

Get Ready for Heatwaves



Tue 30th June 2026, 7:30pm – 8:30pm

William Orme	OEH Manager	Chair	
Andrew Chalk	Guest Speaker	Shading	
Tom Bragg	OEH volunteer	Staying cool	
Paul Kershaw Steps	Cambridge Retrofit Hub	Next	
Nicole Dang	OEH volunteer	Questions +	



Outline



Welcome

William Orme

CCF Home Energy Officer

Shading

Andrew Chalk

British Blind & Shutter Association

Q&A

Nicole Dang - calling on questioners

Ventilation +

Tom Bragg

CCF volunteer

Next Steps

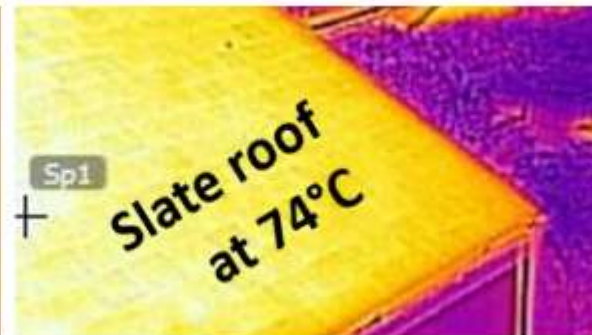
Paul Kershaw

Cambridge Retrofit Hub

Q&A

Nicole Dang

CCF volunteer



Shading for a Resilient Future





The era of global boiling has arrived...

90%

Of our time is spent indoors

90%

Of the UK's housing stock could overheat by the 2030s

90%

Of the UK's hospitals prone to overheating

98%

Possible heat exclusion from using external shading

Bedrooms in
15.7 million
UK homes fail
overheating criteria

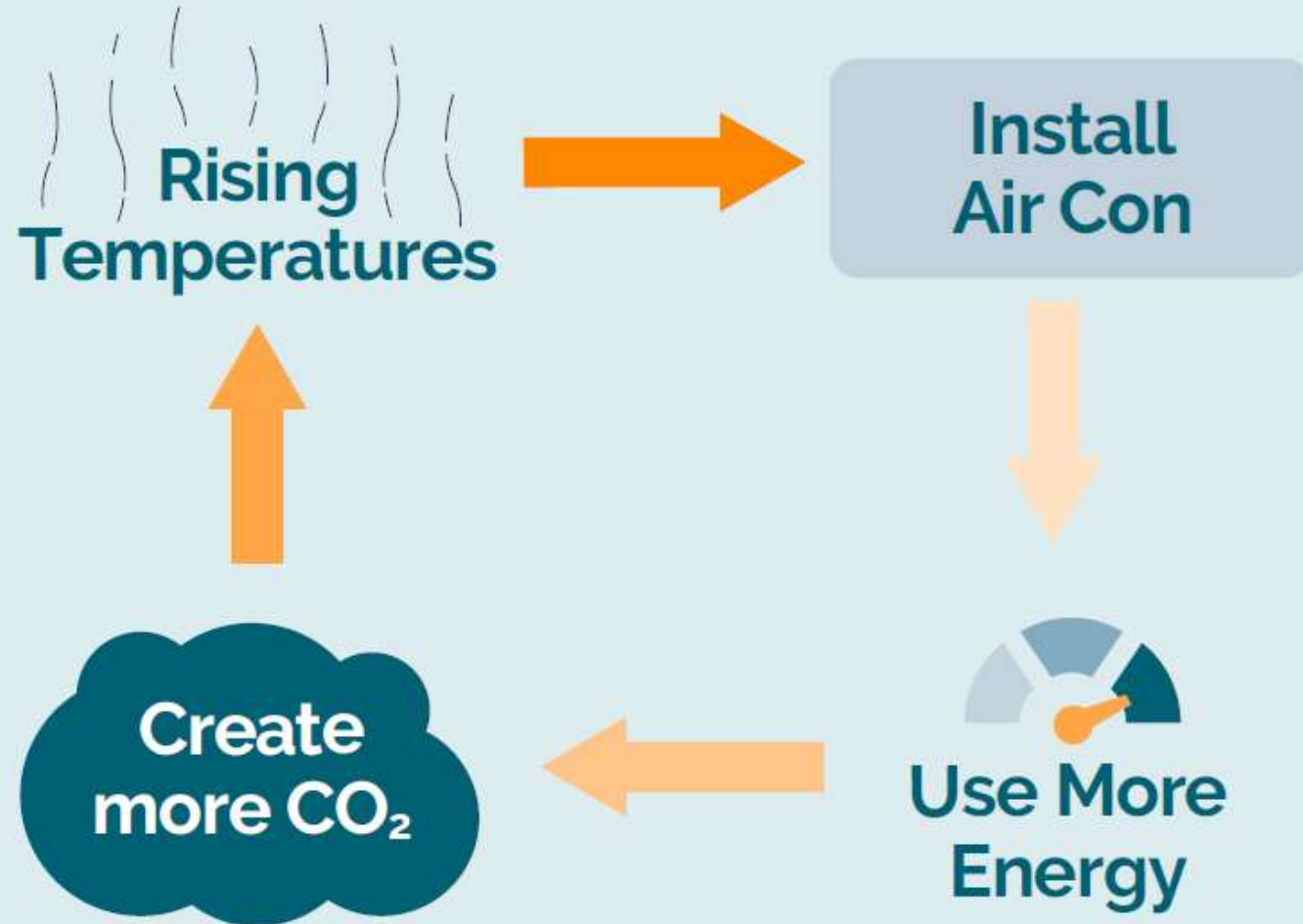
Cooling is the fastest growing use of energy in buildings



10

**air conditioning
units are sold
every second!**

The vicious cycle



A photograph of a modern building with a dark, possibly black, facade and large glass windows. The building is situated outdoors, with a paved walkway in the foreground and a lawn with trees in the background. The sky is blue with some clouds. The text "Prevention is better" is overlaid in white, bold, sans-serif font across the center of the image. The building's design is contemporary, with a flat roof and a mix of materials, including brick pillars and stone walls on the right side. The glass windows reflect the surrounding environment, and the interior of one window is visible, showing a white table and chairs.

Prevention is better



than cure!

A photograph of a modern building with a dark, possibly black, facade and large glass windows. The building is situated outdoors, with a paved area in the foreground and a lawn and trees in the background. The sky is blue with some clouds. The text "Prevention is better" is overlaid in white, bold, sans-serif font across the center of the image. The building's design is contemporary, with a flat roof and a mix of dark panels and glass. The overall scene is bright and clear, suggesting a sunny day.

Prevention is better

View In



View
Out



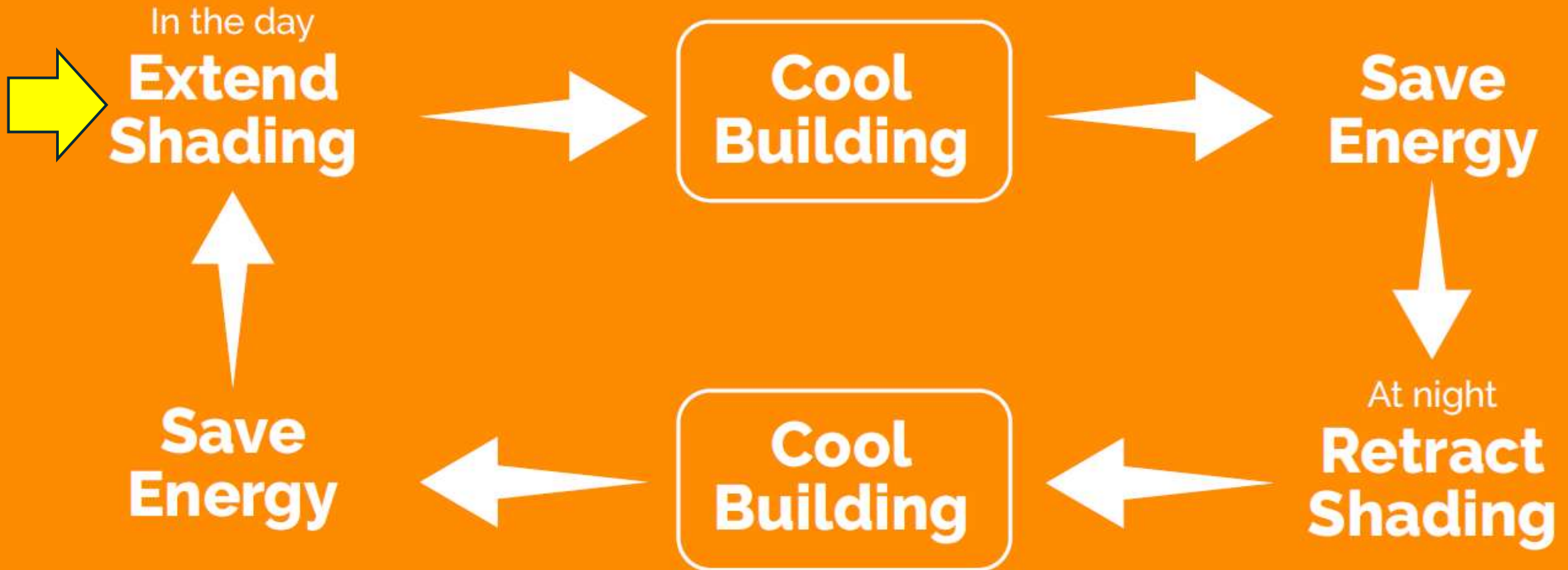


Smart Solar Shading could save

£240,000,000,000

in energy costs across
Europe by 2050

Shading makes sense in summer



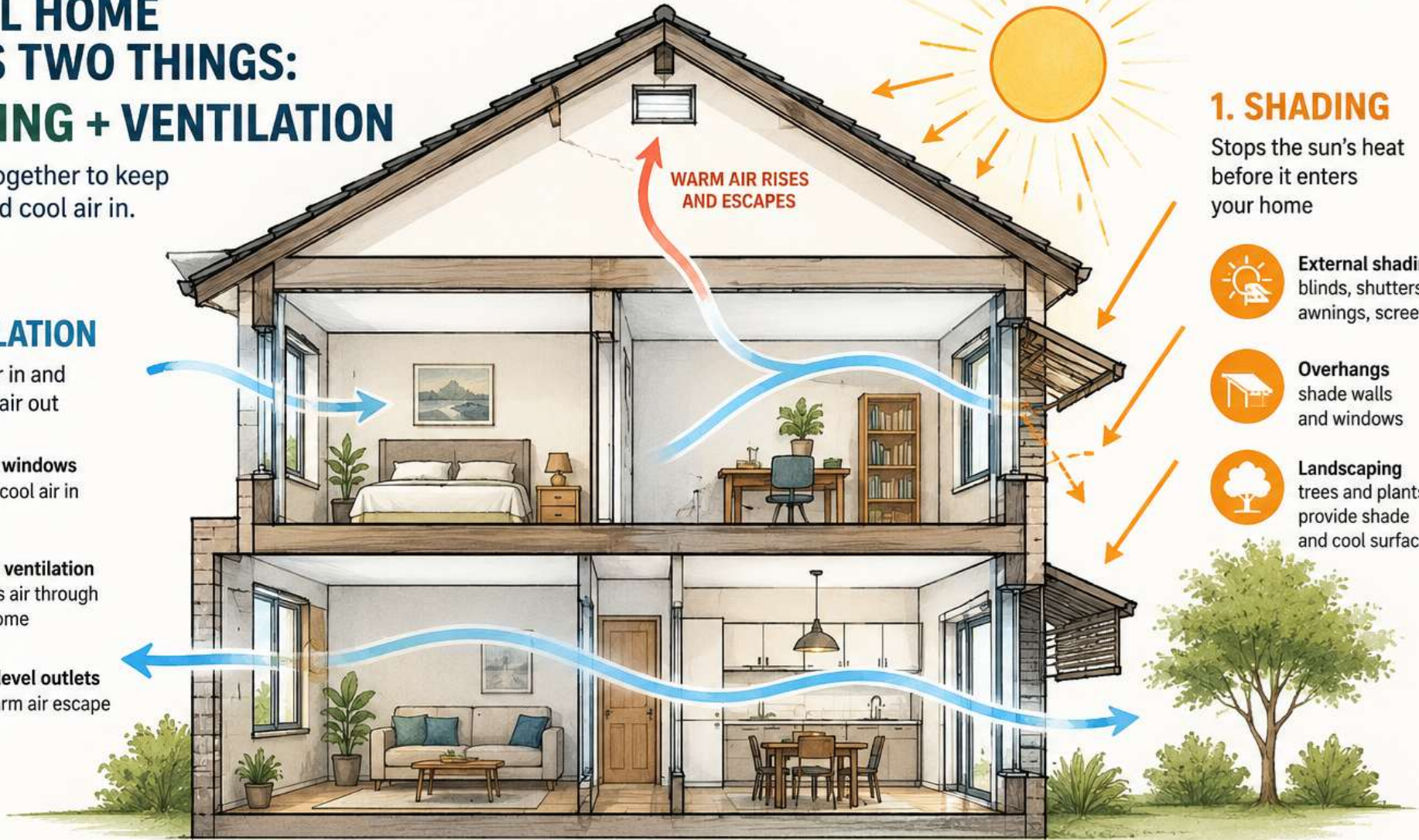
A COOL HOME NEEDS TWO THINGS: SHADING + VENTILATION

Use them together to keep heat out and cool air in.

2. VENTILATION

Brings cool air in and flushes warm air out

-  **Open windows** to let cool air in
-  **Cross ventilation** moves air through the home
-  **High level outlets** let warm air escape



1. SHADING

Stops the sun's heat before it enters your home

-  **External shading** blinds, shutters, awnings, screens
-  **Overhangs** shade walls and windows
-  **Landscaping** trees and plants provide shade and cool surfaces

THE RESULT:



Lower temperatures



Less need for energy hungry cooling



Improved comfort, health and productivity



Lower carbon emissions

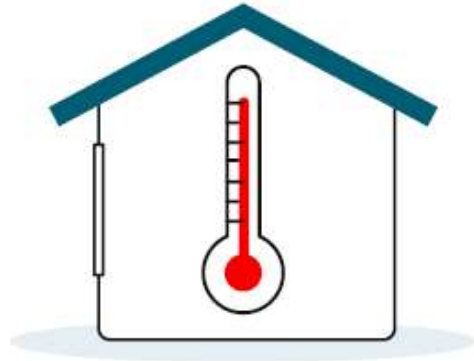


Shading keeps the heat out. Ventilation keeps the coolness in.

Together, they keep your home naturally cool.



Beat the heat with shading



47.5°C

No blind



28°C

External blind

-19.5°C

cooler with
shading

Benefits of External Shading and Ventilation to Overheating Reduction

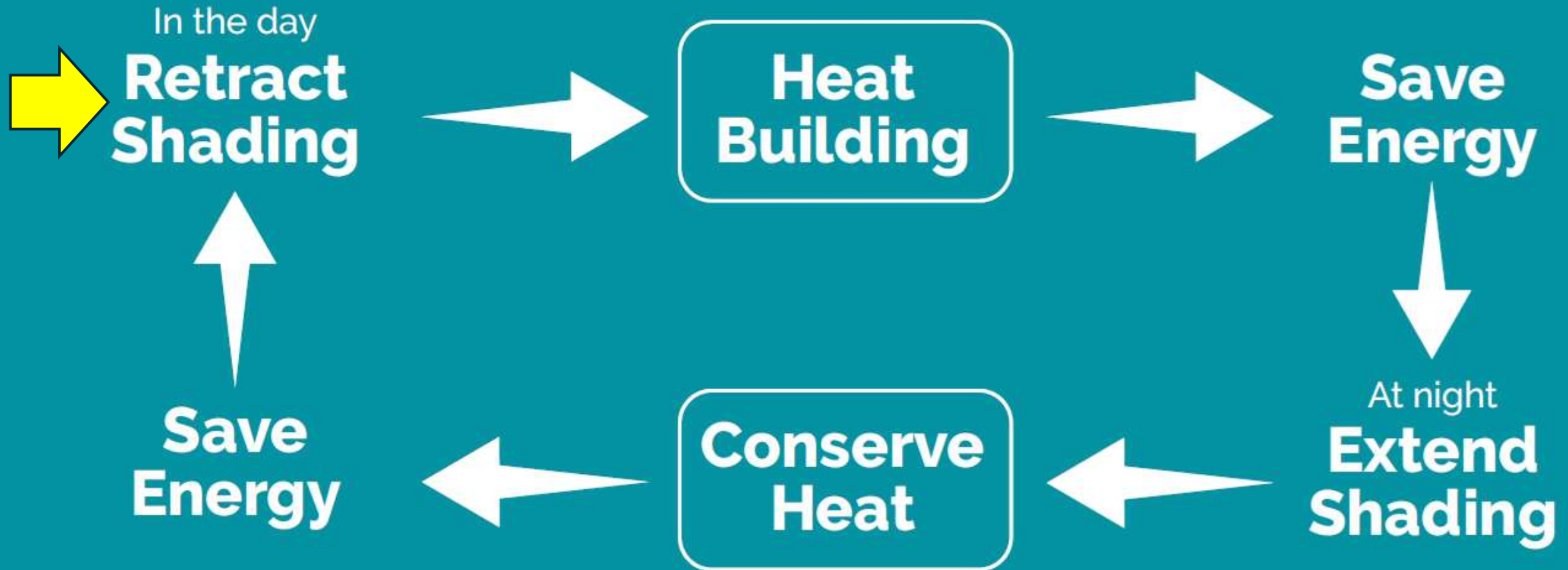




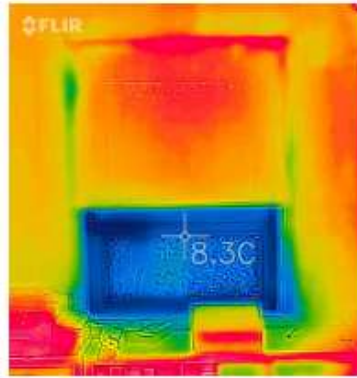




Shading makes sense in winter

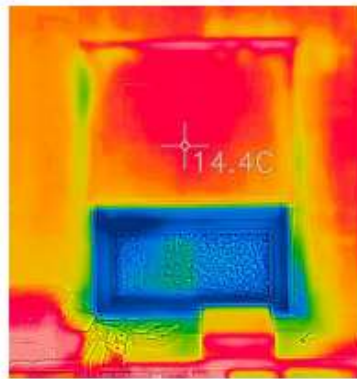


Beat the cold with shading



8.3°C

Internal glass
surface
temperature



14.4°C

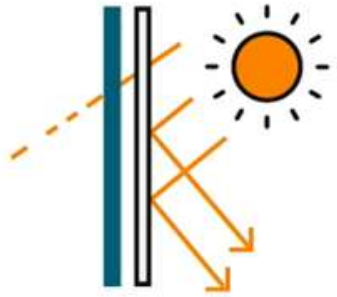
Internal blind
surface
temperature

+6°C

warmer with
shading

Dynamic shading for a dynamic climate

Dynamic shading for a dynamic climate



Reduce solar gain

Prevent overheating during warmer weather



Retain wanted heat

Reduce heat loss during colder months



Reduce energy use

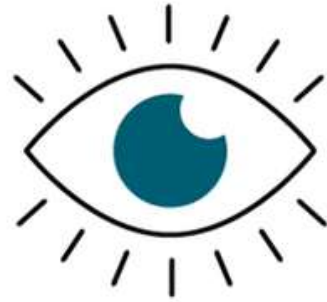
Save on energy costs and cut carbon emissions

Dynamic shading for a dynamic climate



Automation benefits

Ensures optimal performance and comfort



Control light and glare

Harvest natural daylight without discomfort from glare



Larger glazed areas

Supports architectural designs



Shading Solutions





Shading for housing

Design guide for a changing climate

Delivered by

**Pollard
Thomas
Edwards**

with

MAX FORDHAM

OXFORD
BROOKES
UNIVERSITY



Commissioned by



BBSA
BLIND & SHUTTER ASSOCIATION

Supported by

ballymore.

Guthrie Douglas

LOUVOLITE



Summary of properties

How to read the performance web

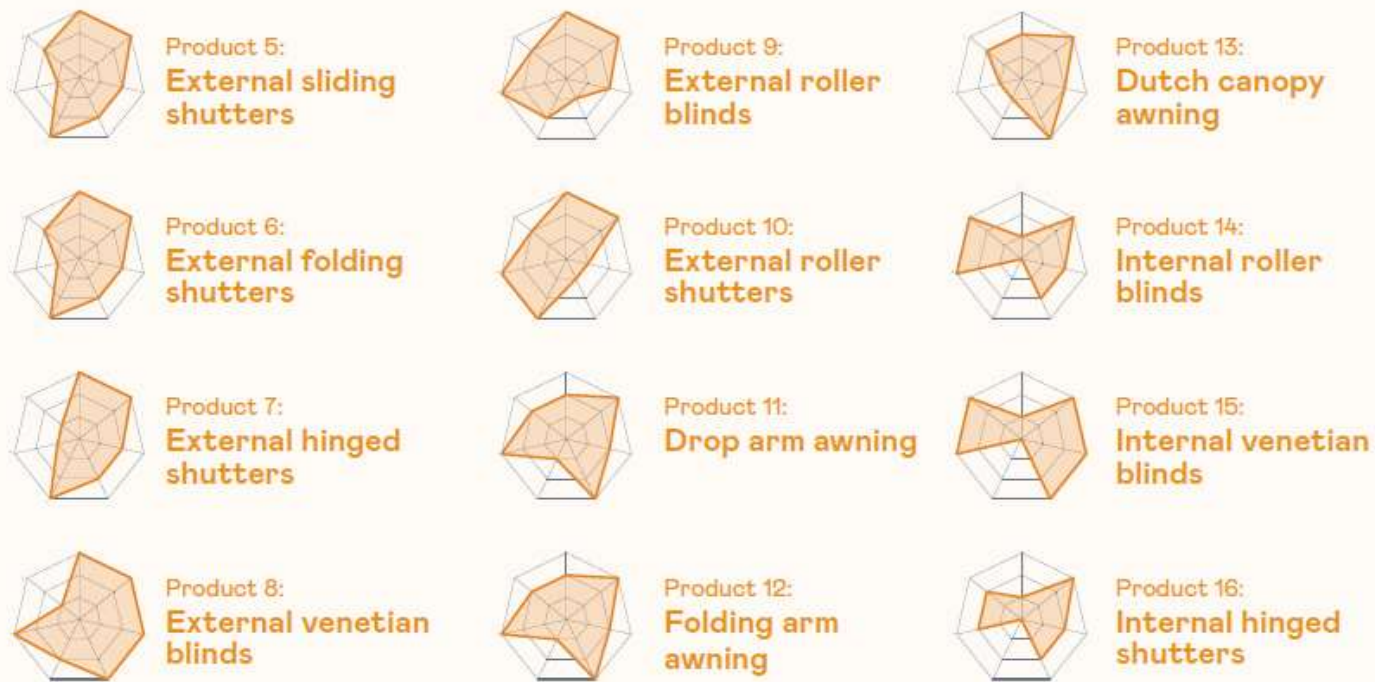
Each product's performance web has seven metrics, each with its own 'radial spoke'. High performance metrics are closer to the outer edge of the web; low performance metrics are closer to the centre.



Fixed shading devices



Dynamic shading devices



Alternative shading devices





Product 9: External roller blinds

Technical
spec

This product is a box installed in the window head containing a blind - a weather-resistant fabric - with side channels or cables allowing users to guide the blind upwards into the box or downwards to cover the glazing. The blind can be coloured and/or have different levels of opacity, providing a degree of glare control (and views out). Suitable for shading façades and roofs with complex geometries.

Overheating mitigation	High	Blocks solar gains when fully extended. Effective in all orientations
Winter solar gains	High	Allows maximum solar gains when fully retracted
Daylight	Medium	The mesh material is designed to facilitate adequate light levels in winter allowing maximum daylight when fully retracted
Ventilation	Low	The mesh material allows for a certain degree of ventilation, but it will mainly depend on how much the blind is extended
Wind resistance	Medium	Side channels are more robust than cable guides. The blind automatically retracts in high winds if linked to sensors
Operability	High	Motorised and automatic options are available. Suitable for reduced mobility occupants. The performance depends on the control option and occupant behaviour
Maintenance	Medium	Inspect fabric and channels or cables. Access to the motor in the blind box is required
Cost	£££	



Adapting Historic Buildings for Energy and Carbon Efficiency

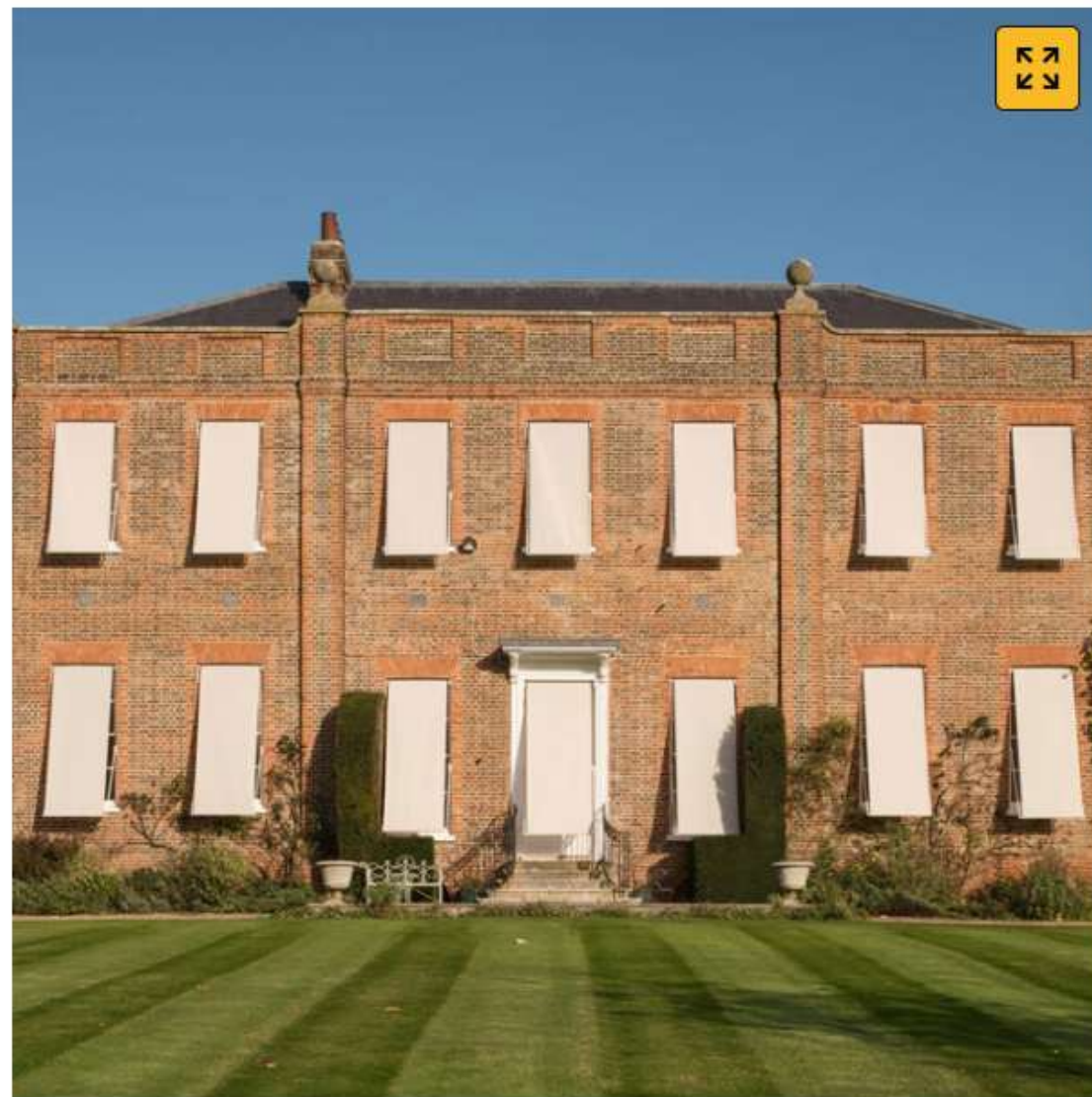
Historic England Advice Note 18 (HEAN 18)



Buckingham Palace garden party, 1897, with all the window awnings down on the south-west elevation



A view of the house without the awnings down.
© Historic England



The house with the awnings fully lowered.
© Historic England



















Another case of overheating...
in September!

Summer office building commercial office space with double glazing and air conditioning

Temperature

No shading Internal shading External shading No shading

The temperature distributions are peak operative temperatures. For bedrooms to exceed the recommended operative temperatures are between 25-29°C.

The study highlights that with insulation to current building regulations the building would heat up in the heating season. It is difficult to keep it comfortable without creating issues of noise and security. Hence the high shading temperatures in the rooms.

Light levels

Max internal shading = 70,000 lux
Min internal shading = 500 lux

Statistically proven that:
Rooms with internal blinds reduce operative temperatures compared to rooms with external blinds.
Rooms with external blinds reduce operative temperatures compared to rooms with external blinds.

BBSA
The Building Blinds & Shutters Association



Adapting Historic Buildings for Energy and Carbon Efficiency

Historic England Advice Note 18 (HEAN 18)



<https://bbsa.org.uk/wp-content/uploads/2026/06/Get-Ready-for-Heatwaves.zip>

The data has it...
Winter energy savings with blinds and shutters

BBSA went to University of Salford's Energy House Laboratory to test window energy loss reduction on a modern double glazed low-e window.

Results show up to **33%** reduction in heat loss through windows when using blinds and shutters*

Savings with single glazed windows and old double glazed windows can be even higher!

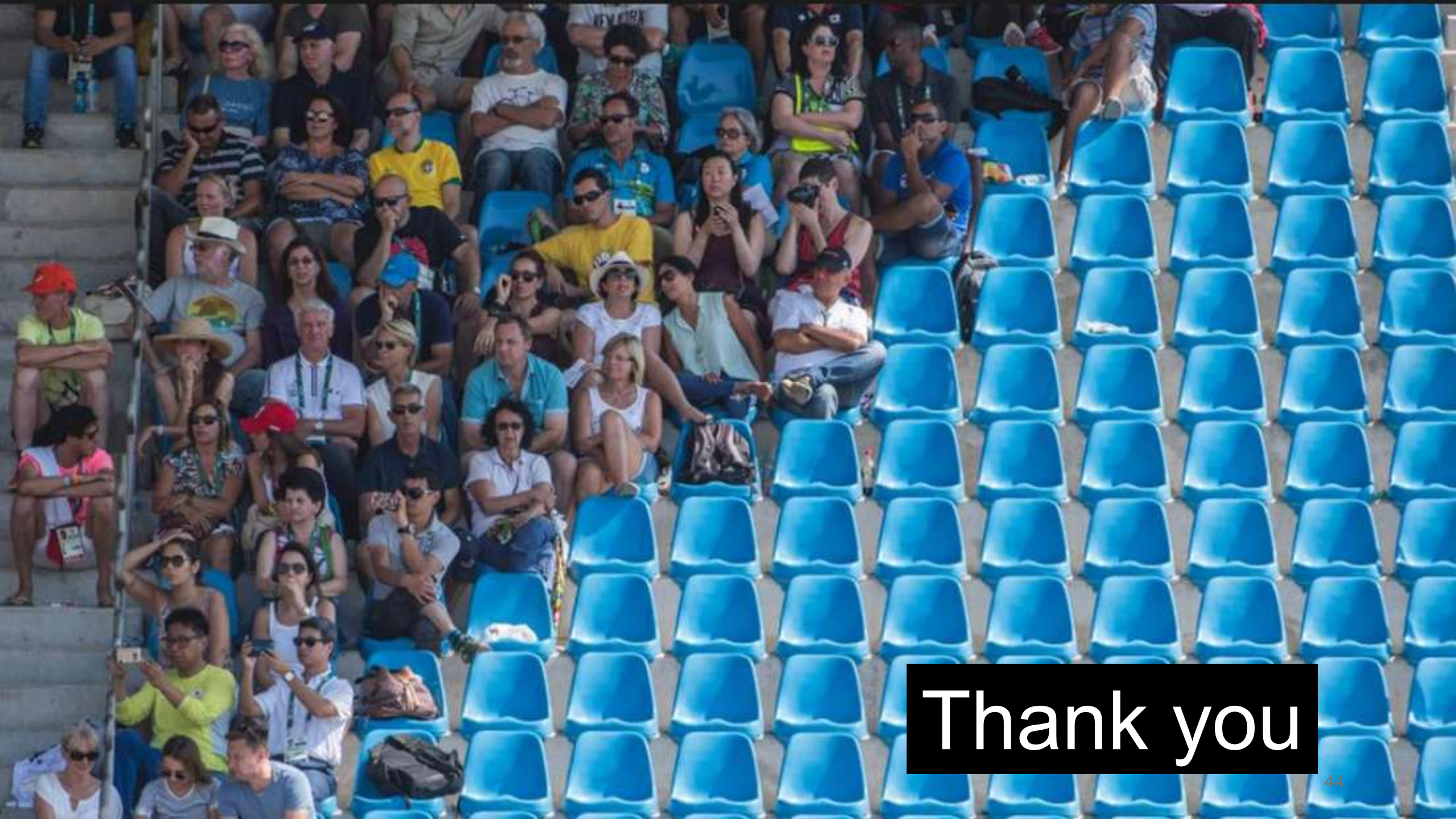
Internal roller blind with top-down bottom-up mode	33%
Double glazed window blind in a trained heat fit system or gap-free installation	32%
Internal pleated shutter	28%
Double glazed window blind with top-down mode	22%
Double glazed blind	13%

*All details of specific products tested are available on the BBSA website.

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BBSA
The Building Blinds & Shutters Association

www.bbsa.org.uk



Thank you

Questions on Shading, etc

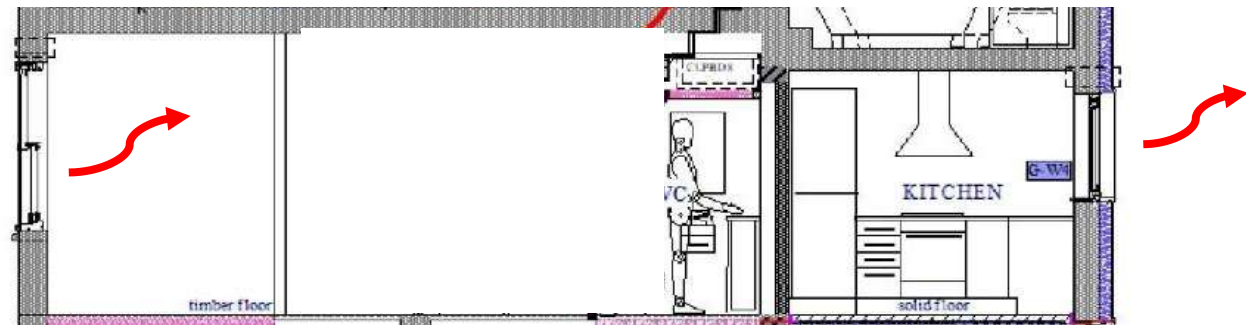


Ventilation

When it's hotter outside
shut doors, windows & vents
Usually: daytime, sunny-side

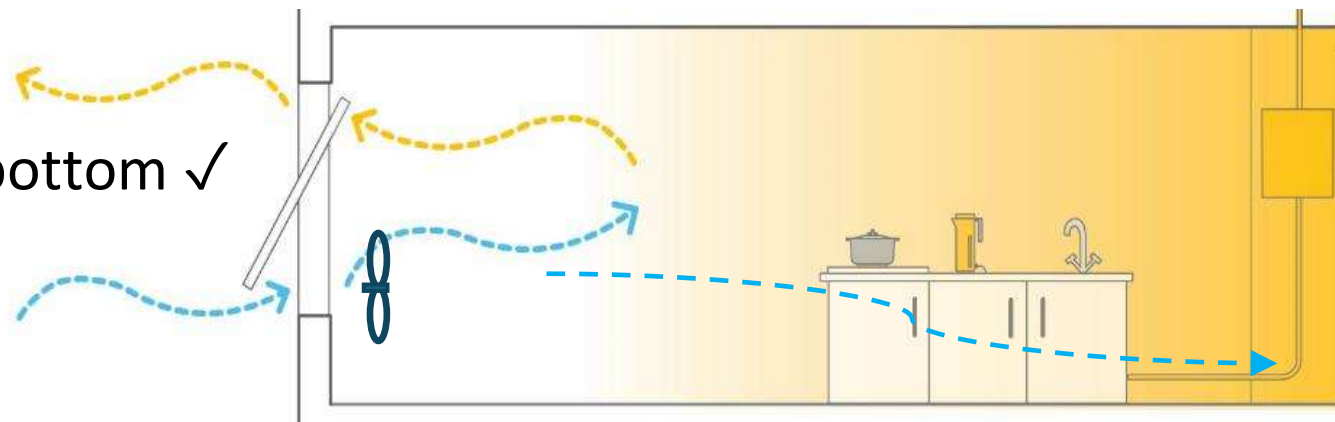
When it's cooler outside:
Open windows, skylights, vents
at bottom & top of house

Or, if it's single-storey:
Ventilate across your home



Single-aspect flat:
Window opening top & bottom ✓

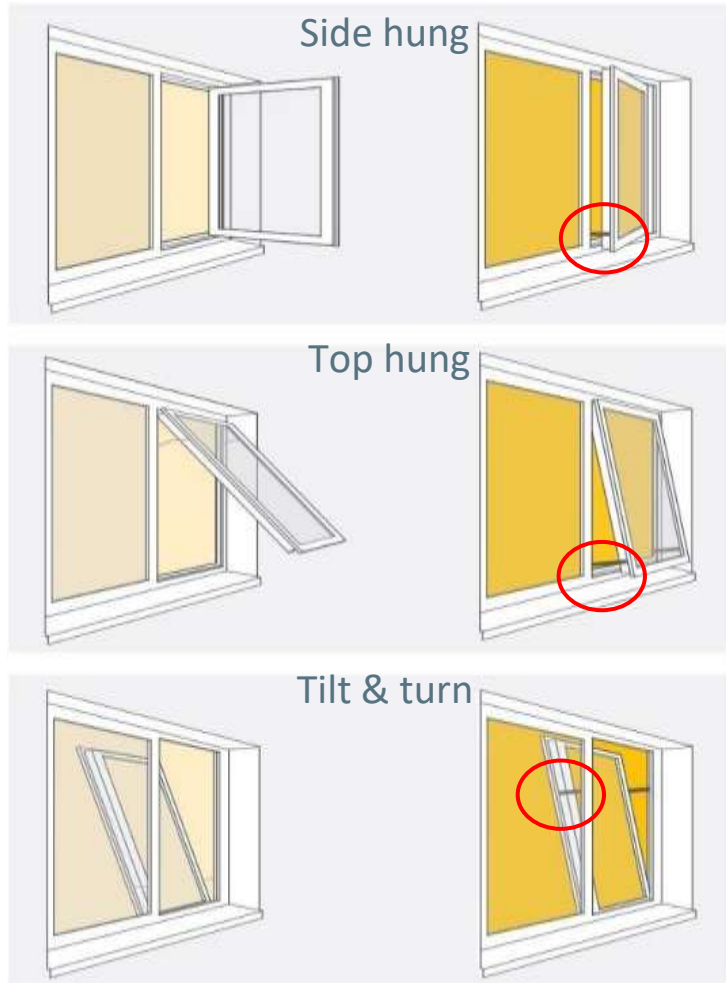
a fan may help



Security for Night Cooling

Restrictors on windows & doors:

Regular windows



Sash windows



Ventlock

Look for Secured By Design

& Chains, etc
on doors

White walls are cooler than black temperatures?

70°
C

20°
C



14°C cooler on the surfaces here
See blog on this for links

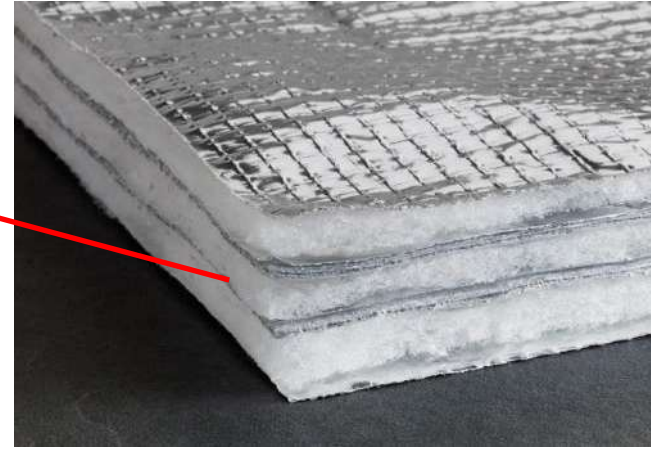


Aluminium Solar Reflective Paint for flat roofs

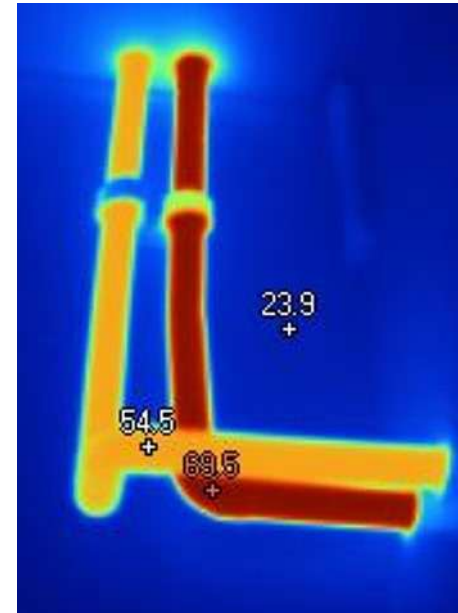
Insulation Lofts, Roofs



Multifoil Insulation
effective



Insulate hot pipes & tanks

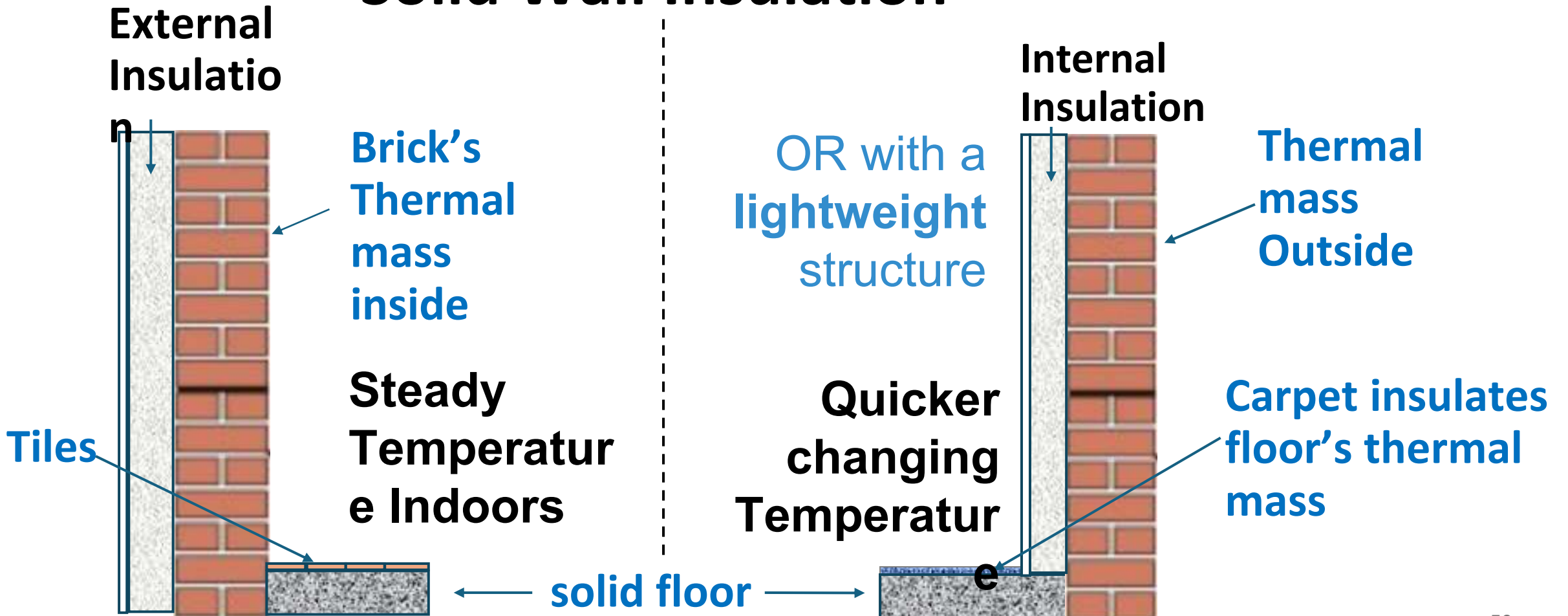


Thermal mass eg: brick, stone, concrete

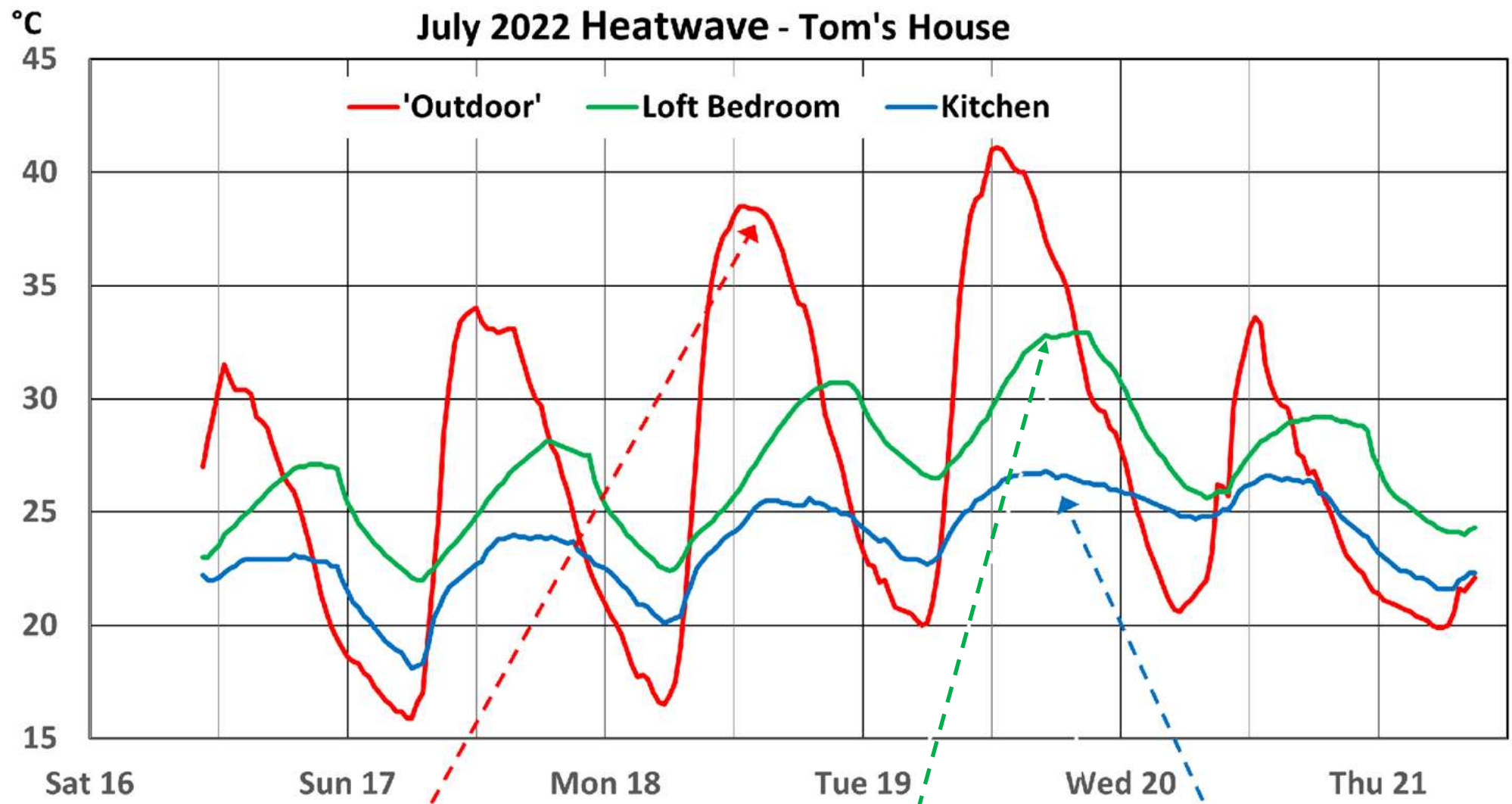
Can Steady indoor temperatures



Solid Wall Insulation



July 2022 Heatwave - Tom's House



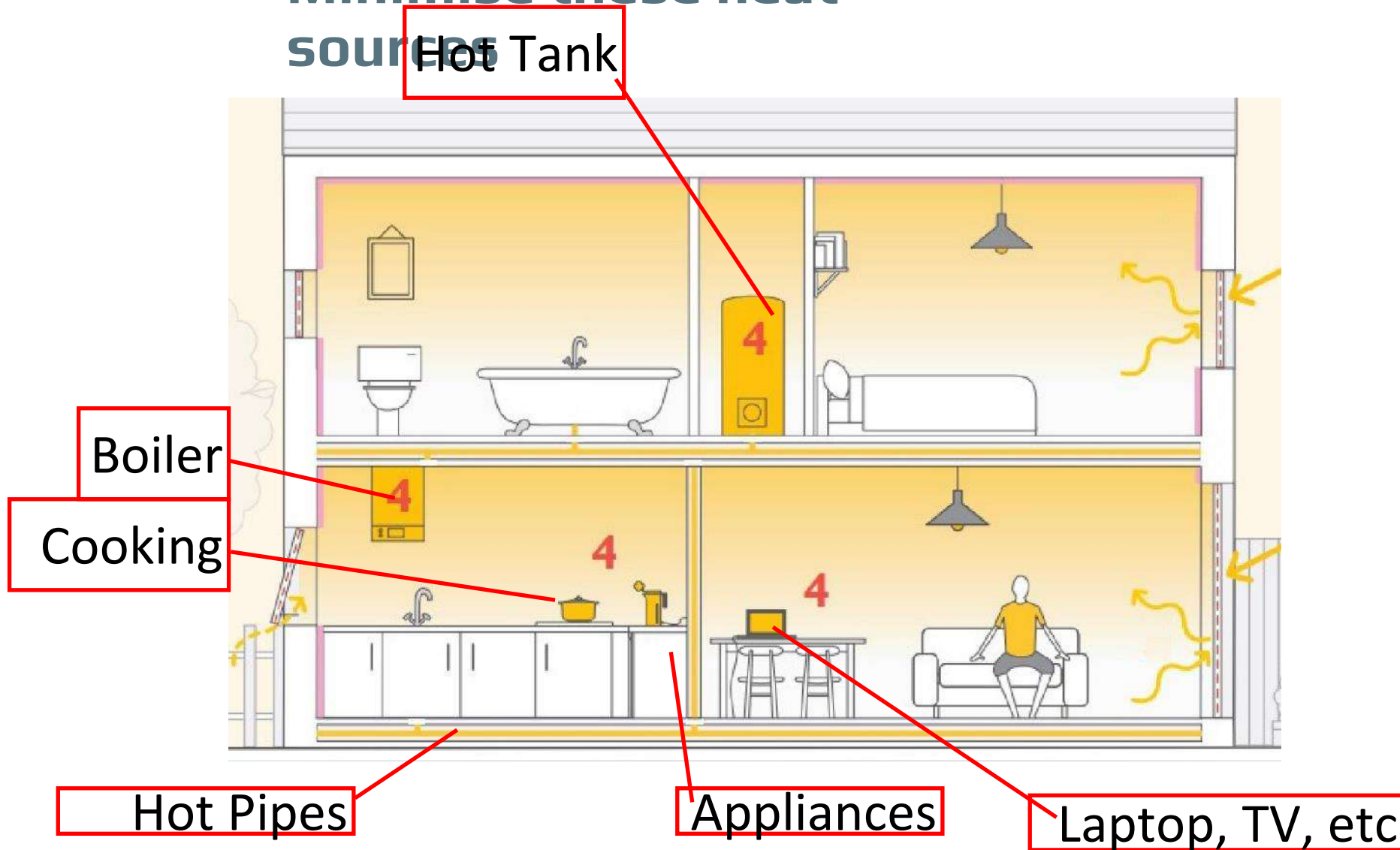
Rising outdoor temperature

Loft-extension spare bedroom = 33°C [vs 26°C]

Kitchen = 27°C [vs 28°C]

Heating

Minimise these heat sources



Personal Cooling



- drinks, cool showers, fans, spray
- loose, light clothes & wide hats
- 'hot' water-bottle in the freezer
- sleep where it's cooler? `
- avoid exertion when hottest: 11-3
- beware heat exhaustion/ heatstroke
- look out for your neighbours:
old & young vulnerable NHS Advice



Our exciting new workshop will help you find innovative solutions for summer cooling and solar shading. Explore your options from cost-free and low cost to deeper retrofit with ideas for homeowners and tenants. These are interactive workshops where you can handle materials and ask questions.

Summer Shading & Home Cooling Workshop



Presented by:  CAMBRIDGE RETROFIT HUB

Supported by:  zero carbon communities  CAMBRIDGE CITY COUNCIL



Exterior roll blind



Sarasota shutters



Sun screen



Slatted aluminum



Wednesday 8th July 2026 7:30pm - 9:30pm
Saint Andrew's Centre, School Hill, Histon CB24 9JE

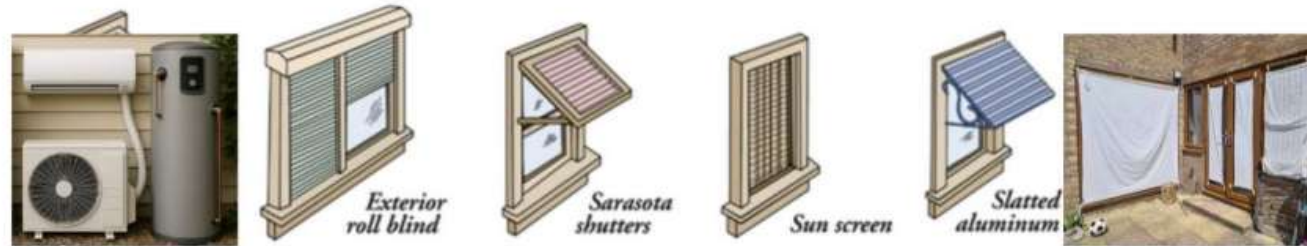
Book your FREE place via Eventbrite here:
(knowing numbers helps us!)
or you can just turn up on the night!



7:00pm - 9:00pm
Monday 3rd August 2026

Nightingale Pavilion, Nightingale Ave, Cambridge CB1 8SQ

Book your free place (**knowing numbers helps us**) :
<https://www.cambridgeretrofithub.org/training-and-events>
or email us on cambridgeretrofithub.org
or you can just turn up on the night!



Questions?



Upcoming Home Energy Events

Cambridge Retrofit Hub			
Shading & Home Cooling Workshops	St Andrews Centre, Histon CB24 9JE	Wed 8 Jul	7:30-9:30
	Nightingale Pavillion Q Edith's CB1 8SQ	Mon 3 Aug	4:00-7:00
Open Eco Homes <i>see details: mid-Aug</i>	Retrofit & Next Steps, Air Tightness Domestic Finance + Grants, Varied exemplar Homes: Batteries Tours	4 Talks online, in-person	Mid Sept -Mid Oct



Upcoming Repair Cafes:

<u>Coneygear</u> Huntingdon PE29 1PE	Fri 4 Jul	12:00-3:30
<u>Abbey People</u> Museum of Technology CB5 8LD	Fri 10 Jul	4:00-7:00
<u>Warboys</u> Community Centre PE28 2RG	Sat 11 Jul	10:00-1:00
<u>Littleport</u> Village Hall CB6 1LX	Sat 25 Jul	2:00-5:00
<u>Godmanchester</u> PE29 2NB	Sat 1 Aug	1:30-4:30
<u>Centre for Computing History</u> CB1 3EW	Sat 15 Aug	5:00-8:00
<u>Trumpington</u> Meadows School CB2 9BP	Sun 6 Sep	2:00-5:00



Enjoy the hot weather ? we hope ...



Feedback please: 3 questions about this talk

Donations please: help CCF do more

Further Resources on Staying C



Local:

[Keeping Cool in a Heatwave](#) CCF's Detailed PDF with links

[Heatwave Preparation](#) CCF's YouTube Playlist

[Transition Cambridge's](#) How to keep cool in summer

National:

[Overheating Adaptation Guide for Homes](#) from [Shade the UK](#).

[Beat the Heat](#) from UK Gov.

[The Heatwave Toolkit](#) DIY, including '[Paint Yoghurt on Your Windows](#)'!

[Helping keep homes cooler](#) British Blind and Shutter Association

[How to Cope with Extreme Heat](#) British Red Cross