

## Consulting Engineers South Africa (CESA)

### Position Document on The empowerment and development of emerging and small consulting engineering firms in the infrastructure delivery.

#### Introduction

CESA is mandated to influence public policies and advocate for a conducive professional and business environment, in order to enhance infrastructure delivery, in terms of time, speed and cost (quality outcomes).

#### Background

According to the International Federation of Consulting Engineers (FIDIC), **the consulting engineering industry worldwide is made up of over 20,000 firms** supplying technology-based intellectual services for the built and natural environment including infrastructure. These firms range from large, multinational, multidisciplinary suppliers of a comprehensive range of planning, design and project delivery services, to many small- to medium-sized firms that tend to specialise in selected areas of the project delivery process.

FIDIC's definition: Small- to medium-sized enterprises (SMEs) as opposed to mid-sized firms are generally defined as firms with less than 50 full-time employees with a turnover of less than USD10million. On this basis, **60% to 70% of consulting engineering industry firms worldwide are SMEs.**

**SMEs probably account for 10% to 20% of the industry's turnover worldwide.** This estimate is confirmed by some data: in Sweden in 1999, 95% of the national association's SME members accounted for 20% of total revenue for design services in construction; and in Canada in 1999's, SME members represented about 10% total revenues for technology-based intellectual services.

Consulting Engineering South Africa (CESA) is predominately comprised of – **433 small firms, equalling 87% of the 497 member firms**, who employ 50 people or less with the remaining, 61 medium-large firms employing 75% of the 23 500 total number employees. The 497 member firms, according to the Biennial Economic Capacity Survey (BECS), are responsible for 80% of the government's infrastructure budget.

**South African Government Policy:** Job creation mainly by small, medium and micro-enterprises (SMMEs)

*“With millions of South Africans unemployed and underemployed, the government has no option but to give its full attention to the task of job creation, and generating sustainable and equitable growth.”*

*“Small, medium and micro-enterprises represent an important vehicle to address the challenges of job creation, economic growth and equity in our country.”*

*“We [the government] believe that the real engine of sustainable and equitable growth in this country is the private sector. We are committed to doing all we can to help create an environment in which businesses can get on with their job. We believe in the principle of working together with our partners in the private sector – big and small businesses – in realizing our hopes and aspirations for this economy.”*

These are direct quotations from Trevor Manuel’s Foreword to the White Paper on Small Business, published at the beginning of 1995, when he was Minister of Trade and Industry. Seventeen years on, the statements seem as pertinent as ever - but the context is very different.

**Black people:** is a generic term which means Africans, Coloureds, Indians and *South Africa’s 10 000-strong ethnic Chinese community.*

**Broad-based black economic empowerment Act (B-BBEEA):** means the economic empowerment of all black people including women, workers, youth, people with disabilities and people living in rural areas through diverse but integrated socio-economic strategies that include, but are not limited to:

- a) Increasing the number of black people that manage, own and control enterprises and productive assets;
- b) Facilitating ownership and management of enterprises and production assets by communities, workers, cooperatives and other collective enterprises;
- c) Human resource and skills development;
- d) Achieving equitable representation in all occupational categories and levels in the workforce;
- e) Preferential procurement; and
- f) Investment in enterprises that are owned or managed by black people:

**It is proposed that for the purposes of this report a small firm be defined as an *Emerging Consulting Engineering firm consisting of newly formed and practising small-medium sized firms with at least 51% of its shares owned by one or more black people(s) together with a turnover of less than R11.5 million rand.*** Moreover, these firms should have a strong commitment to developing their technical capacity and growing their business.

### **Problem and Purpose**

There is currently a strong outcry by emerging/small consulting engineers over lack of access and appointments to large projects from government and its Parastatals.

The South African Government is committed to eradicating the triple challenges still facing its citizenry, namely: poverty, unemployment and inequality by rolling-out a massive infrastructure worth R3.2 trillion over 3 years (2012 – 2015) on at least 40 major infrastructure projects in the country. One of the developmental outcomes expected by government from this infrastructure programme is the empowerment of previously disadvantaged individuals. In this case the reference would be to consulting engineering firms, commonly referred to as emerging consulting engineers, and the transformation of small consulting engineers into sustainable medium or large firms. Primary aim of this position paper is to facilitate and advocate for the deliberate and systematic process to further empower, beyond the B-BBEEA’s and the construction charter, by providing opportunities to existing emerging consulting engineering firms, as well newly formed firms entering the construction services industry, to become successful, independent specialist or sizeable generalist consulting engineering practices.

**The following aspects of emerging and large (established) firms need to be recognised:**

**Breadth and Depth of Expertise:** Certain types of large projects require a wide range of expertise and extensive experience to execute effectively and these are more suited to large firms which can develop, sustain this capacity and expertise and deploy it as required. Emerging and Small firms often develop expertise in niche markets or generalists services which can respond to specific project types and situations or maintain limited capacity capable of executing small-to-medium sized projects.

**Small and Remote Authorities:** Small firms can play a vital role in providing generalist services for smaller authorities, but unfortunately in South Africa at the moment very few appointments are being made by these authorities and therefore small firms need to access work from larger authorities in order to survive.

**Continuity of Work:** All firms require continuity of work and reasonable remuneration to grow and develop staff and expertise. The current Government procurement rules and systems mitigate against this with larger firms struggling to retain expertise and small firms struggling to survive in a very competitive and price driven market.

The ideal situation, for a sustainable consulting engineering industry, is one in which a balance of emerging/small-medium and large firms co-exist to meet the needs of the country and to develop and maintain its infrastructure.

### **CESA Position**

**Therefore, CESA advocates the following with regard to the role of emerging/small and large consulting engineering firms:**

Small, medium and micro-enterprises (SMMEs) are diverse and the emerging and small consulting engineering firm are part of this diversity, in that they represent a niche segment that supplies technology-based intellectual services. These firms are managed and owned by Professional Technologists and Engineers registered by the Engineering Council of South Africa (ECSA).

Unlike the general SMME sector, consulting engineering SMMEs employ less staff – about 25% of the industry employees, but are certainly deserve their fair share of work in the delivery of infrastructure.

## **1. What should government do?**

It is in the interests of Government, to ensure the sustainability of its Consulting Engineering Industry including the development of emerging and small consulting engineering firms. In this way Government can anchor local knowledge in the context of global standards to provide significant job opportunities, wealth creation and effective engineering to facilitate the well-being and growth of the country.

CESA proposes the following:

- 1) Review of the primary procurement legislation i.e. the Preferential Procurement Policy Framework Act and its regulations to allow Authorities to set aside up to 25% of their expenditure on Consulting Engineering Services for the development of emerging consulting engineers. Many other countries, such as the US Government, Brazil and India, to name a few, have set-asides for small and micro enterprises (SMEs). This could progressively be evaluated and increased over time, if necessary.

- 2) The revised legislation should also compel large firms to subconsult at least 25% of all prime contracts to emerging and other small consulting engineers.
- 3) On large projects Clients to include in tenders provisional sums for work to be executed by nominated emerging consulting engineers as subconsultants.
- 4) Develop and adopt a strategic policy framework to facilitate the implementation of the emerging consulting engineer's development
- 5) Allow points to be allocated for Price, Quality/Functionality, and Preferencing. The allocation of points for quality and functionality is an absolute necessity to ensure award of services to capable and adequately capacitated firms. Furthermore, the allocation of points for joint ventures with emerging/small firms which will encourage large firms to partner with small firms, thus enhance the participation and development of emerging/small firms.
- 6) All procuring Authorities should be encouraged to establish a register of firms from which they will procure consulting engineering services and to monitor each firm's development through the register. The CIDB should be mandated to assist with this process.
- 7) Government should review its procurement processes of Consulting Engineering services along the lines being proposed by CESA.
- 8) To guarantee success in the development of emerging and small consulting engineers, Government should improve transparency in the whole procurement cycle. This should include setting-up an e-procurement portal to enhance transparency, efficiency and access to tenders by emerging firms as established in Chile.
- 9) To develop and implement clear criteria to prohibit and investigate fronting and impose tough sanction on offenders
- 10) To provide CESA or other professional representative bodies with information for tenders received and tenders awarded to track access to work
- 11) Government should make payment to service providers within the 30 day payment period as specified by the Public Finance Management Act (PFMA), Act 1 of 1999

## 2. What should small firms do?

Emerging consulting engineers play a significant role in the infrastructure delivery. A considerable number of emerging and small firms in South Africa are capable of providing consulting engineering services for small-to-medium consulting engineering assignments comparable to that provided by large firms.

CESA proposes that emerging and small firms:

- 1) **Develop viable business strategies** - The emerging/small consulting engineering firms need to implement viable business and growth strategies to be more active in all phases of the project cycle, from inception through to operation and maintenance, and to address opportunities in sustainable development, if they are to respond to client needs.
- 2) **Expand their skills and experience** - to ensure global quality at the local level, the firms will have to expand their skills and experience in a generally difficult

business environment. Meeting the challenge will be risky, but hopefully rewarding.

- 3) **Market to Larger Firms:** emerging and other small engineering firms should market themselves to large firms as a possible client and pursue opportunities to partner on projects beyond their reach in order to complement and enhance their skill sets and expertise. This is recommended because construction projects in the government and private sector spheres are increasing in size and complexity and are often out of reach of many small and mid-size consulting engineering firms.
- 4) **Private Sector Market:** Emerging and other small engineering firms should market themselves to the private sector as well as the public sector. The private sector is often neglected as a potential opportunity.
- 5) **Collaborate with other emerging and small firms:** to enhance their capabilities and strengthen competitiveness, small engineering firms should partner with other emerging and small firms. And in order to obtain the necessary, “critical mass” to be able to successfully respond to the larger and more complex projects.
- 6) **Mergers and acquisitions,** Generalist small firms should grow through mergers and acquisitions to provide better capacity with demonstrable capabilities and experience to minimise risk for clients
- 7) **Capture niche market.** Alternatively, small consulting engineering firms should stay small and develop a niche capacity to offer value at high level, for their clients.

### 3. What should large firms do?

The 21<sup>st</sup> century projects are often large, integrated and complex to the extent that only large firms can provide the necessary services in a cost-effective manner.

CESA proposes that:

In addition to their extending established technological skills into new areas, and by successfully expanding their resource base by integrating increasingly more specialised staff into multidisciplinary teams, large firm should voluntarily enter into long-term joint ventures, partnership and sub consultancy agreements with small consulting engineering firms, preferably those that are members of CESA.

### Conclusions

Whilst acknowledging that the market forces and globalisation will drive consolidation of the large firms and fragmentation of small firms, CESA supports the notion that the development of the Consulting Engineering Industry includes paying particular attention to the development of emerging and small consulting engineering firms. The provision is that it is done in a manner that ensures the development of sustainable local engineering expertise and their meaningful contribution towards accelerating infrastructure delivery in South Africa.

Thus, CESA is calling on stakeholders described above to consider the above recommendations, improve them if necessary to ensure a win-win outcome, and finally to implement, monitor and measure the outcomes.

## **Recommendation**

It is recommended that:

- 1) CESA draft and adopt a strategic Policy Framework for the implementation of a development programme for emerging and small consulting engineering firms. This should include a database of emerging firms together with an exit plan for these firms to “graduate” from the development programme.
- 2) The programme should be established by CESA in addition to, yet supporting, the B-BBEE element of enterprise development.
- 3) It further recommended that CESA embark on an advocacy and communication campaign to create awareness among members and clients of the need and the means to target SME sector so as to allow access to projects hitherto denied to the sector.