

FIG Commission 10 – Construction Economics and Management – An Explanation of the Present and an Agenda for the Future

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1 OBJECTIVES OF THIS PAPER

- to address the uncertainty amongst some colleagues in FIG as to the rationale and need for Commission 10
- to detail and briefly describe its several disciplines and associated specialisms
- to set out ideas for discussion and development into the Commission's Work Plan for 2006 – 2010.

2 THE RATIONALE FOR COMMISSION 10 – CONSTRUCTION ECONOMICS AND MANAGEMENT

Commission 10 exists, in the first instance, as a result of the breadth of scope of the survey activities of some of the Federation's founding and longer standing Member Associations. The Commission had existed for some years prior to the Washington Congress in 2002, but only as an ad-hoc commission.

Construction economics is a collective title grouping together a number of professions as they exist in the construction industries of most countries of the world. Very broadly, the science embraces all aspects of budget, cost and value management; quantification of works; tendering (bidding) and contract administration as they apply to construction of the infrastructure and buildings of the built environment. Its practitioners may be called Construction Economists in some countries but elsewhere they may be known as Quantity Surveyors or Building Surveyors or Cost Managers; all are equally appropriate and valid.

Management, as associated with construction economics, is using the knowledge and expertise of trained practitioners to achieve the required commercial and contractual outcomes to the construction process. This encompasses formulating procurement strategies and negotiating the terms and conditions of and managing contracts through to their final settlement. It has evolved as a distinct profession whereby the skills may be applied to manage any contracting situation to achieve planned objectives and the optimum commercial result. The title Commercial Manager is now used widely to convey the breadth of the skill set of the experienced practitioner.

The function of Commission 10 is to provide within FIG the forum for the study and discussion of all issues related to construction economics and commercial management.

The current challenge is to invigorate Commission 10 with an agenda that addresses the relevant issues of the 21st Century and fosters participation in its activities so that, as an active part of FIG, its work will benefit all in the global surveying community.

3 THE NEED FOR COMMISSION 10

FIG colleagues are, at some time, all closely involved with contracts whether they are for the supply of their own services to clients, or the procurement of goods and services from others. The surveyors and project advisors of the 21st Century need to be fully conversant with all aspects of project realisation and implementation. This requires substantial knowledge of the whole procurement process and of the many methods, techniques and options available to project owners and sponsors. In the international markets that many of our colleagues are working in, there are often multi-lateral and cross discipline contractual structures, such as joint ventures and formal or informal partnership arrangements.

These colleagues, and others, need to be able to look to Commission 10 as an integrated and contemporary knowledge base about all issues that arise from these matters. But, the knowledge base needs to be alive so as to grow and accumulate with the real-time experiences of practising professionals whether they are engaged only in construction or the wider surveying professions.

Commission 10 seeks to meet that need by being a forum that assists in the continuous education and development of all professionals to equip them with the appropriate skills and techniques. There is also much knowledge to be won from interchange with other professionals throughout the international surveying community.

Therefore, the author is committed to both involving Commission 10 more in the work of other relevant commissions and inviting and encouraging all other commissions to become involved in the work of Commission 10. The intent is to work across commissions but to do so in a manner that is clearly integrated within the bounds of the FIG structure.

4 THE SEVERAL DISCIPLINES OF COMMISSION 10

The Terms of Reference are posted on the FIG website at www.fig.net/commission10/ and show that the remit of the Commission embraces the following disciplines:

Construction Economics	Cost Management	Quantity Surveying
Building Surveying	Cost Engineering	Project Management
Construction Management	Construction Law.	

Associated with these disciplines are other specialist skills of our professions including estimating and tendering, planning and programming, procurement, risk management and negotiation.

This remit was set as the framework for the “Commission 10 Work Plan 2002 – 2006” and it now needs review in order to establish the framework for the next 4-year session.

5 WHAT ACTUALLY ARE THE TASKS AND FUNCTIONS OF THESE PROFESSIONS AND ITS DISCIPLINES?

Construction Economics

All disciplines require a high level knowledge of construction technology (plant/equipment, materials, construction and erection processes) because they are concerned with the economics of the design, construction, operation and maintenance of the built environment. These professionals are also usually involved with the primary and secondary contracts of the supply chains for all goods and services although their involvement may be only at particular stages of the procurement process, eg, estimators during tendering, or throughout it like the Quantity Surveyor. In varying degrees, depending on experience and/or the sector they are employed in, these professionals may also deal with budgets, life cycle costing and financial reporting.

Cost Management - the detailed ways in which cost is recorded and reported upwards into an organisation so that timely and effective decisions may be made about the liability to meet cost and future expenditure.

Quantity Surveying - includes the specialisms of tender analysis, value engineering and the quantification and valuation of work.

Building Surveying - concerns itself with the design, use and maintenance of buildings and their management as facilities for their users.

Cost Engineering - the art and skill of analysing and presenting cost in different ways dependent upon what is required to be the expressed content of the cost, and the determination of the elements of cost which primarily influence the outturn cost.

Estimating and Tendering - estimating is the science, art and skill of knowing how to predict, in advance of the construction process commencing, what the cost of the project will be, together with its life cycle costs. Tendering is the process by which an estimate produced by a tenderer is expressed and presented against the Invitation to Tender documents that the project owners/sponsors have issued for the tender to be bid against.

Planning and Programming - within the construction industries, both planning and programming play an increasingly crucial role in achieving completions on time and to budget. No project of any significance whatsoever can be satisfactorily executed without both contractors and owners/sponsors, and their respective agents/advisors, having a thorough and detailed knowledge of the planning and programming processes. Such is their importance, that these functions have become equally vital to successful dialogue between parties to resolve misunderstandings and contention.

Construction Management - the detailed hands-on, day-to-day management of the construction process.

Commercial Management

As noted under rationale above, the profession of the Commercial Manager is distinct; it has evolved through the past twenty five years because of the increasing complexities of all aspects of project realisation. Whether in a home or international market, many projects have multi-party, multi-national ownership and/or their outputs, eg, petro-chemical products, are traded globally. Different legal codes and systems may apply to various of the purchase and supply contracts. Capital is international: the new and innovative project financing instruments have global reach and the commercial manager needs to be fully conversant with these arrangements and their potential to facilitate project realisation. Insurance is a sophisticated and global business. Proper and well-understood arrangements are essential for the orderly conduct and development of international trade.

Procurement - the issues to be addressed when formulating a procurement strategy include legal code/system, risk allocation, funding sources and terms, and the detailed mechanics of the precise contracting arrangements. Each such issue will have a different importance dependant on the phase of the project cycle under consideration at the time (eg, conception, business case/feasibility, implementation, operation).

Risk Management - a new and increasingly important specialist skill that managers are increasingly bringing to bear in order to reduce the overall cost of construction. There are many techniques of risk management but they all have the same objective; to pro-actively identify and manage out risk to the successful outcome of a project.

Construction Law - the development and application of standard and bespoke forms of contract are also in the remit of the commercial manager. Whilst the aspiration will always be the avoidance of disputes, the complexities and values of many projects frequently give rise to misunderstandings, allegations, claims, and counter claims. Therefore, contracts need provisions for managing and settling disputes, whether by formal or quasi-legal process, and users need to understand their application and require advisers who have the specialist knowledge and skills to advise and act to avoid disputes and to manage and resolve disputes if they do arise. This is not simply the province of the lawyer; it is also for specialist dispute resolution manager who has a much broader understanding of the particular industry than a lawyer, albeit necessarily a lesser understanding of the purely legal aspects themselves.

Negotiation - one of the very newest specialist skills which is being recognised as a function that requires expert understanding and handling if the benefits to be derived from it are to be maximised. The time when negotiation was perceived as the prerogative of the elderly simply because they had many years of experience have passed.

Project Management - the overall management of projects from a high, strategic level, concentrating on addressing problems and risks before they impinge upon a project and generally smoothing out the path of the construction process usually on behalf of the project owners/sponsors.

6 COMMISSION 10'S WORK PLAN 2002 - 2006

Briefly, the Commission's current plan has been to carry out work in four areas:

Human Settlements Education Procurement Standards

Some results are being achieved and the active Working Groups will report to Congress in Munich in October 2006.

For a number of reasons, and regrettably, Commission 10's activity in the current four year plan has been low key. That there is little tangible to report however is due, in no small part, to a lack of response and participation from our colleagues in FIG Member Associations and their individual members. This may be because they do not know or understand what Commission 10 does and its relevance to their professional interests, and hence the need for this explanatory paper.

7 THE WORK PLAN FOR 2006 - 2010

The author believes that it is important that colleague members of the Federation do understand and are thus able to appreciate, the shared need that all surveyors have for the economic and sustainable development of the environment. We all have similar interests in the effective and efficient management of all aspects of the construction environment to provide equal opportunity for all peoples to prosper in the global economy.

The Commission's current Terms of Reference are wide ranging and consequently, the Mission Statement lacks focus. This does not necessarily mean that the Terms of Reference should be narrowed but rather that there is need for a sharper focus on the objectives so as to encourage and facilitate more participation by FIG colleagues.

Historically, the Commission has worked on Construction Economics and Commercial Management together but the author proposes that they be studied and discussed separately in future.

Interest in and discussion of the detailed and technical issues of Construction Economics may be enlivened by some consolidation of the current separate strands of activity within the Commission.

The Commercial Management group would concentrate on the primary/strategic issues, in particular those that are concerned with procurement and contracts. FIG can focus only on strategic issues and the options of different solutions to problems/needs. This is because the detail of application will have to vary with every country's political/economic and social development and needs.

The author recognises that because a practice is "best (or, even 'good') practice" in one system/culture does not necessarily mean that it is appropriate to or acceptable in another. Therefore, it may also be appropriate to pursue all activities on a more regional basis so as to better reflect actual practice in the different systems and cultures within which FIG colleagues operate; this would also parallel FIG's regionalisation policy.

It is hoped that by the time of the Munich Congress there will be strong interest and commitment from Member Associations and their members to join in with the work of Commission 10. Such participation may be as a delegate to one of the Working Groups or as an ad hoc contributor to the Commission's work.

There will be a determined effort to join and share in the work of other Commissions – as asserted above there are a number of common goals in the objectives of the different Commissions.

Readers are invited to comment on this paper by e-mail to andrew.morley@ccmassociates.com