

FREE with the Green Gorilla
Masterclass Programme

YOUR COMPANY'S NAME / LOGO



A SIMPLE GUIDE TO SUSTAINABILITY

THE ESSENTIAL ROADMAP FOR CLIENTS

FREE with the Green Gorilla Masterclass Programme

CONTENTS



03

SETTING THE SCENE

04

RUNNING ON EMPTY

05

ZOOMING INTO THE
BUILT ENVIRONMENT

06

THE BENEFITS OF
GREEN BUILDINGS

09

DISPELLING THE MYTHS

10

THE MOST IMPORTANT
ISSUES

11

REDUCING
OPERATIONAL CARBON

13

RESOURCE EFFICIENCY

FREE with the Green Gorilla Masterclass Programme

CONTENTS



18

WATER EFFICIENCY

19

HEALTH AND
WELLBEING

21

PRESERVING AND
ENHANCING NATURE

22

CONNECTED
COMMUNITIES

23

CRITICAL FACTORS FOR
A SUSTAINABLE
OUTCOME

26

OTHER IMPORTANT
FACTORS

27

THE VALUE OF
ENVIRONMENTAL
CERTIFICATION

30

REFERENCES

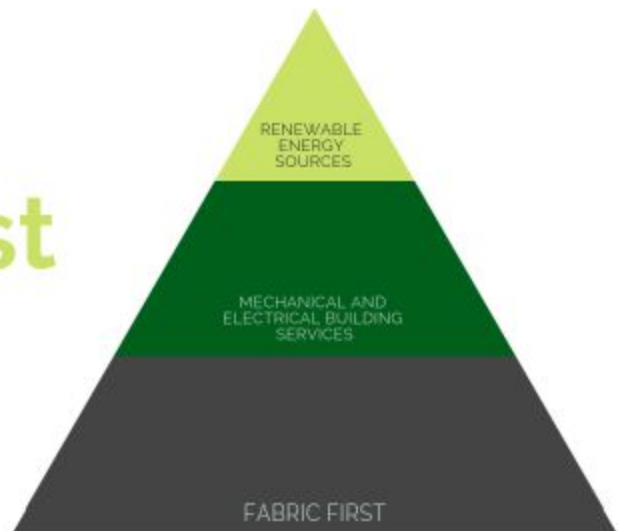
FREE with the Green Gorilla Masterclass Programme

REDUCING OPERATIONAL CARBON

People often equate sustainability and reducing carbon with shiny solar panels or wind turbines. In fact, renewable energy sources should be the last piece of a jigsaw that starts with the so called 'fabric first' approach.

'Fabric first' is a much more efficient and cost-effective way of reducing carbon and energy consumption in buildings. It implies making the fabric (or envelope) of the building (walls, roofs, windows, floors) as energy efficient as possible to reduce the need for energy in the first place. This translates in reducing the amount of heat that escapes from the building by using high efficiency materials for the building structure, insulating the solid elements well and choosing high efficiency windows (e.g. triple glazed), and ensuring that in between elements of different kinds (e.g. a door and the wall it will be fitted in) there are no gaps.

It also means using 'passive' design techniques, which maximise the use of 'natural' sources of heating, cooling and ventilation to create comfortable conditions inside buildings. This means taking advantage of the building's position and orientation to reduce reliance on mechanical ventilation, heating and artificial lighting. For example, a building with small windows on the north elevation and larger ones on the south elevation will lose less heat from the north side, and take advantage of the warmth and light provided by the south elevation.



REDUCE OPERATIONAL CARBON

FREE with the Green Gorilla Masterclass Programme



RESOURCE EFFICIENCY

The construction industry consumes around 6 tonnes of materials every year for every person living in the UK.

Let's look at embodied carbon, which is just as important, if not more important, than operational carbon. This is because the amount used to make a building can be as high as 65%. Owing to the evolution of building regulations, operational emissions are predicted to drop radically in the next few years.

The balance between these two kinds of impacts will therefore change. Furthermore, as buildings become increasingly more energy efficient, larger amounts of materials will be used (e.g. thicker insulation, triple glazing), which also increases the embodied impact of buildings in absolute terms.

These factors point to the need for a holistic approach to reduce both kinds of carbon impact, in part by making informed trade-offs between the two when making design decisions.

The greatest opportunity for impact on embodied carbon comes at the design stage, in particular in the building envelope. If opportunities are not taken at this early stage, the embodied carbon savings are lost for the entire lifetime of the building.

10%

*Carbon missions associated
with the manufacture and
transport of construction
materials and the construction
process in the UK*