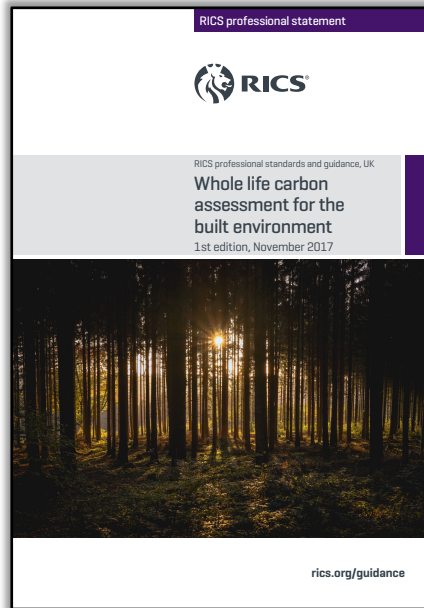


A satellite view of Earth from space, showing a curved horizon with a bright blue atmosphere. The landmasses are dark and textured, with some lighter areas indicating snow or ice. The ocean is a deep blue. The text is overlaid on the right side of the image.

# TargetingZero

Delivering a Low Carbon Future

# Whole Life Carbon

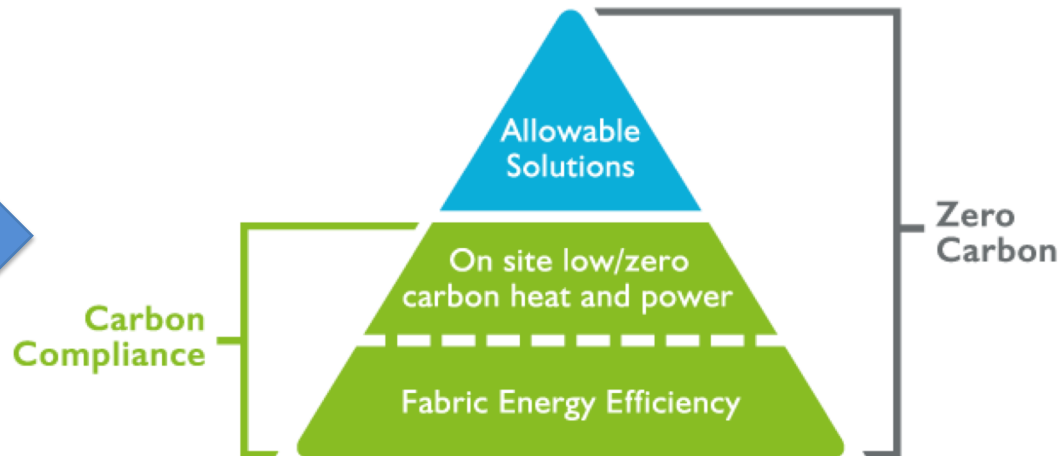


TargetingZero



1973

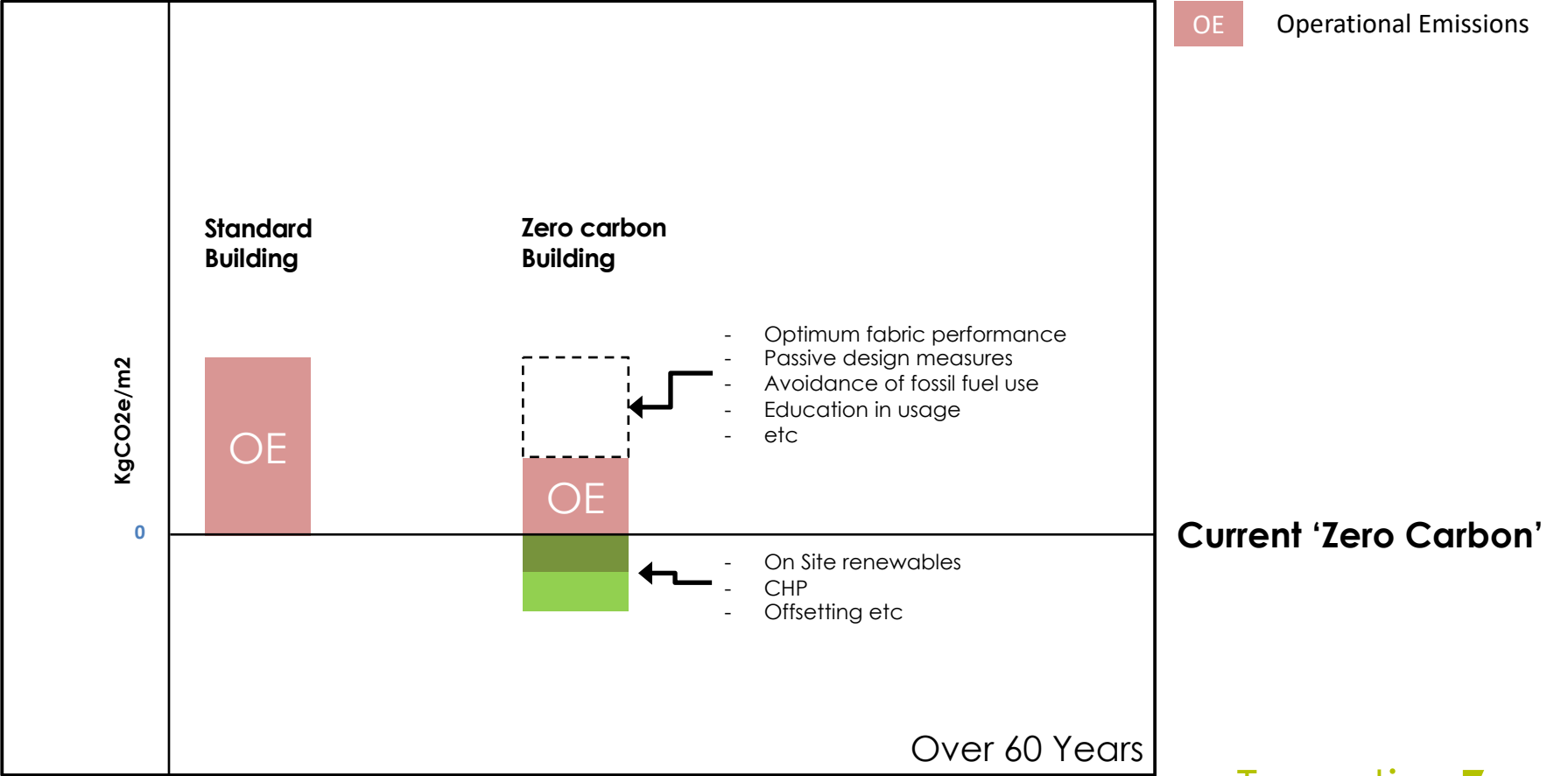
## Zero Carbon Policy



*Zero Carbon Hub Definition*

**Energy Performance in Buildings Directive :**  
Requires all new buildings to be nearly Zero Energy Buildings from 2020.

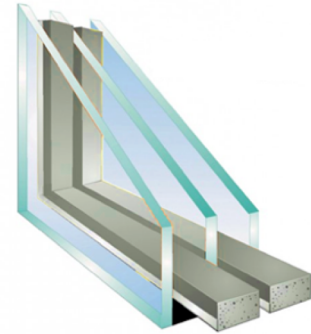
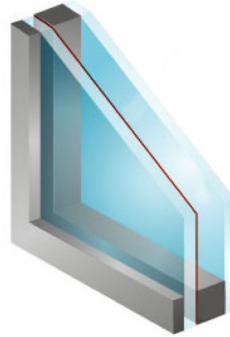
# Operational Emissions – Net Zero







**Double or triple glazing**  
**60 years life cycle**



**Benefit of 3<sup>rd</sup> sheet**

**= 11,661 kgCO<sub>2</sub>e**

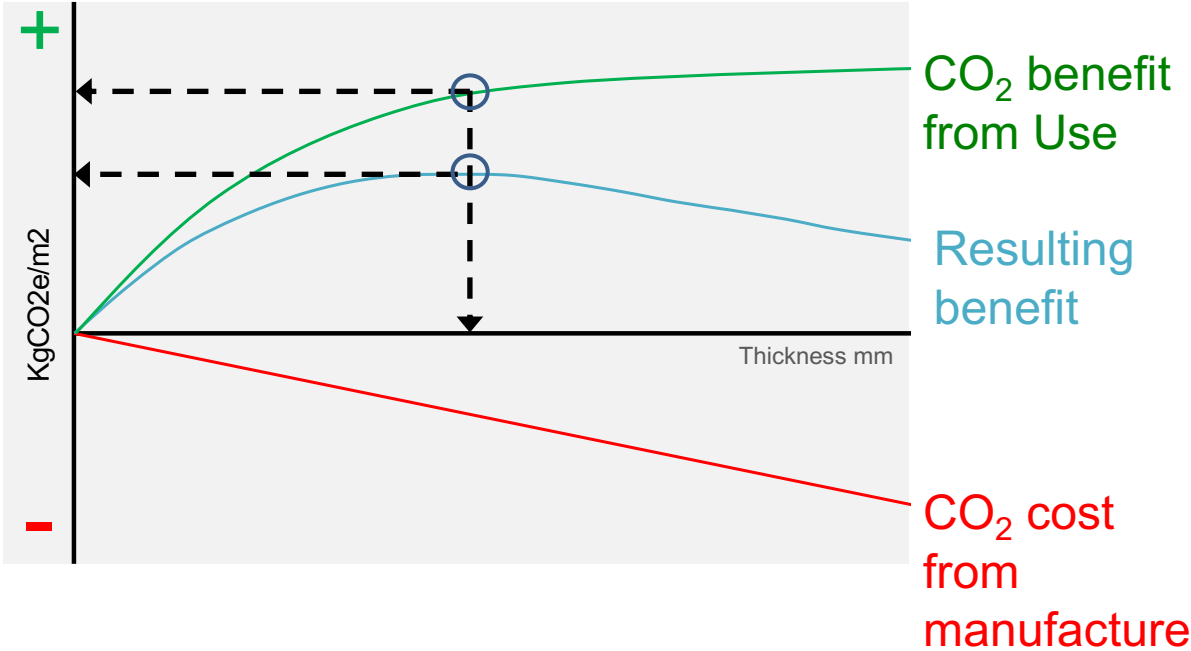
**Cost of 3<sup>rd</sup> sheet**

**= 13,193 kgCO<sub>2</sub>e**

# Carbon Emissions – Cost / Benefit

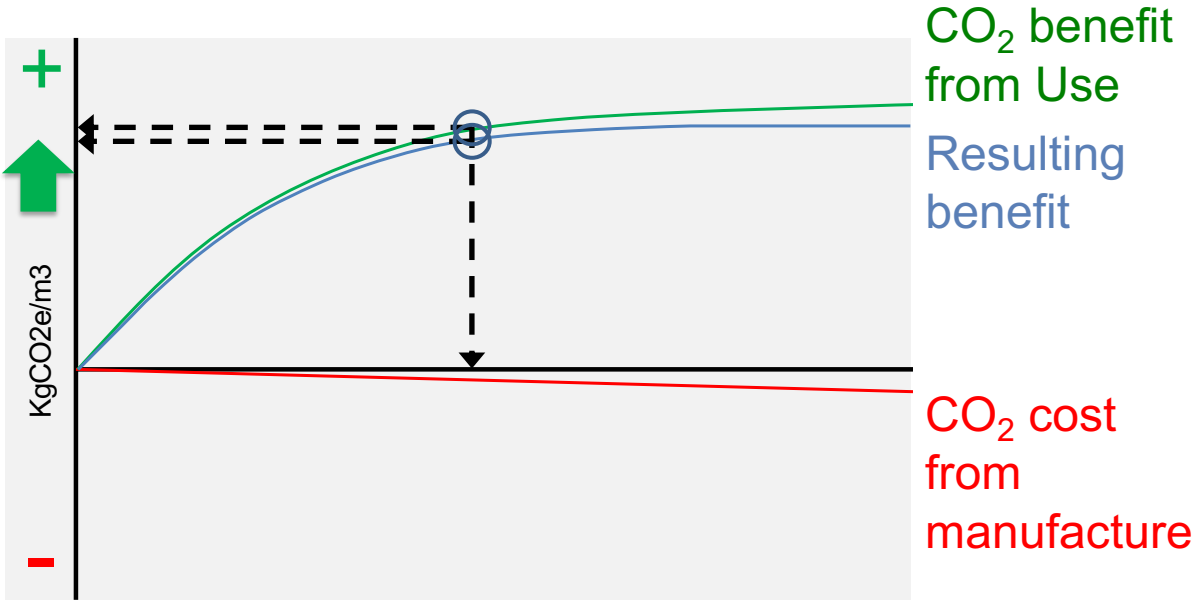


Standard  
Insulation

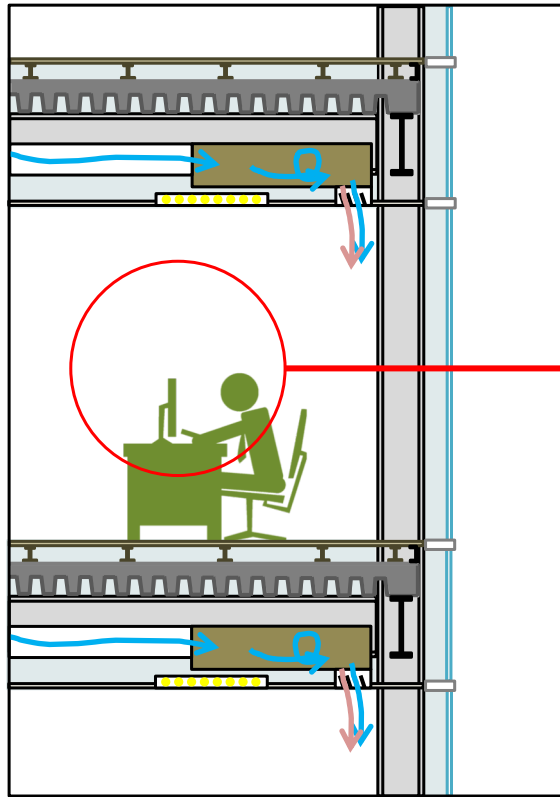




Natural Fibre  
Insulation

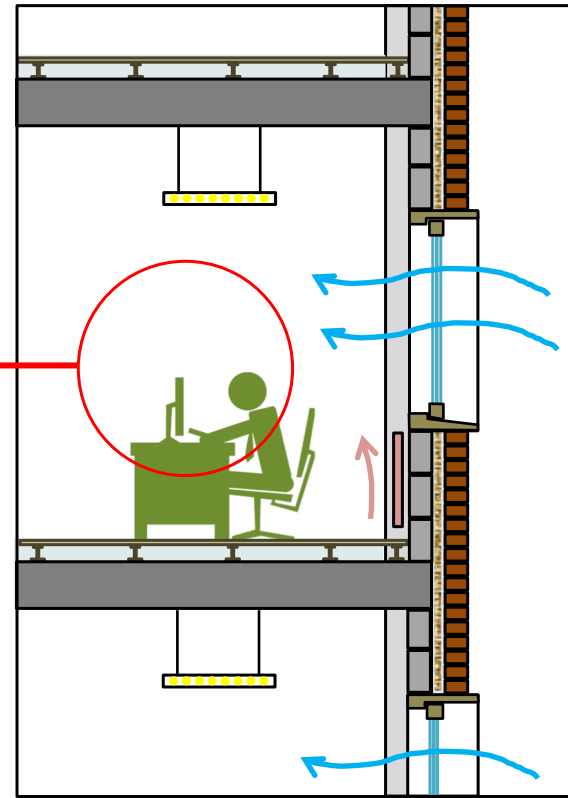


# Whole Life Carbon



Glass Façade  
Full A/C

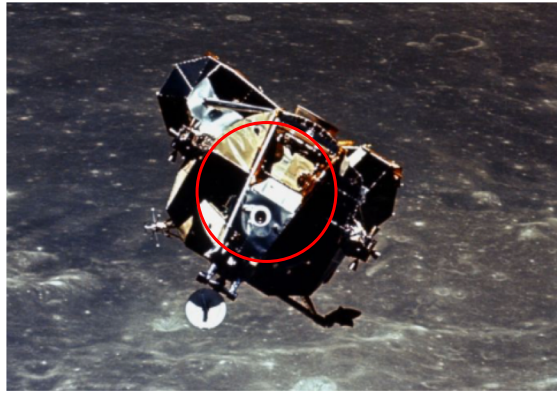
**Optimum**  
Temperature  
Humidity  
Ventilation  
Lighting



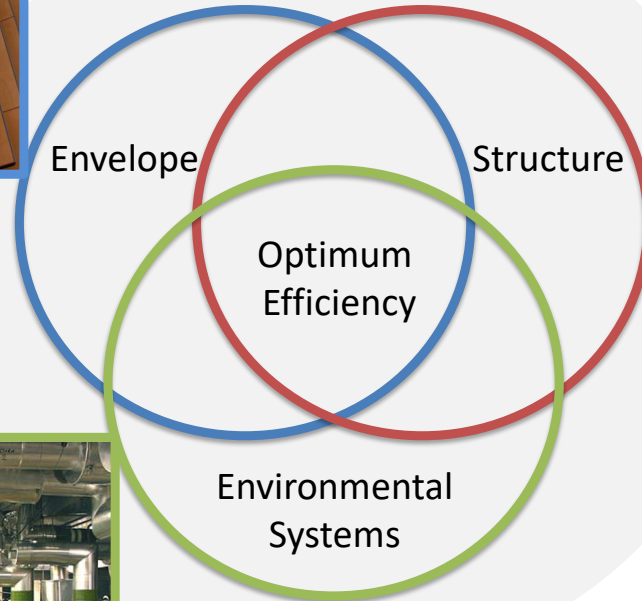
Concrete/Brick  
Nat Vent



# Whole Life Carbon



# Whole Life Carbon




= Zero Emissions

TargetingZero

# Whole Life Carbon


RICS professional statement



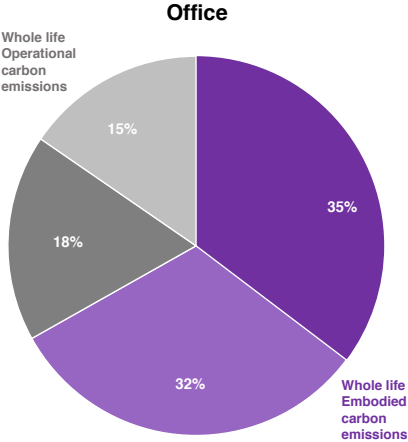
RICS professional standards and guidance, UK

**Whole life carbon assessment for the built environment**

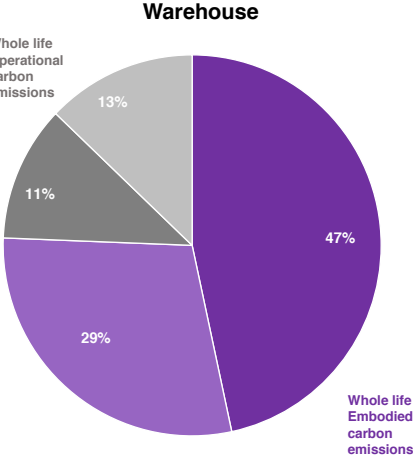
1st edition, November 2017



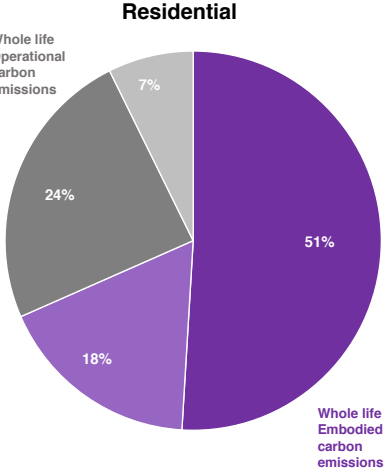
[rics.org/guidance](https://rics.org/guidance)



Speculative office building with Cat A fit out; central London



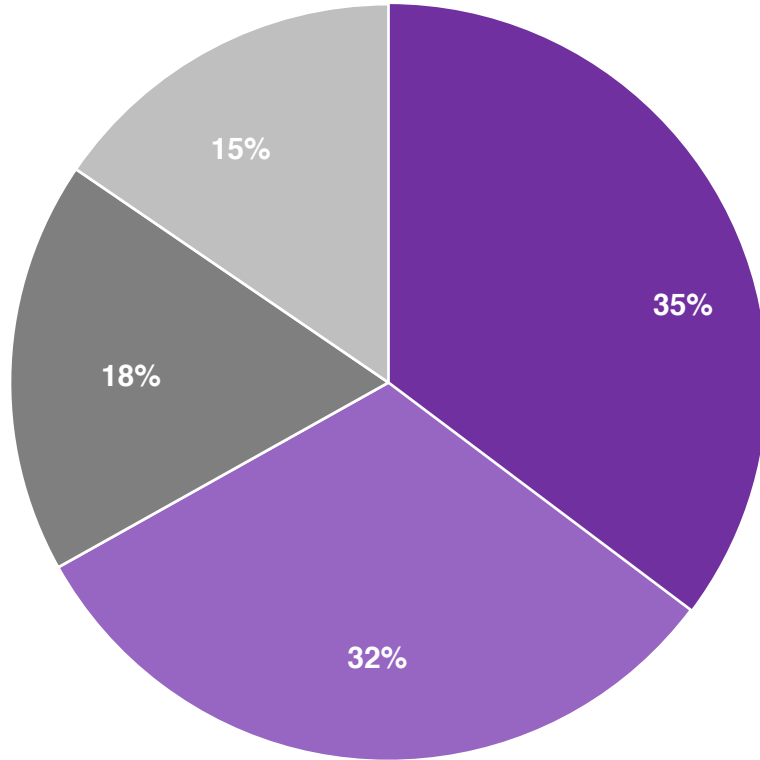
Typical warehouse shed with office space (15% by area); London perimeter, UK



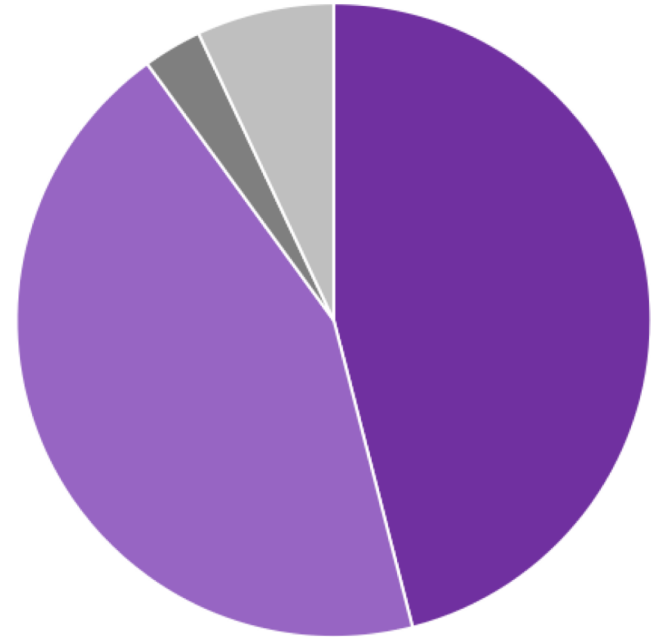
Residential block, with basic internal fit out; Oxford, UK

# Whole Life Carbon

## Standard Office



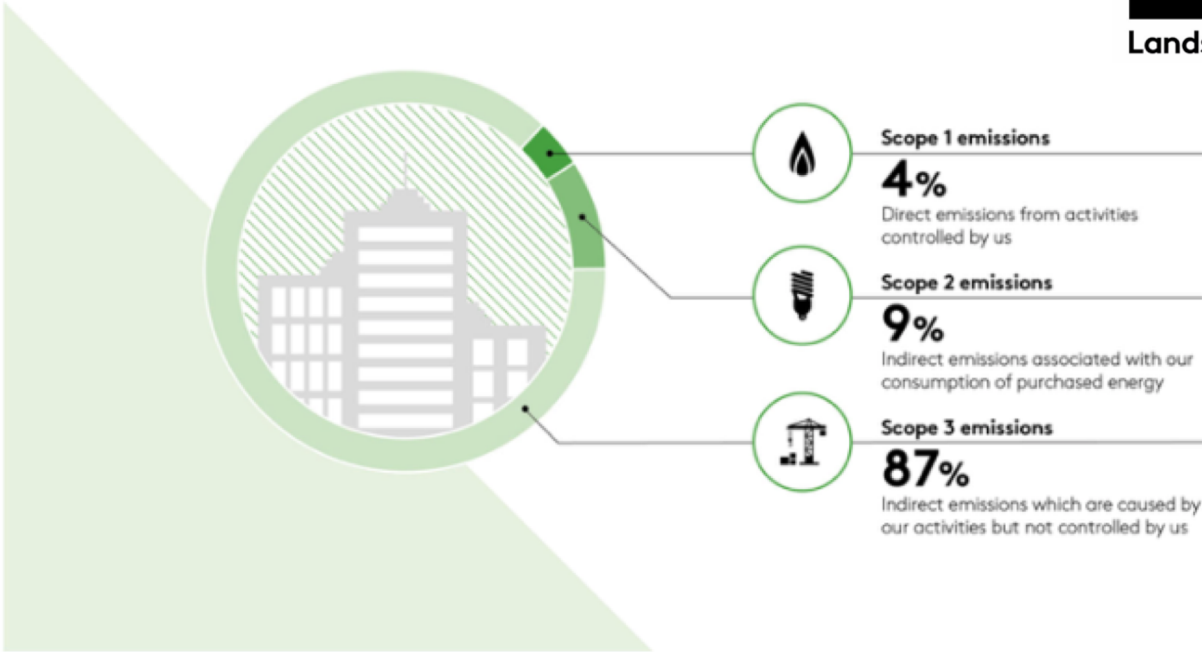
## PassivHaus Office



Close to Current  
'Net Zero'

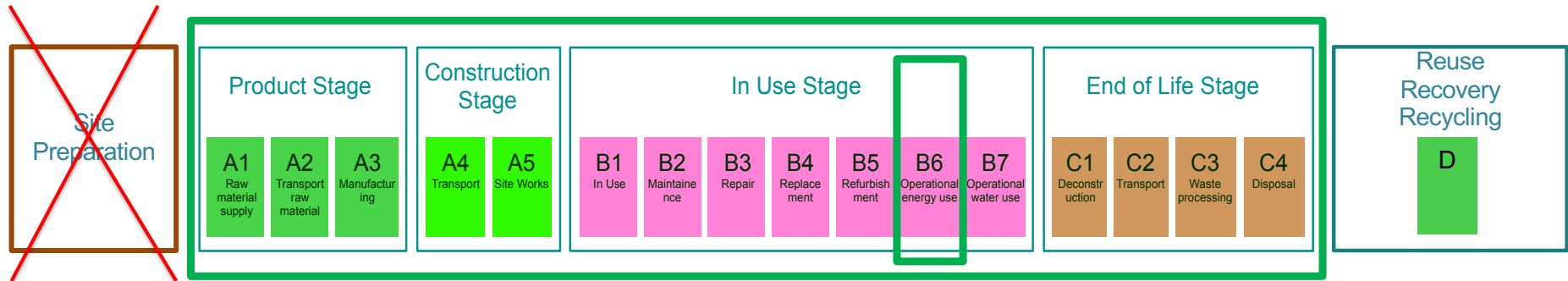


Our carbon emissions – Scopes 1,2 & 3



# 'Net Zero' – Scope of Definition

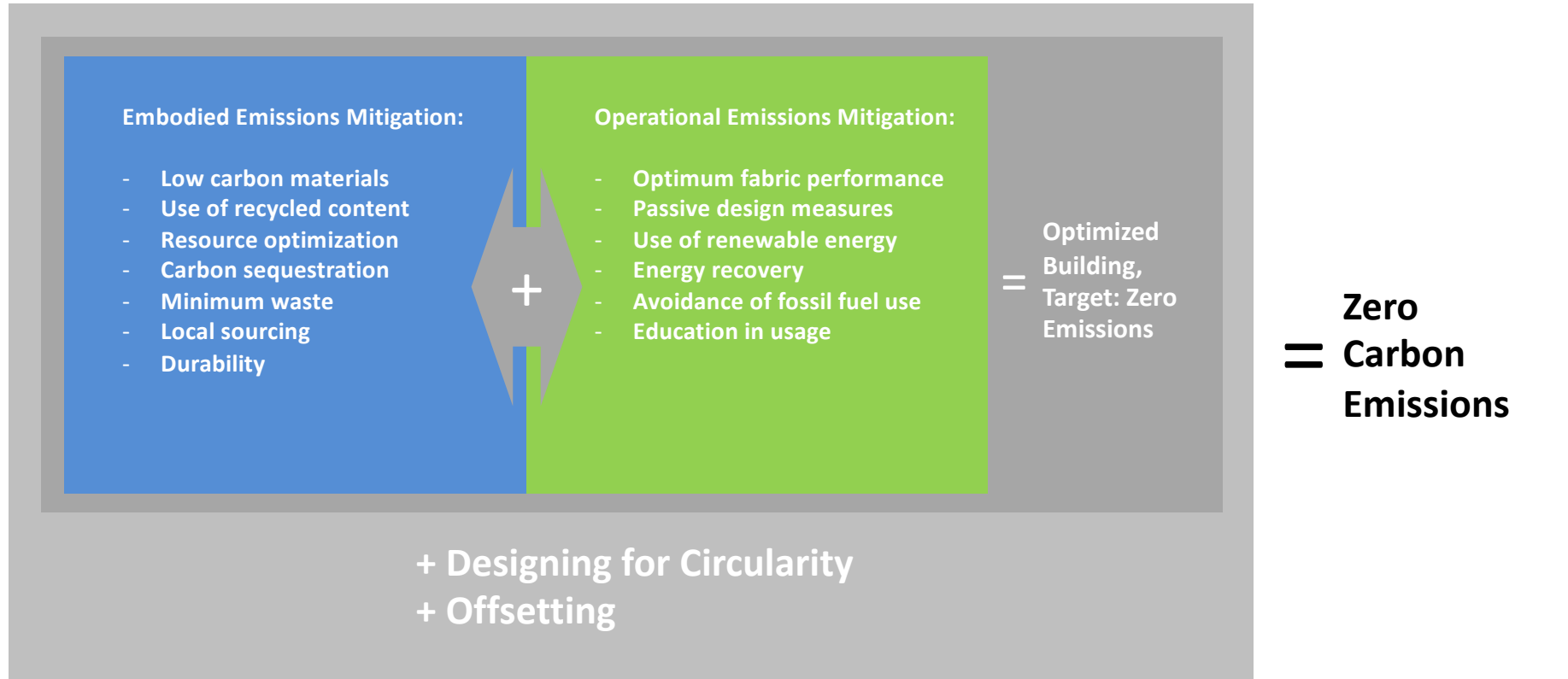
## EN 15978 *and* RICS PS



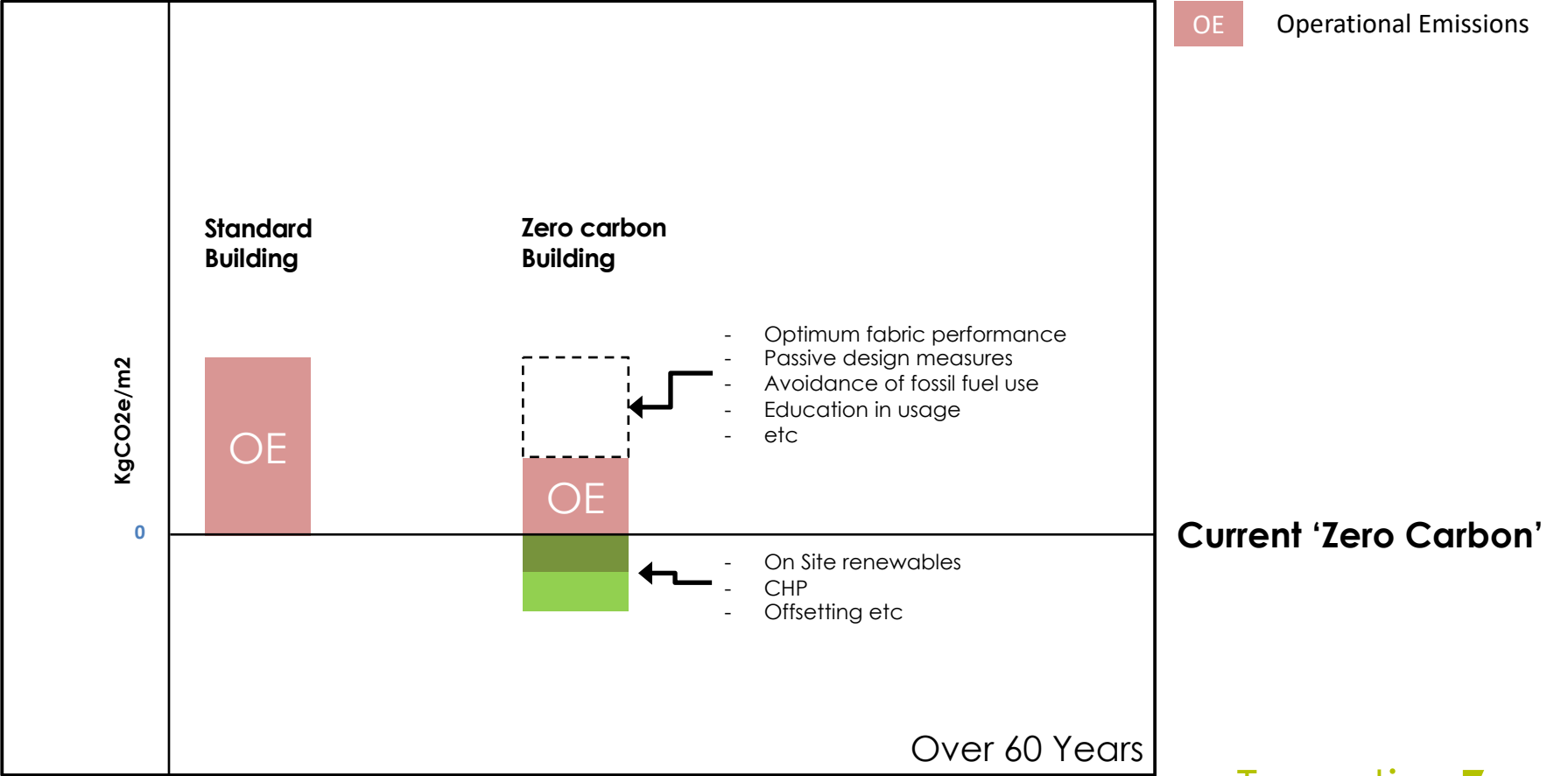
Whole Life Carbon = Zero



# Whole Life Zero Carbon

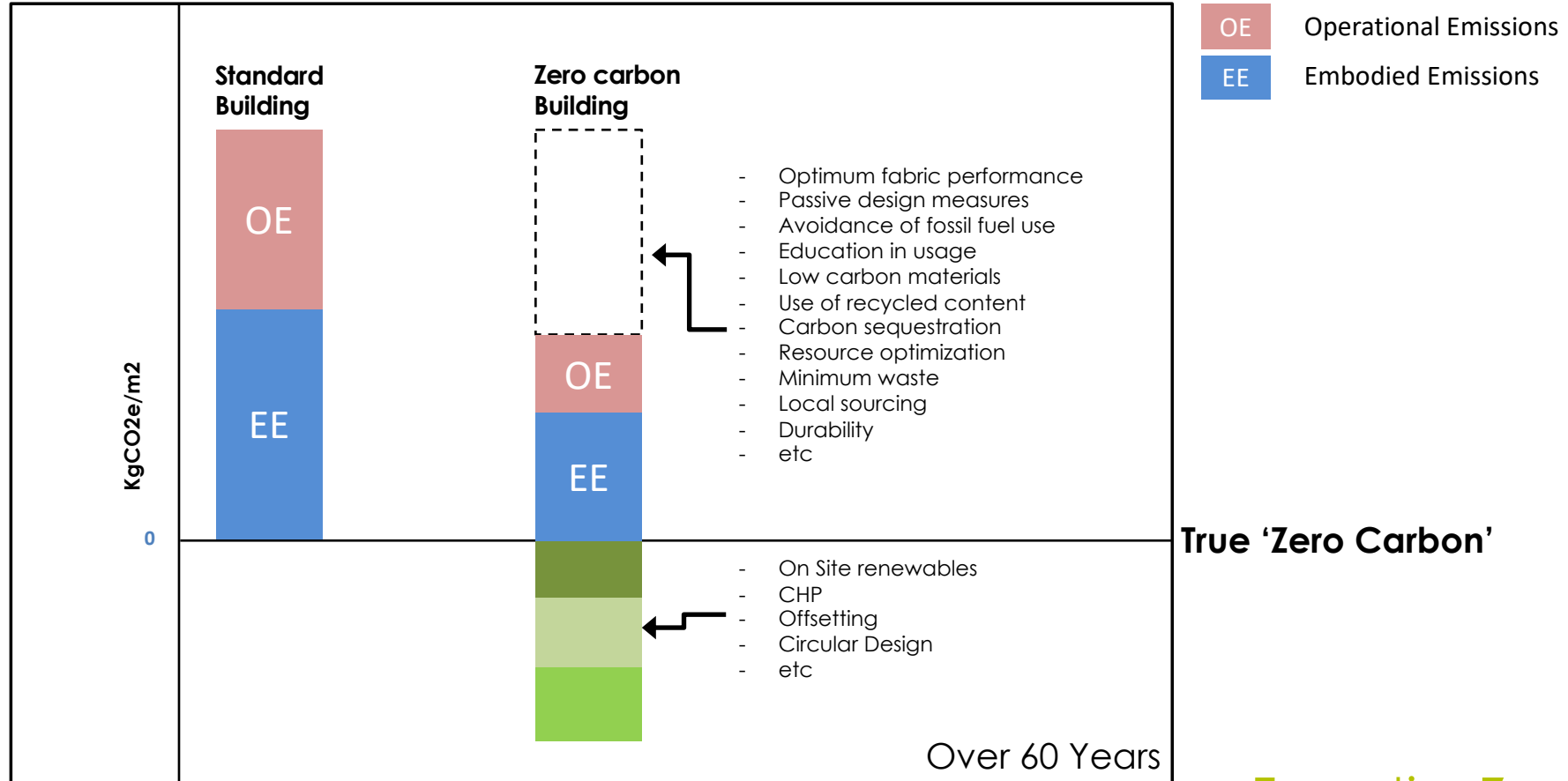


# Operational Emissions – Net Zero





# Whole Life Zero Carbon



# 'Net Zero' Definitions - UKGBC

