

**CESA MEDIA CONFERENCE
2nd February 2011**

'CESA – PARTNERING FOR GROWTH'

INTRODUCTION

Ladies and gentlemen, honourable guests I welcome you here this morning and thank you for taking time out of your busy day to hear what we, as Consulting Engineers South Africa (CESA), have to say in these exciting times. Today I will present to you CESA's strategic goals for the coming year and what we, have achieved over the past year. In the interests of time, I will not go into detail on issues that have already been covered in press releases during the past year. I will then invite the CEO of CESA as well as some of our Executive Committee members to join me as we open the floor to your questions.

During 2008 we took an important decision to reposition ourselves in South Africa with the launch of our new identity, Consulting Engineers South Africa (CESA) and to be the proud '**Voice of Consulting Engineering in South Africa**'.

Our theme for 2010 was to not only talk and be heard, but to **walk together towards a sustainable future**.

This year, we will take this one step further, by actively participating in growing our economy, an absolute imperative for South Africa. Thus, in 2011 the CESA focus will be on **Partnering for Growth**. CESA wishes to put its weight behind the new growth path tabled by Mr. Ebrahim Patel in the latter part of 2010. CESA will be commenting on certain areas of the growth plan where in our opinion some tweaking is most certainly necessary.

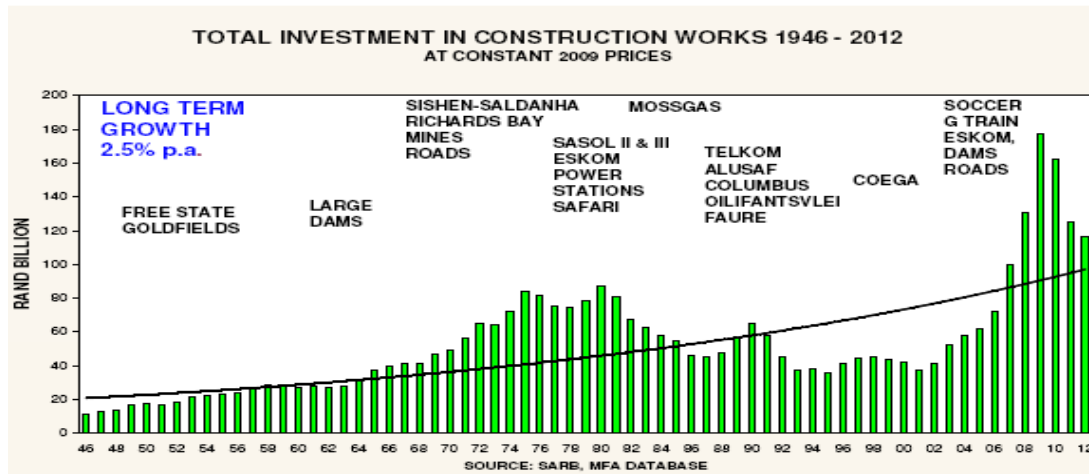
Engineers are innovators that can rise to the challenge of ensuring that their plans, concepts and designs allow for maximum use of labour during construction and that the ideal of sustainable growth is achieved. There is no better testimony to this than our industry's laudable successes during the "build" up to the 2010 FIFA Soccer World Cup.

In 2010 CESA developed a thorough understanding of the issues relating to lack of infrastructure delivery and maintenance. From what is published in the media and stated from political forums it is also clear that government understands these critical issues, but that the 'talk' is not yet the 'walk'. In 2011 CESA wishes to **WALK the TALK**.

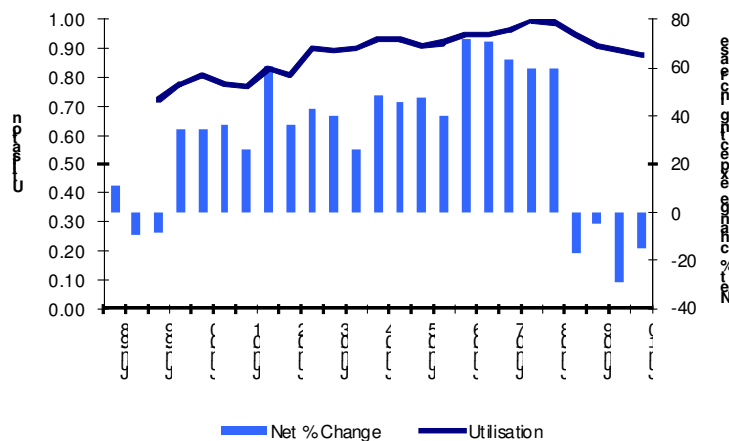
2010 OVERVIEW

The Construction Economy

The decline in construction activity that commenced in 2009 continued well into 2010. The graph demonstrates the trend very clearly.



A number of consulting firms had to reduce staff levels, particularly contract staff. Salary revisions and staff bonuses in our industry have been moderate. According to the Management Information Survey conducted by CESA among our members, staff utilisation levels have dropped from almost 100% to 80% as demonstrated in the graph.

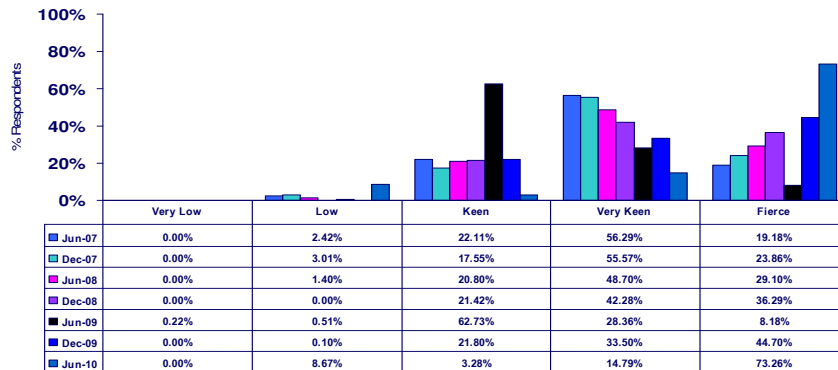


Source CESA

Tender pricing among consultants has become highly competitive to the extent that we are probably back at pre 2008 levels. These pricing regimes are not sustainable, and in our opinion, served as a measure to prevent or rather delay retrenchments in the hope that infrastructure expenditure will recover soon.

Competition in tendering Consulting

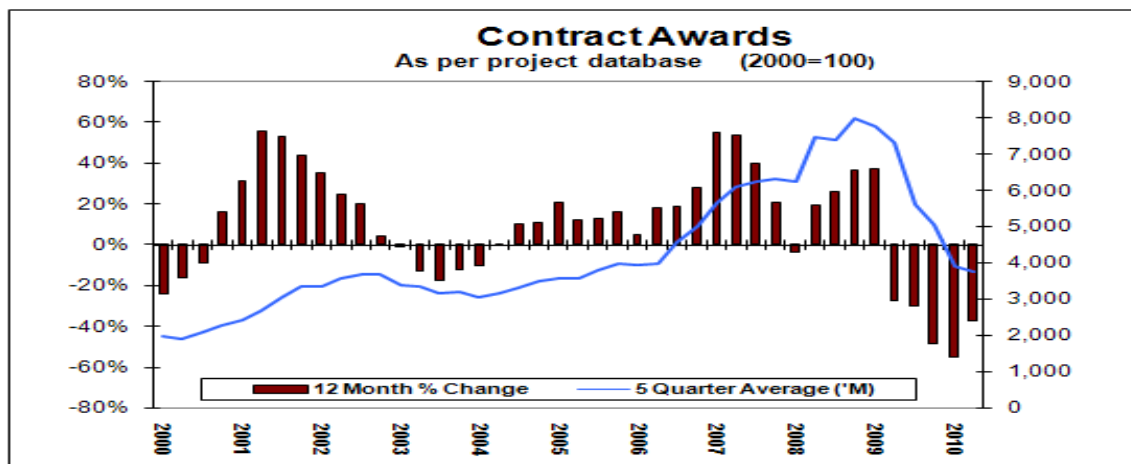
Section B: Business Cycle Indicators - Question 16
During Jan – June 2010 competition for work was (Tick selection)



CESA Biannual Economic and Capacity Survey January – June 2010

In order to diversify, an increasing number of South African consulting engineers are aiming their sights towards the north of our continent. However, with increased competition from international consultants and the strengthening of the Rand, competition in Africa is fierce. It was inevitable that international consultants, particularly from the West arrived in South Africa on reconnaissance visits looking for projects and joint venture partners.

In the 2010 budget, the government announced a R846 billion allocation for infrastructure which was supposed to be spent over a period of three years. Very little of this spend seems to have materialised. According to Minister Pravin Gordhan many billions have not been spent by the public sector. We are all aware that there is a crying need to implement new and to maintain existing infrastructure. The reason for under spending can be ascribed to the inability of public sector officials to procure the necessary professional or contracting services, as a result of not having the capacity or due to the utilisation of inappropriate procurement models. The graph demonstrates the significant drop in contracts awarded since 2008. Thus, the need for all sectors in SA to walk and work together.



Source: SAFCEC

CESA: Consulting Engineers South Africa

CESA was founded in 1952 as an organization representing individuals. We converted to membership by firm during 1997 and at that stage represented some 375 firms employing a total staff of just over 12000 staff. Today CESA represents more than 460 firms who collectively employ a total number of staff of 21 200. It is very encouraging to observe that many of the smaller emerging consulting companies increasingly apply for CESA membership.

In line with global trends, the number of mergers and acquisitions in our sector have increased with the larger firms acquiring smaller firms and in some instances also merging with significant overseas firms, enabling them to become more competitive in the global arena. Exact statistics are unavailable; however, despite the downturn in the economy such activity is definitely on the increase. Internationally the downturn appears to have hampered such initiatives. However, prior to this the larger firms kept increasing in size, more often than not, due to the trend towards larger and more complex projects. In recent years a number of South African consulting firms have merged with, or been acquired by, international consulting groups. Examples of firms that have spread their footprint internationally include Ingerop, WSP, Golder Associates, SSI Engineers and Environmental Consultants, Aurecon and most recently KV3 who joined WorleyParson, a 30 000 member consulting company. Early in 2010 CESA prepared a report on the **state of water and transportation infrastructure** which provided us with a realistic condition statement. Major findings were:

Water and Sanitation:

- Access to water and sanitation has increased significantly
- Project implementation incapacity particularly at sub-national level
- Only 10% of municipalities function satisfactorily
- Water quality is seriously compromised
- Acid mine drainage in previously mined areas poses a serious threat to health

Roads and Transportation:

- Between 1998 and 2000 :
 - Good roads decreased from 75% to 30%
 - Poor roads increased from 5% to 30%
- Provincial and municipal roads are poorly maintained (pothole problem)

Energy

The proper procurement of, and **tendering for, consulting services** are major concerns in South Africa. In conjunction with the Construction Industry Development Board (CIDB), CESA developed a series of guidelines for clients and consultants entitled the Procurement Guidelines for Consulting Engineering Services. These guidelines were successfully work shopped by CESA staff and member companies throughout South Africa. These workshops created an opportunity for clients and consulting engineers to discuss their mutual procurement issue. In total 650 delegates attended these workshops in 2010. CESA has been requested to repeat the presentations in 2011.

Still on the topic of procurement, CESA, as well as SAFCEC, signed a **Memorandum of Agreement with the CIDB** granting us the authority to approach the numerous clients who do not follow best practice, or participate in, illegal procurement practices. The MOU extends the capacity of the CIDB enabling CESA to challenge these procurement 'wobbles' under sanction from the CIDB via a mandatory letter of authorisation. CESA will initiate the first challenge with the client entity using procurement legislation and the CIDB Standards for Uniformity as a basis for such challenge. The CIDB remains "the court of last resort" and will follow up issues where we are unsuccessful. At present we are trying to involve the other Built Environment Professional organizations in order to get greater coverage and capacity.

During October 2010 CESA presented a highly successful and well attended seminar on **Alternative Delivery Mechanisms** such as Framework Agreements, target cost contracting etc. The experience

shared by South African and International speakers was well received and will be taken forward during 2011 as one of CESA's primary initiatives to improve service delivery.

Even though South Africa is perceived to be one of the least corrupt countries in Africa, it is nonetheless only ranked 55th out of 180 countries in the world. Our members regularly report or comment on suspicions of **bribery and corruption**. Unfortunately it seems that our members are brought under increasing pressure to take part in these practises. It is very gratifying to note that there is a growing seriousness from government to address this problem which, according to international experience, is very difficult to eradicate once it has taken root. CESA's members have, as a condition of membership, since 2009, agreed to comply with certain generic business integrity principles set out in our Business Integrity Management System known as BIMS.

An ongoing CESA initiative is the development of a pro forma **Integrity Pact** which will form an agreement to be signed, at tender stage, between the client and the service provider, binding both parties to good governance practices during the period of the contract (should they be awarded such contract). Examples of such agreements exist elsewhere in the world and once CESA has finalised its proposal in regard to the template, it will be placed back in the BUSA arena and rolled out more widely for possible discussion and agreement by NEDLAC.

CESA takes the issues of **sustainable development** and climate change etc., seriously and has prepared and disseminated a framework document to all members. At this stage compliance is voluntarily but in due course it may become a condition for CESA membership.

The CESA **School of Consulting Engineering** continues to grow from strength to strength. During 2010 124 courses were presented training over two thousand delegates.

CESA, in a joint venture with South African Institute of Civil Engineers (SAICE) launched the **Candidate Academy** in May 2010, which supports graduates on their road to professional registration with the Engineering Council of South Africa (ECSA). This initiative has been met with resounding success and candidates have been inspired by this initiative to focus on achieving their professional registration.

Consulting Engineers South Africa (CESA) plans to launch a new engineering certification, the '**Certificate in Consulting Engineering**' during 2011, to enhance the standard of business acumen of Consulting Engineers in South Africa. This will strengthen engineering business management capabilities in the industry.

Despite significant energy and increased capacity committed to **client liaison** through some 100 liaison committees countrywide, CESA has struggled to build relationships with public sector decision makers for a number of reasons, perhaps the most important of which is CESA's (lack of) visibility; the public sector's lack of capacity; and the trend towards them becoming an "uninformed client".

CESA has established **panels of expert members** on a variety of topical infrastructure issues, to capacitate the directorate in commenting to the media and engaging with decision makers.

Industry Issues and Events

The 2010 FIFA Soccer World Cup was unquestionably the largest event that our country has successfully staged. Our members were actively involved in the successful implementation and timeous completion of a variety of major infrastructure projects surrounding this event. Many of these projects were entered into our annual **CESA Glenrand MIB Engineering Excellence Awards** which featured an array of prestigious projects seldom seen in our country's history, e.g. Soccer City which is the biggest soccer stadium ever built! Apart from technological innovation, very important lessons have been learnt, not least of which is the need for proper upfront capital planning. The Department of Sport and Recreation is finalising a comprehensive report detailing the lessons learnt during, and legacies left by, the World Cup. CESA believes that these lessons learnt and experiences gained,

should be embraced by all departments in the various spheres of government responsible for capital project implementation.

We noted with interest the appointment of the 25 member **National Planning Commission (NPC)** in April last year, to be chaired by the Minister for National Planning. We expect that the NPC is still busy researching prevailing conditions which will affect the country's planning for the future. One would hope that a process of public involvement will be included in their preparations for such a plan because our members may have valuable contributions to make especially in regard to urbanisation and infrastructure needs, for example. We would like to be able to participate in identifying and prioritising, inter alia, many issues relevant to our industry during the course of 2011.

At the UN conference on **climate change** in Copenhagen (COP 15) South Africa volunteered to reduce its domestic greenhouse gas emissions by 42% as at 2025. Whether this target is achievable is debatable but it provides an important goal upon which we can all focus. In principle CESA supports the initiatives taken by government to participate in registering projects in terms of the Clean Development Mechanisms (CDM) to qualify for tradable carbon credits. To date 18 South African companies have successfully registered projects under the CDM.

A more recent initiative is the introduction of carbon taxes on vehicles. There is still debate as to whether fuel or vehicles should be taxed, but in principle the legislation is well intentioned. In most of these initiatives in order to achieve reduced CO₂ targets, engineers, and our members in particular, will be actively involved.

CESA continues to serve as a board member on the **Green Building Council** and is participating in discussions to extend these initiatives into other general infrastructure.

China has invited South Africa as a new member of the BRIC group of countries. This raises some questions given the relatively small size of our economy and the fact that we will be in the same ring as some heavyweights. CESA sees this invitation in a very positive light, provided that these relationships are well managed.

Non-events

Despite all the hype and excitement which surrounded the World Cup, a number of anticipated, and in our opinion, much needed interventions did not happen:

For the past 6 years, at least, the built environment fraternity invested an enormous amount of time and energy into the development of the **Construction Industry Charter** and scorecard. It is thus extremely disappointing that as far as CESA is aware, SANRAL is the only client that subscribes to it for procurement purposes. Despite numerous promises the BBBEE and PPPFA legislation is still not linked and most clients follow their own set of independent and divergent rules to evaluate preferencing. This not only causes a lot of additional work when submitting tenders, but also creates confusion in the industry. It is our understanding that even the BBBEE legislation may yet be revised more than 15 years after our new democracy started – and this when it has not even yet been effectively implemented due to the conflicting legislation mentioned above.

During May 2010, Minister Shiceka announced the new **Municipal Systems Amendment Bill** which aims to redress crucial problems hampering service delivery, such as the deployment and appointment of inappropriately qualified staff in key positions. To date this Bill has not yet been enacted but a final decision by parliament is expected very early in 2011.

In 2010 CESA identified **service delivery** in the public sector in general, but specifically in the municipal sphere, as a “burning bridge”. Despite the identification and acknowledgement of the numerous deficiencies and the well known Turn-Around-Strategy document produced by COGTA, service delivery still appears to be a major issue in numerous municipalities and departments. The ship has not yet turned around! To date initiatives like the Special Purpose Vehicle or the Adopt-a-Town mooted by COGTA have not come to fruition. As highlighted by CESA in 2010, the numerous well intended ad hoc and uncoordinated interventions at municipal level have had very limited impact and lacked continuity.

This burning bridge not only affects the daily lives of many citizens, but deprives many unemployed citizens of much needed jobs. The reported R12 billion of unspent budget by municipalities equates to a “loss” of 100 000 jobs, a situation that cannot be tolerated in a country with the highest unemployment and below average growth rate even in Africa.

Responses to the lack of delivery have surfaced from various sectors in our society:

- Grass roots:
 - Protests:
 - 2008: 27
 - 2009: 109
 - 2010: 88 (8 months only)
 - Surveys confirm lack of trust in local authorities to deliver
- Government:
 - “Put a stop to political appointments “: Minister Shiceka Oct 2010
 - “Backlog in infrastructure is R495 billion” : Minister Shiceka April 2010
- Informed Citizens (Dinokeng Group):
 - “We failed to understand how to run a modern democracy”
 - “Leadership is self-interested”
 - “Weak state with declining capacity”

As CESA has repeatedly stated during 2010, the key overriding issue in **the public sector** is the lack of skills and technical **human resources**. The number of technical professionals in government has shrunk from 5500 to fewer than 1800 over the last 10 years.

The CIDB has now decided to launch a pilot project whereby performance reporting on consultants will be included with the roster to add a level of “value”.

CESA has been promoting and actively supporting the establishment of a central **register of built environment professionals**. It was envisaged that a pilot register would have seen the light during 2010. However, due to concerns about the value that a mere listing of consultants would add, the CIDB decided not to take this process any further. The primary benefit of such a register would be that “fly-by-night”, inappropriately qualified consulting engineers could be excluded from the register and public sector clients would not be permitted to appoint consulting engineers who are not on this roster.

The ECSA (Engineering Council of South Africa) led **Identification of Work** (IoW) process in which CESA participates has been slow but remains on track and it appears as if the differences between ECSA and the Council for the Built Environment (CBE)have been resolved. With all parties having resolved their differences, it is likely that the IoW process will be finalised during the current year. It is important that this matter be resolved to protect public safety by ensuring that only appropriately qualified professionals will be permitted to carry out specific engineering functions.

11 years on, the Construction Education and Training Authority or **CETA** remains dysfunctional and unresponsive to the needs of industry particularly in regard to Built Environment Professions. The situation has in fact deteriorated to the extent that the services of the current CEO have been terminated probably the fifth such action over the lifespan of the CETA. Staff morale is at an all time low with reports of internal dissatisfaction and threats of strikes directed at CETA's decision making body. The established industry remains convinced that the only effective solution is for the CETA to be placed under administration. Unfortunately the Minister's initiation of such an action has resulted in a court challenge by the CETA.

THE WAY FORWARD FOR 2011 AND BEYOND

Global Trends

Recent in depth international research conducted by Price Waterhouse Cooper painted a picture of the world in 2050. It is important for all South African businesses as well as CESA and its members to note the following:

- The largest emerging economies (E7) of the world are expected to show a rapid convergence with largest great economies (G7) and will overtake them in size between 2020 and 2030. (Depends on whether the gross domestic product (GDP) is measured in terms of purchasing power parity (PPP) or market exchange rates (MER).)
- Although South Africa currently ranks as the 20th largest economy in the world, it does not feature in the top 20 by 2050 due to its expected lower growth rate than that of the other emerging markets.

These scenarios have significance for our consulting and construction industry namely:

- Future alliance partners (East vs West).
- Increased global competition from the G7 nations due to lower economic activity.
- Ability to maintain adequate growth to fund expansion projects and to create employment.

The cautiously optimistic outlook for our local industry in 2011 is tempered by the uncertainty of the coming municipal elections. During previous elections, impacts on our industry have generally been negative. There is however presently such a strong outcry and focus on service delivery and economic growth that it is possible that, at least in the run-up to June (probable election date), investment in infrastructure could accelerate.

Economic Growth Path

Government is more than aware of the imperative to **grow the economy** and increase employment, to ensure our sustainable future. This must be the **top priority** for all in SA. CESA and its members are poised and capacitated to participate and partner with Minister Ebrahim Patel and government in the New Growth Path for SA. It is known and has been repeated from many platforms and in numerous statements, that infrastructure development and maintenance form the cornerstone in any such growth strategy.

Investment in economic infrastructure occurs in expectation of demand, or in reaction to demand for capacity. When it happens, it has the following three impacts:

- 1) an initial growth in demand for people, equipment and materials on the project, which lasts as long as it takes to create the asset;
- 2) a demand on resources over the lifespan of the project to maintain the asset; and
- 3) a productivity impact in the overall economy, either producing more or producing it more efficiently due to more efficient infrastructure (or simply the availability of capacity like harbour capacity and electricity).

While an asset is being created, the employment of more people and demand for equipment, plant and materials create its own impact on growth due to secondary demand coming from more disposable income from the employed, and demand for equipment and materials to deliver the project. This is the multiplier or accelerator principle; a project has employment / demand multipliers which in itself causes growth to increase.

The number of jobs directly created per R1 million spent in the construction sector per annum is around 7 jobs. This is the third highest of all sectors and is only surpassed by the agriculture and mining sectors. In some construction activities, employment intensive practices can, without

necessarily sacrificing quality or paying a cost premium, increase the quantum of work generated per R1 million spent and provide temporary job opportunities to unskilled workers. This aspect of construction feeds into the **Expanded Public Works Programme**. Government is a major client in the construction sector and therefore has the ability to make a significant impact on employment creation through investment in infrastructure.

In October 2010 Mr. George Seithiso of COGTA called upon CESA and its members to “work together to turn the tide” CESA is ready to do just that!

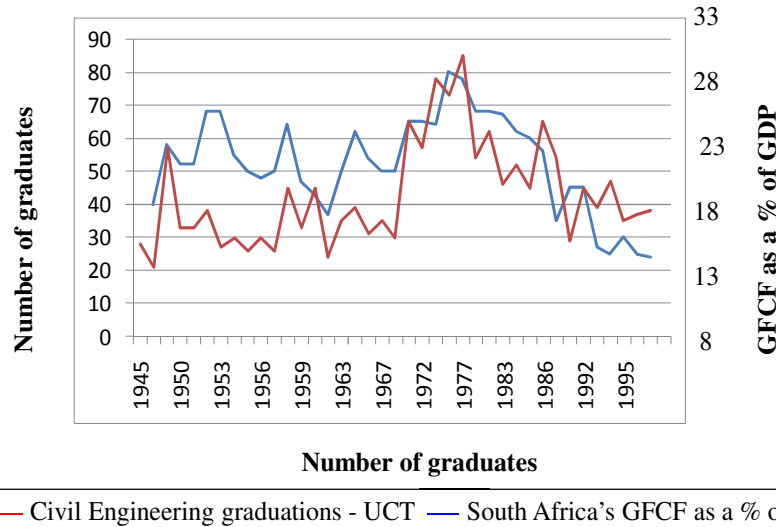
Our motto for 2010 is **Partnering for Growth**.

CESA and its members are at the forefront of infrastructure development in South Africa and are able and keen to assist the public authorities. Hence the need for CESA to now “up the game” and more aggressively pursue and partner with government so that the collective capacity of its member firms can assist with effective service delivery.

The new Growth Plan sets an ambitious target to deliver **30 000 engineers per annum** by 2014. This requires comment:

- At present approximately 2 500 engineers graduate annually from our universities. Assuming that graduate technicians and technologists are included in the minister’s target, the annual figure is around 6 000.
- Approximately 60% of first year entrants do not graduate. If the pass rate could be increased to say 80% by raising the quality and numbers of educators, the number of annual graduates could be upped to say 12 000.
- At present, young graduates battle to find employment.

Our view is that the strongest “pulling” power to increase the number of engineers has historically been investment in infrastructure from government and the private sector; refer to the graph from Needs and Numbers included below.



Source: Needs & Numbers, SAICE

Our view is thus that if:

- the economy grows and a sustainable programme of infrastructure spend is maintained and;
- technical positions are created in technical public sector departments and
- qualified engineers are employed in technical positions in government,

the private sector will respond by sponsoring and training engineering students and graduates will be able to find suitable career opportunities.

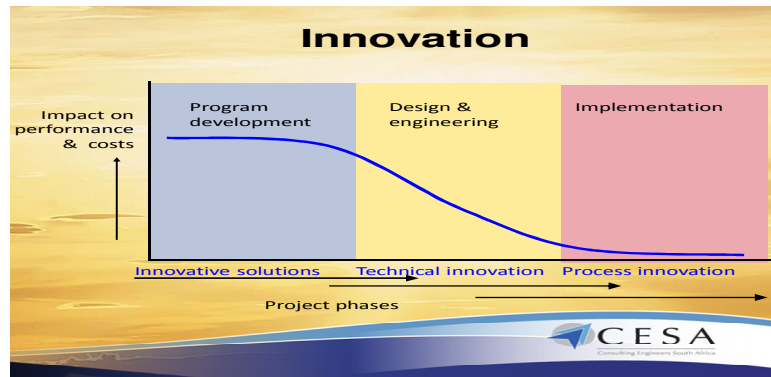
Otherwise, if the infrastructure spend by the public and private sector does not increase adequately, South Africa will be producing a surplus of engineers (that is, if students can be lured to study engineering in an underperforming market).

Service Delivery Framework

In terms of a framework or roadmap for the way forward, we consider the following to be fundamental:

1. Professionalise the public service, remove political deployees from technical positions where they are not qualified, and employ skilled officials who can develop careers in the public service. This will take time.
2. Public authorities (the client) cannot abdicate their responsibility for proper infrastructure planning. For example, unless co-ordination and joint planning between development planners and the suppliers of bulk infrastructure (water, sewerage, roads and electricity) is greatly enhanced in 2011, the development of human settlements will not happen, causing potential further serious social instability. CESA members are experienced to assist the public sector departments in this regard. The National Planning Commission will hopefully provide a broad national vision and guideline, but we cannot wait until this is finalised. There is too much to be done. Proper capital project planning must be done by all departments as was done for the Soccer World Cup. Until the appropriate in-house skills have been developed, planning experts will have to be contracted into the various departments, to assist.

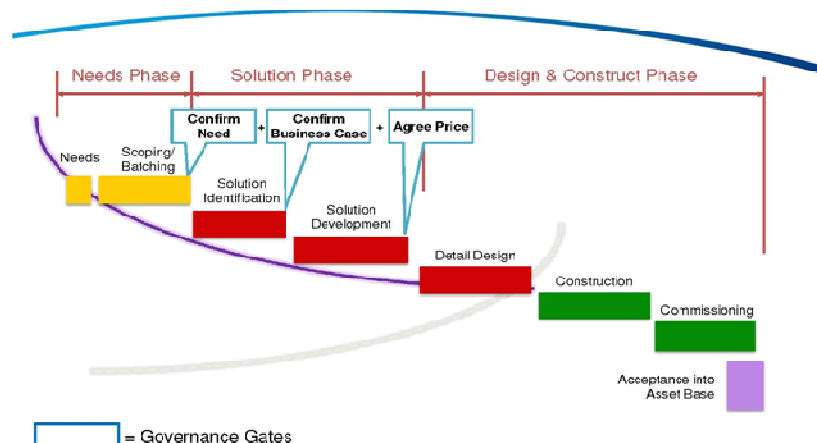
- It is very important for all clients to realise that the biggest impact on cost, which is innovation, happens in the early part of projects as demonstrated in the graph.



- Use must be made of the recently developed CIDB guidelines, based on local and international experience, to select **appropriate construction procurement strategies**. (refer to the CIDB website www.cidb.org.za/_layouts/toolkit/data/ai_docs/1555.pdf). Much of the service delivery failure can be ascribed to the notion of sticking to traditional, often inappropriate, "one-size-fits-all" construction procurement models that often lead to a plethora of client/consultant/contractor relationships that have to be managed by overburdened and often inexperienced staff.

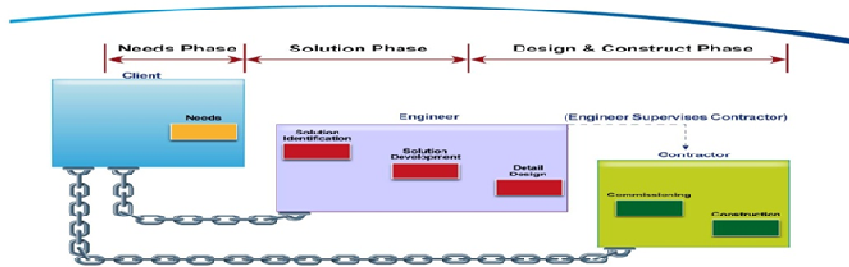
In determining the appropriate model, it is necessary to analyse project work flows carefully (refer to international example).

Workflow is the Key to Delivery Efficiency and Programme Management

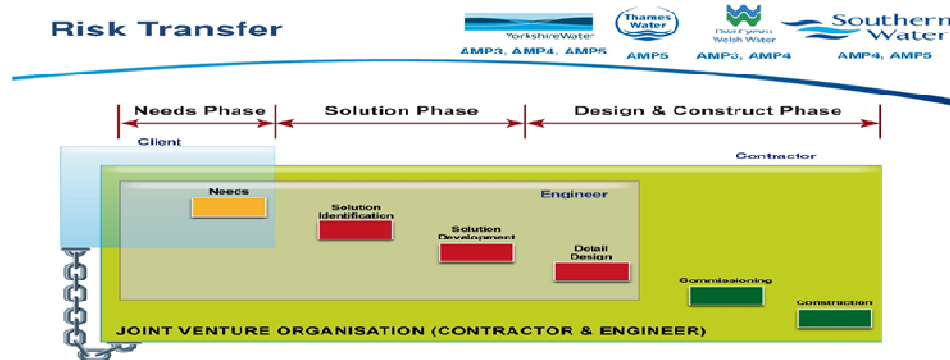


Two procurement models representing the outside limits of available options are shown; various options exist in between.

Very Traditional



Risk Transfer



In South Africa, a pilot project in eThekweni demonstrated how infrastructure could be delivered at scale without compromising the delivery of social and economic deliverables and indicated that a fresh approach to delivery was required. Framework contracts with a limited number of “supply chain” contractors were entered into to deliver infrastructure with a number of deliverables relating to poverty relief, enterprise development and training over a three year period.

This **EPWP** award winning pilot project not only delivered infrastructure at scale but also provides significant temporary employment opportunities to the unemployed. It facilitates the growth and development of small local contractors and permits a wide range of training to take place. It requires only one eThekweni staff member to oversee its implementation.

- Government and the private sector should actively partner in a mutually trusting relationship throughout the project life cycle. A good example is SANRAL where a competent core of approximately 170 officials effectively manage annual infrastructure budgets of between 10 and 20 billion Rand. CESA and its member firms, maintain a positive relationship with SANRAL where we have frequent and ongoing interaction. The results only have to be seen in the form of a world class national road system.

CONCLUSION

2011 is the year where CESA aims to become recognised as **the centre of excellence** and a **trusted advisor** to government to collectively address the numerous challenges of 2011. The recent successes of the World Cup demonstrate that the engineering fraternity in South Africa can meet these challenges successfully.

We hope that the media will work with us by creating an awareness of CESA's role in improving the state of South Africa's infrastructure so necessary to enhance economic growth and development, create employment and alleviate poverty.

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