Appendix to item 13

FIG Commission 10 – Construction Economics and Management

Work Plan 2015–2018

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) and Quantity Surveying (QS)

Functions:

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

CE 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;
- risk assessment and analysis;
- trending of scope and cost changes;
- decision analysis;
- financial analysis (eg, 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;
- 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:

- ensure that a realistic reference (scope, cost, time) is set up for further control and is in line with the objectives**;**
- ensure that appropriate management tools are set up to help the team control the project;
- create a cost-minded 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 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/CE and PM/CM globally.
- The promotion of "best practice" for QS/CE and PM/CM globally.
- The promotion of dialogue between member organizations engaged in QS/CE, and PM/CM.
- Fostering of research appropriate to the better understanding of building practice around the world.
- The promotion of cooperation among FIG Members organisations involving QS/CE and PM/CM for their mutual well-being and that of their individual members.

- The advancement of QS/CE, PM/CM, by education and research and continuing professional development
- To secure uniformity in education, standards and methodology by QS/CE, PM/CM throughout the world
- To facilitate and assist in development of formal education framework and competencies in the profession of QS/CE or PM/CM among member organisations that may not have a formal education or professional development in QS/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.

4. General

This work plan covers the development of the profession of QS/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/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/CE or PM/CM. Specific activities aimed at these countries include development of standards for construction and cost management and contribution to appropriate Continuing Professional Development programmes.

5. Working Groups

Working Group 10.1 – International Construction Measurement Standards

Policy Issues

At present, construction measurement standards differ markedly around the world, making it difficult to accurately measure construction activities and processes, as well as the resulting performance and environmental impacts. The different sets of standards are often inconsistent or conflicting, making difficult for professionals, clients and investors to assess with certainly the value and risks attached to the project. In view of increasing mobility of construction professionals and also increased activities on cross border investments it is necessary for an international standard for consistency and transparency.

The establishment of International Construction Measurement Standards (ICMS) will be an international collaborative effort by international, regional or national professional organisations involving quantity surveying, cost engineering, project management and construction management.

The creation of such standards would eliminate current inconsistencies and improve the ability to assess, compare and reduce impacts related to environmental, social and economic impacts of the construction industry. Through accurate measurement standards, risks will be

reduced for businesses and investors and sustainable development can take place with greater accountability in both established and emerging markets.

The establishment of ICMS has the support of United Nations Global Compact. As the world's largest corporate sustainability initiative, the United Nations Global Compact works to advance collective action in support of sustainable development and to strengthen accountability. ICMS has the potential to increase transparency in the construction sector through the development of internationally-accepted standards in measurement.

Chair

See Lian Ong (slong1951@gmail.com)

Specific project(s)

To be formulated by the ICMS Coalition. Essentially the formulation of the ICMS will be directed by the Coalition partners. Working Groups will be established to draft the various components of the standard.

Workshop(s)

We propose an ICMS Workshop in the Spring of 2016 in London in collaboration with the members of the ICMS Coalition.

Publication(s)

International Construction Measurement Standard (ICMS)

Timetable

The timetable has not yet been set up yet. It is anticipated that the first draft of the ICMS will be ready for international consultation within 2 years from the setting up of the ICMS Coalition expected to be in January 2015.

Beneficiaries

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

Working Group 10.2 – Building Information Modelling

Policy issues

BIM is on the cusp of becoming a common project requirement, but what is the position of the surveying profession in this new order?

QSs and PMs rely on the effective use, management and reuse of shared information. A BIM model allows this for asset information. Clearly, BIM presents a great opportunity for surveyors to improve their own efficiency and to add value through a better use of information on behalf of clients. Although there is an increasing awareness and usage of BIM, recent survey by RICS indicates that awareness of BIM issues within the surveying profession is still relatively low. The time for action is rapidly approaching. Tools that enable surveyors to use and add value to BIM models are now available, and are becoming increasingly powerful. So how should surveyors contribute to the development of the BIM capability? Key elements of the BIM Strategy point to some opportunities:

- government's focus on asset information – 'data drops' provide opportunities for value added services, particularly associated with occupation and facilities management (FM)
- progressive adoption – government's mandate for Level 2 BIM means that initial barriers to entry for surveyors will be low, particularly for value-added information exchange
- client pull, industry push – surveyors have the opportunity to collaborate with the wider industry to define appropriate standards to drive efficiency and manage risk
- use of project intelligence to support project gateways with 'should cost', programme and operating cost information. This links closely to other Construction Strategy work streams dealing with benchmarking.

Chair
To be appointed

Specific project(s)
To be developed

Workshop(s)
To be developed

Publication(s)
International BIM Guidance for Surveyors

Timetable

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/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 makes 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.

The new Chair of Commission 10 has had hands-on experience in bringing formal education of QS/CE to China about 10 years ago and hope to use the same model to develop the skills either through conversion programme or through developing course curriculum for undergraduate students.

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

Chair
To be appointed.

Specific project(s)
To be developed

Workshop(s)

Publication(s)
Core competency standards for the Quantity Surveyors/Cost Engineers

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/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 be engaging with the World Bank and IMF to seek their support and adoption of ICMS.

In addition, Commission 10 also intends to collaborate with other professional organisations to seek ISO standard for "Cost Management" and to seek WTO for recognition of the QS/CE profession in the CPC code.

8. Commission Officers

- **Commission Chair**
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- **Vice Chair of Administration**
  (TBA)

- **Chair of Working Group 10.1**
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- **Chair of Working Group 10.2**
  TBA

- **Chair of Working Group 10.3**
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Chair, FIG Commission 10
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