

# Performance Criteria for Health & Wellbeing

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# Technical Memorandum TM40 Health & Wellbeing

Context and impact of built environment

Space between buildings

Environmental parameters

- Thermal conditions

- Humidity

- Air quality

- Light

- Water

- Electrical & electromagnetic fields

- Acoustics

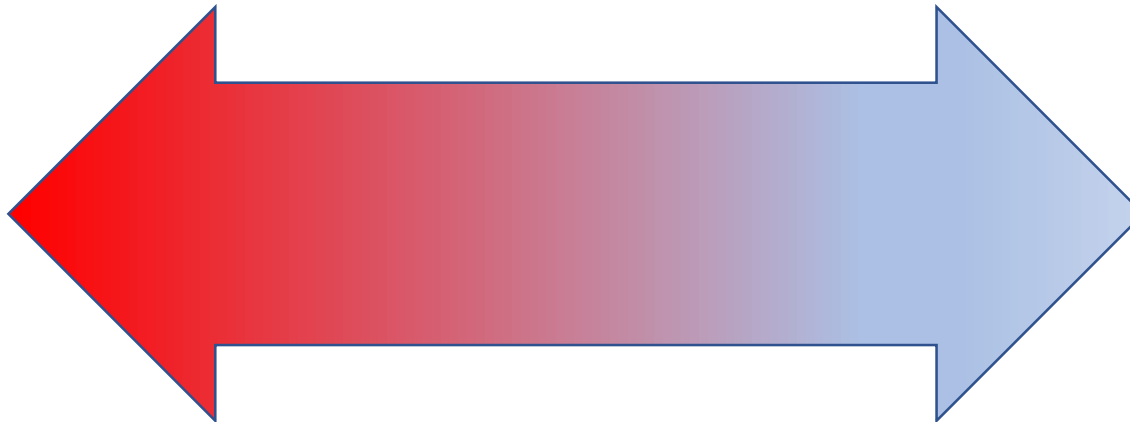
# Supportive Environment

Health, Comfort, Cognitive performance

Health & Safety

Hazards

Security



Beauty

Happiness

Belonging

...

# What is "good"?

## Design measures vs Desired outcome

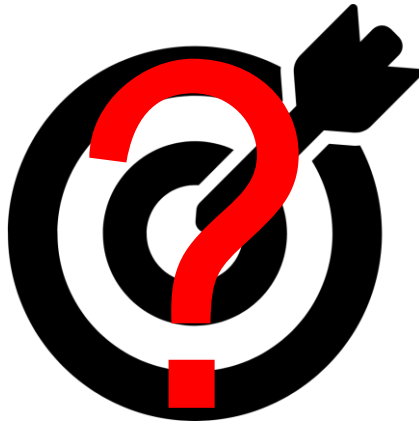
Example: Building Regulations Approved Document F

*" It is assumed that the outside air is of reasonable quality.*

*This Approved Document does not address contamination from outdoor sources. "*

- Where possible, science-based environmental criteria
- Supported by design, construction and operational guidance

# What is "good"?

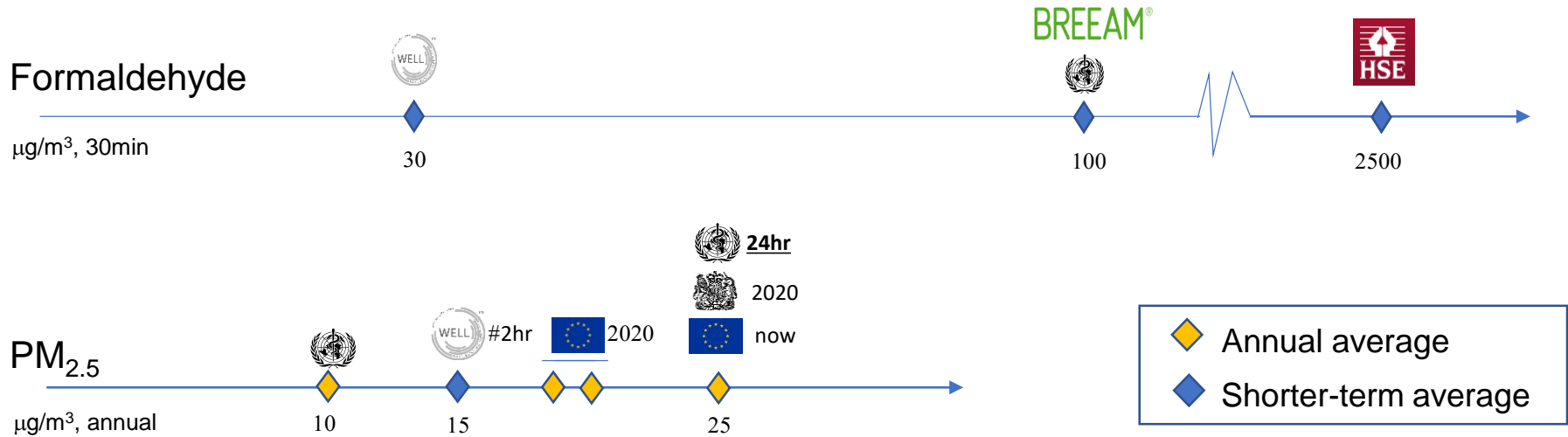


# Air Quality



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# Air Quality



What to prioritise ?

Context: site; type of use

Pollutant (e.g. formaldehyde) vs indicator (e.g. TVOC)

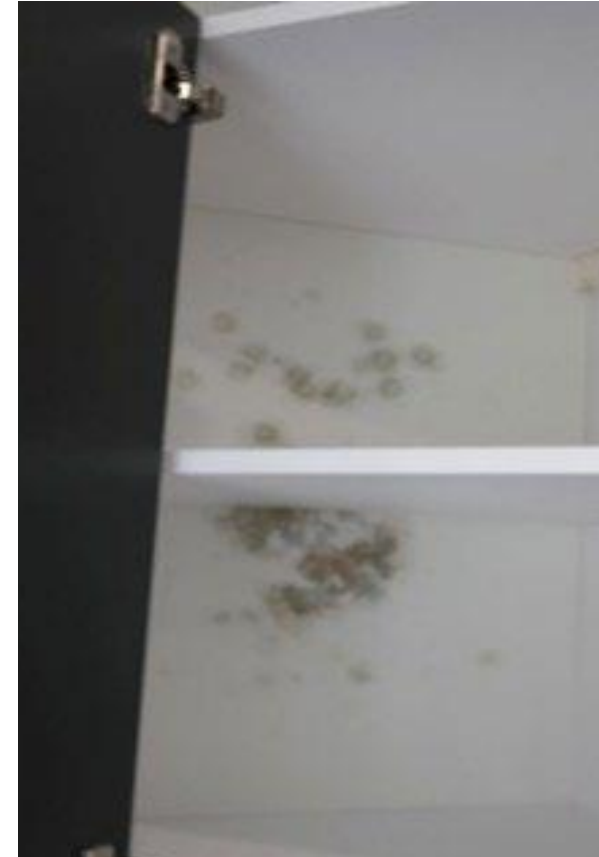
# Humidity

Mould

Allergens e.g. House Dust Mites

No criterion from WHO: ventilation,  
surface temperatures

40-60% RH in residences



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# Thermal Conditions

## Health-based criteria

?

Overheating – CIBSE TM59 & TM52

## Comfort

CIBSE, BS EN, ASHRAE...

Adaptive and PMV/PPD approaches

Operative, not only air T

## User choice

Link to other issues e.g. acoustics



# Light

## Visual aspects

Lux levels, glare, colour rendering, flicker ...

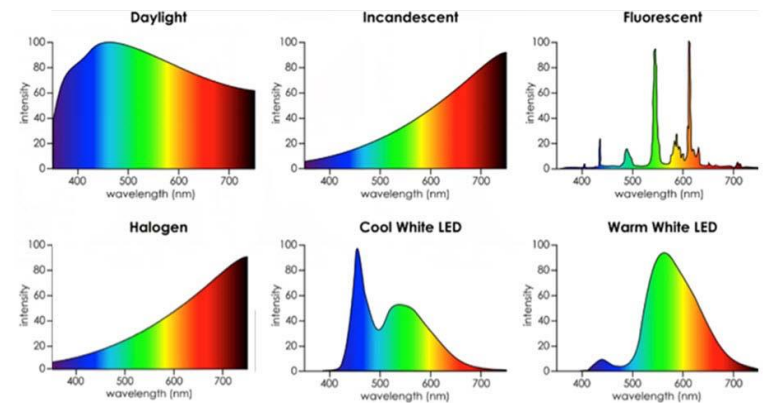
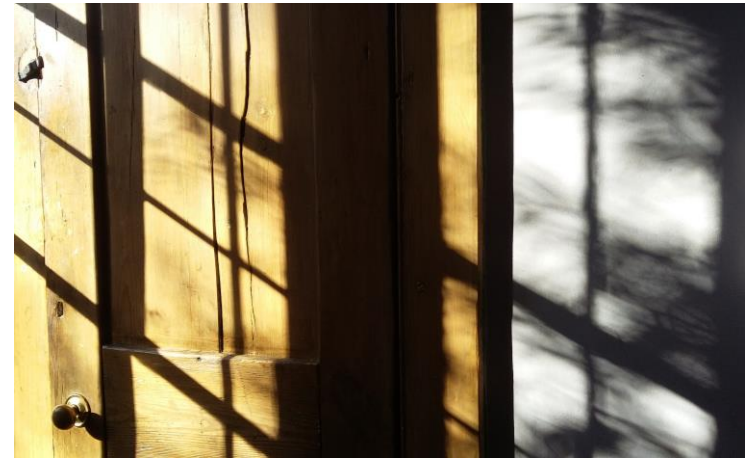
## Non-visual effects

“Circadian”, “human-centric” lighting  
Debates on effects and metrics

Rapid and wide adoption of LED

Spectrum distribution

Daylight and views out



# Emerging Themes

