

**Minister of Public Works  
Ms S Sigcau  
22 October 2003**

[Back](#)

## **Joint International Symposium on Knowledge Construction Singapore**

"Knowledge for construction and development"

Honourable Chairperson,  
Distinguished guests and delegates,

### 1. INTRODUCTION

It gives me great pleasure to join you today at this exciting international symposium. The occasion is a special one since it draws together specialists, researchers and practitioners to focus on the direction and role of construction in today's knowledge-based economy.

The National University of Singapore together with the International Council for Research and Innovation in Building and Construction (CIB) have provided an important lead in focussing attention on a critical sector of economic endeavour - and on its complex development in the age of knowledge.

Construction creates the foundations of our global economy. In one way or another it underpins every advance made by humanity; and every advance can be tracked from outer space by the presence and concentration of the built environment that is created by our construction industries.

Light years away in the universe, distant researchers may one day observe and map the recent and rapid expansion of our built environment. When they focus on Singapore, their study of humankind will record the remarkable emergence of a country that has bridged the gap between the developing and developed world. From this evidence of built environment progress they will also conclude that in just a few short decades the island city established itself in the earth's knowledge economy.

To developing countries like my own, Singapore's achievement is a beacon of inspiration and it is therefore particularly pleasing to me that we have assembled here to reflect on the challenging theme of this conference.

### 2. ROLE OF CONSTRUCTION IN THE KNOWLEDGE ECONOMY

"Knowledge construction" is an intriguing concept. It includes and transforms the elementary concept of "construction knowledge". It challenges the construction industry to respond to the needs of a knowledge based economy. It is also a call for a knowledge-based construction industry to stimulate economic growth and to chart a path for sustainable development.

While the knowledge economy brings new pressures to bear on global competitiveness, some of these are not entirely new to the construction industry, including the demand for mobility and flexibility.

Knowledge resides in people. It is not acquired in isolation or through the extraction of information from books and the internet. It is crystallized through the interaction of people and through shared experience, which transforms understanding. In the construction process, the experience of the builder and designer, of the client and the supplier is quite different. Knowledge construction is not the sum-total of their different experience: it is the combining of their experience to achieve a qualitatively new perspective.

In the complex project environment of construction endeavour, the pursuit of knowledge construction is an issue broader than technology. It is clearly connected with the need to transform the construction delivery process and relationships throughout the delivery chain, so that better value is obtained by clients and society. Therefore, knowledge construction must certainly aim for a seamless fusion of design, construct, operate and maintain - to achieve total value throughout the delivery and lifecycle of the product. The art of construction procurement is central and design and build, public private partnerships and joint ventures are some of the approaches that generate a new quality of knowledge.

Construction impacts with force on the natural environment, extracting a massive proportion of raw materials

from the earth's crust. It consumes considerable levels of energy and generates significant waste streams. Knowledge construction, including improved technology must embrace these and other aspects of the earth's value and sustainability proposition.

Some of these issues were raised at the World Summit on Sustainable Development held in Johannesburg last year. Some of the answers may well be found in the modern use of indigenous construction knowledge that employed simple and ingenious methods to achieve comfort.

Value to society is the quest of responsible governments around the world. It is not surprising therefore that many governments are actively promoting an efficient and effective industry that uses resources better, that reduces waste and that transforms the working environment of its people for better employment and greater productivity. As regulator and client to the industry, governments are encouraging practices that promote social and economic priorities, including improved health and safety that preserves people - and therefore also preserves knowledge.

### 3. DEVELOPING WORLD AND NEPAD

There are of course many priority issues on the agenda of the developing world. Few of them however assume the same urgency as the issues of infrastructure deficiencies, backlogs and disparities. Construction accounts for about 10% of the world economy. The continent of Africa accounts for only 1% of global investment in the built environment. Per capita investment in construction in the developed world is approximately \$2500 per annum compared to \$46 per annum in Africa.

The legacy of uneven development and under-development in Africa and elsewhere in post-colonial societies is well known. It continues to inhibit our capacity to deliver infrastructure that supports the full participation of developing societies in global economic endeavour. This is certainly true of our own experience in South Africa.

This bleak reality raises a question that I believe must permeate the discussion of this conference: What is the significance of knowledge construction to the reality of the widening development gap? Knowledge construction for what? and for whom?

If the expertise we have assembled at this august international forum today is guided by this fundamental question, then I believe the input and discussion will contribute to a sustainable and better world tomorrow.

Africa has certainly taken a giant step on its unique path of renaissance to a better and sustainable future. NEPAD, the New Partnership for Africa's Development, is a pledge by African leaders, based on a common vision and a firm and shared conviction. To paraphrase the vision for NEPAD:

"We are convinced that an historic opportunity presents itself to end the scourge of underdevelopment that afflicts Africa. The resources, including capital, technology and human skills, that are required to launch a global war on poverty and underdevelopment exist in abundance, and are within our reach.

What is required to mobilise these resources and to use them properly, is bold and imaginative leadership that is genuinely committed to a sustained human development effort and poverty eradication, as well as a new global partnership based on shared responsibility and mutual interest."

Conceived and developed by African leaders, NEPAD constitutes an integrated plan to promote accelerated growth and sustainable development, to eradicate widespread and severe poverty, to halt the marginalization of Africa in the globalisation process, and to accelerate the empowerment of women.

In my own mind there is no doubt that the vision for Africa's renewal will be jointly led by the delivery of physical infrastructure and human capital.

Indeed in May 2002, a NEPAD Short-term Action Plan for Infrastructure (STAP) was put forward as a preliminary response to the need for regional integration to achieve economies of scale and to reduce Africa's economic marginalisation. There can be no meaningful development without trade - and there can be no trade without adequate and reliable infrastructure.

The short term programme is to be complemented by a more comprehensive Medium- and Long-Term Action Programme (MLTAP) which is currently in development. Its main objectives are:

- to diagnose Africa's infrastructure gaps,
- to define strategic infrastructure goals and related roadmaps; and,
- to support sub-regions in the development of medium term infrastructure programmes.

The South African government is fully committed to the NEPAD vision and the action that flows from its programmes. Bold and innovative infrastructure delivery will require global construction knowledge and capability. More importantly, the delivery of infrastructure will need to ensure skills transfer that stimulates regional construction capacity, which in turn will invigorate local construction economies.

#### 4. SOUTH AFRICA

In South Africa's post-liberation era, infrastructure development continues to occupy a central position in government's agenda to roll back the underdevelopment of decades of apartheid and centuries of colonialism.

Despite the huge debt burden bequeathed by the dying apartheid system, a burden that has now been significantly reduced, our country has recorded great progress in delivering infrastructure to cities and rural areas that barely featured on the maps we inherited in 1994. But millions of South Africans remain substantively excluded from basic services including potable water, sanitation, housing, transportation and communication.

This backlog coincides with the need for new levels of infrastructure investment to stimulate economic growth and the development of a socio-economic environment that nurtures the full potential of society.

Confronted with these challenges our government is clear in its conviction that the South African construction industry is a national asset in the strategy to achieve economic growth and improve the quality of life of the majority of South Africans. Therefore, our role as government is equally clear - and over the past few years we have worked relentlessly to facilitate an enabling framework for industry growth and transformation.

Against this background, legislation governing the professions has been overhauled in order to mobilise the significant resources embodied within our professions to meet the challenges of our emerging democracy.

The new legislation creates an overarching Council for the Built Environment to promote common purpose. To enable greater access to professional service by the public, the legislation recognises the different categories of professional competence, including technologists and technicians.

Another mainstay of our enabling framework for industry growth and transformation is the Construction Industry Development Board (CIDB), which government has constituted to drive a comprehensive industry development strategy on behalf of all stakeholders.

The CIDB is an outcome of the White Paper championed by the Department of Public Works in which government sets out its vision for a policy and strategy that:

- fosters economic growth and international competitiveness;
- creates sustainable employment; and
- addresses historical imbalances as it generates new industry capacity.

I am pleased to say that this young organisation, also represented at conference, has made good progress.

The CIDB's mandate includes the promotion of client and industry best practice, an enabling procurement and delivery environment, a national research agenda and the creation of a knowledge network. In short, its mandate is geared to ensuring a total construction industry capability in South Africa to deliver the built environment foundations for economic growth and social development.

Critical to the success of industry development and infrastructure delivery is the ongoing transformation of all organs of the Public Service to meet the new development challenges. Since the Public Service accounts for about 40% of total construction spending, its efficiency and expertise as a client and facilitator, is a vital component of the delivery process.

To give practical expression to its determination to transform both industry and the public sector for the

delivery of infrastructure, government has vigorously pursued the creation of innovative delivery and procurement strategies, geared

- at cutting through the impediments such as huge time-lags in the procurement and design phase,
- at introducing the innovative potential of the private sector through design and build as well as large-scale public private partnerships;
- at directing public procurement towards broader socio-economic objectives such as the empowerment of marginalised population groups and the creation of productive employment.

For the first time in our history, women are being placed at the centre of construction endeavour and we have scored significant successes towards black economic empowerment. For example, in the Limpopo province, 80% of all public works construction is undertaken by black and women-owned enterprises.

Despite the strides made in opening up of these opportunities, we are not yet satisfied with the levels of enterprise growth and have introduced a range of supply side support mechanisms such as entrepreneurial training and mentoring, improved access to finance and an incubator programme to consolidate enterprise sustainability.

Finally, building on our experience and on the support of the recent Growth and Development Summit of business, labour and government, we are gearing to roll-out an Expanded Public Works Programme. The programme will rely on the construction industry to intensify job and skill opportunities in a concerted attack on poverty across our country.

While by no means a comprehensive overview, the initiatives I have just outlined provide examples of our response to the question of what, and who, "knowledge construction" should serve in the reconstruction of South Africa and the renewal of our continent. For my government the intrinsic value of "knowledge construction" lies in its essential role in economic and social development.

## 5. CLOSURE

As the deliberations of conference proceed, I am encouraged by the fact that a very capable and competent delegation from South Africa will contribute to a crystalised vision for greater networking, co-operation and knowledge sharing. More important will be the learning that they will bring home and that will filter into our systems and programmes for improving the quality of life of millions of South Africans.

The construction industry the world over has a pivotal role to play in infrastructure development. Knowledge and innovation must set free the creativity of the industry to shape a sustainable destiny for all of humanity.

Once again I would like to congratulate the conference organisers for providing an international platform to take these objectives forward. I am sure the renowned beauty of Singapore, and the progress made by its Government and people will stimulate conference participation.

I look forward to inviting you to host a future international conference in South Africa on knowledge construction and development. I believe that it will be an enriching experience for all of us.

In conclusion, let me thank the organisers for affording me this opportunity to share some thoughts on the topic of this international symposium. I trust that it will be an invigorating conference and that the knowledge distilled here will find its way into concrete practice, which will fundamentally improve the future of this industry!

I thank you.

[top](#)