Introduction

The built environment is an integrated part of our lives: from the houses we live in, the offices and factories we work in, the roads, railroads and bridges we drive on, the waterworks that keep our feet dry, to the gas, water, electricity and communication systems that bring comfort to our lives. The construction industry is facing increasing complexity of construction projects, as a result of new developments and technologies as well as changing values.

In order to cope with this increased complexity, the construction industry is adopting (or developing) new techniques in the field of management, organisation, collaboration, systems engineering, manufacturing and ICT. We have to consider not only how to implement these new techniques, but also how to prepare graduates to quickly and effectively participate in today’s industry. This conference provides the opportunity to share, examine and discuss the latest techniques with an international group of experts.

Conference Topics

Topics include but are not limited to:

- Global construction
  - Construction is no longer a “local” industry.
  - Improved methods of transportation and information exchange mean that the “Global Village” has become a reality. In order to diversify and expand, it is essential that construction organizations consider entry to the international market. Important topics to be addressed are international construction opportunities, government policies, international trade and contractual agreements (including international comparisons), labor availability, social and cultural issues.

- Sustainability in construction
  - Currently, sustainable construction is a major issue. Although concern for our environment and the associated social benefits that accrue are our principal concerns, it is becoming apparent that a sustainable approach could result in many business advantages. The assessment of the environmental impact of new constructions at the design stages, methods of measuring the sustainability of construction materials and methods and the management of construction waste are all topics worthy of discussion.

- Trends in technology
  - Traditionally the construction industry has been labelled as “low-tech”. This is a label that is rapidly becoming outdated. New materials, new methods and new equipment are revolutionizing the industry. Composite materials, robotics, improved fabrication methodology combined with new management approaches, like partnering, and improvements in the application
of computer technology are examples of the current trends.

• Education
  - In the past the focus of construction education has primarily been on technical aspects rather than on management aspects of construction. As a result, many teaching institutions are now trying to find the optimal blend of technical and managerial subjects in their teaching programs. The development of these programs is vital for the future development of the industry and its participants.

• Information, communication and knowledge technology in construction
  - We live in the information age. What do we do to ensure that we take maximum advantage of the electronic tools and techniques available to us to manage the design and construction processes more effectively? The efficient implementation and use of digital design methodology, risk management, scheduling, budget and financial control software, and communication methodology are all key items to be further explored by the industry.

• Organisation for construction
  - The Construction Industry is moving towards a “one-stop-shop” type of project delivery. The size and complexity of modern construction projects mean that a “team” approach is essential for project success. The full range of project services like Finance, Design, Construction and Operation is increasingly being used on large projects. On smaller type of projects, partnerships of differing professional entities are changing the scene from the traditional Design-Bid-Build methodology to the several variations of the Design-Build method.

• Infrastructure renewal
  - There are concerns worldwide about the state of the infrastructure in most developed countries. In many parts of the world, there is no need for new infrastructure but for upgrading of the existing systems to cope with increases in population. Transportation systems have frequently failed to keep up with the changes in volume and size of traffic. Water supply systems have been neglected or ineffectively maintained for many years. Sewage disposal systems have deteriorated or not grown with population increase. Also the changing climate conditions worldwide add to these problems. How do we come up with solutions to address these problems?

Conference Venue

The WCPM2007 conference will be held in Aula Congress Centre of Delft University of Technology.

Keynote Speakers

Mr. R. Donehoo, Fluor, ECI
Prof. S.N. Pollalis, Harvard Graduate School of Design
Prof. H.A.J. de Ridder, Delft University of Technology
Prof. M.G. Sexton, University of Salford
Prof. J.W.F. Wamelink, Delft University of Technology
Prof. G.M. Winch, University of Manchester

Official Language

The official language of the WCPM 2007 conference is English. During the Innovation Day, 25 October 2007, there will be a parallel programme in Dutch.

Additional Information

For further information about the Conference please visit the Designated Website at: www.wcpm2007.nl

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