The South African Consulting Engineering Industry

Presenting and interpretation of latest survey results:
July – December 2016

Presented by Elsie Snyman
21 June 2017
Industry Insight

- In operation since 2002
- Construction Business Intelligence to a wide range of stakeholders including government, manufacturers, suppliers and contractors
- Contracted by CESA
- Objective, Unbiased and Independent view of survey results
- Not engineering professionals
Purpose of the survey

- Quantitative as well as Qualitative monitoring of key set of indicators affecting the consulting engineering profession
- Leading indicator for the construction industry, affecting the outlook for contracting fraternity and downstream suppliers
- Shapes the outlook for future Economic Infrastructure
- Has a large multiplier effect on the development of infrastructure and therefore also employment
Bi-Annual Survey
Established in 1997

Quantitative
- Fee earnings
- Profitability
- Payments
- Employment (Change & Profile (Gender and Race))
- Capacity Utilisation
- Profile (Geographic, Client, Disciplines and Economic Sector)
- Financial Benchmarking Indicators focussed primarily on larger enterprises

Qualitative
- Opinion based
- Monitor opinions of firms regarding current and expected business conditions
- Confidence Levels
- Perceptions of profitability, earnings
- Changes in employment
July – December 2016
Survey Scope and Profile

Employment
6000 (25% of total)

Fee earnings
(6 month period)
R2,5bn (20% of total)

Respondents
63

Weighted
Real fee earnings fall 5.2 percent y-y in last six months of 2016
Real earnings fell by an average of 2.9% y-y in 2016, following a decrease of 0.7% in 2015.

Average growth 2004 – 2009: 22%
Average growth since 2009: 1.8%
Earnings in South Africa rise by 8% in last six months of 2016 vs a 45% contraction in cross border earnings

Contribution of EX-RSA earnings slowed to 15% from 25% in 2015

- Growth in Africa constrained by lower economic growth and weak commodity prices

[Graph showing earnings comparison between RSA and EX-RSA from Dec-98 to Dec-16]
Strong relationship between Consulting Engineering Fee earnings and GFCF

Consulting Engineering Profession in SA vs GFCF Construction works
Rand billions (Real 2010 ricles)

Source: SARB, CESA
Weaker economic growth outlook combined with low investor confidence dampens GFCF growth outlook

GFCF Growth – Then and Now

Source: National Treasury

Avg real growth of 2%
Engineering firms **outsource** for various reasons including:

- **External business enterprises or individuals** including sub-consultants, JV’s and contract workers **17.6%**
- **To satisfy public sector / transformational requirements** as laid down by public sector clients **25.3%**
- **Black owned enterprises** **24.9%**
On average firms outsource a higher percentage of turnover due to procurement and transformation requirements…
Outlook on profitability has been largely negative since 2009, and although the nett satisfaction rate remains negative, there has been some improvement, although margins remain below historical levels.

- Majority of firms expect profit margins to stabilise (56 percent), vs 25% improve and 15 percent recede
- 57% of firms are satisfied with current levels of profitability vs 60% in the previous survey
Profitability slows to 11% in last six months of 2016 (13% for 2016) from an average of 16.1% in 2015 (13% 2014)
Salary and wages represent 66% of earnings in the current survey (Average 2015: 64.5%)
Employment contracted by 3% in H2 2016, 4% lower compared to same period in 2015, alongside weaker earnings on average during 2016.
Slight improvement to 44 percent (from 32 percent in H1 2016) of firms looking to employ engineers.
Employment profile by Gender

**Gender representation**

**Total Employment**
- Male: 32%
- Female: 68%

13% of total

**Professional Engineers**
- Male: 94%
- Female: 6%
Employment Profile by Race

Total Employment

- Black: 51%
- Coloured: 33%
- Asian: 7%
- White: 9%

Professional Engineers

- Black: 87%
- Coloured: 6%
- Asian: 3%
- White: 4%
Women Engineering Profile

- Women % of total Engineers
- Black Women % of total women
Earnings by Sector | Percentage contribution

<table>
<thead>
<tr>
<th>Sector</th>
<th>Avg 2014/2015</th>
<th>Dec-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>5%</td>
<td>8.2%</td>
</tr>
<tr>
<td>Agriculture / Forestry / Fishing</td>
<td>1.1%</td>
<td>1%</td>
</tr>
<tr>
<td>Commercial</td>
<td></td>
<td>19%</td>
</tr>
<tr>
<td>Housing (residential inc. land)</td>
<td>6%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Tourism/Leisure</td>
<td>0.5%</td>
<td>0%</td>
</tr>
<tr>
<td>Health</td>
<td>1.6%</td>
<td>1%</td>
</tr>
<tr>
<td>Education</td>
<td>1.5%</td>
<td>1%</td>
</tr>
<tr>
<td>Mining / Quarrying</td>
<td>4.2%</td>
<td>5%</td>
</tr>
<tr>
<td>Energy (electricity, gas, hydro)</td>
<td>5%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Transportation (land, air, road, rail, ports)</td>
<td>16.5%</td>
<td>20%</td>
</tr>
<tr>
<td>Water (Full water cycle)</td>
<td></td>
<td>19%</td>
</tr>
</tbody>
</table>

Water (Full water cycle): 16.5% (Avg 2014/2015), 20% (Dec-16)
Transport accounted for 36% of earnings in last six months of 2016 – the highest contribution since 2010 (from 33% in H1, 28% in 2014, 27.6% in 2015, 27.8% 2-year average)

- Transnet Allocations over State Capture and allegations of tender irregularities
- PRASA Tender irregularities
- Flat real growth in 2017 Transport infrastructure budget, focussed primarily on Dept of Transport. Less spending from SOE’s
- SANRAL e-toll debacle continues – Downgraded in June 2017
Flat real growth on average over MTEF period, following -2.8% in 2016 Budget

Transport Infrastructure Expenditure Estimates
Then and Now

Source: National Treasury
Commercial sector accounted for 19% of earnings in first six months of 2016  
(from 24% in 2014, 24.6% in 2015, 24.3% 2-year average)

- Higher levels of investment in owner-occupied developments, offices and mixed use developments  
  • Old Mutual Head office, PWC head office, 140 West Street, Silo no 5 (Water front), KPMG offices

- Retail development, extensions  
  • Extensions to Balito Junction, Extension to Fourways mall, Springs Mall, Thavhani mall, Kyalami corner, Botshabelo shopping centre, Redevelopment of Village Walk shopping centre, Cornubia Mall, Whale Coast Shopping centre…
Business confidence remains weak and deteriorated to 38 in 2016Q4 before recovering to 40 in Q1.

Source: FNB
Initiatives to engage with and encourage investment with the private sector?

“To grow faster, the economy needs higher levels of private sector investment”

Pravin Gordhan October 2016

Government’s plan to restore confidence:

- Finalising a regulatory framework for private-sector participation in infrastructure projects, including initiatives in partnerships with SOE’s
- Addressing legislative and regulatory uncertainties that hold back investment in mining, agriculture and key technology sectors
- Rationalising, closing or selling off public assets that are no longer relevant to government’s development agenda
- Concluding labour market reforms

IMF highlights political instability/concerns as key growth constraints
Non-Residential SQM approved
Down 11% y-y (MAT, Mar’17)

Source: Stats SA
Sharp declines in office and retail space, suggesting further contraction in private sector commercial pipeline projects.

SQM approved Private Sector Non-residential projects

Office Space: Y-Y % Change (MAT) -70%

Retail: Y-Y % Change (MAT) -60%

Industrial: Y-Y % Change (MAT) -50%

Renovations: Y-Y % Change (MAT) -40%

Source: Stats SA
Non-Residential SQM approved
Down 11% y-y (MAT, Mar’17)

Source: Stats SA
Water accounted for 20% of earnings in last months of 2016 (avg 19% 2016) (from 14% in 2014, 17.2% in 2015, 16.5% 2-year average)

- Earnings nearly doubled since 2010 to R2bn
- Expenditure on Water & Sanitation projected to increase by 6.5% (nominal) over MTEF period, from an average growth of 10% in the 2016 Budget
- Avg spending of R40bn / year
- ACID Mine Drainage (R1.1bn – R1.5bn/annum)
- WATER CRISIS LOOMING – Required spending R300bn in 4 years (ActionAid South Africa Review), predict a 2 million cubic litre shortfall by 2025
- Demand side management, improve efficiency in usage, reduce wastage
## Water infrastructure budget allocations, FEASIBILITY STAGE (Rm)

<table>
<thead>
<tr>
<th></th>
<th>2013 Budget</th>
<th>2014 Budget</th>
<th>2015 Budget</th>
<th>2016 Budget</th>
<th>2017 Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feasibility</td>
<td>23,745</td>
<td>45,770</td>
<td>32,736</td>
<td>23,990.3</td>
<td>37,941</td>
</tr>
</tbody>
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### Notes
- Budget allocations are shown in Rm (Rand) for each year from 2013 to 2017.
- The chart visually represents the budget allocations for the feasibility stage.
Water & Sanitation Total Public sector Infrastructure: R125bn (MTEF)
Average growth of 6.5%

Dept of Water & Sanitation Infrastructure Allocations
(including transfers to SOE's)

Government spending 28% of total expenditure on Water (including SOE's) or R35bn of the total projected R125bn Rand Water / TCTA / Umgeni Water...)

Source: National Treasury
The troubled department has failed to pay contractors for months. The bankrupt water and sanitation department is deep in the red and has been called to account for millions spent in wasteful expenditure by parliament’s standing committee on public accounts. In April it was reported how Minister Nomvula Mokonyane’s portfolio was slapped on the wrist by Treasury for going bankrupt. The Water Trading Entity (WTE), which falls under the department, was responsible for several high-level projects, including the Lesotho Highlands Water project. It had been bleeding millions and operating at a loss.
The procurement practices of Rand Water have come under a harsh spotlight after the High Court in Johannesburg interdicted a R168-million tender for steel pipes. The judgement found that Rand Water brushed aside a lower bid that would have saved the parastatal millions of rands.

The excuse used by Rand Water was a policy called the “financial tolerance principle” (FTP), which the utility claimed entitled it automatically to disqualify bids of more than 25% below its own estimate of the contract price.

Philani Mavundla (part of joint venture and associate of Zuma) awarded a R1bn contract by TCTA to construct an acid mine drainage plant in Springs. JV was paid an advance of R81m before construction began – something that is forbidden by the Public Finance Management Act.
Umgeni Water chief exec suspended over corruption allegations
2017-06-14 14:20
Kaveel Singh, News24

Durban – Umgeni Water Chief Executive Cyril Gamede has been suspended from his post pending an investigation into corruption allegations, an official confirmed on Wednesday.

“Yesterday [Tuesday] the board served a letter of precautionary suspension on the chief executive of Umgeni Water Cyril Gamede. This was done to ensure the investigation is conducted without any hindrance at all,” Umgeni Water spokesperson Shami Harichunder said.

Gamede, who has headed up Umgeni Water for nearly five years, was suspended during an urgent board meeting in Pietermaritzburg on Tuesday.

Harichunder said an anonymous email alleging Gamede was corrupt circulated to a number of key stakeholders.

“Around a week ago an anonymous letter...
Government’s role in water infrastructure
Increased focus on water boards - Will tariff increases / borrowing be sufficient?

Government share of Total Water & Sanitation Infrastructure

<table>
<thead>
<tr>
<th>Year</th>
<th>% of Total Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010/11</td>
<td>24.4%</td>
</tr>
<tr>
<td>2011/12</td>
<td>18.6%</td>
</tr>
<tr>
<td>2012/13</td>
<td>25.3%</td>
</tr>
<tr>
<td>2013/14</td>
<td>22.0%</td>
</tr>
<tr>
<td>2014/15</td>
<td>23.1%</td>
</tr>
<tr>
<td>2015/16</td>
<td>28.4%</td>
</tr>
<tr>
<td>2016/17</td>
<td>28.7%</td>
</tr>
<tr>
<td>2017/18</td>
<td>28.7%</td>
</tr>
<tr>
<td>2018/19</td>
<td>30.4%</td>
</tr>
<tr>
<td>2019/20</td>
<td>29.5%</td>
</tr>
</tbody>
</table>

Source: National Treasury
Energy accounted for 5% of earnings in last six months of 2016 (avg 5.2% 2016) (from 7% in 2014, 5.6% in 2015, 6.3% 2-year average)

- Expenditure on Energy projected to decrease by 0.1% (2017 MTEF) from an increase of 10% (2016 MTEF)
- Finalisation of Medupi and Kusile
- Eskom looking for 20% tariff increase – 7 years to get back to financial stability
- Uncertainty in Renewable energy
- Diverse Energy Mix
- Nuclear
  - Zuma’s top priority
  - New Cluster (Rosatom)
Housing accounted for 6% of earnings in last six months of 2016 (avg 7% 2016)
(from 6% in 2014, 9.8% in 2015, 8.0% 2-year average)

- Supported by higher levels of investment in large scale mixed-use developments
  - Moffat park South Hills
  - Savanna City
  - Jackal Creek
  - Steyn City
  - Cornubia

- Continued support for mega city, “catalytic” developments (Department of Human Settlement)

- Private housing supported by listing of residential property funds amidst growing housing shortage
  - Indulplace Properties – first to list
  - Balwin Properties – strong pipeline in the next five years, aims to be the largest fund on the JSE with market cap of R10bn (currently R3.3bn)
Welcome increase in approvals for private sector flats / townhouses up% y-y in 12 months up to March 2017

Flats / Townhouses: SQM Approved
MAT Y-Y percentage change

Flats / Townhouses contribute around 20% of total private sector residential approvals

Source: Stats SA
Mining accounted for 5% of earnings in last six months of 2016 (avg 6% 2016) (from 5% in 2014, 4% in 2015, 4% 2-year average)

- Lower commodity prices
- Ongoing labour unrest
- Power shortages
- Water Resources
- Mining Charter?
- SA’s contribution to global gold production expected to fall to below 5% by 2020
Disconnect between GDP growth and Infrastructure Allocations

Public Sector Infrastructure Estimates (MTEF Total) vs Average projected GDP growth

- GDP Average: 0.0%, 0.5%, 1.0%, 1.5%, 2.0%, 2.5%, 3.0%, 3.5%, 4.0%, 4.5%
- Infrastructure Total
- GDP Avg

CESA: Consulting Engineers South Africa
Earnings contribution by Client Type

Client Contribution

- Central: 10%
- Provincial: 14%
- Local: 25%
- Parastatals: 18%
- Private: 33%

Total Client Contribution: 67%

Year: H1 2016
Local government remains largest public sector client while contribution by Parastatals gradually increase.
Increasing number of firms (52%) reported higher levels of fierce competition, increasing the discount rates to an average of 30%.
Firms slightly more optimistic regarding improved capacity utilisation, while levels slow to 82.5 percent

[Chart showing capacity utilisation and % increase over time]
Payment outstanding for longer than 90 days moderated slightly to 23% in last six months of 2016 from 25% in H1 2016.

Situation worsened by diminished profitability.
Draft prompt payment regulations are delayed by the CIDB Act which doesn’t make provision for regulations to be enforced. Dept of Public Works is currently preparing draft changes to the Act which will then provide Regulations to be issued.
Consulting Engineers outlook suggest further pressure on the construction industry

Source: FNB, SAFCEC, CESA
Key Challenges

- More emphasis on localisation of professional services to mitigate foreign competition
- Lack of a definitive project pipeline (NDP?)
- Weak private sector confidence
- Procurement
  - Greater transparency in procurement process
  - Standardisation of procurement procedures
  - Procurement on price and BBBEEE, with little or no regard to functionality, quality, qualifications, experience, capability and/or innovation.
- Complexities around BBBEEE requirements, difficult to comply due to shortage of skills
- Quality of Client’s technical personnel – skills shortages regarded as one of the most significant institutional challenges (client bodies), also affecting service delivery as municipal level
- Low growth economic environment, project implementation delays, budget cuts on infrastructure allocations
Thank you

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