

# Sut i Wella Effeithlonrwydd Ynni mewn Adeiladau Hanesyddol yng Nghymru

## How to Improve Energy Efficiency in Historic Buildings in Wales



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## How to Improve Energy Efficiency in Historic Buildings in Wales

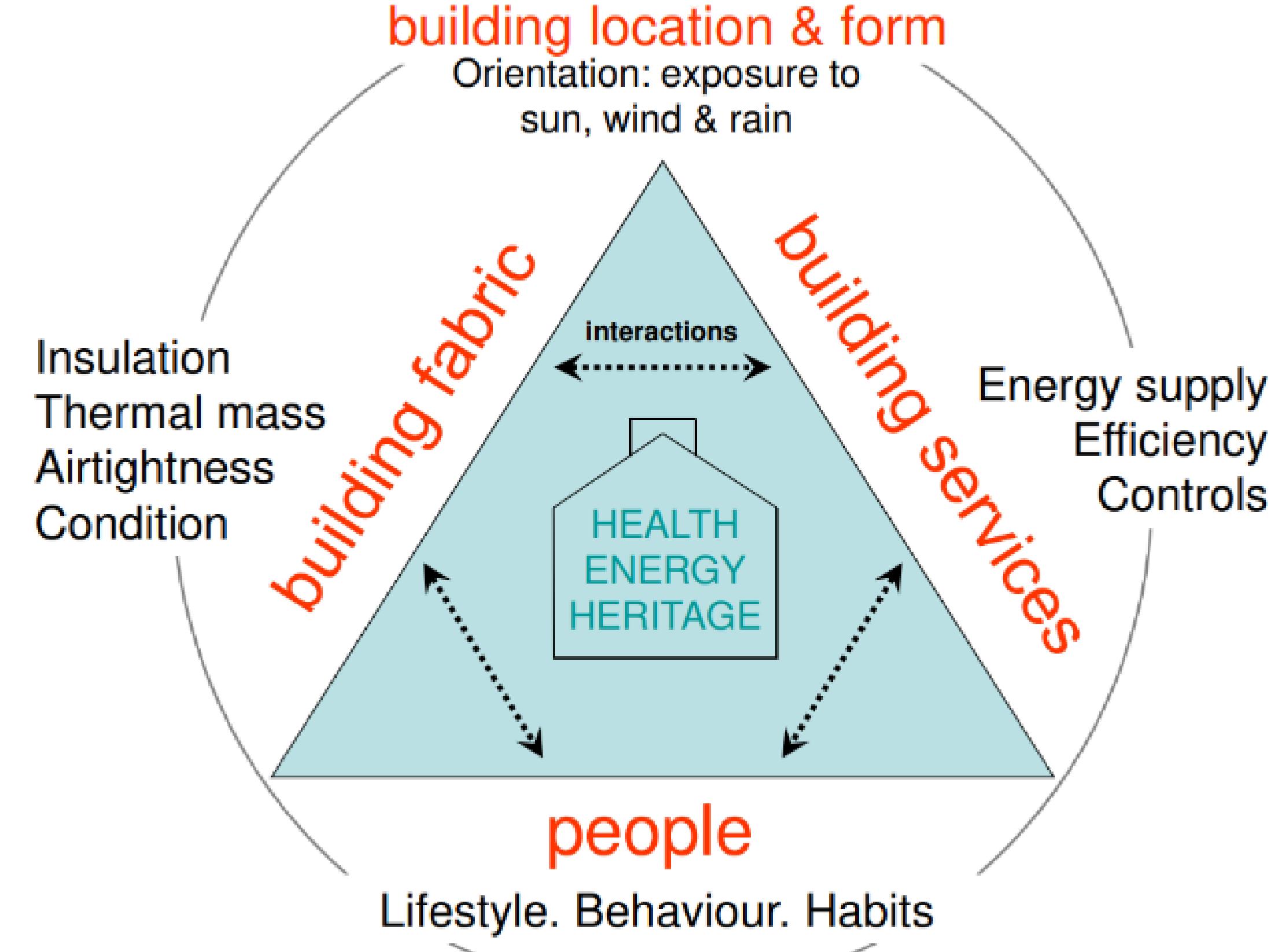
Cafwyd peth o'r deunydd a ddefnyddiwyd yn y cyflwyniad hwn gan drydydd parti

Some material used in this presentation has come from a third party



# Triongl perfformiad adeilad

## Building performance triangle



# Yr egwyddorion Principles

- Deall yr adeilad a'i gyd-destun

**Understanding the building and its context**

- Ymgysylltu â defnyddwyr, perchnogion a rheolwyr yr adeilad

**Engaging building users, owners and managers**

- Lleihau'r galw ar systemau sy'n defnyddio ynni

**Reducing demand on energy-using systems**

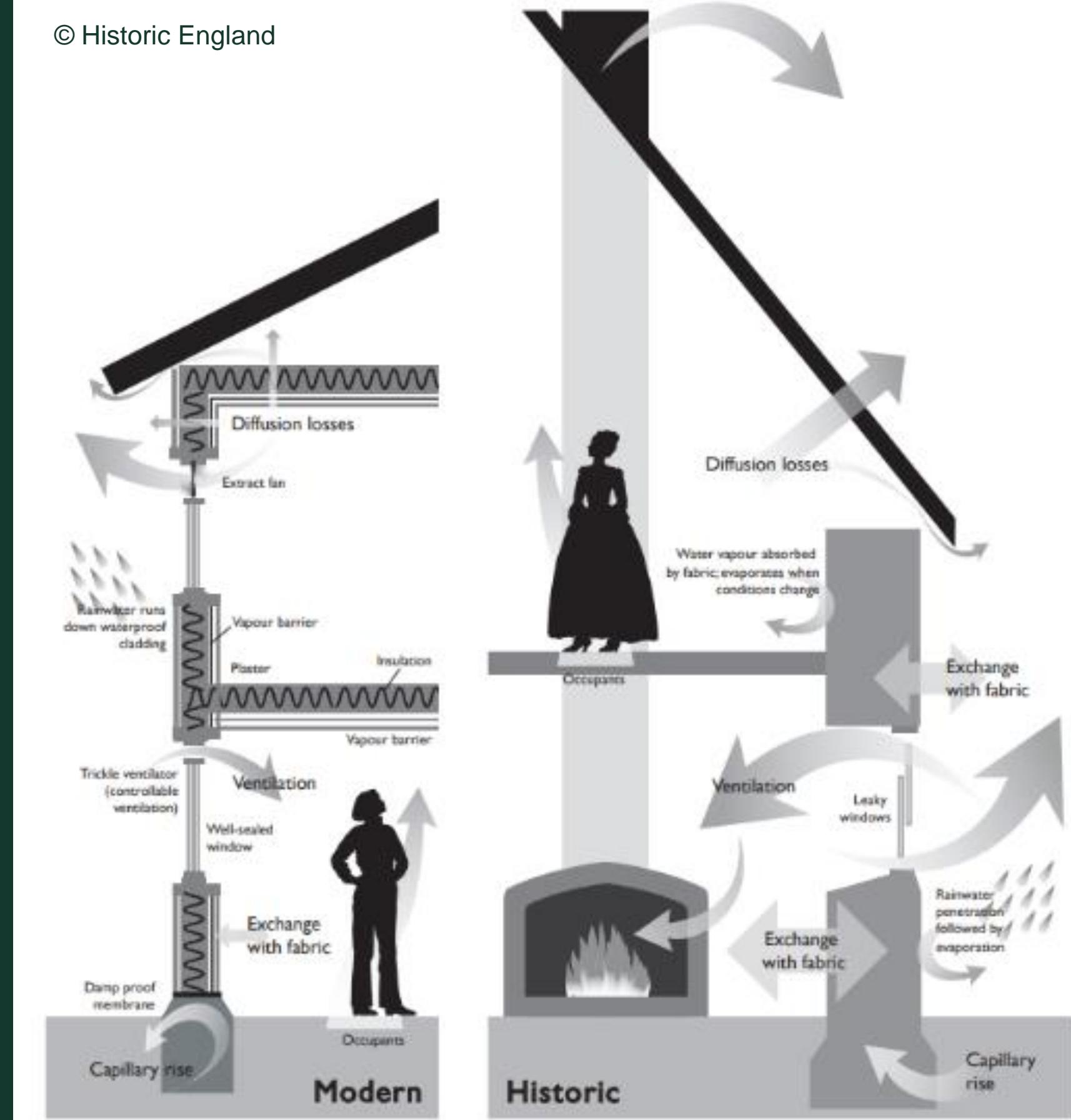
- Osgoi gwastraff

**Avoiding waste**

- **Gwella effeithlonrwydd**  
**Increasing efficiency**
- **Gwella systemau rheoli**  
**Improving controls**
- **Defnyddio cyflenwadau ynni sy'n is o ran carbon**  
**Using lower carbon energy supplies**
- **Osgoi cymhlethdodau**  
**Avoiding complication**
- **Adolygu'r canlyniadau**  
**Reviewing outcomes**

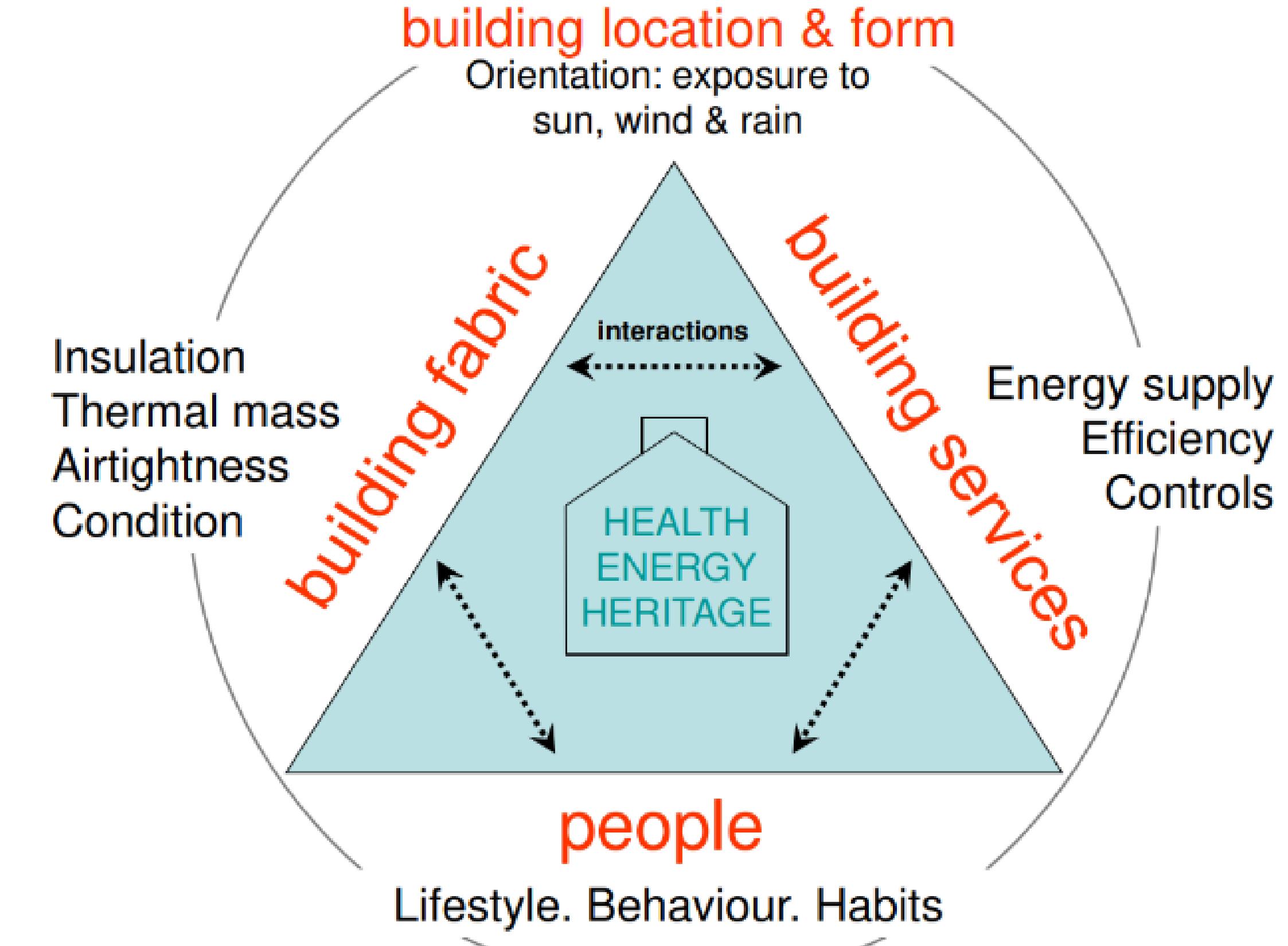
# Pam mae angen rhoi dull arbennig ar waith ar gyfer adeiladau hŷn?

Why do older buildings need a special approach?



# Dull adeilad cyfan

## Whole building approach



# Asesu

# Assessment



# Asesu

## Deall yr adeilad a'i gyd-destun

**Assessment**  
**Understanding the building**  
**and its context**



**1**

# Cymeriad ac arwyddocâd yr adeilad

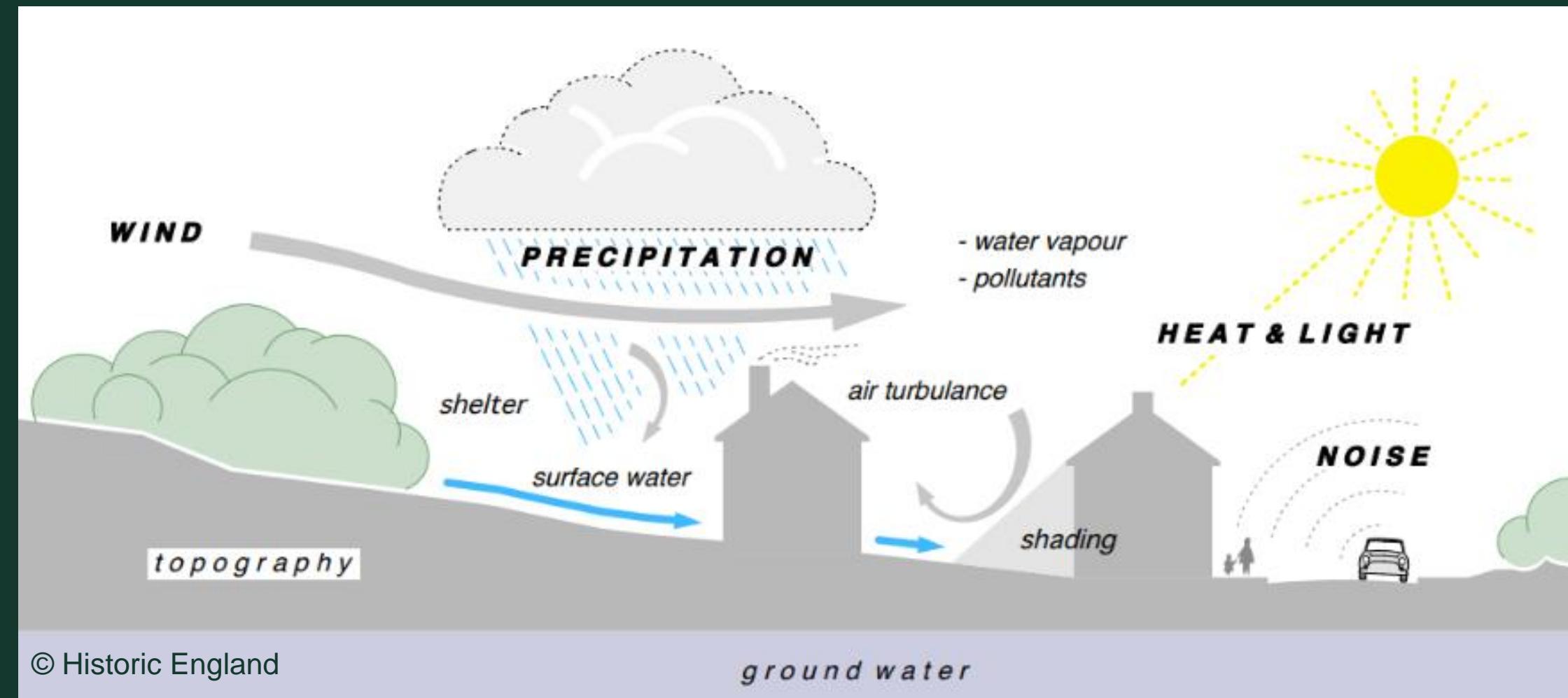
## Character and significance of the building



# 2

## Yr hinsawdd leol, lleoliad a pha mor agored ydyw i'r elfennau

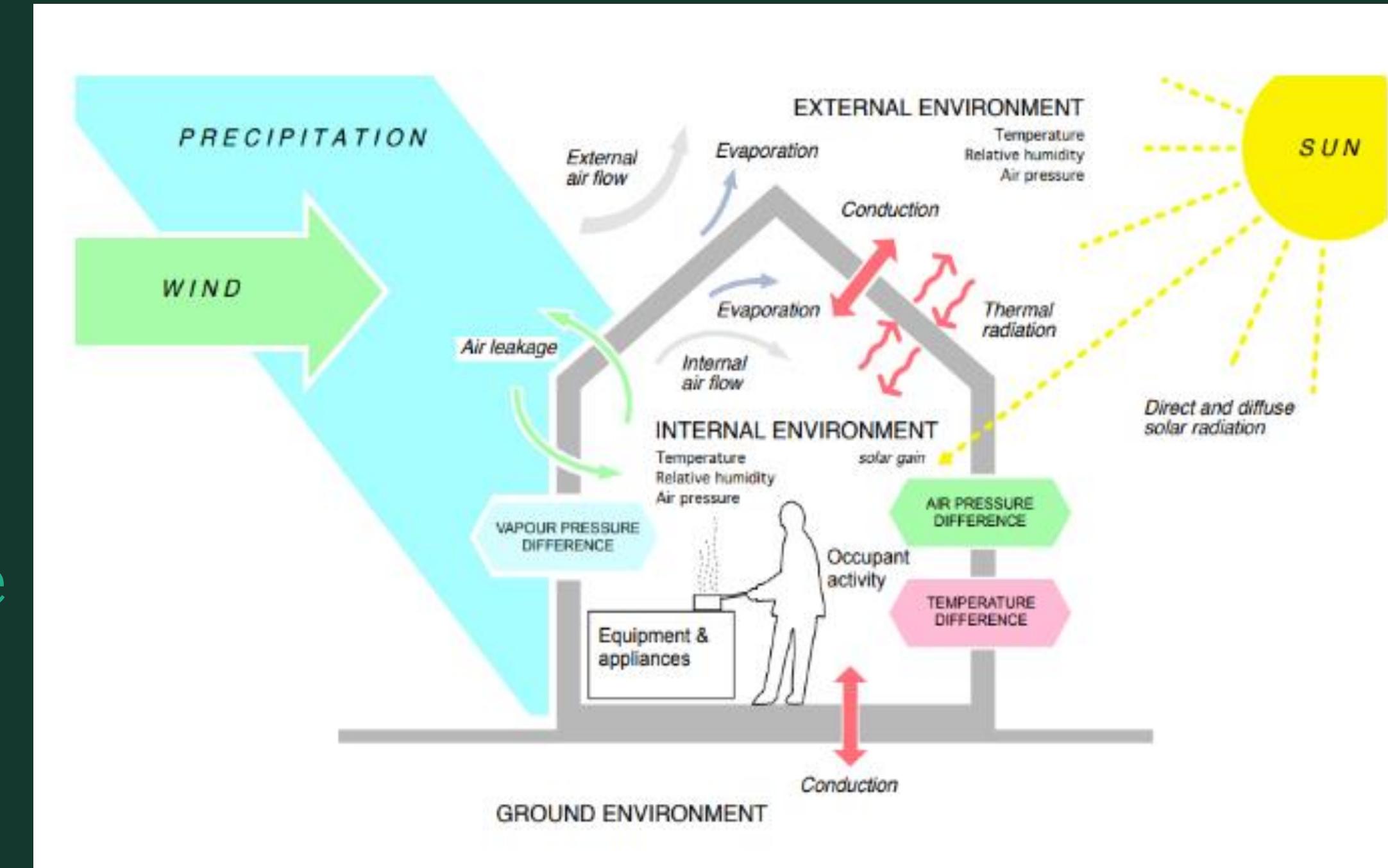
### Local climate, orientation and exposure



# 3

## Perfformiad ynni amlen yr adeilad

## Energy performance of the building envelope



# 4

## Ymddygiad hygrothermol adeiladwaith yr adeilad



Hygrothermal behaviour of  
building fabric

# 5 Cyflwr yr adeilad

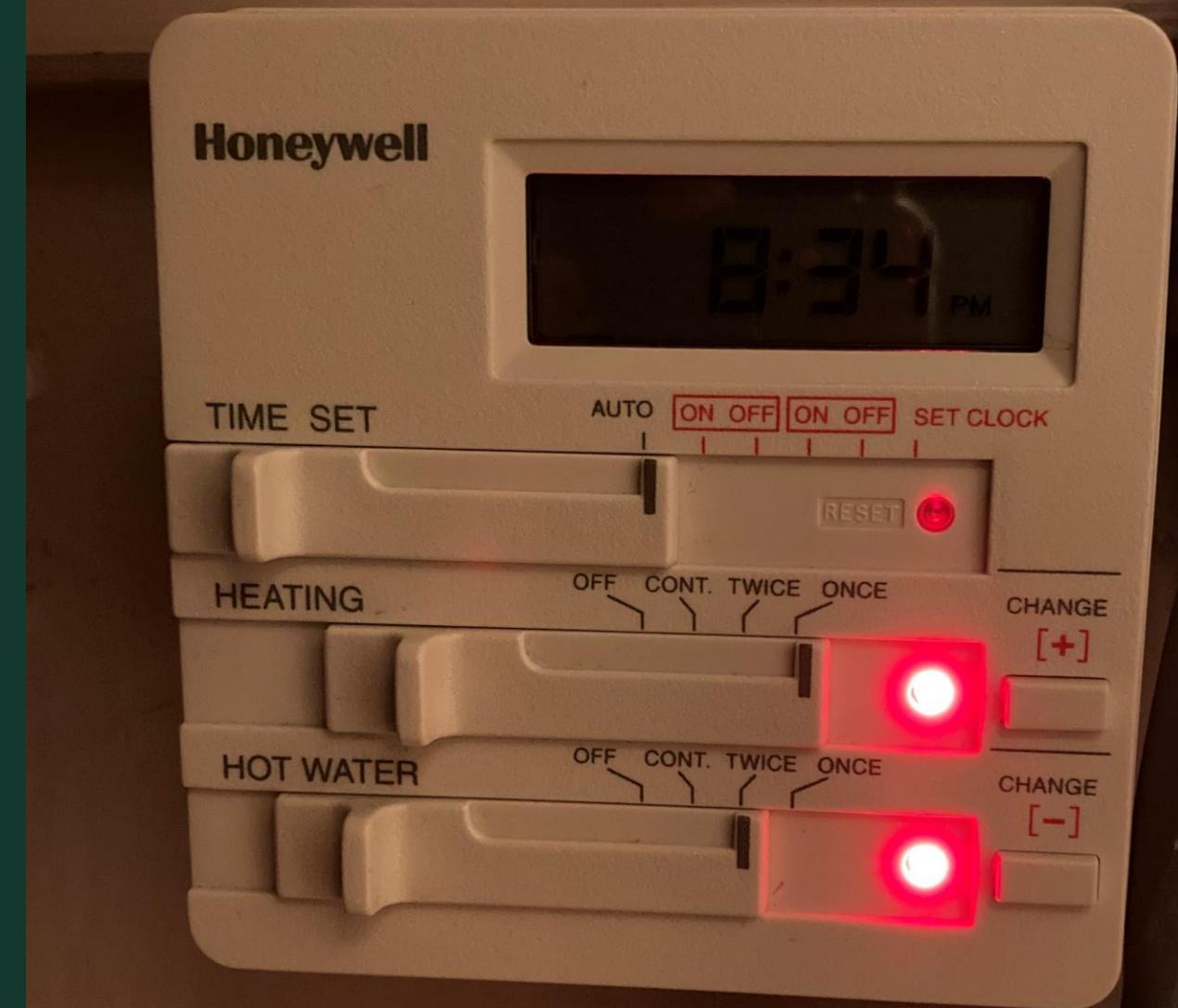
## The condition of the building



# 6

## Perfformiad ynni gwasanaethau'r adeilad

## Energy performance of building services



7

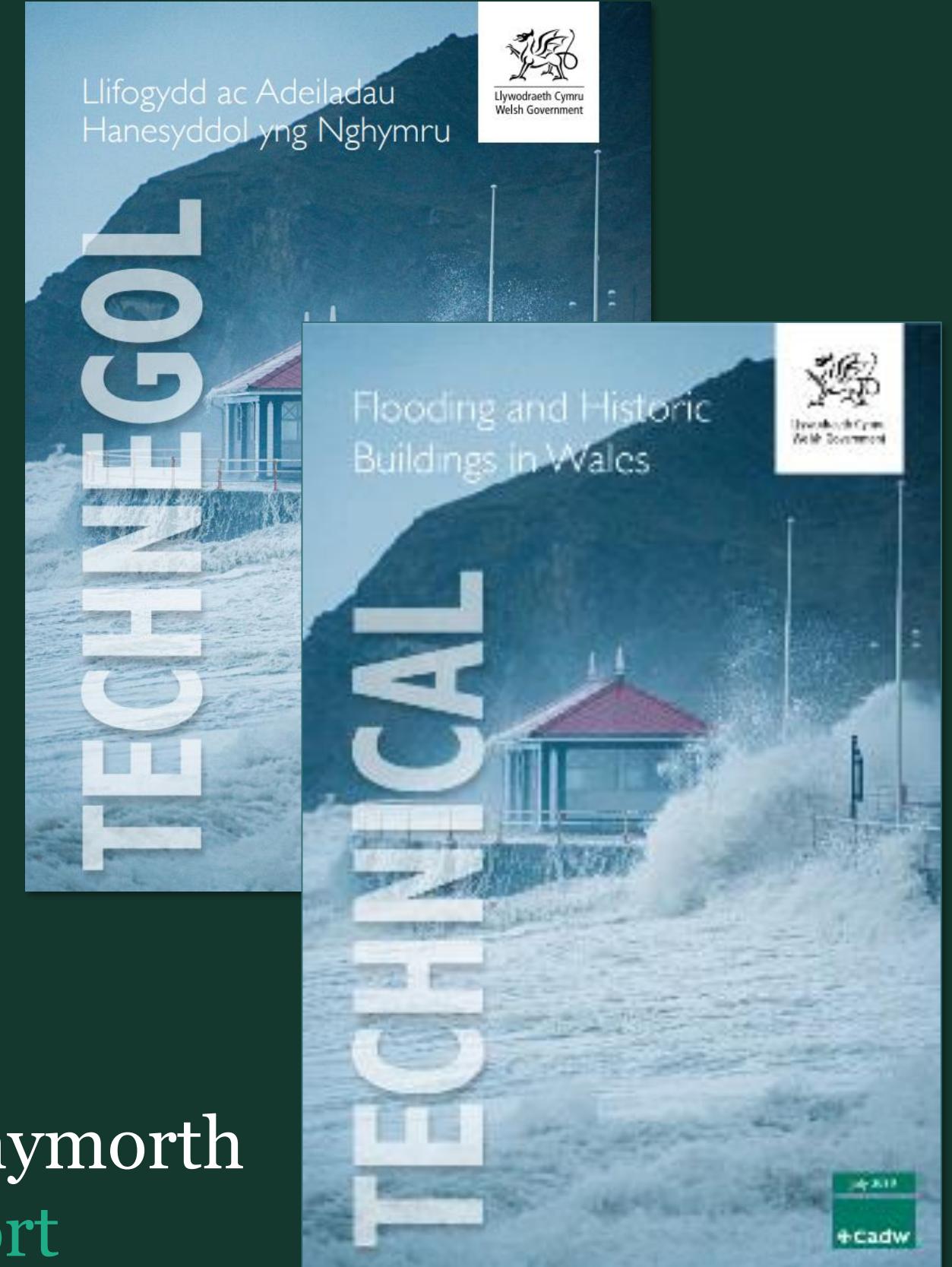
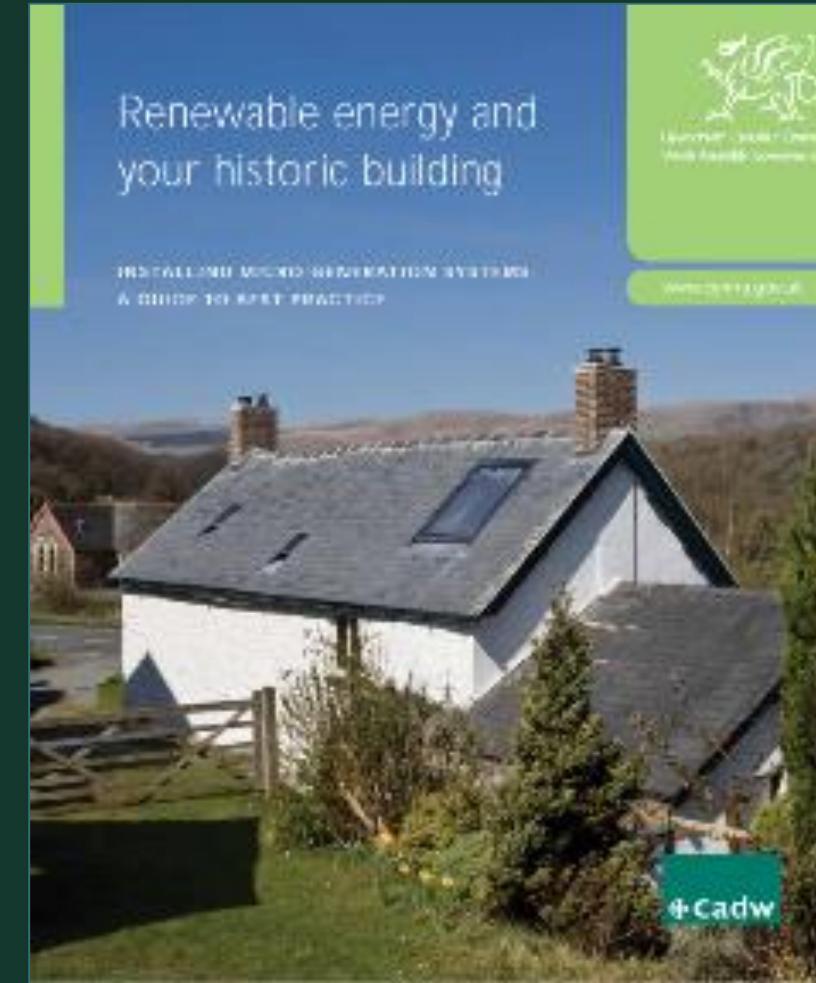
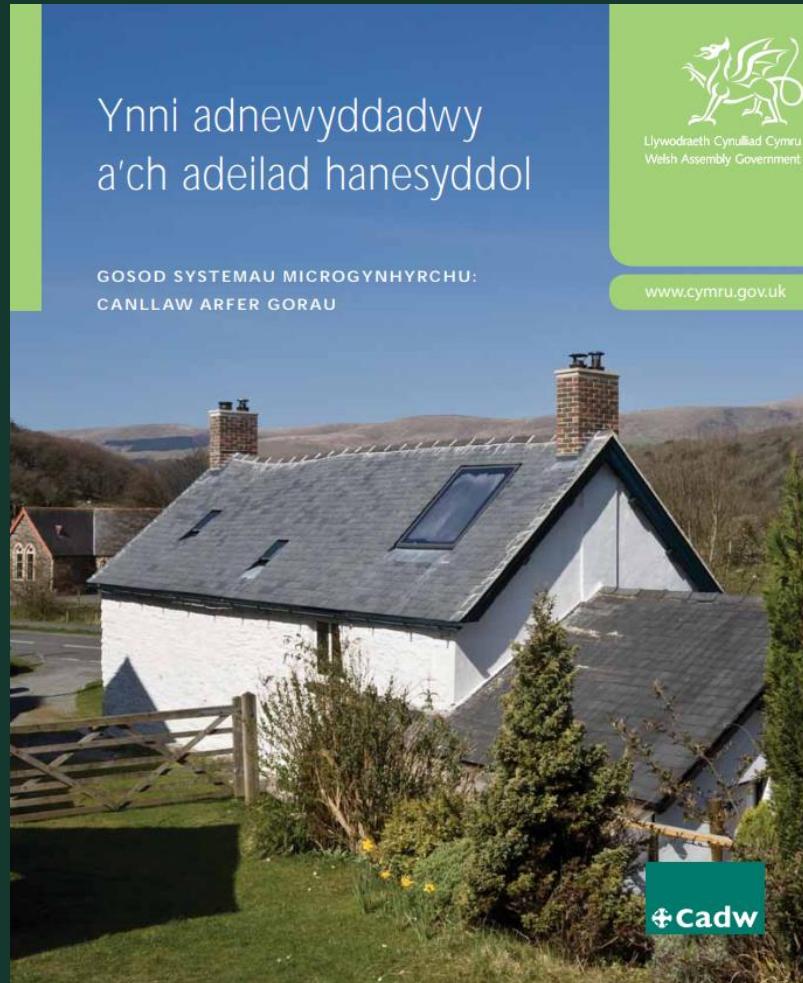
Lefel yr ynni a ddefnyddir  
mewn perthynas â nifer  
defnyddwyr ac ymddygiad  
pobl

**Levels of energy use related to  
occupancy and human  
behaviour**



# Rhagor o wybodaeth

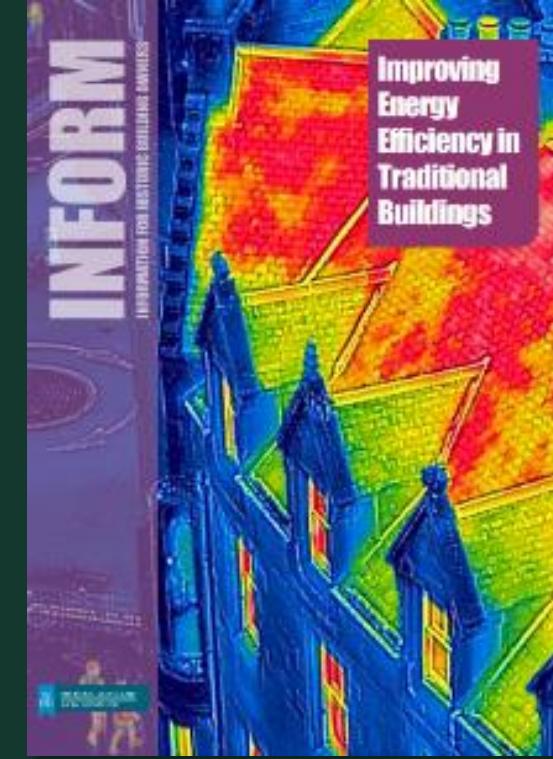
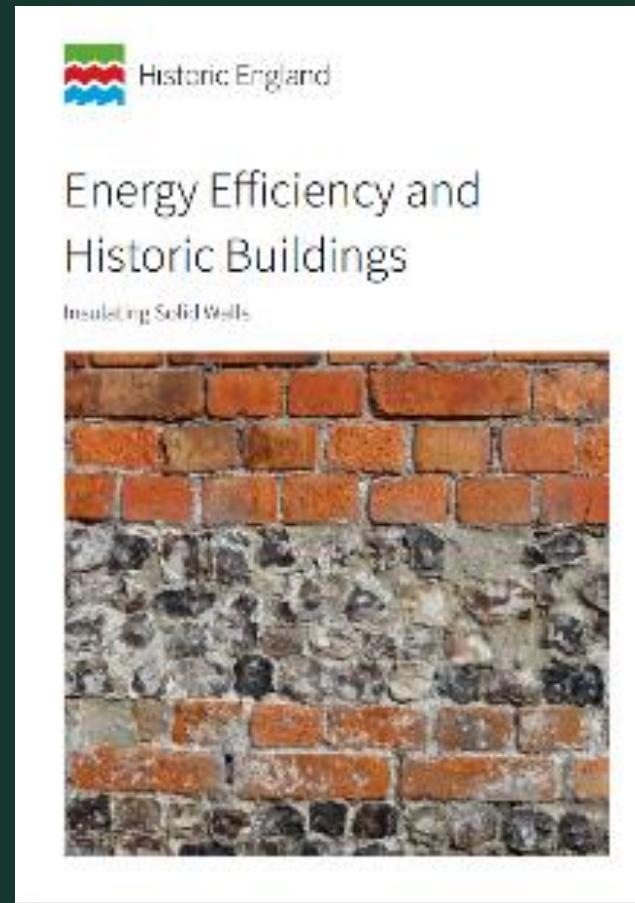
## Further information



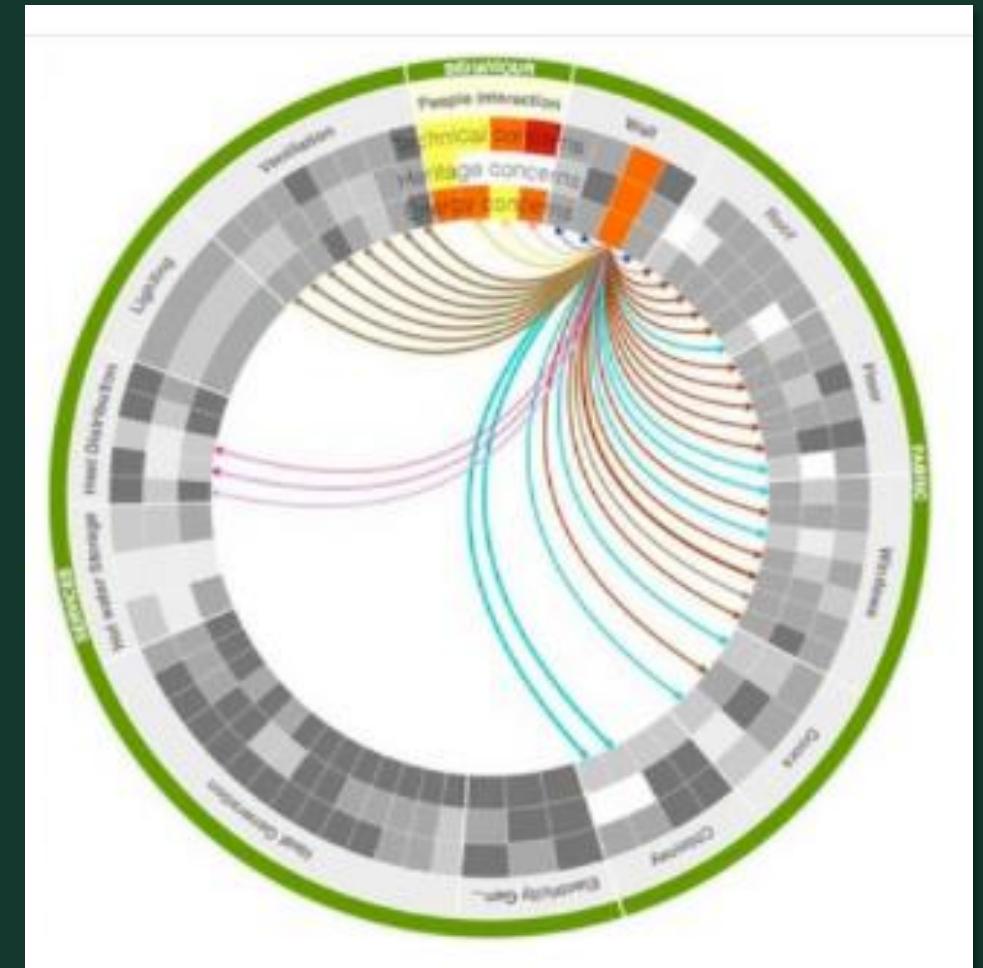
<https://cadw.llyw.cymru/cyngor-a-chymorth>  
<https://cadw.gov.wales/advice-support>

# Darllen pellach Further reading

<https://historicengland.org.uk/>

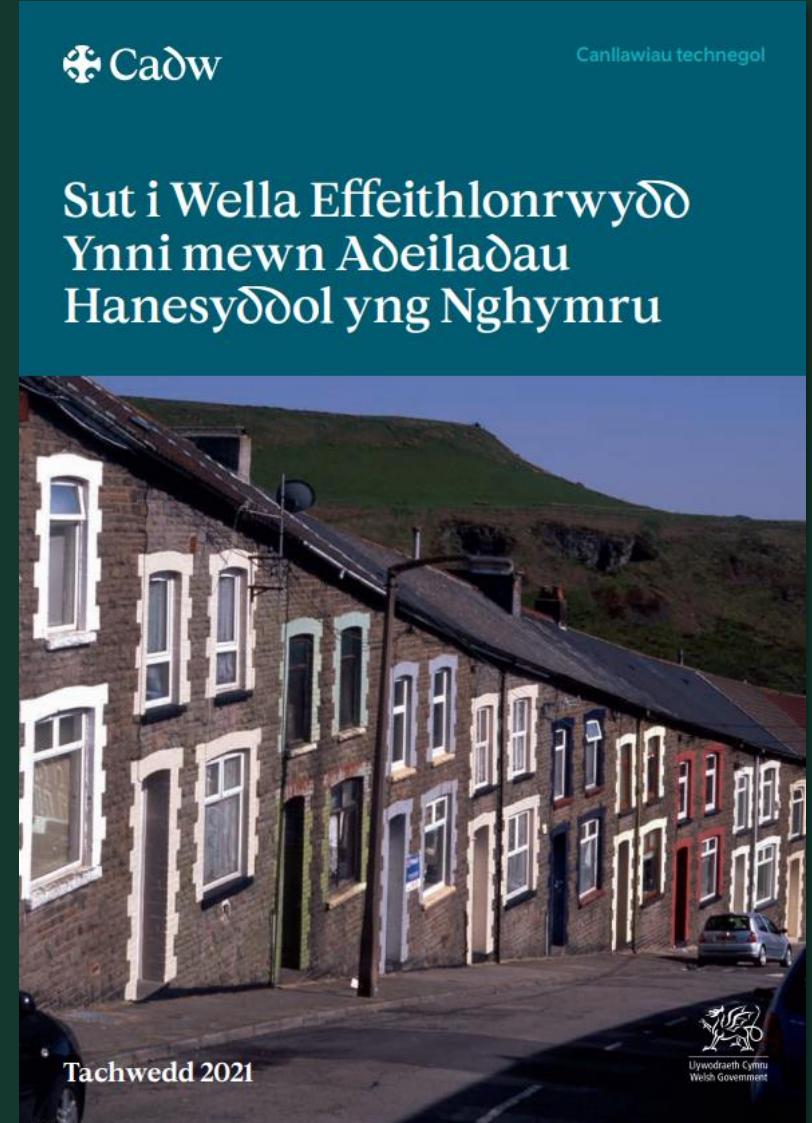
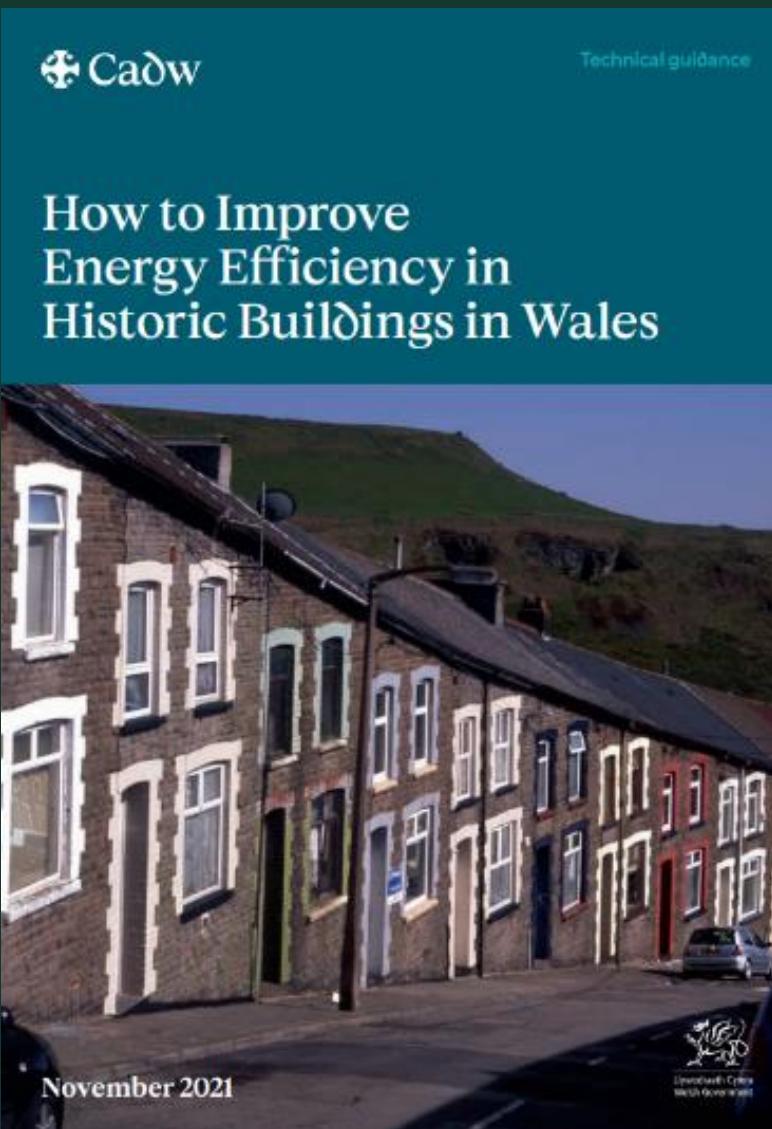


STBA Guidance Wheel  
<https://stbauk.org>



[www.historicenvironment.scot](http://www.historicenvironment.scot)

# Diolch Thank you



Llywodraeth Cymru  
Welsh Government