsty Cassels,
Creative Cassels

“To resolve the apparent conflict between heritage and sustainability not considered, a plural approach to future planning is needed”

- Nigel Griffiths, STBA

“Support academia and the wider industry in the research and development of retrofit solutions at scale. ”

- Caitriona Jordan,
BE-ST

“Annex A of PAS2035 requires that Assessors and Designers of upgrades to Protected buildings (including those in conservation areas) have additional qualifications in retrofitting older and traditional buildings. Not all buildings in conservation areas are older and traditional construction”

- Lisa-Anne Pasquale,
Retrofit Works, STBA

“Preconceptions about performance of historic and traditional buildings - assumption is that the older the building the less energy efficient it is”

- Chris Whitman,
Welsh School of
Architecture





Research, Education & Training

Discussion 02 Research, Education and Training

Take a few minutes to introduce yourselves, please keep it brief.
Nominate at least one Notetaker



(10 mins) #Q1. Identify Targets

Blue Sky Visioning, what do you think we should aim for, having listened to the presentations today?

Notes:

Practical training lacking for designers

↳ increased practical training AND PRACTITIONERS

Integrated training inc. practical and academic.

More holistic education from a younger age (school) + increased value in practical trades.

Increased sharing of research to professionals and then to the public to avoid greenwashing etc.

BURST THE CONSERVATION "BUBBLE"

(10 mins) #Q2. Barriers

What barriers are there for achieving targets?

Notes:

Separate education systems for designers and contractors from school age.

Lack of education programmes and/or funding. e.g. for stone masonry & specialist skills

Current system doesn't encourage holistic thinking/skills sharing.

Lack of access to data/research.

Separate views on what action is correct → professionals, contractors, public.

Lack of Post occupancy Evaluation + funding for it.

Living & working in rural areas can limit access to learning.

EDUCATION ISN'T JUST FOR TRADES ITS FOR PUBLIC, TOO.

Architects sharing 'nitty gritty' of retrofit projects

Retrofit included in Architectural education + for trades!

Dev. in professional routes that support training + specialist skills

Increased public information resources + clear paths to get information

WATER OF REMEMBERING THE WHEEL, INSTEAD IN PROGRAMS THAT EXIST. (IE BUILD YOUR FUTURE)

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Sample of delegates' comments



Research, Education & Training

Q1. Identify Targets



Policy

- better building regulations
- public awareness campaign
- increased sharing of research to professionals and then to the public to avoid greenwashing
- burst the conservation bubble

Training

- Government backed training at scale
- school, FE college, general building
- huge training at scale in retrofit skills
- specialist retrofit design in colleges
- Practical training lacking for designers and practitioners
- Integrated training inc. practical and academic
- more holistic education from a younger age (school) + increased value in practical trades



Research, Education & Training

Q2. Barriers

Policy

Public education on carbon zero

political barrier

short term thinking

big orgs political pressure on Gov.

mainstream: it's not rocket science

lack of access to data / research

current system doesn't encourage holistic thinking / skills sharing

business cannot deliver carbon zero

separate views (from professional, contractors, public) on what action is correct

architects sharing of 'nitty gritty' of retrofit projects

cowboy builders

greenwash

Education

separate education systems for designers and contractors from school age

lack of education programmes and/or funding e.g, stone masonry & specialist skills

increased sharing of research to professionals and then to the public to avoid greenwashing

burst the conservation bubble

education isn't just for trades, it's for public too

living and working in rural areas can limit access to learning

Finance

money: skills, training policy



Research, Education & Training

Q3. Actions

Policy

Research & development from profits

better building regs

promote & advocate traditional craft skills

collaboration between organisations to achieve actions

develop procurement routes that support training + specialists + sub contractor

Education

designers & academics: getting practical skills

retrofit academy: FE level

overarching qualification body with the ability to accumulate credits over time

retrofit included in architectural education + for trades

Finance

money: skills, training policy

Training

money: skills, training policy

more ACAN

more SPAB working parties

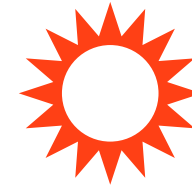
Increased opportunities for practical training on site during projects

commercial incentives for training

increased training programmes + funding/bursaries

instead of reinventing the wheel, invest in programs that exist (ie Build your Future)





Comfort

Communicating Retrofitting with Natural Materials:

“Clients want to insulate although have limited knowledge of what to use and where”

- Grigor Mitchell - Grigor Mitchell Architects

“a Conservation Retrofit brings about significant differences, but more pronounced is the evidence in more robust workings via AECB’s Retrofit”

- Athina Petsou, UCL

“a Conservation Retrofit brings about significant differences, but more pronounced is the evidence in more robust workings via AECB’s Retrofit”

- John Butler, Sustainable Building Consultant



Comfort

Q1. Identify Targets

Policy

Targets (fuel poverty): address, poverty, fabric first

humanity comfort zone on a temperature scale

snobbery toward heating needs: changing hearts + minds, expectations

clothing: appropriate / zonal heating / easy wins

public buildings: building use/radiant heating/localised

Heating rooms only? whole house target? temperature target (18-21c)?

Are targets viable?

mental comfort

Identifying what is comfort

Happy healthy people in Happy healthy homes

interior air quality

localised heaters eg, chair cushion

fuel poverty, minimum levels of comfort

if 80% are ok that's great

user not aware of their comfort

not being aware of thermal comfort

effortless control





Comfort

Q2. Barriers

Policy

skillset shortage

labour shortage

expectation 'I want to wear a t-shirt in January'

politics

class (Scottish Index of Multiple Deprivation

internal finishes

Energy Company Obligation (ECO) Scheme

Insurers guarantees

skills shortage

perception of comfort as a barrier

overly complicated

poor communication

policy & people: close the gap

perception as comfort as a barrier

poor branding of standards

poor communication

comfort is subjective

clothing, fashion

Education

education awareness

Policy

perception: does the radiator feel warm?

medical +c vs standards +c

shutters painted shut - can't use

money: high quality thermal fabric

a feeling of entitlement (subjective)

public have to discover the answers themselves, can't be patronising

not incorporated in the guidance & design

tenants / landlords need to know how to plan situation for tenants

private landlords

mixed tenure

ukraine war

historical significance

Finance

effective exclusion of solid wall appropriate materials from grant funded projects

cost

finance arrangements



Comfort

Q3. Actions

Policy

tactile natural materials

independent control

overheating limits in workplaces (legislation!)

natural materials have a better result

greater awareness of air temperature and what it is

how it's talked about: not just about a jumper on; what about socks

Maintenance (first step)

Funding: well aimed, with understanding of needs, surveying

built in feedback loop

education & communication loop

use our power of influence

we are the educators

Social housing

free hats/jumpers

end right to buy

policy: lobbying

flexible building control

staffing of local authorities + skills

renewable investment

Policy

eradication of poverty / inequality

relaxation of planning / free planning: pragmatic / consistency

increased EPC demands for rental properties

community energy - district heating eg hydrogen

master planning: renewables & targets

Finance

minimum wage

- VAT

challenge policy: reduce costs

Education

education from youth

Training

contract training: certification of products

global upskill



Speakers

PAS 2035 - Scottish Overview,
**Scott Abercombie & Barbara Lantschner -
John Gilbert Architects**

Embodied Carbon - Report,
Roger Curtis - Historic Environment Scotland

Estate wide intervention,
Anne-Marie Fallon - Architype

Welcome & Introduction,
Douglas Kent - SPAB

Introduction, From Retrofit to Regeneration
Nigel Griffiths - STBA

PAS 2035 - Conflicts in implementation,
Lisa-Anne Pasquale - Retrofit Works

Case study - Building performance evaluation,
Chris Whitman - Welsh School of Architecture

Training and skills,
Caitriona Jordan - BE-ST

A Contractor's experience,
Kirsty Cassels - Creative Cassels

Case study - Embodied carbon,
John Butler - Sustainable Building Consultant

Case study - Local housing,
Grigor Mitchell - Grigor Mitchell Architects

Comfort assessment,
Athina Petsou - UCL

Recent works: Retrofit and Eco Materials,
Paul Higginson - Arc Architects

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