

## **KEY NOTE ADDRESS AT THE AMEU CONVENTION: 16 OCTOBER 2006**

The President of the AMEU, honoured guests, ladies and gentlemen.

It is a privilege to be here with you today at your 21<sup>st</sup> Technical Convention. I do not only want to congratulate you on your coming of age as far as technical conventions are concerned but also want to congratulate you on your 90 years of existence. It is indeed a remarkable achievement!

Significant changes have taken place in the engineering profession during the past five years since the implementation of a suite of 7 Acts in the built environment, of which the Engineering Profession Act, 2000 is of course the most relevant one for purposes of my address today.

The question is often asked how SA is preparing itself from a skills perspective to address the envisaged massive infrastructure refurbishment of Eskom, Transnet and the Gautrans capital programmes of the day. As you know, Cabinet has unveiled the Accelerated and Shared Growth Initiative for South Africa (ASGISA) in July last year. You may also be aware that the Joint Initiative for Priority Skills Acquisition (JIPSA) is viewed by Government as an important building block for ASGISA. In this regard ECSA is fully supporting (JIPSA) which is driven by Deputy President Phumzile Mlambo-Ngcuka. JIPSA aims to identify urgent skills needs such as engineering with a bid to implement effective solutions to address the skills shortage in our Country. As high level, world class engineering and planning skills for the network industries, transport, communications and energy are all very much at the core of infrastructure programmes, ECSA is actively contributing to the technical working group of JIPSA in identifying blockages and more importantly seeking solutions to this vexing process. In addition I am sure that AMEU will be aware that another important working area for JIPSA is the city, urban and regional planning capacity with its concomitant engineering set of skills is desperately needed by our municipalities.

I am therefore glad to inform you that ECSA is currently collating contributions from its various and diverse stakeholders in terms of identifying problem areas in order to develop at grassroots level a comprehensive plan that will concretely and practically mount a set of strategies that will address the blockages within the engineering profession in the short, medium and long term. In this regard allow me to briefly name but three of these blockages whilst at the same time proffering three possible solutions already recommended by ECSA.

For The most part a serious blockage is the dire shortage of registered engineering practitioners in our Country. Some of the solutions suggested include increased government spending on infrastructure development, market forces of demand and supply will naturally draw higher numbers into engineering. It would also be imperative for National Government Departments, Provincial Departments and Local Authorities to urgently improve salaries for registered engineering professionals in order to attract, retain and build engineering expertise. Recognition of the engineering practitioner as a vital catalyst for engendering greater economic growth is crucial. From an ECSA perspective the professional engineering family must be regarded as a national asset, driving progress and sustainable development.

**Secondly**, we can look at the situation of restrictive processes and systems in the workplace. Some of the quick fixes that are suggested are to revert from lowest priced tender system to reasonable priced tender system with the emphasis on quality, track record and meeting specifications. Procurement and Supply Chain Management processes at municipalities and the reintroduction of tried and tested systems like the roster system, may result in at least the locus of control resting in technical departments and not in central services.

**Thirdly** the low intake and output of engineering students and graduates at tertiary institutions in the country is a severe blockage to accelerated growth and development. One of the medium term fixes for this blockage may be to increase funding to engineering facilities in order to double the number of engineering students and increase the number of lecturers together with adequate academic support programmes. In this regard we are glad to say that in a media release by the Minister of Education about three weeks ago, it was confirmed that an additional amount of R48 million has been allocated to the universities of Cape Town, Witwatersrand, KwaZulu-Natal and Pretoria, respectively to increase their number of engineering graduates. In her announcement the Minister indicated that government has identified engineering as a scarce skill within the JIPSA initiative.

As ASGISA is perceived as a national shared growth initiative rather than a government programme, I believe that all stakeholders in the infrastructure investment area of ASGISA, like you as members of the AMEU should associate yourselves fully with this initiative, as ECSA is in fact doing. As indicated in the Medium Term Budget Policy Statement in late 2005, government and public enterprise investment expenditure for the period April 2005 to March 2008 is planned to be in the region of about R370bn. Of this amount about 40% will be spent by public enterprises, mostly ESKOM (R84bn) and Transnet (R47bn), and mostly on power generation, power distribution, rail transport, harbours and an oil pipeline. The general purpose is to improve the availability and reliability of infrastructure services in response to rapidly growing demand. I am sure that you, as members of this esteemed association will also be directly affected by this expansion of activities in your field of engineering at a local level. These are indeed mind boggling amounts of funding and the challenge to the engineering profession is to respond by making use of the current pool of trained engineering practitioners, to properly train and mentor young graduates and diplomates, and to lure more prospective young practitioners with the requisite mathematics and science grades to the profession.

Having said this I now want to turn to the question, why voluntary associations like AMEU and employers in general should align itself with a professional body like ECSA. Firstly, apart from the peremptory nature of the Engineering Profession Act, 2000, ECSA's motivation for promoting alignment with employers of engineering professionals, can be summed up as follows:

- ECSA is the official Standards Generating Body in engineering (in the higher education band) in South Africa, and at the same time, through its Engineering Standards Generating Body (ESGB), fulfils this function on behalf of SAQA.
- ECSA has developed a relationship with various Sector Education and Training Authorities (Seta's) in order to facilitate alignment and integration of education, training and professional development under the Skills Development Act.
- ECSA has legal responsibility to accredit engineering programmes offered by educational institutions in South Africa. At the same time ECSA performs this

- activity as a functionary of the Higher Education Council, which means that ECSA's accreditation outcomes are recognised as a "national" outcome.
- ECSA represents South Africa as an official signatory to a variety of mutual recognition agreements, thus ensuring international equivalency of South Africa's educational and professional standards.
- ECSA signed a Memorandum of Understanding with NEPAD, and will assist the engineering professions in Africa to achieve international recognition, should such assistance be required.
- ECSA represents South Africa on the World Federation of Engineering Organisations (WFEO) and is actively participating in WFEO's Capacity Building initiatives in Africa.

Secondly we believe that it is a win-win relationship

Being well positioned to serve the interests of the country, the public and (probably just as important) the practicing professionals themselves, it will certainly be a win-win situation for ECSA, VA's and employers to co-operate more closely as we address national challenges. However more specifically we can only win all round because:

- ECSA's impact is beneficial to the maintenance of standards of engineering education, training, professional development and professional conduct. Employers are direct beneficiaries of ECSA's involvement.
- ECSA's activities have a direct and beneficial impact on, and are aligned with, national initiatives, i.e. the National Qualifications Framework (SAQA), the Higher Education Quality Committee (Accreditation), Skills Development in the higher education band (National Skills Authority and Seta's), as well as the ASGISA and JIPSA initiative as already indicated. **FURTHER**
- ECSA relies on the support from VA's, employers and professionals to fulfil its statutory functions and responsibilities. Without this support, the interests of society, and the country as a whole, cannot be served as well as it should.

Thirdly, we believe that it is most important to note that, in contrast to the previous government, the built environment legislation of 2000 reflects a very strong and committed political will on the part of the current government to promote public health and safety and the environment by ensuring professional accountability among all professionals active in the built environment.

We all know by now that the Engineering Profession Act was only enacted following years of deliberations in the "**Forum for the Professions in the Built Environment**" which was initiated by the then Minister of Public Works, Mr Jeff Radebe. The idea of this forum was to assess the extent to which the professions have served the interests of the Country in the past and whether they are still relevant in meeting the needs of the new South Africa. Consensus reached in the forum was that the statutory control of the built environment professions in South Africa was still essential and this led to the decision to proceed with preparing new legislation to regulate the professions.

**The Policy Document that emerged from this process states (among others): "It is the opinion of the Ministry that, in order to meet the objective of upholding standards through registration, all persons who are eligible for**

**registration and who practice their vocation, whether self employed or salaried, should be obliged to register ”**

The Forum identified a number of key issues which would reflect government policy and intention. An important element of these issues stemmed from the belief that there should be a much stronger drive to protect the public against bad professional (engineering) practices and that somebody should be held accountable for that. The government believes that the professional councils should be held accountable for unprofessional practices of the practitioners – improper conduct – and that the individual professionals should be held accountable by the Councils for their conduct.

Having said this, I think it is imperative that we take note of what is determined by Sections 18 and 26 of the Act.

Sections 18(2) and 18(3) of the Engineering Profession Act:

- Prohibits a person who is not registered in a category from practicing in that category of registration; and
- Permits a person registered in a category to consult in that category.

Section 18(4)(c) of the Act further requires that a Candidate in a category *must perform work in the engineering profession under the supervision and control of a professional in a category as prescribed*. Consequently, a candidate may not consult.

Section 26(3) of the Act prohibits a person who is not registered in terms of the Act from performing any kind of work identified for any category of registered persons. The Act in Section 26(4) allows one exception to this prohibition. The unregistered person may work under the supervision and control of a registered person who must take the responsibility for the work. **Accordingly, a registered person taking responsibility for the work of unregistered persons must do so from a fully informed position, must exert active supervision and control and must approve all critical decisions. It would be unethical for the registered person simply to accept a recommendation from the unregistered person.**

**Only when work has been identified in terms of section 26(1) and section 20 of the Council for the Built Environment Act, will section 26(3)(b) be enforceable.**

It is important to note that any contravention of Sections 26(3)(b) and 18(2) of the Act, will, in principle, result in ECSA lodging a criminal charge against the person contravening the sections. ECSA will most likely not proactively police possible contraventions, but will rely on the public and/or practicing professionals to report such contraventions.

The latest news on progress in this regard is that the Framework document on the Identification of Engineering Work was approved by Council in November 2005 and that the final draft of the Regulations was approved by Council on 17 August 2006. The report and Regulations have already been forwarded to the Council for the Built Environment for liaison with the Competition Commission in terms of Section 20 of the Council for the Built Environment Act, 2000. It is hoped that this process will be

completed within the next 12 months. Acceptance of the Regulations will result in all engineering practitioners who perform identified engineering work, having to register with ECSA. The so-called compulsory registration era which we will now enter into, will level the playing fields between unregistered and registered engineering practitioners. Registered professionals may be pleased to note that unregistered practitioners would also have to come on board and would also have to undertake CPD activities in order to keep their professional registration intact.

I now want to turn to the renewal of registration through the formal system of CPD, which is another important provision in terms of the 2000 Act which ECSA is obliged to implement. I think most of us will be aware that the system was formally implemented as from January 2006.

Time does not allow me to go into detail about the different credits that may be earned in terms of the three categories of CPD activities. I therefore want to emphasise firstly that the point of departure of the ECSA Committee that designed the CPD system, was that the system must be as user friendly as possible and that cost to the individual practitioner to obtain the necessary CPD credits, should be as low as possible.

As we know CPD consists of two dimensions, namely the technical, discipline specific body-of-knowledge and other (e.g. managerial, finance, IT, specific skills such as negotiating, presentations, etc.). In each of these there are two aspects, namely ***acquiring of existing knowledge and the expansion of the body of knowledge***.

In terms of the ***existing body of knowledge***, whether technical or other, it provides for a relative easy assessment and accreditation of course work, seminars, etc. In the process of professional development we see the following:

- Formal courses presented by accredited tertiary institutions and VA's, which are all validated;
- Activities presented by private providers which have been validated by VA's.

In the ***expansion of knowledge*** one can distinguish between own unique contributions to the technical knowledge in the form of new paradigms, techniques, etc and the expansion of knowledge through remaining current with new developments and subsequent application and modification. Here we see the following:

- Original research and development;
- Conferences, seminars and other VA activities in which the above are evident

It is therefore imperative for VA's to keep this in mind when validating category 1 activities. As we have indicated in the past, CPD is not just another academic exercise. However, an element of educational development must be part of the CPD requirements, but it is not necessary to over-emphasise this one category of CPD activity above all else.

In conclusion, it is clear that your agenda for this convention covers a wide variety of technical subjects, and your theme of Electricity Service Delivery – the Challenge, indeed raises more aspects in the field of service delivery than can be covered in the span of three days. We know that in the past recent years, there has been a growing concern about the quality of electrical supply and the apparent deterioration in services

offered by local utilities and municipalities. Amongst these concerns is the forecast that the SA peak electrical power demand will exceed the available generating capacity, resulting in regular peak period outages. I am aware that the National Energy Regulator and ESKOM have been working on corrective action, which includes the return to service of several older power stations, the addition of peak load power stations and the introduction of new fossil fuel power stations. In addition ESKOM and the NER are considering alternative solutions such as the re-introduction of Mandatory Load Shedding and demand side management. As you are no doubt aware the Demand Side Management (DSM) initiative is a process whereby Eskom identifies and implements energy savings and load shifting projects, beyond the customers meter point in the factory or facility, in such a manner as to provide sustained energy savings and or a sustained reduction in the peak load of the customer's facility. The objective of such projects is to save national energy resources and to assist consumers to reduce their energy costs by improving energy efficiency and improving the load factor. Power saved through DSM should be significantly cheaper and quicker to implement than power provided through a new power station. The ESKOM DSM initiative is a unique opportunity for business and industry to benefit through participation in energy efficiency and load management projects. Natural resources are conserved and carbon gasses are reduced. Hopefully your Convention will also during the next three days come forward with related solutions to challenging problems on electricity service delivery in our Country.

Mr Chairman, with these few ideas on ECSA's support to ASGISA and JIPSA, the envisaged compulsory registration of all engineering practitioners and the renewal of registration through CPD, I hope you will have some food for thought to share with your members in the days ahead. I wish you well in your further deliberations over the next three days.

In closing according to a recent study released last month by two prominent Harvard University economists South Africa is praised as a model emerging economy and that we are living in South Africa's AGE of HOPE. However given our high levels of unemployment between 26 % and 38% and our current account deficit of approximately 6 % is our age of hope sustainable. As our corporate social responsibility I invite all of you to advance on all fronts the fight against marginalisation and poverty.

**Thank You**