EDITOR’S NOTE

Hard though it is to believe, another speeding decade in our busy lives is about to screech to a halt. Amid the gloom of downgradings, a weak economy and mounting unemployment that has dogged us and nipped at the heels of business progress through the years, South Africa is a country of hope and its people weather storms well. The fact that we are still basking in the green and gold glow of the Springboks’ triumph has certainly helped to lift the mood of late.

That the decade ends on a sporty note is fitting, as it started with the Soccer World Cup. Who can forget the tournament’s first goal by Siphiwe Tshabalala?

We may not have an event of similar stature to look forward to in 2020, but there are signs that we may be heading for a slight economic upturn, with reports that for the first time since 2017, companies are starting to invest in the local economy, spurred by the number of independent power producers projects starting construction.

At the second South African Investment Conference, President Cyril Ramaphosa secured pledges worth R370 billion from multinational and local businesses to revive our hibernating economy.

There is also good news from the Minister of Public Works and Infrastructure Patricia de Lille, who has committed, with her sister departments, to keep up construction momentum by building new schools, social facilities and clinics, which will result in job opportunities, human capital development and skills development.

This is promising for companies registered with the cidb, which can compete for new contracts that will grow and enhance their businesses. On that note, the new tender value limits are in play, giving contractors a long-awaited opportunity to take their businesses to the next level.

That the cidb will close its second decade with a strong direction and foundation to take it into the 2020s is evident in other areas, too. The Register of Contractors is moving with the times, with the new online system that, although in its infancy, has great promise.

We have also resolved one of the major sticking points for the industry, the duplication and contradictions of the procurement guidelines by the cidb and National Treasury. You can read about all these developments in this issue.
Views expressed in this newsletter, particularly in articles that profile other industry bodies and independent companies, do not necessarily reflect the views of cidb. We do, however, see them as an opportunity to spur constructive debate. Thus we welcome your comments on any article in our publication. Likewise, if you would like us to cover a particular issue, please let us know.

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The edition also touches on the implications of the fourth industrial revolution and reviews the recent WorldSkills competition, which brought more than 1 500 aspirant artisans to Kazan, Russia, including three supported by the cidb to build, plumb and electrically install their way into the skills record books.

As we wind down to the festive season, the cidb team wishes all its colleagues, partners and friends a restful and relaxing break. Wherever the road takes you this holiday, please go easy on the accelerator and be alert to all that is happening around you.

At this time of the year, particularly, it is worth remembering that the only race we are in is the human race and we should all make sure we stay around to enjoy it.

The cidb team will take a break from 20 December 2019 and will be back on 6 January 2020 to welcome you into an exciting and, hopefully, prosperous new decade.

The Editor
Wow, thank you’ and ‘Wow, finally’ were typical of the Facebook comments that greeted the announcement that the cidb had breathed new life into its Register of Contractors registration procedures by taking them live.

The button was pushed on the system’s elevation into the electronic era on 1 August and within two months, thousands of Grade 1 contractors had sampled the offer and, for the most part, been rewarded with quick and efficient service.

From 48 hours to mere seconds – that’s the time saved on each application and it translates also into a drop in frustration associated with time-consuming manual processes and brings broader customer smiles.

“Our contractors are quickly becoming familiar with the system and recognising its advantages,’ says the cidb’s Registrations Manager, Enoch Masibi. ‘Whereas before, they would have had to travel to our provincial centres and wait in a queue to file a manual submission, then wait for about two days for it to be activated, they can now do everything without leaving their home, by just using their phone or computer.’

By 31 October, 5 119 applications had been created online, Enoch adds. Of these, 2 870 were successfully activated, 915 were still awaiting activation pending payment and 1 334 were cancelled due to insufficient payment.

The online system not only allows new contractors to register, but is available to existing cidb affiliates to complete their three-year renewal applications and update their details. Although the service is restricted for now to Grade 1 registrations, grades 2 to 9 contractors may use it to complete their annual renewals.

To register online, Enoch stresses, contractors must be tax compliant, on National Treasury’s Central Supplier Database, own a valid and active email address, and have an active bank account containing funds and linked to a debit or credit card.
Higher grades will be able to register on the system during the second phase of the project, which is currently under construction. As with most innovations, glitches and gremlins pop up particularly in the early stages, but the cidb is hard at work to resolve these to improve everyone’s online experience.

‘We have had some online payment issues, which our service provider is currently resolving,’ Enoch explains. ‘In the meantime, we’re asking affected contractors to complete electronic funds transfers and send us proof of payment so that we can activate their registrations from our offices.

‘Those who experience delays in payments going through should cancel their applications and repeat the entire process from the start.’

Currently, about 30 applications are moving effortlessly and smoothly through the system every day and the cidb expects this to grow to as many as 100 a day in the coming months.

Online registration, which takes the cidb a step deeper into the fourth industrial revolution, will become second nature in due course, much like smartphone digital capabilities, which were science babble a decade ago but are now indispensable conveniences.

The system is the latest milestone on the road to modernise and enhance the Register of Contractors, a process that will ultimately include a thorough review of registration criteria and the fee structure, consideration of entry requirements for Grade 1 contractors and assessment of joint venture registration provisions.
SKILLED SHOWING FOR LOCAL ARTISANS IN KAZAN

South Africa is finding its competition feet if the results of WorldSkills 2019 are an indication. This skills extravaganza, in Kazan, Russia, brought to the fore artisanal abilities from across the globe, as teams from 63 countries armed themselves with the tools of their trades, whether hammers and trowels or hairdryers and towels, to show what they could achieve under the critical stare of spectators and the laser-sharp gaze of the judges.

This year, South Africa sent a team of 23, who joined 1,331 other youngsters competing in 56 disciplines. The team finished a commendable 29th overall.

Bricklaying contender, Mncedisi Mkhaliphi, stacked up an encouraging 639 points, 55 more than the country achieved in the event in 2017 in Abu Dhabi. It was a proud moment for the cidb, which had supported Mncedisi through his move from regional competition in Mpumalanga to becoming national winner holding a passport to Russia.

The improvement in score can be attributed to greater understanding of the competition, which resulted in better preparation and support for the competitor, says the cidb’s Project Manager: Construction Industry Performance, Pranveer Harriparsadh.

‘It is only the second year that the country has competed in the bricklaying discipline and there is still a long way to go, but we are up against the best – youngsters who are well into their training way before our youth have even thought about specialising in a particular skill.’

During 2019, the cidb lent its support to ‘electrical installations’ and ‘plumbing and heating’, seeing contestants Philiile Mngadi and Keagan Lucas through to Kazan, where they ended their gruelling sessions on 678 and 653 points respectively, both also topping the scores of their 2017 counterparts.

It was the first international competition experience for Sedibeng TVET College lecturer, Nkateko Marvelous Manzini, part of the cidb delegation, who was one of the educators instrumental in preparing the local youngsters for the event. ‘I was very impressed with what I saw in Russia,’ he says. ‘We definitely have to improve our competitiveness, but we are heading in the right direction.’

Pranveer and Marvelous agree that identifying potential early is a must. ‘Most WorldSkills contestants train for about four years to improve their speed,’ Pranveer explains.
As minds focus on Shanghai, China, the host for WorldSkills 2021, the cidb will get as many colleges on board as possible and recruit industry partners to raise the standard of teaching and learning in the construction trades.

‘Colleges are beginning to invest more in equipment and include competition-related skills in their courses, which is most encouraging,’ says Pranveer. ‘We would like to see a move beyond current conformity to curricula that are more innovative and responsive to technological advancement, and we hope that when the curriculum comes up for review there will be a critical mass of colleges that will support the inclusion of cutting and artistic brickwork in their syllabi.’

The cidb is also investigating with prospective partners a sustained competitor pipeline to identify candidates at technical high school. In the meantime, Marvelous has his 2021 WorldSkills hopefuls top of mind.

‘We will tackle more complex projects and I will encourage my students to think through steps to overcome possible challenges before starting the work,’ he states. ‘We also need to improve our competition-readiness by mastering skills such as composure, decision-making and, crucially, speed and accuracy.’

‘We also need to expose our youngsters to more competitions of WorldSkills magnitude to help them manage their nerves and the psychological toll.’

South African bricklaying champion, Mncedisi Mkhaliphi, stacks up the points in Kazan.
CONCRETE
Contractors recently let out a collective sigh of tender value relief after an extended period of holding their breath. The long-overdue adjustments to the contract tender value ranges were announced in August 2019.

This followed consultation between the Minister of Public Works and Infrastructure and construction industry stakeholders to iron out the adjustments. The new limits kicked in on 7 October, adjusting all grades on the cidb Register of Contractors (RoC) in line with inflation.

The previous tender values, in force for more than a decade, were far removed from economic reality, says cidb Acting Chief Executive Officer, Ebrahim Moola. 'The revised value limits restore the market value of all cidb grades and will open up greater opportunities for contractors.'

Registration criteria remain the same, he adds, so there is no increase in capital or track record required to register for a particular grade. A Grade 3 contractor, for example, will now be in contention for projects up to the value of R3 million compared to the previous R2 million.

This forms part of the rejuvenation of the RoC, the cidb’s primary tool for industry regulation. 'We are looking at all aspects of the RoC to keep it relevant, current and in tune with the needs and aspirations of contractors at all levels, while maintaining it as a risk management tool for the public sector,' says Ebrahim.

These latest changes are aligned to the Construction Industry Development (CID) Regulations of 2004, which allow the Minister to revise cidb tender value limits in keeping with inflation, ensuring that contractors are able to tender for relevant work.
The table below details the new tender value ranges and reiterates the requirements to qualify in the different grades

<table>
<thead>
<tr>
<th>GRADING DESIGNATION</th>
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<th>2</th>
<th>3</th>
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<th>5</th>
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<tr>
<td>New Tender Value Limits (effective 7 October 2019)</td>
<td>R500 000</td>
<td>R1 000 000</td>
<td>R3 000 000</td>
<td>R6 000 000</td>
<td>R10 000 000</td>
<td>R20 000 000</td>
<td>R60 000 000</td>
<td>R200 000 000</td>
<td>No limit</td>
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<tr>
<td>Best Annual Turnover</td>
<td>R -</td>
<td>R -</td>
<td>R1 000 000</td>
<td>R2 000 000</td>
<td>R3 250 000</td>
<td>R6 500 000</td>
<td>R20 000 000</td>
<td>R65 000 000</td>
<td>R200 000 000</td>
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<td>Largest Contract</td>
<td>R -</td>
<td>R130 000</td>
<td>R450 000</td>
<td>R900 000</td>
<td>R1 500 000</td>
<td>R3 000 000</td>
<td>R9 000 000</td>
<td>R30 000 000</td>
<td>R90 000 000</td>
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<tr>
<td>Available Capital</td>
<td>R -</td>
<td>R -</td>
<td>R100 000</td>
<td>R200 000</td>
<td>R650 000</td>
<td>R1 300 000</td>
<td>R4 000 000</td>
<td>13 000 000</td>
<td>40 000 000</td>
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A successful woman, it has been said, is one who can build a firm foundation with the bricks others have thrown at her.

South African construction has had many such mavens. The late trailblazer, Dr Thandi Ndlovu, listened to her gut rather than people’s opinions when she formed Motheo Construction. ‘I had no previous construction experience, only a heart to see real change,’ she told SME South Africa in 2016. ‘It was not a popular choice to partner with white men, but it has been this choice that has shaped and formed my business.’

In an article on opportunityonline.co.za, Ratehang Projects managing director, Gift Mpho Mogodi, stated: ‘You need to be bold to tap into this male-dominated industry. You must know before choosing this career that the lives of people are in our hands because you will be building different infrastructures that need to be sound and of superior quality.’

With women increasingly enriching the South African construction environment, the time is right to make a fuss over their contributions, believes the cidb, which is offering women business owners and industry participants a shot at well-deserved prestige and honour.

The newly launched cidb Empowerment and Recognition of Women in Construction (ERWIC) awards, a modern iteration of the cidb Women in Construction Excellence awards that ran for four years until 2012, will acknowledge those who have shaken up the industry with characteristic feminine determination that is an inspiration to both contemporaries and those considering a career in the built environment.

A driving force behind the awards is cidb Board member, Dr Natalie Skeepers, a passionate supporter of women in all spheres of South African business who is acutely aware that construction is badly in need of an affirmative female overhaul.

For the past eight years or so, females have accounted for only 11% of the industry. Since 2016, women-owned enterprises have been awarded about 25% of total public sector contract awards. There are around 4 000 51% women-owned businesses at cidb grades 2 to 9, or 30% of the total number of registrations on the Register of Contractors. Of the total 40 065 women-owned contractors, the vast majority are at Grade 1 and only 437 (1%) are in grades 7 to 9. These are sorry figures indeed.

‘Worldwide, women are under-represented in the industry, from design to build,’ Natalie states. ‘Their greater inclusion in South African construction will bring diversity and contribute to construction’s bottom line, helping the country to revive an ailing and sluggish economy.

TIME FOR WOMEN TO CLAIM THE CONSTRUCTION CROWN
'Women contemplating construction careers need finance, office space, incubation programmes, enterprise development programmes, involvement in conferences where large construction projects and new thinking are showcased, and access to industry networks.'

Women coming into construction have to be brave, she continues, as they are facing not only gender inequalities, but incredibly tough trading conditions, characterised by diminishing opportunities and rising competition. The gender tide may be turning very slowly, however, with more training programmes tailored to women and certain state-owned entities assisting women contractors to access plant equipment and mentorship.

Women are also receiving a public sector procurement boost through legislation and prominent organisations such as South African Women in Construction.

The ERWIC awards will slot comfortably into this increasingly enabling environment, creating awareness; showcasing talent, tenacity and performance; and attracting the eye of the next generation of construction businesses. "The qualities we are looking for in women in construction include hope, collaboration, respect, empathy and, in some cases, forgiveness, of those who continue to undermine women as contributors to society," Natalie explains. "We will consider where these women have come from and where they are heading and the qualities that are propelling their journeys."

'Celebrating the success of women in the industry will encourage society to become more appreciative of the role women play in all spheres, and will drive home the message that women are standing up and being counted, and will not be marginalised, discriminated against or absent from future successes.'

With Minister Patricia de Lille and her deputy Noxolo Kiviief at the helm of the cidb’s state parent, the Department of Public Works and Infrastructure, the ERWIC awards and the brighter spotlight they put on women in construction could not come at a more opportune time, says Natalie.

Watch the cidb website for all the details of the categories, the application process and the judging criteria. A call for entries will go out in March 2020 and the winners will be announced at a glittering ceremony in August 2020.
**NSF: QUARTER THE SIZE, DOUBLE THE IMPACT**

It’s lean – with 35 members, keen – to tackle matters troubling the construction industry, and extremely alive to what really matters to contractors competing for business in South Africa today. The National Stakeholder Forum (NSF), the most important and influential structure in the cidb universe, meets at least twice a year to drill down to the core of issues ranging from registration and gradings to functionality and delayed payments.

The current NSF, with a mandate to make recommendations to the cidb and to the Minister of Public Works and Infrastructure on construction-related matters, met for the third time since August 2018, on 17 October 2019 in Gauteng. The Register of Contractors (RoC) continued to be a key theme and the subject of vibrant debate.

With the 2018 meetings deconstructing and discussing suggestions to reconstruct the RoC, followed in 2019 by three smaller focus group sessions to get down to brass tacks on the Register, procurement and compliance, and contractor development, there was much progress to report in October. Most notably, collaboration over the last year between the cidb and National Treasury had yielded positive results and a new status quo for procurement in the public sector (see story on page 16). This breakthrough has also removed the guesswork from functionality requirements and reduced the potential for individual interpretation by those wishing to circumvent the RoC. The rejuvenated and renamed cidb Standard for Uniformity for Engineering and Construction Works Contracts clearly stipulates that clients may specify functionality requirements only in a project deemed complex or specialist. The value of a project or quantities no longer determine whether the project warrants the use of functionality when calling for a tender. A large contract may involve straightforward work and not require functionality in tendering. Similarly, a small project may be complex or specialist and call for functionality.

The perennial problem of delayed payment and payment guarantees remained on the NSF agenda, with the cidb reporting that its Standard for Prompt Payment is soon to come into effect, which will cover client to main contractor and contractor to subcontractor, and payments to professional service providers.

At the meeting, the NSF made several recommendations to improve the effectiveness of the RoC, including linking it to the Register of Projects to improve the integrity of the RoC grades, and ensuring that it indicates to clients the contractor’s development status and needs so that these can be considered when planning projects.
Drawing the session to a close, cidb Acting CEO, Ebrahim Moola, spoke of a ‘meeting of minds’ between the industry and the cidb and an acknowledgement of progress achieved, particularly in collaboration with National Treasury and the Department of Public Works and Infrastructure.

Without playing down issues still to be resolved, such as filling of key posts at the cidb and training of contractors, the general impression given by delegates was that the cidb is on the right track.

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**The meeting was a prelude to one later in the year, at which stakeholders will be able to engage with Minister Patricia de Lille on pertinent issues.**

*For a copy of the NSF meeting report, email Ntswaki Mokonyane at ntswaki@cidb.org.za*
FRESH FRAMEWORK AND STREAMLINED STANDARD REDEFINE PROCUREMENT GUIDELINES

Most prescripts and minimum requirement guidelines aim to simplify procedures and make doing business easier and more efficient, but not all work out that way when implemented.

Thus, when National Treasury (NT) introduced the Standard for Infrastructure Procurement and Delivery Management (SIPDM) in 2015 to provide minimum requirements for the implementation of the Infrastructure Delivery Management System (IDMS), it soon became apparent that it would not see eye to eye with the cidb’s Standard for Uniformity in Construction Procurement (SFU). Confusion reigned and frustration abounded, as the misalignment between the two documents had infrastructure clients scratching their heads rather than moving ahead with releasing projects.

But that is all in the past now, following intensive consultation between NT and the cidb. The SIPDM was subjected to stringent scrutiny to establish whether it recognised the SFU and promoted one institutional supply chain management system (SCM) with differentiated procurement processes as opposed to two SCM systems. Also discussed were the role of independent bid committees as prescribed by National Treasury Regulations, and alignment to the Preferential Procurement Policy Framework Act (PPPFA) and its related regulations.

The process culminated in the SIPDM being shelved for not complying with NT policies and for undermining the cidb’s role in procurement regulation. In its place came the Framework for Infrastructure Delivery and Procurement Management (FIDPM), which took effect on 1 October 2019.

The SFU was reviewed, revised and renamed the Standard for Uniformity in Engineering and Construction Works Contracts. It became effective on 8 August 2019.

‘The FIDPM recognises the SFU, which the SIPDM did not, and the two work in harmony rather than contradiction,’ says the cidb’s Manager: Public Sector Capacitation, Richard Raphiri. ‘The FIDPM sets out minimum requirements for infrastructure procurement gates, incorporating quality in procurement documents, formatting and compilation of tender documents, and applying the cidb Register of Contractors to public sector contracts.’

Both sets of guidelines operate under the umbrella of the Constitution, the country’s supreme law, which sets out the principles of public procurement, stating that they are to be fair, transparent, competitive and cost-effective.

The two now-synergistic documents were rolled out to the industry between August and October and headlined the good news shared with delegates to the recent cidb National Stakeholder Forum.
A REVOLUTION WELL UNDER CONSTRUCTION

Augmented reality, artificial intelligence, the internet of things, big data. The fourth industrial revolution (4IR) and its drivers are no longer distant prospects, marked ‘for further attention’ and filed in a draw of tomorrow’s priorities. The revolution is here, big and bold, to disrupt life as we know it and demand a new mindset and approach to the way we do almost everything.

So much so that a significant part of the programme of the cidb’s 11th Postgraduate Research Conference held at the University of Johannesburg at the end of July was devoted to the implications of 4IR.

Commenting on the conference theme, the cidb’s Manager: Construction Industry Performance, Dr Ntebo Ngozwana, says: ‘The transformative framework Construction 4.0, which is the built environment’s adaptation of 4IR – encompassing prefabrication, automation, 3D printing, virtual reality, drones, sensors, robots and data – will enable the industry to move to more efficient production, successful business models and competitive value chains.

‘It will see the convergence of trends and technologies that will entirely reshape the way that built environment assets are designed, constructed and operated. For significant transformation to take place, it is important that the construction industry is in tune with 4IR goals. This involves a critical evaluation of its human resources, leadership and organisational culture, technology and supply chain in relation to the external environment.’

The three-day conference provided a forum for multi-disciplinary interaction between academics and practitioners and a showcase for more than 50 papers looking at diverse aspects of 4IR, spanning industrial production such as prefabrication and 3D printing, cyber-physical systems, including robots and drones, and digital technologies, encompassing big data and data analytics.

A clutch of eminent speakers addressed the challenges and opportunities associated with moving with the digital times. They included professors Daniel Mashao, Executive Dean of the Faculty of Engineering and Built Environment at the University of Johannesburg, an internationally acknowledged expert on artificial intelligence and 4IR; Chimay Anumba of the University of Florida, USA, who holds a PhD in civil engineering and whose research in fields such as engineering informatics and knowledge management has received support worth more than $150 million, and Miklos Hajdu, Research Fellow at Budapest University of Technology and Economics with a PhD in construction management and a research interest in project planning and controls.
Prof Behrokh Khoshnevis, director of the Centre for Rapid Automated Fabrication Technologies at the School of Engineering, University of Southern California, delivered a public lecture on additive manufacturing (3D printing) processes for fabrication and assembly in the construction of human settlements.

THOUGHT-PROVOKING PAPERS

In a paper titled ‘4IR leadership effectiveness and practical implications for construction business organisations’, Kehinde Alade, PhD student in construction management, University of Cape Town, and Dr Abimbola Windapo, associate professor, concluded that those leading the 4IR charge in construction companies – traditionally rigid and slow to respond – should have a combination of change leadership intelligence, the attributes of a coach, champion, visionary, driver, executor, facilitator and adapter; and the leadership traits of honesty-humility, emotionality, extraversion, agreeableness, conscientiousness and openness to experience.

Another paper looked at the use of automation and robotics on construction sites in South Africa, weighing pros including fewer fatalities and improved efficiency and productivity, and the cons of high adoption costs and loss of jobs.

Other papers proposed a conceptual framework to deploy use of unmanned aerial vehicles on construction sites for safety inspections, and explored the influences of building information modelling (BIM) on the nature of communications among BIM supply chain members, highlighting the importance of communication channels, protocols and platforms.

The conference themes dovetailed with those of the Black Business Council in the Built Environment conference on 4IR later in the year, during which CSIR senior researcher, Sihle Dlungwanani, warned that South Africa ‘has to catch up’ on BIM, but remain ‘mindful of the risks and study them carefully, to avoid just buying in blindly’. The move from brick and mortar into innovative building technologies and materials such as cross-laminated timber, fly-ash and geopolymers is advancing, he added.

Lebo Leshabane, CEO of iX Engineers, spoke of smart cities, saying that ‘jobs will be lost, but brand new jobs created’. ‘4IR cannot be implemented by a small group of people. It requires all of us,’ she concluded.

cidb Chairperson, Nonkululeko Sindane, took delegates through the cidb’s preparations for the demands of the future. One priority, she explained, is a programme that will take people from foundational training through project delivery and growth to big business status.

‘Our Project Assessment Scheme will help in raising the funds and by investing them wisely in people development, against the backdrop of new construction technologies and materials, we will see a very different industry in 20 years.’
The cidb Postgraduate Research Conference is an international event that provides a forum for multi-disciplinary interaction between academics and practitioners.