



Construction site in Addis Ababa, Ethiopia. The construction industry in developing or emerging economies is set to increase by 110%

# CONSTRUCTIVE FEEDBACK

FIG COMMISSION 10 HAS DEVELOPED AND PUBLISHED A GUIDE TO PROFESSIONAL COMPETENCIES FOR QUANTITY SURVEYORS, COST ENGINEERS AND CONSTRUCTION ECONOMISTS. DR SEELIAN ONG EXPLAINS WHAT IT CONTAINS

Construction is a global industry and extends across all building and infrastructure markets. It is one of the most important engine of growth in developed and developing economies. Globally, over the next seven years will grow in value from US\$7.2 trillion to more than US\$12 trillion, while in developing or emerging economies, it is set to increase by 110% and infrastructure construction by 128%. With this rapid growth the global construction industry presents many opportunities – but also has a number of challenges.

The professionals involved in the measurement and management of construction costs are called by different names in different countries – in the UK and most Commonwealth countries, they are called quantity surveyors (QS); in continental Europe, they are called construction economists (CE); while in Northern America and China, they are called cost engineers (CEgr).

QS/CE/CEgrs are the cost managers of construction. They are initially involved in the feasibility, design and construction phases of a building or facility, but they can also be

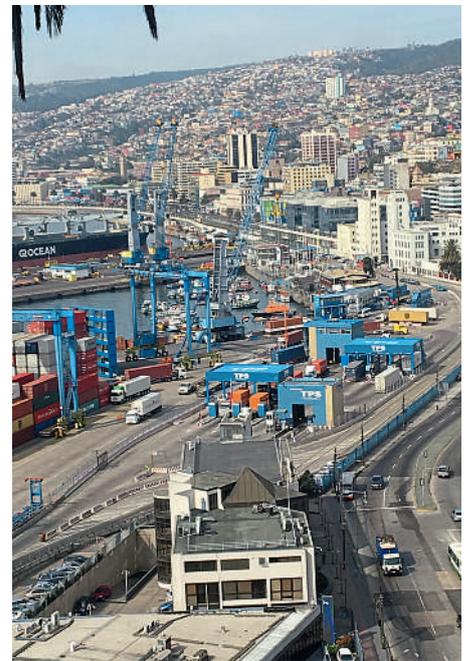
involved with their extension, refurbishment, maintenance or demolition. QS/CE/CEgrs work in all sectors of the construction industry worldwide and must understand all aspects of construction over the whole life of a building or facility. They must have the ability to manage cost effectively, equating quality and value with individual client needs.

Their role is becoming increasingly important, to ensure that project costs are measured and monitored professionally to ensure value for money for the stakeholders. It is therefore important that professionals working across the globe should have a consistent standard of competencies to provide their employers or clients with confidence.

With this in mind, FIG Commission 10 has developed and published a guide for professional competencies for QS/CE/CEgrs, with the aim of creating a consistent approach and curriculum for their training.

## About the guide

This guide has been drawn up by experienced academics and practitioners and aims to provide



Valbaraiso, Chile – infrastructure construction is predicted to increase by 128% over the coming years. The need for skilled quantity surveyors is high and their competencies are crucial

clear and practical understanding of how to apply core and optional competencies listed (see 'Technical competencies'). These competencies are not just a list of tasks or functions, but are also based on attitudes and behaviours.

The competencies have been drawn up in a generic way so that they can be applied to different areas of practice and geographical locations. The guide is designed to help in interpreting these competencies in the context of construction industry in any chosen area of work.

The competencies are defined at three levels of attainment and the candidate must achieve specific combination of competencies at the appropriate level. The candidate must reach the required level in a logical progression and in successive stages:

- **Level 1** – knowledge and understanding.
- **Level 2** – application of knowledge and understanding.
- **Level 3** – reasoned advice and depth of technical knowledge.

The competencies are in three distinct categories:

- **Mandatory competencies** – the personal, interpersonal, professional practice and business competencies.
- **Core competencies** – the primary competencies of the candidate's chosen scope or area of training.
- **Optional competencies** – a set of competencies selected by the candidate from a list defined for the particular scope or area of training. In most cases there is an element of choice. These are mostly technical competencies, but certain mandatory competencies also appear and candidates are permitted to select one of these at a higher level.



South Brisbane Dry Dock, with oceanographic survey ship HMAS Diamantina

### How to use the guide

The guide is designed to help a candidate to understand more about qualifying as a QS/CE/CEgr. It is appreciated that markets may vary from country to country. This guide includes supplemental guidance which is set out in three sections.

- **Section one** – Profile of newly qualified QS/CE/CEgr.
- **Section two** – Selecting optional competencies.
- **Section three** – Study check list.

The information provided in the guide is designed to be helpful but informal. The knowledge and activities described under each competency are not exhaustive and it is for the national surveying institutions and institutions of higher learning to satisfy themselves that the competencies to be acquired and achieved by the candidates meet the expectations of their local market and stake-holders.

### Technical competencies

The guide includes the following areas of technical competencies:

- Building information modelling (BIM) management
- Capital allowances
- Commercial management of construction
- Conflict avoidance, management and dispute resolution procedures
- Contract administration
- Contract practice
- Corporate recovery and insolvency
- Design economics and cost planning
- Due diligence
- Insurance
- Procurement and tendering
- Programming and planning
- Project evaluation
- Project financial control and reporting
- Quantification and costing of construction works
- Risk management
- Sustainability

At the end of the guide, the readers will find a useful study check list where the competencies are broken down into a list of topics to help candidates make sure they have covered everything that is appropriate to their journey to achieve professional competencies.

*Dr SeeLian Ong is chair of FIG Commission 10*

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