

FIG Commission 10 – Construction Economics and Management

Work Plan 2019–2022

1. Title

Construction Economics and Management

(including quantity surveying, building surveying, cost engineering and management; estimating and tendering; commercial management including procurement, risk management and contracts; project, construction and programme management including planning and scheduling)

2. Terms of Reference

2.1. Cost Engineering (CE), Cost and Commercial Management (CM) and Quantity Surveying (QS)

Functions:

- To provide independent, objective, accurate, and reliable capital and operating cost assessments usable for investment funding and project control across buildings and infrastructure; and
- To analyse investment and development for the guidance of owners, financiers and contractors across buildings and infrastructure.

CE, CM and QS duties and responsibilities include:

- estimates of capital or asset costs including development costs;
- estimates of operating and manufacturing costs through an asset's life cycle;
- use of new technologies (e.g. BIM) to optimise the economic solution;
- risk assessment and analysis;
- trending of scope and cost changes;
- decision analysis;
- financial analysis (e.g., net present value, rate of return, etc);
- project cost control;
- appraisals of existing assets;
- project analyses, databases, and benchmarking;
- planning and scheduling;
- siting studies, etc.;
- productive and investment needs assessment;
- facility management needs assessment;
- project feasibility and budget assessment;
- cost management;
- procurement management;
- contract administration;
- whole-life appraisals;

- quality audits;
- tax advice;
- value management; and
- dispute resolution.

These are typical functions of the CE or QS but not all practitioners in the field perform all of these functions. Many specialize in a limited number of these functions.

2.2. Project and Construction Management (PM/CM)

Function: To set project objectives in line with the purpose(s) set up by general management and to manage the resources necessary to meet the project objectives.

PM/CM should:

- set a project vision and project organisation structure;
- ensure that a realistic reference (scope, cost, time) is set up for further control and is in line with the client objectives;
- ensure that appropriate management tools are set up to help the team control the project;
- create a problem-solving, collaborative atmosphere within the team;
- make decisions on what should be done in case of variance; and
- ensure that the project objectives remain in line with business needs.

PM/CM delivers the project by:

- managing resources;
- delegating tasks;
- making decisions;
- receiving information;
- setting goals;
- motivating people;
- understanding design, methodologies and cost engineering and quantity surveying;
- managing the schedule and make decisions in case of variance;
- managing quality and work methodology.

3. Mission statement

The mission of Commission 10 is:

- The promotion of the practice of QS/CM/CE and PM/CM globally.
- The promotion of “best practice” for QS/CM/CE and PM/CM globally.
- The promotion of dialogue between member organizations engaged in QS/CM/CE, and PM/CM.
- Fostering of research appropriate to the better understanding of project and cost management practice around the world.

- The promotion of cooperation among FIG Members organisations involving QS/CM/CE and PM/CM for their mutual well-being and that of their individual members.
- The advancement of QS/CM/CE, PM/CM, by education and research and continuing professional development
- To secure uniformity in education, standards and methodology by QS/CM/CE, PM/CM throughout the world
- To facilitate and assist in development of formal education framework and competencies in the profession of QS/CM/CE or PM/CM among member organisations that may not have a formal education or professional development in QS/CM/CE or PM/CM
- To achieve the above mission objectives, FIG Commission 10 will collaborate with other international or regional organisations such as RICS, ICEC, PAQS, CEEC, AAQS, PMI and other similar organisations and promote the use of international standards such as ICMS (www.icms-coalition.org).

4. General

This work plan covers the development of the profession of QS/CM/CE and PM/CM and framework for best practices and standards. Commission 10 intends to leverage on FIG's network of members organisations to promote the profession of QS/CM/CE and PM/CM which are either non-existent or lacking in many countries especially the under-developed and developing countries. There are also developed countries that do not the profession of QS/CM/CE or PM/CM. Specific activities aimed at these countries include development of standards, such as ICMS, to appropriate Continuing Professional Development programmes.

5. Working Groups

Working Group 10.1 – International Construction Measurement Standards

Policy Issues

Following initial publication in 2017, the second edition of ICMS, incorporating life cycle costs, will be published in 2019. This is a seminal moment for the profession and the standards require wide professional support to encourage their worldwide adoption.

The standards can be used through the project life cycle from benchmarking, cost prediction, procurement and facilities management.

Chair

Alan Muse (amuse@rics.org)

Specific project(s)

To integrate ICMS into working practice, mapping to existing national cost classifications needs to take place and FIG can be advocate for this process.

Workshop(s)

We propose an ICMS Workshop in the Spring of 2019 in London, in collaboration with the members of the ICMS Coalition, and subsequent feedback from FIG member bodies on projects to map the international classification to local standards.

Publication(s)

International Construction Measurement Standard, 2nd Edition, incorporating life cycle costs.

Timetable

The publication of the 2nd edition is planned for mid -2019.

Beneficiaries

FIG member associations, governments, standardisation organisations, decision makers, surveying businesses, individual surveyors, contractors, consultants, financial institutions, aids agencies.

Working Group 10.2 – Digital Construction

Policy issues

Technology is advancing rapidly in construction. As well as the efficiencies and potential greater integration of design, cost and operational information using BIM, blockchain and artificial intelligence offer opportunities in data analysis and manipulation, payment transactions and information exchange processes.

Professions in construction need to engage with the technologists to both improve the technology solution and ensure key workflow processes are maintained.

Chair

Mercy T. Iyortyer

Specific project(s)

To be developed

Workshop(s)

To be developed

Publication(s)

BIM Level 3/Blockchain

Timetable

To be developed

Beneficiaries

FIG member associations, governments, academicians, developers/builders, decision makers, surveying businesses, individual surveyors, contractors, consultants, financial institutions.

Working Group 10.3 – Education and Research

Policy issues

The profession of QS/CM/CE is new or non-existent in some countries, both developed and developing countries. Commission 10 hopes to use its network and platform to influence policy makers to consider the use of QS/CE for developmental projects and as such the need to build competencies and human capital in this specialised field.

Engagement with institution of higher learning within each of the relevant countries is essential to ensure the success and sustainability of this initiative.

Chair

Professor Anil Sawhney (asawhney@rics.org)

Specific project(s)

To be developed

Workshop(s)

To be developed

Publication(s)

To be developed

Timetable

Beneficiaries

FIG member associations, governments, institutions of higher education, decision makers, surveying businesses, individual surveyors, contractors, consultants, financial institutions.

6. Co-operation with Other Commissions and organisations

Commission 10 intends to co-operate with Commission 1 on Professional Practice and Commission 2 on Professional Education. Further Commission 10 intends to collaborate with other professional organisations involved in QS/CM/CE, PM/CM, such as RICS, ICEC, PAQS, CEEC, AAQS, PMI and other similar organisations.

7. Co-operation with United Nation Organisations, Sister Associations and other Partners

Through its involvement in ICMS, Commission 10 will work closely with the United Nations Global Compact, world's largest corporate sustainability initiative. The ICMS Coalition will also continue to engage with the World Bank and IMF to seek their support and adoption of ICMS.

8. Commission Officers

- **Commission Chair**

Alan G. Muse
RICS
Parliament Square
London
SW1P 3AD
United Kingdom
Telephone: +44 (0)20 7334 3803
Mobile: +44 (0)7854 682044
Email: amuse@rics.org

- **Vice Chair of Administration**

Mercy T. Iyortyer
Managing Partner
MTI Partnership
Nigeria
Official email: Miyortyer@gmail.com
Mtipartnership@yahoo.com
Personal Tel: +234 803 332 3243
Official Tel: +234 807 090 6630

- **Chair of Working Group 10.1**

Alan Muse (amuse@rics.org)

- **Chair of Working Group 10.2**

Mercy Iyortyer

- **Chair of Working Group 10.3**

Professor Anil Sawhney

Alan Muse
Chair, FIG Commission 10
www.fig.net/commission10

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