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# CBE Bulletin



C B E

COUNCIL  
FOR THE BUILT  
ENVIRONMENT

architecture  
engineering  
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project & construction management  
property valuation  
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## Dear Reader

I would like to share an interesting 'Did you know?' moment with you – did you know how many observances in October have a bearing on the built environment?

Here, in South Africa, we observe Breast Cancer month by drawing attention to regular check-ups and preventative measures to combat the cancer. Of great concern is the rising incidents of breast cancer reported in men, breaking the stereotype that only women can fall prey to it. The observance of Transport month compels the built environment sector to focus on transport infrastructure – roads, rail, airports, harbours and the like.

The international observances during October speak for themselves regarding their role in the built environment:

### World Architecture Month

**2 October: World Habitat Day**

**5 October: World Teachers Day**

**11 October: International Day of the Girl Child**

**13 October: International Day for Disaster Reduction**

**15 October: International Day of Rural Women**

**17 October: International Day of Eradication of Poverty**

**31 October: World Cities Day**

Apart from my musings on October month observances, here's what's in store for you in this issue. The feature article is an exciting-overwhelming combo glimpse of the shape of things to come in the near future in the built environment. Stakeholders will be keen to keep updated on the progress of the exemption application on Identification of Work. The South African Council for the Architectural Profession (SACAP) spreads the gospel on utilising architectural professionals registered with the body.

The out-and-about section reminds readers of the SACPCMP conference coming up and BEPEC's Show me the Money workshop.

**Enjoy your read, Evelyn Bramdeow**

*"Be happy in the moment, that's enough. Each moment is all we need, not more." – Mother Teresa*

# Skills within the Built Environment - A Futuristic Paradigm



**Chief Operations Officer, Mr Mokgema Mongane looks through the lens on how the techno wizardry of the Fourth Industrial Revolution may shape the built environment.**

About 4000 years ago, the great Egyptian pyramids were constructed - an arduous, labour intensive undertaking of elephantine proportions. Skills that were required then included quarrying the stone, hauling blocks to the pyramid site and setting the blocks in place with no pulleys, wheels, and iron tools.

Today, many of those quintessential built environment skills have been replaced with machines. In recent years, we have even witnessed the development of numerous brick laying machines that are said to be quicker, and more precise and meticulous than the most adept bricklayers.

As architects, engineers, project construction managers, property valuers, quantity surveyors and landscape architects, we may be flattered to think that our jobs require a higher degree of intelligence, therefore our jobs are altogether safe. However, this may be far off from the truth - as revealed by a new computer program called AlphaGo, designed by Google DeepMind.

AlphaGo specialises in machine learning research and artificial intelligence (AI). It plays the board game Go, which is said to have billions more possible outcomes than chess, making it the most sophisticated strategy game on the planet. Recently, AlphaGo managed to continuously beat and embarrass the best world champions, with unyielding consistency.

Amusingly, we did not programme all past games and rules into this program, as per the traditional approach. AlphaGo was merely shown a number of matches and it managed to deduce the rules of the game by itself. Thereafter, it started playing millions of matches against itself, continuously refining and iteratively learning with every move. The outcome was that it reached an astronomic level of expertise!

It is worth noting that AlphaGo is merely an instance of DeepMind. DeepMind can learn anything and then, in a few months, become better than any human being therein.

So one would imagine that soon, we will be able to create a computer program that will observe a few construction projects throughout the conceptual, design, construction, operation and maintenance phase. It will then deduce all the underlying equations, theories, rules, policies and legislations by itself. Powered by AI, the latest technology will also be able to mine the cloud for any additional information. Thereafter, it will practice by constructing a number of infrastructure projects through an artificial reality (AR) platform and, using a repetitive learning process, it will improve to become infinitely brilliant. In a few months, it will become way better than any built environment professional.

Through machine learning and AI, this program will then produce more appealing aesthetic designs than any architect professional. It will compute structural integrity and produce indestructible structures better than any structural engineer. Through robotics, drones and 3D printing, it will then construct and manage construction projects more comprehensively than any project construction manager on site. Through blockchains, the internet of things and the cloud, it will quantify and even place orders with impeccable precision than the most brilliant quantity surveyor. And lastly, it will value the said property better than the world's most reputable property valuer.

Therefore, as we develop both current and future skills for the built environment, we should give great consideration towards the threats and opportunities presented by these technologies within the 4th Industrial Revolution. Sadly, we are still training people for the 2nd and 3rd Industrial Revolution. In addition, many of the Continuous Professional Development (CPD) seminars and programmes, offered within the built environment space, simply regurgitate what we already know instead of exploring these unknown possibilities and equipping built environment professionals of today with the necessary skills to manoeuvre through these exhilarating times. What we need are professionals with high-level cognitive abilities to adapt and relearn on a continuous basis. Therefore, both academic and CPD programmes should relentlessly strive to achieve excellence through utilising the most updated technology.

# Identification Of Work (IDoW) Update

## Synopsis and contextual background:

CBE is impelled by section 21(2) of The Council for the Built Environment Act, 43 of 2000 (the CBE Act) to identify the scope of work for each category of registered persons. The process is referred to as the identification of work (IDoW) and the scoping of the work is determined after consultation with the Competition Commission (CC) and in consultation with the six Councils for the Built Environment Professions (CBEP).

The objective of the IDoW is to enhance the protection and safety of the public and the environment by ensuring that only persons registered in the relevant category of registration (and thus demonstrated the required competence and academic qualifications), perform work in the built environment or take responsibility for work so performed.

The CC rejected applications of behalf of the CBEP to have identification of work exempted from the provisions of the Competition Act, 89 of 1998. This decision by the CC obliged the CBE and CBEP to reconsider the manner in which work was initially identified for purposes of the mentioned exemption applications.

This update is a CBE endeavour to keep its stakeholders informed on the progress on its engagement with the CC regarding the CBEP' exemption applications.

## 1. PURPOSE

Since the previous update on the IDoW process in June 2018, the CBE received substantive reasons from the CC for its rejection of the application for exemption of IDoW from the provisions of the Competition Act. The CC advised that the substantive reasons provided are uniform for all of the applications.

The purpose of this update is to:

- I. provide a summary of the CC's reasons,
- II. propose a way forward on the process, and
- III. invite input from stakeholders.

## 2. THE APPLICATION CONTAINED THE SUBSTANTIVE REASONS

The CC found that the application embodied the following rules:

- Mandatory registration of all individuals undertaking said work (regulation of practice)
- Identification of work for the different categories of registration
- Identification of work for the different disciplines of practice.

## 3. A SUMMARY OF THE CC'S REASONS FOR REJECTING THE IDoW EXEMPTION APPLICATION

### a. The reasons

The CBE submitted applications for exemption on behalf of all six councils for the built environment. One application (that of SACAP) was withdrawn before the CC ruled on it. As indicated above, the CC advised that the reasons for rejection will be substantially the same for all applications.

The CC found that the IDoW, in its current form, is likely to harm competition in the following ways:

1. Restriction of competition between registered and unregistered professionals.
2. Restriction of competition between professionals registered with the different councils for the built environment (BE) professions.
3. Restriction of competition between professionals registered with a professional council within the built environment and professionals registered outside the built environment.
4. Restriction of competition between professionals registered with the same professional council, but in different categories.

### b. The theory of harm

Competition authorities approach a competition concern by focussing on articulating the theory of harm behind such concern. The requirement to present a theory of harm imposes a logically consistent approach to the assessment of anti-competitive behaviour (Zenger, H & Walker, M: THEORIES OF HARM IN EUROPEAN COMPETITION LAW: A PROGRESS REPORT).

The CC identified the theory of harm with regard to the identification of work exemption applications submitted to it to potentially result in the:

- (1) reduction in the number of service providers in the market,
- (2) likelihood of higher prices, and
- (3) limited choice to consumers.

### **c. The investigative approach and outcome**

The Competition Act requires of the CC to follow a two-step approach; Step 1: An assessment of whether the IDoW is likely to result in a substantial lessening or prevention of competition, and if so, Step 2: An assessment of whether the IDoW is required to maintain professional standards or ordinary function of the built environment professions. The CC found evidence of compliance with Step 1. With regard to Step 2 the CC found that:

1. In the case of BE professions (engineering for instance), there are other regulations or legislations in the professional sector that are aimed to cater for public health, safety and financial risks associated with engineering work (e.g. the National Building regulations, Mine Health and Safety Act and Electrical Installation Regulations).
2. There is insufficient evidence of incidents/accidents resulting from the incompetence of unregistered persons.

### **d. International best practice**

The CC found that the regulation of built environment professions in a number of countries involves either the protection of title or the protection of the practice of that profession, or both (i.e. total regulation). The CC concluded that the CBE opted for the most comprehensive approach, namely the total regulation (regulation of title, practice and the identification of work). In the countries included in the CC's benchmarking sample, only Nigeria identifies work to a similar extent.

### **e. Other considerations**

#### **1. RESOURCE CONSTRAINTS**

The CC found that the sector in question viz. the built environment is already experiencing resource restraints, and that any regulation that causes further strain to the resources in the sector is unwarranted.

#### **2. LACK OF CONSENSUS**

The CC found a lack of consensus between registered persons within the said professions regarding the exemption application. Professionals registered in the "highest" category were largely in favour of the exemption application, whilst professional technologists were opposed to it.

### **f. Less harmful methods proposed**

The CC concluded that the proposed IDoW is exclusionary and will impact negatively on both registered and unregistered engineering professionals.

The CC recommended that less exclusionary regulatory methods in line with international best practice, such as the protection of titles, be considered.

## **4. THE WAY FORWARD**

The CBE noted the CC's concerns on the exemption application. The CBE's statutory mandate is to, after consultation with the CC, and in consultation with the councils for the professions, identify the scope of work for each category of registered persons [section 20(2) of the CBE Act].

The CBE has interpreted the scope of work to mean "... the range of work performed by a registered person in terms of a specific piece of legislation other than the legislation that created the councils for the professions, or the statutory duties which may be performed by a registered person."

The CBE would therefore, within the definition of scope of work, identify such scopes for each category of registered persons with due consideration of the CC's findings and recommendations.

## **5. INPUT INVITED**

The above information is intended to highlight the CC's essential concerns. Stakeholders are invited to input on the matter. Without limiting inputs, comments on the following will be specifically appreciated:

1. Proposed different regulatory approaches that can ensure persons undertaking built environment work are competent and accountable without unfairly restricting competition.
2. With regard to above, the possibility of self-regulation of the professions, or a combination of self-regulation and government regulation through an agency.
3. The protection of titles, as the only regulatory method or in combination with other measures.

Input must be sent to [pieter@cbe.org.za](mailto:pieter@cbe.org.za) or [sihle@cbe.org.za](mailto:sihle@cbe.org.za).

# More convictions needed against fake Architectural Professionals



South African Council  
for the Architectural Profession

**A**s South Africa joins the rest of the world in celebrating October as World Architecture Month, the South African Council for the Architectural Profession (SACAP) has called on law enforcement agencies to come down harder on fake Architectural Professionals and those practicing without permission.

This as the number of complaints from the public against persons who pass themselves as registered persons continues to rise annually.

“In the last financial year, we received and processed some 147 complaints from the public. That was from the 118 complaints recorded in 2016/17 and 108 complaints received in the 2015/16 financial year,” said Advocate Toto Fiduli, the acting SACAP Registrar.

Shockingly, of the 162 cases reported to the South African Police Service in the last three financial years, only one matter was successfully prosecuted.

The grievances about Architectural Professionals affect both registered and unregistered Architectural Professionals ranging from Professional Architects, Professional Senior Architectural Technologists, Professional Architectural Technologists, Professional Architectural Draughtspersons, Candidate Architects, Candidate Senior Architectural Technologists, Candidate Architectural Technologists and Candidate Architectural Draughtspersons.

“SACAP has been inundated with complaints from a number of Architectural Professionals that there are persons who are fraudulently using their registration numbers to submit plans at the local municipality for approval. In addition, we have received numerous complaints from the public against persons who pass themselves as registered persons when they are not registered,” added Advocate Fiduli.

“As a result of the above concerns, SACAP undertook an extensive stakeholder engagement with Local Authorities where municipalities have agreed, in principle, to work with SACAP to ensure that only persons who are registered submit building plan applications for approval”, Advocate Fiduli said.

On Friday 12 October SACAP hosted a workshop on the Rules of Professional Conduct with Architectural Professionals in the Mahikeng Local Municipality in the North West Province. Many of the attendees called for more interactions with the regulatory body for architectural professionals to help overcome many of the challenges they faced in the province.

However, SACAP has also made a call to law enforcement agencies to take complaints against those who take on Architectural work without registering with the Council to be given harsh sentences so that such behaviour is discouraged.

“Our challenge is that many law enforcement officials do not understand that it is actually a crime to work as an Architectural Professional when not qualified nor registered to do so – some ask members of the public to open civil cases against those who take them for a ride. This should not be the case as Section 41 of the Architectural Profession Act makes it a criminal offence for one to pretend to be an Architectural Professional while not registered,” Advocate Fiduli said. SACAP is also urging Local Authorities to check the status of those submitting building application plans by visiting its website [www.sacapsa.com](http://www.sacapsa.com) or call on 011 479 5000.

“We call on law enforcement agencies to take these matters seriously and not wait until there are serious repercussions – which could result in injury or even death – before they act,” the acting Registrar said.

# Out-and-about



*The DPW Communicators Forum embarked on a schedule of networking exercises with media houses. Part of the contingent who visited Media 24 on 18 October 2018 were from left to right: Motlhabane Skade (DPW National), Phasha Makgolane (IDT), Evelyn Bramdeow (CBE), Pearl Nicodemus (DPW National), Bukiwe Mgobozi (DPW National), Lulu Dube (CBE), Catherine Morgan (Agrément SA).*

# SACPCMP 6th Project and Construction Management Professions Conference



**29 - 31 October 2018**  
**Gallagher Convention Centre, Midrand**



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# Show me the money

## BEPEC SHOW ME THE MONEY & PROJECTS WORKSHOP

Tuesday, 6th November 2018 (Wednesday)



Proposed Speaker Line-Up <i>(Subject to change):</i>		
Time	Item	Speaker
08:00-08:50	Arrival and Registrations	All
08:50-09:05	Welcoming and BEPEC Introduction to companies	Mr. Con Korsten- BEPEC CEO
09:05-09:40	Presentation: <b>De-risking Projects and the Value of a Transaction Advisor</b>	Mr. Taona Kokera – MAZAR's Associate Director
09:40-10:15	Presentation: <b>Export Financial value proposition</b>	Mr. Zuko Mdandalaza – ECIC Deal Originator Business
10:15-10:50	Presentation: <b>Impact through intervention</b>	Mr. Adriaan Grobler – Lithon's Executive Chairman
10:50-11:10	<b>TEA AND COFFEE BREAK</b>	
11:10-11:45	Presentation: <b>Export Credit Finance Offering</b>	Mr. Craig Weitz- Nedbank's CIB Division
11:45-12:20	Presentation: <b>TBC</b>	Mr. Stefan Bolling – DBSA Senior Investment Officer
12:20-12:50	Presentation: <b>DTI's upcoming OTIM to Cabo Delgado &amp; Maputo provinces in Mozambique</b>	Mr. Adrian Adams - TISA Deputy Director
12:50-13:00	Closing from BEPEC and Q & A	Mr Con Korsten- BEPEC CEO



# Booking Form 2018 Workshops

**Member: R500 (Also applies to affiliation with the below marked councils)**

**Non-Member: R1300**

Please indicate which event you would like to attend by a tick (✓) against the date.		
Date:	Venue:	Event:
Tuesday 6 <sup>th</sup> November	<b>Lynwood Conference</b>	Show me the Money Workshop & Projects
DELEGATE'S DETAILS		
Designation:		
First Name (As per ID):		
Surname:		
Company HR Contact:		
Delegate's E-mail Address		
Delegate's Cell Phone Number		
Office Use: COMPANY DETAILS		
Company Name		
Postal Address		
VAT Number		
Accounts Contact		

**Please return booking to [sarah@bepec.co.za](mailto:sarah@bepec.co.za).**

**If you have any questions Sarah can be contacted on 012 362 0522.**

**Seats reserved after completion of booking form.**

FOR OFFICE USE		
<b>Date :</b>	<b>Confirmation received:</b> Yes / No	<b>VA:</b>