



UKCMB
UK CENTRE FOR
MOISTURE
IN BUILDINGS



MOISTURE IN BUILDINGS

Health, buildings and context

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ASBP Healthy Buildings conference 2018 *#HealthyBuildings18*



Why moisture?

Moisture issues are the cause of substantial building and health problems in the UK

Moisture is largely ignored in research, industry and policy.

There is a need to balance energy and cost with moisture to achieve long-term building sustainability

There is misinformation and scare-mongering about moisture

Moisture issues are complex and require systems thinking for assessment, understanding and “solutions”

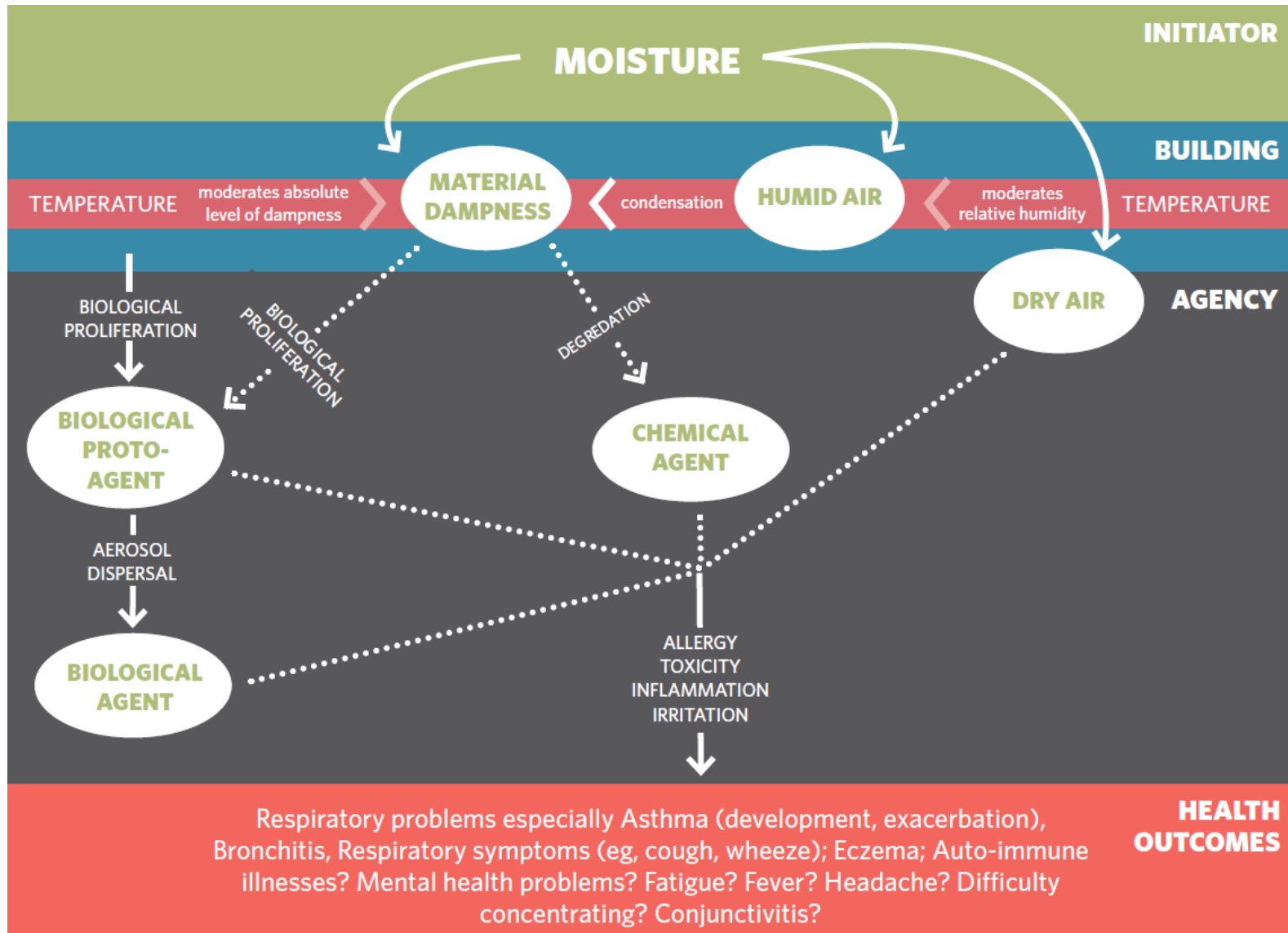
Moisture-related risks appear to be increasing but there is huge uncertainty about causes and effects

Health and Moisture in Buildings

Health and Moisture in Buildings

A REPORT FROM THE UK CENTRE FOR
MOISTURE IN BUILDINGS ABOUT THE
HEALTH IMPACT OF BUILDINGS WHICH
ARE TOO DRY OR TOO DAMP





	Dampness/ Mould	House ust Mite	VOCs (formalde- hyde)<	Endotoxin	Ergosterol	(1-3)-β-D- glucan	Dry Air
Rhinitis	Good evidence of an association exists	Good evidence of an association exists					
Cough	Good evidence of an association exists						
Wheeze	Good evidence of an association exists		Limited evidence of an association exists	Limited evidence of an association exists			
Respiratory infections	Good evidence of an association exists						
Respiratory symptoms	Good evidence of an association exists		Limited evidence of an association exists				
Asthma development	Good evidence of an association exists	Evidence of a causal relationship exists					
Asthma exacerbation	Evidence of a causal relationship exists	Evidence of a causal relationship exists	Limited evidence of an association exists	Good evidence of an association exists	Limited evidence of an association exists	Limited evidence of an association exists	
Dyspnoea	Good evidence of an association exists						
Hypersensitivity pneumonitis (allergic alvelolitis)	Good evidence of an association exists						
Bronchitis	Good evidence of an association exists						
Common cold	Limited evidence of an association exists						
Sinusitis	Literature reveals evidence of a possible association but more evidence is required						
Inhalation fever, Humidifier fever	Good evidence of an association exists						
Throat symptoms	Literature reveals evidence of a possible association but more evidence is required						
Eye symptoms							Literature reveals evidence of a possible association but more evidence is required
Malaise (nausea, vomiting, stomach ache, diarrhoea, fever, chills, fatigue)	Literature reveals evidence of a possible association but more evidence is required						
Skin symptoms, eczema	Good evidence of an association exists	Good evidence of an association exists					Literature reveals evidence of a possible association but more evidence is required
Mental health problems (incl. headache, difficulties concentrating)	Literature reveals evidence of a possible association but more evidence is required						

- Literature reveals evidence of a possible association but more evidence is required
- Limited evidence of an association exists
- Good evidence of an association exists
- Evidence of a causal relationship exists

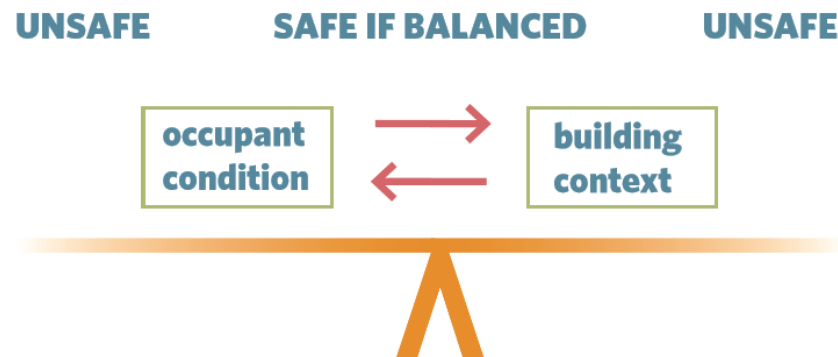
Where are we?

- Concern is high
 - APPG on Healthy Homes and Buildings
 - Media interest
 - ...
- Need for a new approach
 - Considering scientific evidence and context
 - Considering balance
 - Valid approach not only for health research but also in building physics and construction

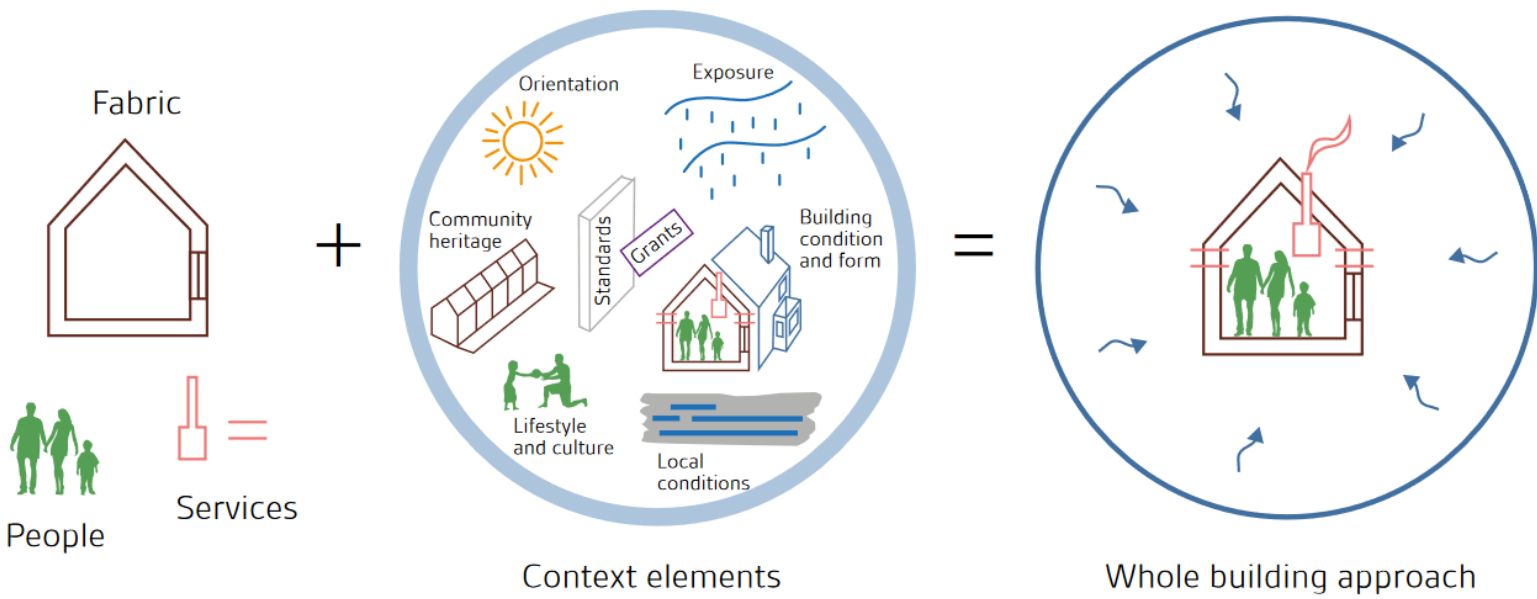


Holistic approach – Health and Moisture

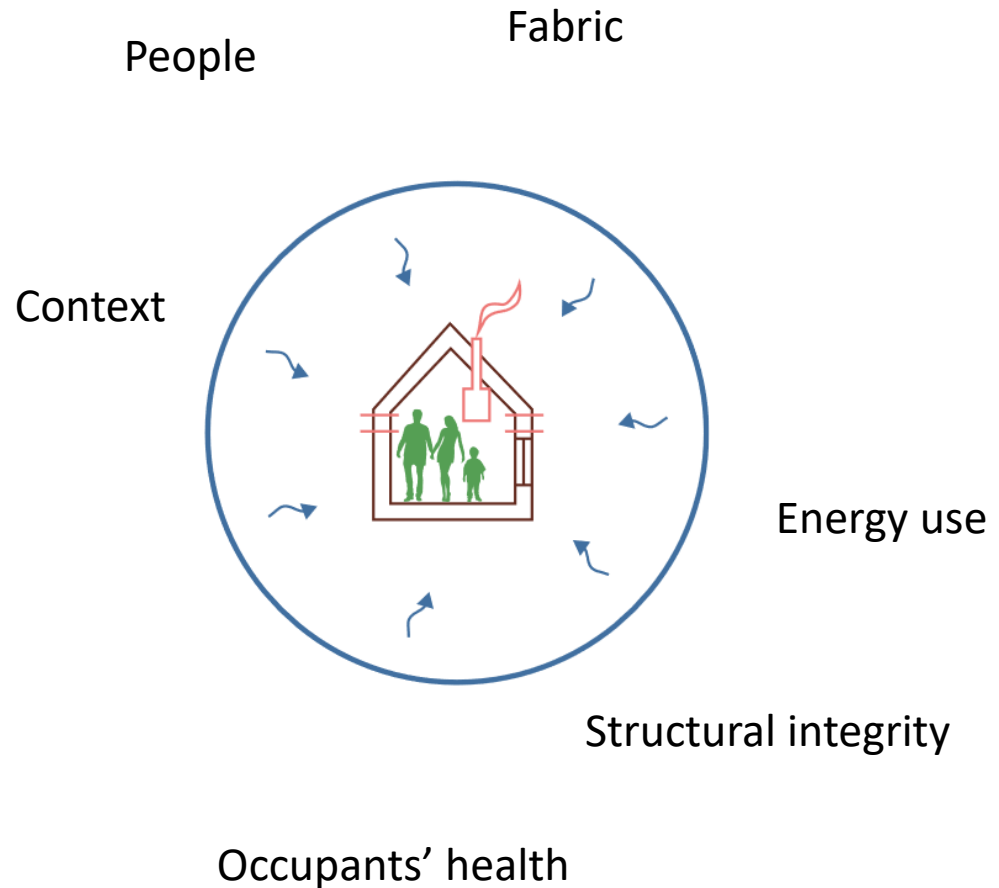
- Holistic approach – objective and subjective data
- Systemic approach with feedback
- Valuing building context and occupant condition
- Accepting uncertainty and complexity
- All about balance



Holistic approach – Building Fabric and Moisture



Moisture risk assessment for IWI



Buildings, People and Moisture

For professionals



Moisture in buildings:
an integrated approach to
risk assessment and guidance

Neil May and Chris Sanders

For homeowners



<http://www.ukcmb.org/ukcmb-news/moisture-guidance-for-existing-homeowners>

Technical Working Groups

TWG 1 Monitoring and Modelling of Moisture in Buildings

Chairs: Tom Cox, Valentina Marincioni, Caroline Rye

TWG 2 Ventilation, Airtightness and Moisture in Buildings

Chairs: Ian Mawditt, Tim Sharpe

TWG 3 Moisture in New Build

Chair: Lynne Sullivan

TWG 4 Moisture in Existing Buildings and Retrofit

Chairs: Harry Paticas, Bob Prewett

TWG 5 Flooding and Escape of Water

Chair: Mike Waterfield

TWG 6 Insurance and Consequences of Moisture in Buildings

Chairs: Jonathan Davison, Jeremy Sykes





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