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## Project Cost Management – Global Issues and Challenges

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### Abstract

This paper examines the global issues and challenges facing the project cost management profession. This relates to professionals in the fields of quantity surveying, cost engineering, project controls and project managers providing cost management services. As a profession that is not widely recognized in society compared to professional disciplines such as engineers and architects, the project cost management profession faces many challenges in creating greater awareness of the value that they provide for projects. The global construction industry is littered with many examples of high profile projects that have experienced significant time and cost overruns and this is merely a reflection of similar problems at all project levels. However, these high profile projects attract considerable attention in the wider community and highlight the need for more effective cost management and project controls. The paper is based on a literature review of global project cost management issues and research undertaken through professional cost management associations that include the International Cost Engineering Council, the Pacific Association of Quantity Surveyors, the African Association of Quantity Surveyors, the International Project Management Association, the Association for the Advancement of Cost Engineering, the China Engineering Cost Association and the Royal Institution of Chartered Surveyors. The research identifies the need for global recognition of the profession and the development of global professional standards and certification programs. The paper culminates with a series of recommendations and strategies for the profession that includes formal recognition through global organisations such as the United Nations, the World Bank, the World Trade Organisation and the International Management Fund, the development of ISO cost management standards, formal recognition under the global Central Product Classification (CPC) scheme, development of a project cost management certification program for the European region and raising of global professional standards particularly in developing countries and countries where the profession is not traditionally recognised.

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## 1. Introduction

The management and control of costs is fundamental to most projects but around the world overruns in project scope and cost are commonplace. This can be broadly attributed to ineffective approaches to identifying, managing and controlling client needs, project scope and project cost. Numerous cost budget blowouts on major projects around the world in the order of hundreds of millions and billions of dollars have attracted increasing concern and attention at all societal levels. The Global Financial Crisis in 2008 further exacerbated the problem and continues to have a significant impact on project financing around the world as financiers tighten lending controls and avoid lending for projects lacking sufficient risk controls.

Governments, major private sector developers, financiers and global entities such as the United Nations, the World Bank and the World Trade Organisation have increasingly recognised the need for more effective cost control on construction projects. This provides an opportune global setting for the project cost management discipline to raise awareness amongst these major organizations on the importance and value of engaging expert cost managers rather than have the role carried out by other professionals as a subset of their overall roles.

Major barriers to achieving this are the fact that there is not a single descriptor for the professional discipline that is recognized globally (such as an architect and engineer) and that there is a lack of common professional standards and competencies (such as an ISO standard). The main professional disciplines providing specialist project cost management services around the world are cost engineers, quantity surveyors, construction economists and project managers. Quantity Surveying is a profession with origins in the United Kingdom and is a professional title recognised mainly in Commonwealth countries. Cost Engineering is the term mainly used in North and South America, China and some parts of Europe. Construction Economist is used in some European countries and in other parts of the world as an alternate descriptor for the service. In other regions, particularly in Europe, these three professional titles are not recognised with cost management services largely carried out by Project Managers as part of their suite of services. A relatively new professional discipline of Project Controls has also emerged as a more encompassing descriptor of the role of the cost manager. The fundamental cost management principles and practices of these professions are the same.

But cost management is not the exclusive preserve of these professionals and there are few countries that require official registration to practice as a professional in the field. Accordingly cost management is commonly carried out by a range of other professionals that may well lack the specialist technical competencies and expertise that is required for effective cost management.

This paper will explore the issues and challenges that the profession faces both on a regional level and a global scale in gaining greater recognition, improving professional standards and ultimately improving the cost performance of projects around the world. It will conclude with a range of recommendations and strategies to help meet these challenges.

## 2. Literature Review

### 2.1. *Project Cost Overruns – A Global Problem*

Construction and the development of infrastructure are fundamental to economic growth and societal advances. Unfortunately project cost overrun and scope creep are common on infrastructure and construction projects. This applies to both developed countries with highly developed systems in project delivery and developing countries that may have more rudimentary approaches to project delivery. A global survey of the sector spanning twenty countries and five continents found that substantial cost escalation on construction and infrastructure projects is the rule rather than the exception (Flyvbjerg et al. 2003). The survey found average cost escalations of 45% for rail projects, 34% for tunnels and bridges and 20% for roads. Flyvbjerg et al. (2002) found that 90% of construction projects had under-estimated costs and that cost overruns of 50-100% were common.

In a major report for the World Bank, Kenny (2010) argues that this is a major global problem with construction being a US\$1.7 trillion industry worldwide with a significant proportion involving publicly financed projects. Kenny states that government investment in road transport alone can account for 2-3.5% of a country's GDP. He cites the example of India where approximately half of all road projects have cost overruns greater than 25% and time blowouts exceeding 50%.

Flyvbjerg (2005) provides a litany of global examples of major project cost overruns. The following are some of these examples. Boston's Central Artery/Tunnel Project went 275% over budget equating to US\$11 billion over budget. The Channel tunnel between the UK and France was 80% over budget for construction and 140% over for financing. The Pentagon spy satellite program had a \$4 billion cost overrun and the International Space Station had a \$5 billion overrun. And the problem is not new. The Suez Canal cost 20 times the original budget and the Sydney Opera House cost 15 times the original estimate.

This presents major issues for governments, clients, financiers and the whole supply chain in the sector. It also has broader global economic and social implications where funding for projects is limited and the value for money invested is critical. The recent Global Financial Crisis in 2008 has heightened the problem with a significant global reduction in funding for projects and financiers introducing stringent controls on project lending criteria. Critical to these controls is the certainty (or lack thereof) of the project meeting cost and time targets. The dramatic increase in development in developing countries in the past two decades has raised even more challenges. Whilst major project cost overruns in developed countries are a major issue the ramifications of project cost overruns are arguably higher in developing countries due to limited funding budgets.

China provides a good example of the global impact of major emerging countries. Global Construction Perspectives (2009; p.7) makes the following prediction. "Growth in construction in China will be phenomenal and China will be the World's leading construction market by 2018. The Chinese construction market will be worth almost \$2.5 trillion by 2020 representing a startling 19.1% of global construction output". This demonstrates the dramatic transformation of the Chinese industry into a major global player. "The decade following China's World Trade Organisation (WTO) accession has seen China rise to the challenge of globalization in the form of the highly successful 'Go Global' policy" (Heong 2011, p.1).

Whilst China can essentially be regarded now as a developed country similar markets are emerging rapidly in developing regions such as India, Brazil and Russia. This places even more pressure on effective project cost control. This is recognised by financiers around the world and most notably the major global lenders such as the World Bank Group and the International Monetary Fund.

There is increasing recognition from project clients and financiers that effective project cost management and control requires the use of highly specialised and expert cost management professionals. The problems with project managers, architects, designers, engineers and other professionals undertaking project cost management as simply a subset of their array of activities are becoming increasingly apparent. This presents tremendous opportunities for expert project cost management professionals but also presents many challenges in terms of the global development of the profession.

The construction and infrastructure market is now truly global and major projects are typically undertaken with a range of international participants. This brings together firms and professionals from advanced developed industries and their counterparts from developing industries. The gulf in the sophistication and expertise of service provided between the two is often vast and presents a major challenge is to raise the standards of operators in the developing markets. This applies equally to project cost management and heightens the importance of the development of global project cost management standards, competencies, education and certification/registration programs.

## *2.2. Global/Regional Representation for the Profession*

Professional associations provide important representation for the profession and the development/maintenance of professional standards. There are now a number of global/regional professional associations that represent the interests of project cost management professionals. The key associations are the International Cost Engineering

Council (ICEC), the Royal Institution of Chartered Surveyors (RICS), the Association for the Advancement of Cost Engineering International (AACE International), the International Project Management Association (IPMA), the International Federation of Surveyors (FIG), the African Association of Quantity Surveyors (AAQS), the Pacific Association of Quantity Surveyors (PAQS) and the European Council of Construction Economists (CEEC). The following provides a summary of the role of each of these associations.

ICEC arguably provides the main global identity for the profession. It acts as an umbrella organisation for cost engineering, quantity surveying and project management associations around the world with a membership base of 40 national associations located in nearly 40 countries and representing over 100,000 cost management professionals working in over 120 different countries. This is demonstrative of the enormous development and recognition of the project cost management profession internationally. The key purpose of ICEC is to provide the central vehicle for the sharing of information and knowledge in the global project cost management field to assist in the development of the profession and professional cost management standards across the globe. As a non-profit organisation that is not competing with anyone or any association, ICEC is well placed to provide this central global platform for the profession (ICEC 2013).

The RICS are a powerful global organization with over 100,000 qualified members and 34,000 student members in 146 countries. It represents professionals working in property, land and the built environment with 16 professional groups across these fields. The professional groups most relevant to cost management are the 'Quantity Surveying & Construction' and 'Project Management' groups. The 'Quantity Surveying and Construction Group' has over 40,000 members. The RICS has also accredited over 500 university courses around the globe. The RICS is organised into six world regions – The Americas, Asia, Europe, Middle East/Near East/Africa, Oceania and the UK (RICS 2013).

The AACE (formerly the American Association of Cost Engineering) was formed in 1956 and was originally nationally focused but it is now a global organisation with over 7,500 members world-wide. They have members in 87 countries with over 80 local and international sections. It has international sections established in Canada, Caribbean Islands, China, Egypt, India, Hawaii, Japan, Jordan, Korea, Kuwait, Lebanon, Malaysia, Nigeria, Norway, Oman, Pakistan, Russia, Saudi Arabia, Singapore, South Africa, United Arab Emirates and the Ukraine (AACE 2013).

IPMA was formed in 1965 to provide international representation for the professional disciplines of project, programme and portfolio management. Cost management is a core activity of the project manager so there is a lot of correlation between IPMA and cost management associations. Accordingly ICEC and IPMA have a formal memorandum of understanding to work collaboratively to further the professional development of cost management practices. IPMA has 54 member association with the majority of these associations in Europe. The breakdown of member associations is as follows: Europe (33), Africa (4), Americas (9), Asia (7) and Australia/Oceania (1). The strong membership base in Europe is reflective of the fact that Cost Management in Europe is heavily influenced by the Project Management discipline (IPMA 2013).

FIG was founded in 1878 in France and is the major organisation representing the surveying profession around the world. Members comprise professional surveying associations, affiliates (groups of surveyors or surveying organizations), corporate members & academic members. It is a large organisation with 106 member associations from 88 countries and represents surveyors from 120 countries. Whilst it covers the whole range of surveying fields membership primarily comprises surveying/geometrics associations/professionals. The field of Quantity Surveying/Cost Management/Construction Economics is represented by FIG's Commission 10 – Construction Economics. Whilst this is a relatively small commission it nevertheless provides important global representation for the cost management profession (FIG 2013).

The AAQS was formed in 1999 to provide regional representation for the quantity surveying profession in Africa. Membership primarily comprises quantity surveying professional associations in Africa but recently membership was opened to professional firms. The AAQS has 16 member associations from across Africa (AAQS 2013).

PAQS representation for the quantity surveying/cost engineering profession in the Asia-Pacific region. It is an international association of quantity surveying/cost engineering professional associations with 12 member associations drawn from Australia, Brunei, China, Canada, Fiji, Hong Kong, Japan, Malaysia, New Zealand,

Singapore, Sri Lanka and the Philippines. This is a very strong association for the region that has done considerable work in the development of education and competency standards, professional regional accreditation of university courses, business registers for the region and research projects (PAQS 2013).

The CEEC was formed in the early 1980s to represent the field of construction economics in Europe and promote the profession at the European level. Membership primarily comprises professional associations or groups within a European country and individual members in countries where relevant professional associations don't exist. Professional association members come from Belgium, Czechoslovakia, Denmark, Finland, France, Ireland, Spain, Switzerland and the UK (CEEC 2013).

### **3. Research Methodology**

To determine the main challenges and issues facing the profession the author was involved in a series of discussions and meetings spanning the period 2010 to 2013 with representatives of all the main professional associations outlined in the previous section. The primary discussions were conducted through the International Cost Engineering Council (ICEC) and a number of their key member associations from the United States, the United Kingdom, Europe, Brazil, Africa and the Asia Pacific. Discussions and meetings were also held with representatives of the Royal Institution of Chartered Surveyors (RICS), the International Project Management Association (IPMA), the International Federation of Surveyors (FIG), the African Association of Quantity Surveyors (AAQS), the Pacific Association of Quantity Surveyors (PAQS) and the European Council of Construction Economists (CEEC).

This enabled the author to canvass issues across the globe and also at regional levels, to investigate initiatives being undertaken and to identify future needs. The following section outlines the main findings derived from these meetings and discussions.

### **4. Research Results**

#### *4.1. Global Issues*

The key issue was found to be the lack of a global identity for the profession. The variety of terminology used around the world to describe the profession is a major contributor to this. The issue of whether the profession should have the title of Quantity Surveyor, Cost Engineer, Construction Economist, Cost Manager, Project Cost Manager, Project Controls or other like descriptor has always existed and has been debated for decades. It is unlikely that a common descriptor will ever be agreed upon on a global scale. But this is what is needed for the profession to be globally recognized along with kindred professions such as Architects, Engineers and Project Managers.

The lack of common standards, common bodies of knowledge and standard definitions/terminology further restricts the profession. Large global entities such as the United Nations, European Union, the World Bank, the International Monetary Fund and other statutory bodies typically require International Standards, International Certification and International Accreditation. The profession is very fragmented on a global scale and needs to come together to work towards global goals rather than focus on national/regional needs.

There is a wide disparity between the expertise, competency levels and cost management practices provided across the globe. Cost management services provided in some developing countries and in countries where the profession is not traditionally recognized lag well behind that offered in countries where the profession is well established such as in the United Kingdom and the United States. The absence of common standards and certification programs and the lack of sharing of knowledge are major contributors to this problem.

#### *4.2. Issues - The Americas*

The term Cost Engineer is predominantly used to describe the role of the independent project cost management professional in both North and South America. The profession is well established in the United States and Canada

largely due to the role of the AACE International in promoting and developing the profession since 1956. As a commonwealth country Canada is also well represented by the Quantity Surveying profession.

The profession is less established in South America. Whilst the term Cost Engineer is widely used the profession is still struggling to gain recognition. IBEC, the Brazilian cost engineering association, is gaining strength and is developing a cost management certification system that they hope will eventually provide the catalyst for the development of the profession throughout Brazil and South America. The RICS are also helping to foster both the quantity surveying and cost engineering professions in the region through their RICS Americas regional entity. The AACE also have many chapters in South America and the Caribbean

#### *4.3. Issues - Europe*

Whilst Quantity Surveying and Cost Engineering are very strong professions in the UK the same can't be said for most of the rest of Europe – the difference is very stark. Transportability of the professional disciplines across European borders is very difficult and, in some cases, simply not possible due to individual country requirements. For example, associations like the Chartered Institution of Civil Engineering Surveyors (ICES) highlight this as a major problem for their members when seeking to secure work in Europe.

Europe has the most disparate disciplines in the project cost management field and accordingly struggles to find a clear identity for the whole region. The wide range of different languages and cultures and differences in national industry systems and legal structures provide a melting pot of differences that are difficult if not impossible to unite. This makes the region stand out from most others and perhaps needs more work than any other region in developing and promoting the identity of the profession.

The discipline of Project Management has a strong presence in Europe and cost management is seen in many countries as the domain of the project manager. For example, as detailed earlier, the International Project Management Association (IPMA) has a total of 54 member associations but 33 (over 60%) are from Europe. This dominance of the project management profession is particularly evident in Scandinavian countries. However it appears that this is not accompanied by the expert specialised cost management expertise that is required. IPMA and ICEC are working collaboratively to address this concern.

#### *4.4. Issues - Middle & Far East*

The project cost management profession in the Middle and Far East is greatly influenced by expatriate professionals and international firms working in the region. The AACE and the RICS have a strong influence in the cost engineering and quantity surveying disciplines respectively. Other associations such as the Institute of Quantity Surveyors Sri Lanka (IQSSL) and the Australian Institute of Quantity Surveyors (AIQS) have a large number of members working in the region and are widely recognized there. There has been particularly strong growth in AIQS membership in the Middle East in recent years with demand for Quantity Surveyors in this region continuing to escalate. The United Arab Emirates, Qatar and Brunei have seen the greatest growth.

This international influence is assisting the development of the project cost management discipline within the local communities of middle and far eastern countries. But considerable work needs to be done in terms of education, certification programs and the establishment of local project cost management associations.

#### *4.5. Issues - Africa*

Africa is generally a Quantity Surveying stronghold. Whilst Cost Engineering is strong in some countries and the AACE have a presence in the region the role of the Quantity Surveyor is more widely recognised. As detailed previously, the African Association of Quantity Surveyors (AAQS) was formed to represent the interests of Quantity Surveyors in Africa and continues to build in strength. A key issue for this region is the lack of knowledge transfer from countries with more established and sophisticated cost management systems. There is a thirst for knowledge in many African countries. Much can be done to assist the development of the profession in this region.

#### 4.6. *Issues - Asia-Pacific*

The Asia Pacific is also a Quantity Surveying stronghold. The one major exception is in China where the term Cost Engineer is used. As with Africa, the regional association Pacific Association of Quantity Surveyors (PAQS) was formed to represent the interests of quantity surveyors in the region and is now a very strong organisation. Quantity surveying associations have recently formed in India, Pakistan, Indonesia and the Philippines and the profession is gaining momentum in these major countries. The AACE and the RICS also have a strong presence in the Asia Pacific with the former having many formal sections and the latter having many formal offices. They both have a large number of members in the region.

The emergence of Cost Engineering in China is the most significant change in the global profession in recent times. The profession was formally established in the late 1990s and formal registration programs were introduced in 2000. The total number of people working in the cost engineering field in China is now estimated to be approximately 1.2 million. In a little over a decade the total number of cost engineers registered numbers over 110,000 and is increasing at an annual rate of approximately 10% (Sue 2012). The total number of formal cost engineering consultant firms is about 5,000 (Sue 2012). This explosive development of the profession in the world's most populous country in such a short space of time is staggering and perhaps the greatest example of the global expansion of the profession.

With the profession also emerging as a recognised discipline in India the global picture is highlighted by the emergence of the project cost management discipline in two countries that represent approximately one-third of the world's population.

### 5. **Recommendations & Strategies**

#### 5.1. *Global Leadership*

Global leadership is needed to move the profession forward. This can be provided by a single global association that represents all cost management professionals such as provided by the International Project Management Association (IPMA) for the project management profession.

The International Cost Engineering Council (ICEC) currently provides this global representation. ICEC facilitates the networking and sharing of global information and knowledge to assist in the development of the profession and professional cost management standards across the globe. However ICEC operates on a very limited budget with no employees. Additionally the title of Cost Engineering may not be the best global descriptor.

Accordingly the development of an International Project Cost Management Association with appropriate funding and support from professional associations and firms across the globe would go a long way to developing the global identity of the profession. This may involve the restructuring of ICEC or the establishment of a new organization.

#### 5.2. *Single Professional Title*

Global recognition requires a single professional title. Whilst it is important for titles such as Quantity Surveyor, Cost Engineer or Construction Economist to still be used by firms and associations in individual countries as appropriate, a global identity requires a single title. This could well be Project Cost Management or other more encompassing title.

#### 5.3. *Global Professional Standards & Certification*

The profession needs to develop common global standards, common bodies of knowledge and standard definitions/terminology. These standards could provide an over-arching platform that could then be adapted to suit local and regional requirements. As mentioned previously large global entities typically require International Standards, International Certification and International Accreditation.

Excellent standards already exist in many parts of the world (such as the AACE Total Cost Management Framework, the PAQS Competency Standards and the RICS International Standards). These could form the foundation for the development of global standards.

#### *5.4. ISO Cost Management Standard*

ICEC, PAQS, the RICS and other kindred associations are currently collaborating to establish a global International Standards Organisation (ISO) Cost Management standard. A global standard would provide significant recognition for the profession and would provide the basis for institutionalising the benchmarks for the profession based on mutually recognised international standards and best practices.

The global project management community embarked on the development of an ISO Project Management Standard in 2007 and the ISO 21500:2012 Guidance on Project Management was finally published in September 2012. The process is not simple as demonstrated by the 5 years of development and this is only the first stage in developing a suite of portfolio, program and project management standards. A new ISO technical committee TC258 has been established to develop a functional set of integrated standards to improve project management on a global scale (Weaver 2012).

The project cost management profession has much to learn from the project management experience in the development of these standards. In fact many project cost management professionals were actually involved in the ISO committee that developed this first draft. As mentioned above, ICEC, PAQS, the RICS and kindred associations are currently working together to map out a strategy to develop a cost management standard. This collaboration extends to the International Project Management Association (IPMA).

The current strategy is looking at joining the project management community to develop a Cost Management Standard as a subset of the ISO project management standard (i.e. to form one of the suite of subset standards). The prevailing thought is that this approach would be more practical and would obviate the need to 'reinvent the wheel'.

#### *5.5. Project Cost Management Certification Programs*

The need for the development of Project Cost Management Certification programs vary amongst the various global regions. For example the certification, educational and Continuing Professional Development (CPD) programs of many cost management associations are well established with efficient systems and procedures. Particular needs for certification programs have been identified in Europe, the Middle East, India and countries where the profession has not been traditionally recognized.

ICEC is currently examining the feasibility of developing a certification program for the European region. Given the prominence of the project management profession in the region this will include collaboration with the International Project Management Association (IPMA) to examine the possibility of linking in with IPMA's well established global project management certification programs. It will also include working in collaboration with the ACostE and the AACE to see if their certification programs could be adapted for use in the European region. A longer term goal is to get professional project cost management qualifications officially recognised within the European Union (EU) to facilitate greater movement of cost professionals in the region.

However the development of a global certification program is worth considering. A good example of what is possible is the Chartered Global Management Accountant (CPMA) certification program. This program was introduced in 2012 by a joint partnership between the American Institute of Certified Public Accountants (AICPA) and the Chartered Institute of Management Accountants (CIMA). This provides a global CPMA designation for members who successfully complete the certification program (CGMA 2013).

A global certification program that provided a global chartered/certified project cost management designation would create numerous benefits and opportunities for the profession.



### 5.6. *Engagement With Key Global Organisations*

Effective engagement with major global organizations such as the United Nations (UN), the World Bank, the World Trade Organisation and the International Monetary Fund (IMF) are important steps for the development of the profession. This can be facilitated by high level global leadership outlined earlier. The United Nations is a particularly important organization. The UN Economic and Social Council (ECOSOC) coordinates the economic and social work of the UN and its family of organisations. It plays a key role in fostering international cooperation for development, consults with Non Government Organisations (NGOs) thus maintaining a vital link between the UN and civil society. ECOSOC is the central forum for discussing international economic and social issues and for formulating policy recommendations. ECOSOC oversees several programs, funds and other bodies within the UN. UN programs, funds and agencies have regional/sub-regional and in several cases national offices all over the world. Some of the bodies relevant to the project cost management profession are: UN-HABITAT - United Nations Human Settlements Programme, UNEP - United Nations Environment Programme, UNDP - United Nations Development Programme, UNCTAD - United Nations Conference on Trade and Development and the ITC - International Trade Centre (UNCTAD/WTO). The UN ECOSOC also works with the World Bank, the International Monetary Fund, the United Nations Industrial Development Organization and the World Trade Organization. (Oladapo 2006).

Three cost management related associations have achieved this NGO consultative status. ICEC has had ECOSOC Roster Consultative Status since 2006. FIG also has this Roster Consultative Status (since 1970). The RICS have had Special Consultative Status since 2003. This needs building on.

### 5.7. *World Trade Organisation (WTO) – Central Product Classification (CPC)*

ICEC, PAQS, the RICS and other kindred associations are currently collaborating to gain official recognition of the Quantity Surveyor/Cost Engineer within the UN and the World Trade Organisation. Quantity Surveying and Cost Engineering are not currently not recognised as professionals by the Central Product Classification (CPC) scheme of the World Trade Organisation (WTO)/Economic and Social Council (ECOSOC) of the United Nations. The CPC scheme applies to tradable and non-tradable goods and services. The CPC classifies products based on the physical characteristics of goods or on the nature of the services rendered within the global environment (UN 2012). The scheme is very influential and is critical for the global identity of a profession. The relevant section of the CPC scheme for cost management professionals is Section 8: Business Services; Agricultural, Mining and Manufacturing Services. Within this section the most relevant group is Group 867: Architectural, Engineering and Other Technical Services. This group is currently divided into the following classes (UN 2012): 8671 - Architectural services, 8672 - Engineering services, 8673 - Integrated engineering services, 8674 - Urban planning and landscape architectural services, 8675 - Engineering related scientific and technical consulting services and 8676 - Technical testing and analysis services.

Quantity Surveying and Cost Engineering are not on this list but should be. International recognition in this CPC scheme is important for the global growth and development of the profession. But this initiative highlights the lack of a single professional title for the profession – should it be quantity surveyor, cost engineer or another more encompassing title.

### 5.8. *Transportability of Services*

Ultimately common standards, terminology and certification programs and international recognition will assist in the transportability of professional cost management services across the globe. The development of a global project cost management certification program would perhaps provide the greatest scope for this transportability of service. The ‘global passport’ provided by achievement of the ‘Chartered Global Management Accountant’ designation (described earlier) provides a good example of what is possible.

## 6. Conclusion

The project cost management profession is fragmented and lacks global recognition. The profession needs to come together for common good. Collaboration between the various project cost management associations around the world is the key for the global development of the profession. Organisations such as the International Cost Engineering Council, the Pacific Association of Quantity Surveyors, the African Association of Quantity Surveyors, the International Project Management Association, the Association for the Advancement of Cost Engineering, the China Engineering Cost Association and the Royal Institution of Chartered Surveyors need to join forces and work together on the recommendations and strategies outlined in this paper. The establishment of a strong and well-funded global association to represent the whole profession is also needed. ICEC already provides a working model for this but lacks the funding and all encompassing title that is required to move the profession forward.

Such an association could provide an over-arching global identity and powerful representation for the profession. This would also form the platform for the sharing of knowledge and information to raise global standards of project cost management. The key would be that this global association does not compete with any project cost management association or firm but rather assist these associations and firms in raising the profile and standards of the global profession and ultimately increase business opportunities.

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