Advancing Sustainability in Singapore's Built Environment – 2025 Update & Relevance for Quantity Surveyors

An introductory overview of Singapore's 2025 sustainability initiatives and their relevance for Quantity Surveyors

Introduction

Singapore's Green Plan 2030 & Net-Zero Target 2050

National sustainability roadmap with built environment as a key focus area

Built Environment's Contribution to Carbon Emissions

Significant impact from design, construction, and operation of buildings

Opportunities for Built Environment Transformation

Innovative solutions across design, materials, and operations can drive decarbonization

The built environment is central to Singapore's sustainability transition, presenting both challenges and opportunities for transformation.

Built Environment Innovation Highlights (BEIH @ Braddell Campus)

One of the most exciting developments this year is the Built Environment Innovation Hub at the BCA Braddell Campus. It serves as a living lab for testing and showcasing smart, sustainable technologies. Two key buildings—the Super Low Energy Building (SLEB) and Zero Energy Building (ZEB)—offer real-world learning environments.

Tackling Embodied Carbon – The Pathfinder Initiative

Embodied Carbon Pathfinder Initiative

Singapore launched this initiative to develop industry frameworks and best practices for addressing embodied carbon from building materials and construction processes.

Pilot Studies

Pilot studies are underway for large-scale projects to test and validate approaches to quantifying and reducing embodied carbon.

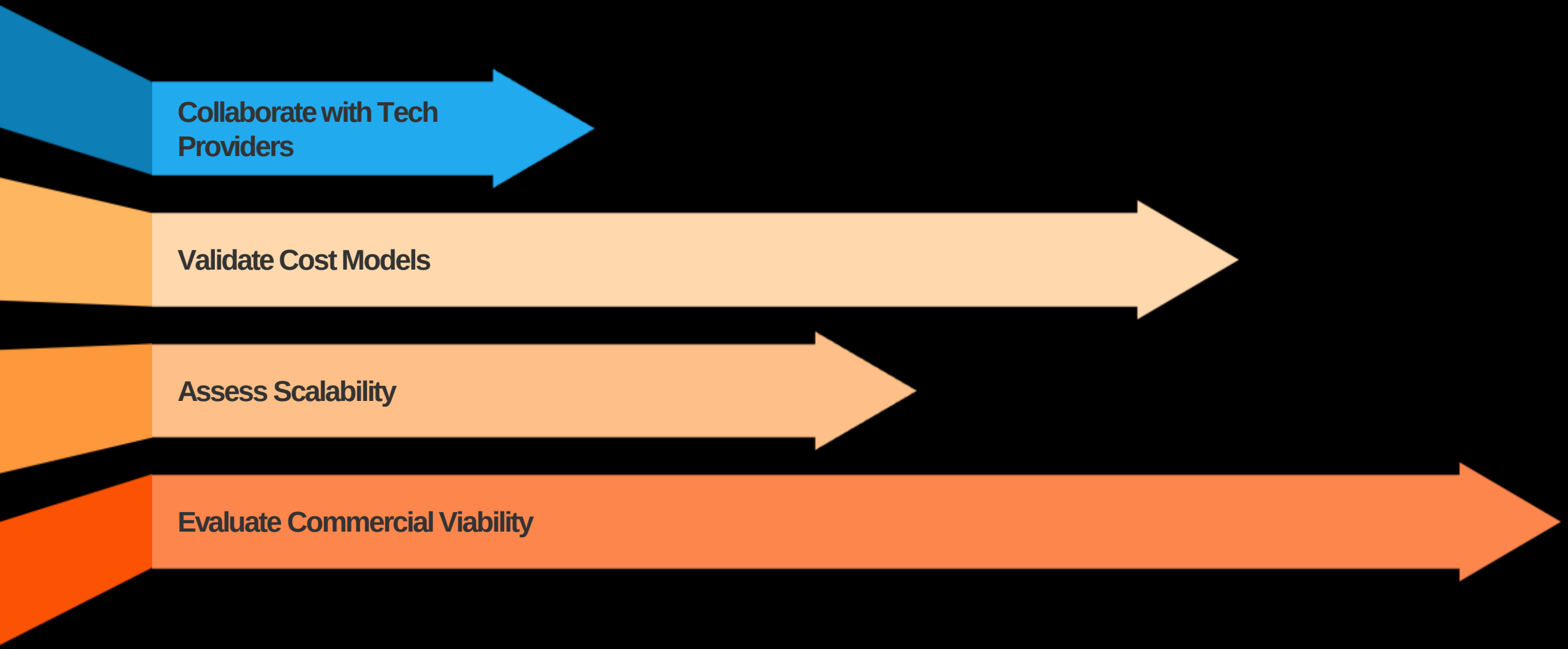
Carbon Costing for Quantity Surveyors

Quantity Surveyors need to assess carbon footprint alongside cost in material selection, and support clients in balancing capital cost with environmental impact.

Expanding QS Role

This initiative expands the traditional cost advisory role of Quantity Surveyors into carbon costing and lifecycle analysis for sustainable construction.

Supporting Innovation – BEAMP



GreenGov.sg – Leading by Example in the Public Sector

Initiative	Description	QS Involvement
Green Mark SLE Standards	All new and retrofitted public buildings must achieve Green Mark Super Low Energy (SLE) standards, targeting 60% energy savings from 2005 levels.	Estimating costs for compliance with Green Mark standards
Clean Energy Vehicles	Adoption of clean energy vehicles for all new government vehicle fleets.	Advising on whole-life costing for electric and hybrid vehicles
SolarNova Programme	Large-scale solar panel installations across public sector buildings.	Structuring performance-based contracts for solar energy projects

*Based on the information provided in the presentation outline

Skills and Certifications for the Future

SkillsFuture Career Transition Programmes (SCTPs)

BCA has rolled out SCTPs for areas such as Sustainable Design, Computational and Digital Delivery, and Green Building Technologies

New Green Mark for Smart Buildings Certification

Recognizes the use of IoT and AI to optimize energy and water use in buildings

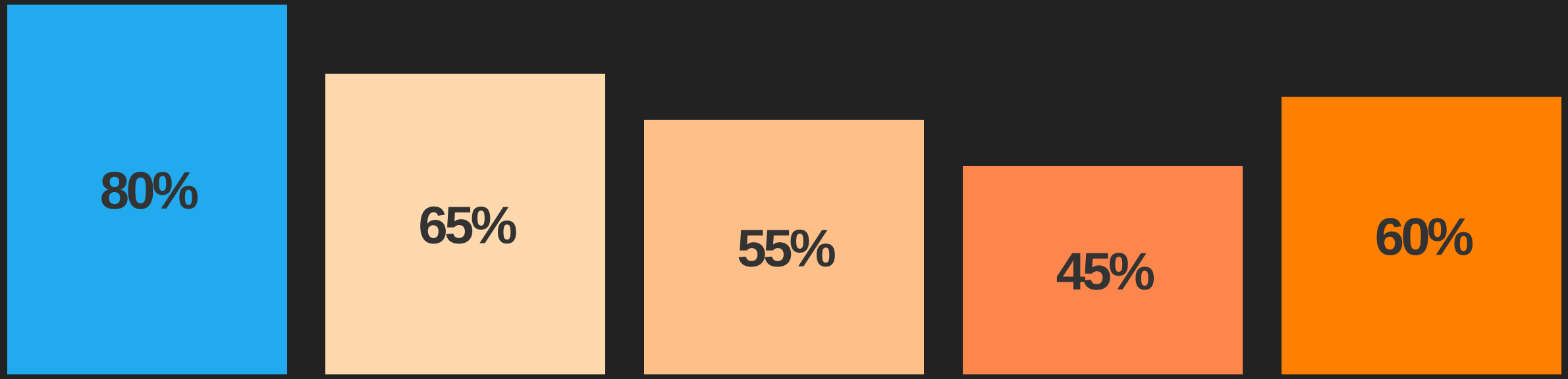
Continuous Upskilling for QSs

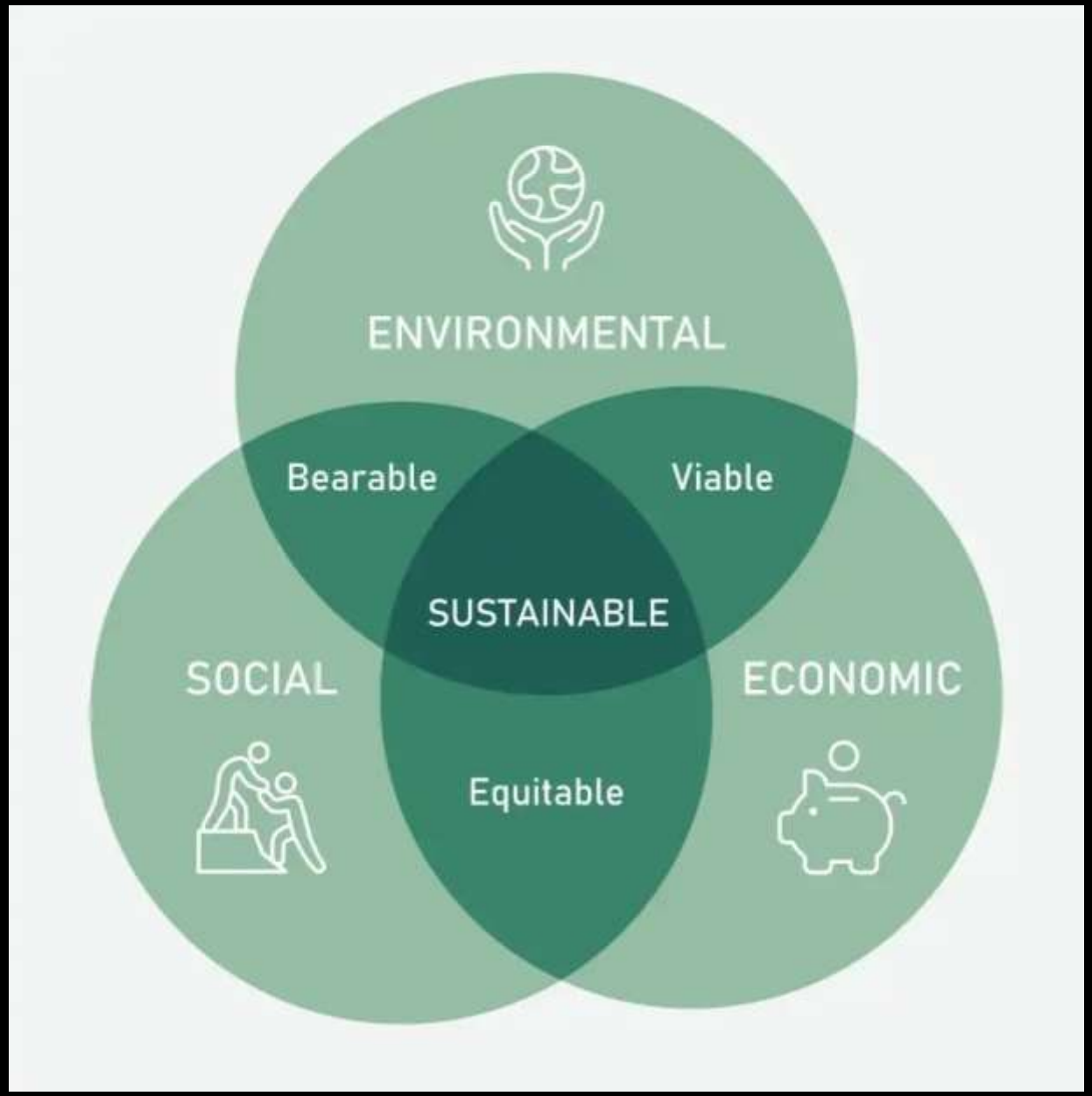
QSs need to understand cost models and how digital systems and smart tech affect building performance and long-term value

As sustainability becomes central to the built environment, Quantity Surveyors must continuously upskill to stay ahead of the curve and provide strategic advisory services that ensure sustainability objectives are delivered within cost, time, and quality constraints.

Opportunities and Challenges for QS

Percentage of QS professionals involved in various sustainability-related activities





Conclusion – Shaping the Future Built Environment

In conclusion, Singapore's 2025 green development efforts highlight that sustainability is no longer a side consideration—it's central to policy, practice, and project success. Quantity Surveyors are evolving into strategic sustainability advisors, ensuring that sustainability objectives are delivered within cost, time, and quality constraints.

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Singapore continues to advance its Green Plan 2030 and national net-zero target by 2050. The built environment is central to this transition—given its contribution to carbon emissions and the opportunity it presents for transformation across design, construction, and operation.