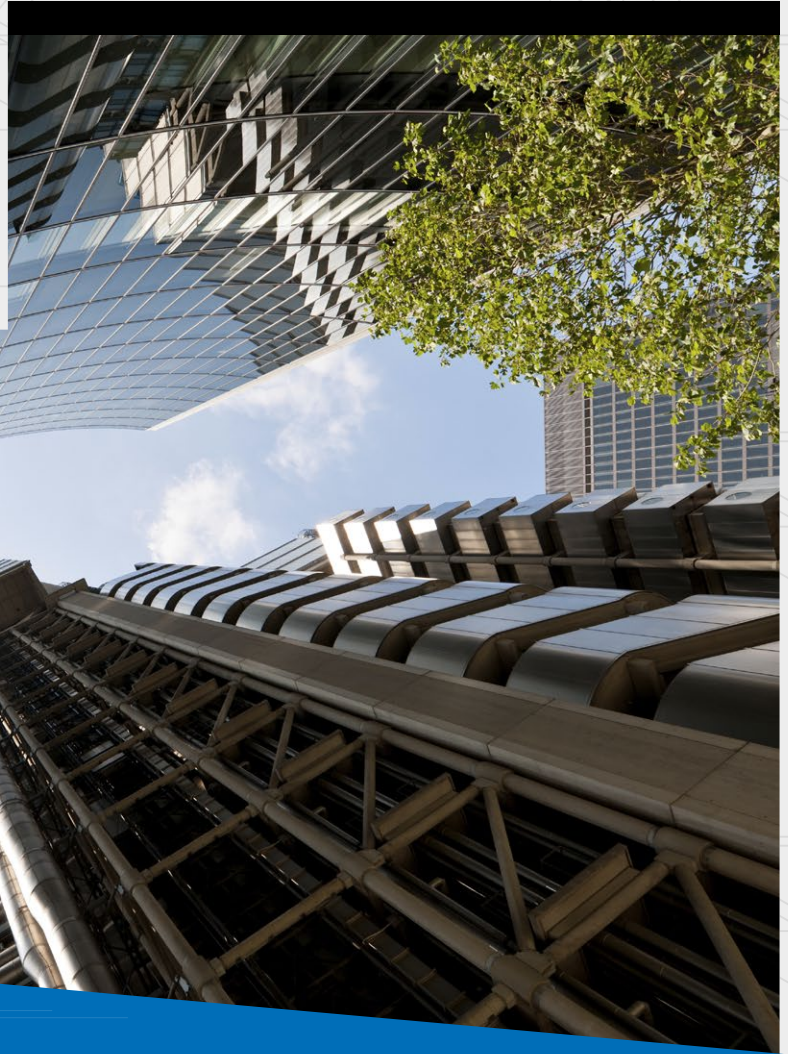




UK GREEN
BUILDING
COUNCIL



MAY 2016

Task Group

DELIVERING BUILDING PERFORMANCE

Executive Summary

© 2016 UK Green Building Council Registered charity number 1135153

The performance in operation, of the vast majority of our buildings, is simply not commensurate with the challenge of meeting our carbon targets. It also damages our ability as an industry to deliver other positive sustainability outcomes – including providing spaces that enable health, wellbeing and productivity for occupiers.

This Task Group has sought to highlight some process improvements that design, construction and property professionals, as well as occupiers, might adopt to deliver buildings which perform more predictably in operation. These findings have been primarily informed by interviews with UK-GBC members, in addition to desk-based research.

UK-GBC is grateful to project sponsors:

BUROHAPPOLD
ENGINEERING

SAINT-GOBAIN

TARMAC
A CRH COMPANY

THE BUSINESS CASE FOR DELIVERING BUILDING PERFORMANCE

Crucially for UK-GBC, and for all those with an interest in sustainability, delivering reliable building performance enables the industry to deliver higher building performance. The two are inextricably linked.

The benefits of delivering higher building performance are synonymous with the business case for sustainable buildings. There is a growing body of work on this topic and the following section provides a snapshot, drawing on past work from the World Green Building Council and from recent analysis by UK-GBC. Further evidence on this topic will continue to be produced by UK-GBC in years ahead.

REDUCED COSTS

High performing, sustainable buildings can both reduce construction costs and reduce operating costs. This can come from managing both carbon and cost in the construction process through site wide efficiency and waste management strategies, and of course through efficient heating, cooling, lighting and ventilation strategies for the building itself.

MEETING MARKET DEMAND

According to the World Green Building Trends survey, over a third of companies surveyed expect to have at least 60% of their building projects certified green by 2018. A green building certification (BREEAM, LEED etc.) is an increasingly common requirement for global corporate occupiers.

Furthermore, the expectation is that a growing number of occupiers will expect building developers and owners to be able to demonstrate the impact of the building on occupant health and productivity.

SUPERIOR FINANCIAL PERFORMANCE

In 2015 Carbon War Room reported on the relationship between sustainability investment and financial returns of real estate investment trusts (REITs) - *Building Returns – Investing in Sustainability Pays Off*. The study found that a higher sustainability ranking in the annual GRESB REIT survey correlated to a superior financial performance; in respect of both returns on assets and returns on equity. It also found a significant link between portfolio sustainability indicators and REIT stock market performance and was able to establish, for the first time, that investing in sustainability enhances business performance and lowers risk exposure and volatility.

EMPLOYEE RECRUITMENT, RETENTION AND PRODUCTIVITY

Surveys regularly show that graduates are increasingly looking for a sustainable and ethical place to work. In a survey of more than 2,000 people in the UK, consultancy Global Tolerance found that 44% thought meaningful work that helped others was more important than a high salary. Not only is a sustainable place to work more likely to attract and retain talent, but it is more likely to get the most from that talent in terms of workplace productivity. There is a growing body of evidence demonstrating the impact of factors such as indoor air quality, thermal comfort and lighting on human health and wellbeing, reducing associated staff costs, and increasing productivity.

FIVE KEY SUCCESS FACTORS IN DELIVERING BUILDING PERFORMANCE

1 ASPIRATION

Setting a simple target – at the very least for energy use (kWh/m²) – helps to create a common language and shared aspirations across the delivery process.

2 CONTROL

Collaborative contracting, with performance guaranteed and control maintained throughout the delivery process helps to ensure predictable outcomes.

3 DESIGN FOR PERFORMANCE

Do not design simply for compliance. Performance improves when aspirations are not limited to compliance or, in other words, “going for the ceiling, not the floor”.

4 FEEDBACK

Reciprocal links and a commitment to monitor and feedback, particularly during the handover process, is vital. So too is giving time for well documented building commissioning. Links must be made between operational facilities management (FM) and the design team, and between FM and building occupiers.

5 KNOWLEDGE

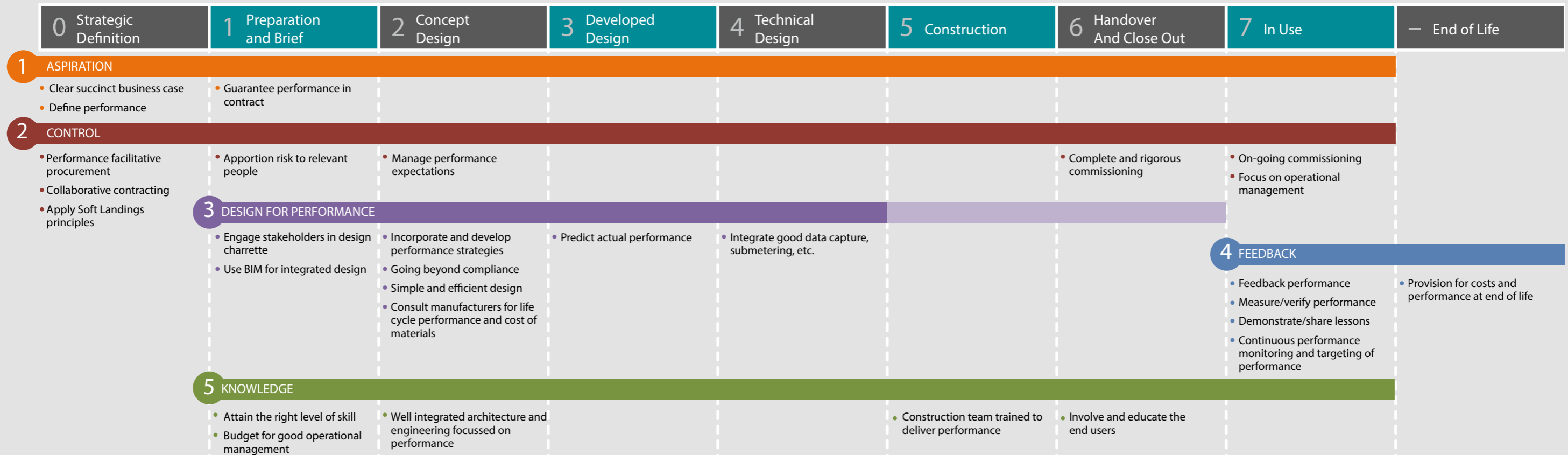
Improved knowledge, across the whole value chain, supports good outcomes. This is enabled by participating openly in lesson-sharing activities.

UK-GBC NEXT STEPS

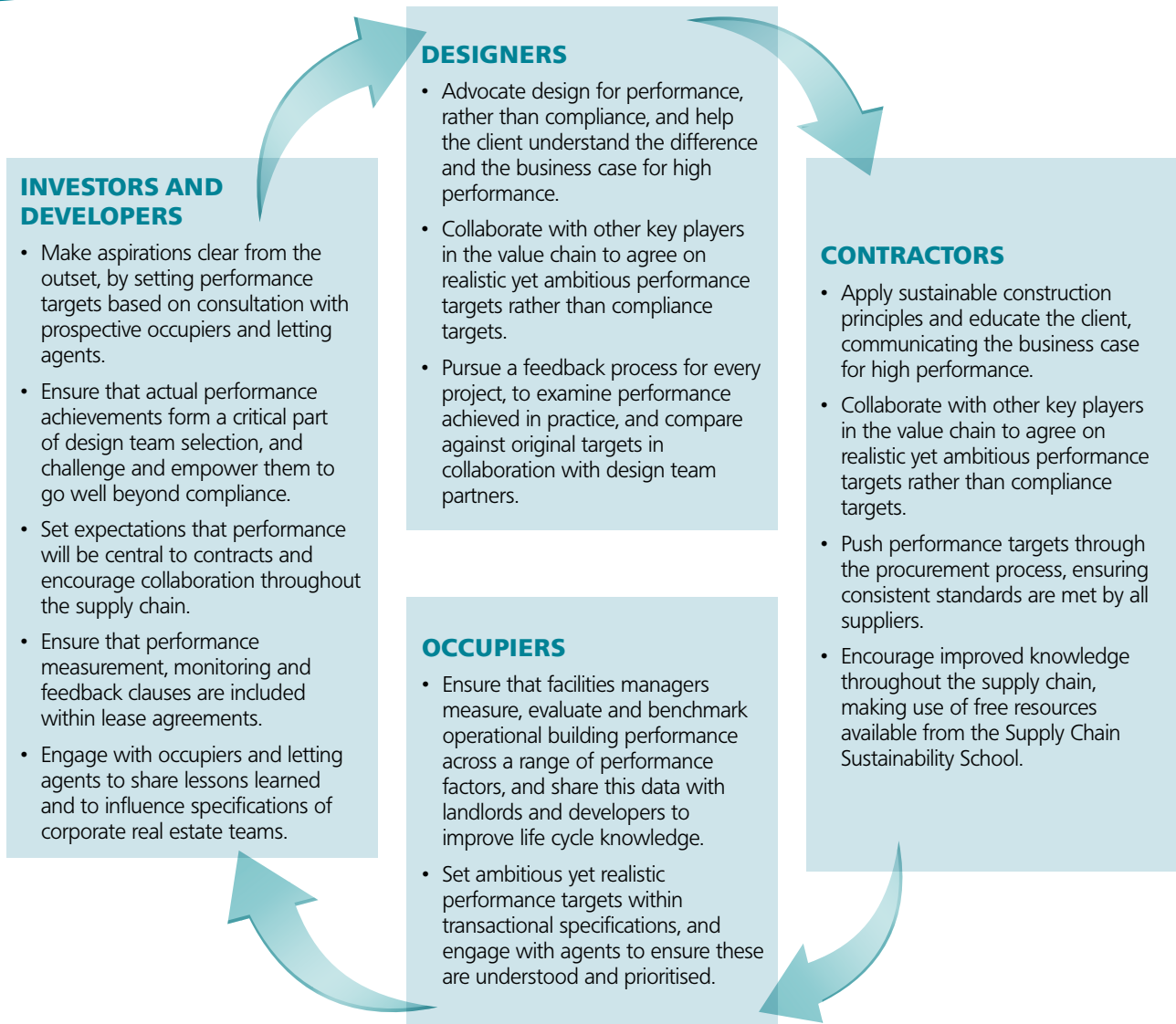
The UK-GBC membership represents all stages of the design, construction and building operations process, so we can therefore play an important role by connecting up the key players, ensuring that they understand the challenges, and encouraging them to adopt good practice solutions.

These findings and recommendations will inform our ever growing programme of learning and development courses and activities, and we will seek to build momentum through our Sustainability 360 Review Process with Gold Leaf members, and a range of upcoming work on the business case.

MAPPING THE SUCCESS FACTORS TO THE BUILDING LIFE CYCLE



KEY RECOMMENDATIONS BY SECTOR



This diagram shows how the 5 key success factors (overleaf) translate into recommended actions for respective actors. It is intended to emphasise the importance of collaboration throughout the value chain - turning a vicious circle of blame into a virtuous circle of opportunity.

ACKNOWLEDGMENTS

- Julian Sutherland, Cundall (formerly of Atkins): Project Chair
- Lynne Ceeney, Lytton Consulting: Project Manager (on behalf of UK-GBC)
- Chris van Dronkelaar, BuroHappold/UCL: Project Researcher

A large number of organisations have also informed and contributed to this project. They are acknowledged and thanked in the full report. See the website ukgbc.org.



UK Green Building Council

The Building Centre
26 Store Street
London WC1E 7BT

T: +44 (0)20 7580 0623

E: info@ukgbc.org

W: www.ukgbc.org