# contents

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>About this report</td>
<td>04</td>
</tr>
<tr>
<td>Message from our Executive Chairperson</td>
<td>08</td>
</tr>
<tr>
<td>Bigen Business Profile</td>
<td>12</td>
</tr>
<tr>
<td>Our DNA</td>
<td>18</td>
</tr>
<tr>
<td>Capabilities and Services</td>
<td>21</td>
</tr>
<tr>
<td>Investments and Concessions</td>
<td>23</td>
</tr>
<tr>
<td>Partnering and Partnership</td>
<td>26</td>
</tr>
<tr>
<td>Our Socio-Economic Development Journey</td>
<td>28</td>
</tr>
<tr>
<td>Agriculture</td>
<td>34</td>
</tr>
<tr>
<td>Energy</td>
<td>38</td>
</tr>
<tr>
<td>Health</td>
<td>42</td>
</tr>
<tr>
<td>Real Estate</td>
<td>46</td>
</tr>
<tr>
<td>Transportation</td>
<td>50</td>
</tr>
<tr>
<td>Water</td>
<td>54</td>
</tr>
<tr>
<td>Social Responsibility: Paying it forward</td>
<td>58</td>
</tr>
<tr>
<td>Financial Performance</td>
<td>62</td>
</tr>
<tr>
<td>A Perspective on Governance</td>
<td>64</td>
</tr>
</tbody>
</table>
Bigen considers itself a champion of the infrastructure development impact agenda in Africa. Localisation and inclusivity are integral to all our projects to address inequality, unemployment and poverty wherever we work. This 2018 Development Impact Report, the second in an ongoing annual series, again provides an informed insight into Bigen’s intent, ability and commitment to create prosperity for the people and the future of our continent.
About this report
This report covers the October 2017 to September 2018 financial period. Along with a message from our Executive Chairperson, we profile some of our performance highlights, describe Bigen’s unique approach of doing good while doing business and reflect on our performance impact in delivering infrastructure solutions and community beneficiation in six major market sectors during the past financial year.

In preparing this report, management and the Board considered the Companies Act, 71 of 2008 and related legislation, The New Code of Corporate Governance published for Mauritius in 2016, as well as the King report on Corporate Governance for South Africa 2017 (King IV). The contents were guided by the purpose and nature of Bigen’s core business, steeped in our purpose of doing good while doing business, as well as the usefulness of the information to our shareholders and stakeholders in the sectors and region where we operate.

We believe that the report provides a fair summary and balanced appraisal of our ability to create business and social value during the reporting period.

The icons reflected here are used throughout this report to highlight how Bigen’s social conscience as a development activist finds traction in our strategic drivers, key enablers and sustainable deliverables as we journey towards our goal of becoming a Top-5 African Impact Firm by 2021.

Responsibility and assurance
As the accounting authority, the Board acknowledges its responsibility for the accuracy of this report. Board members applied their collective expertise to this end and are satisfied with the quality of information sourced and processes used to prepare the report. In the Board’s opinion, the report addresses Bigen’s strategic and material issues and presents an integrated and accurate overview of the company’s performance and impact during the year under review.

The assurance is vested in our internal processes and we do not deem it necessary to conduct third party assurance over any information in the report.

Registered names
Bigen Africa Group Holdings (BAGH), South Africa
Bigen Global Limited (BGL), Mauritius

Founded
1971

Shareholders
Majority employee-owned

Registered address: BAGH
Allan Cormack Street off Hotel Street, cnr Meiring Naudé Road,
The Innovation Hub, Pretoria, South Africa
P O Box 29, The Innovation Hub, Pretoria 0087
(+27) 012 842 8700
6th Floor, Tower A, 1 Cyber City, Ebene, Mauritius, 72201
info@bigenglobal.com

Registered address: BGL

Postal address

Telephone
(+27) 012 842 8869

Website
www.bigengroup.com

Contact person for this report
Ian Bettesworth
Annette van Zyl, Group Marketing and Communications Manager
Tel (+27) 012 842 8869 | Email annette.vanzyl@bigengroup.com

Reporting period
01 October 2017 to 30 September 2018
Annually

Date of last report
2017
This 2018 Development Impact Report provides our shareholders, clients, stakeholders and partners with a reflective summary of our performance, value creation and impact for the financial year September 2017 – October 2018.

We use the following icons for ease of navigation and to highlight the integration between our strategic drivers (SD’s), our key enablers and our alignment with the UN Sustainable Development Goals (SDGs).

**Values**

- **Purpose**
- **Probity**
- **Partnership**

**Strategic Drivers (SDs)**

- Africa expansion
- Expanding the core
- Strategic investments

**Key Enablers**

- Employer of choice
- Efficient+
- Investment of choice

**Six capitals of value creation**

- Financial capital
- Manufactured capital
- Intellectual capital
- Human capital
- Social and relationship capital
- Natural capital

**Financial Sustainability**

- Healthy forward project pipeline
- Sound balance sheet
- Strong leadership team and resources
- Strong accountability, risk management and compliance
- Zero tolerance to corruption
- Efficiencies +

**Sector Capabilities**

- Agriculture
- Energy
- Health
- Real Estate
- Transportation
- Water
Services Infrastructure Development

- Environmental
- Financial
- Institutional
- Socio-Economic Development (SED)
- Technical

Sustainable Business Practice

- Corporate-Social investment (CSI)
- Economic inclusion
- Environmental management
- Health and safety
- Quality management

Sustainable Development Goals (SDG’s)

1. NO POVERTY
2. GOOD HEALTH AND WELL-BEING
3. GENDER EQUALITY
4. CLEAN WATER AND SANITATION
5. AFFORDABLE AND CLEAN ENERGY
6. DECENT WORK AND ECONOMIC GROWTH
7. INDUSTRY, INNOVATION AND INFRASTRUCTURE
8. REDUCED INEQUALITIES
9. SUSTAINABLE CITIES AND COMMUNITIES
10. RESPONSIBLE CONSUMPTION AND PRODUCTION
11. CLIMATE ACTION
12. LIFE ON LAND
13. PEACE, JUSTICE AND STRONG INSTITUTIONS
14. PARTNERSHIPS FOR THE GOALS

UN Sustainable Development Goals (SDGs) relevant to Bigen activities as reflected upon in this report.

Competitive

- Social conscience
- Transformation
- Diversification
- Customised solutions
- Partnerships
- Track-record
- Values-driven
- Risk management
- Capabilities for the region and the world
- Infrastructure product equity
- Traditional leadership

Other

- Strategic partners
- Akaretsa
- ImpactPro
- AIPF
- PRISM

page 7 | Bigen Impact Report | About this Report
Bigen’s social conscience guides our vision and inspires our people to see beyond engineering outputs to the potential of crafting a new story for Africa – one that empowers people to improve their livelihoods, now and into the future.
I take pleasure in presenting our 2018 Bigen Development Impact Report, the second in our annual series of development impact reporting. It has again given us pause to reflect on our purpose of doing good while doing business and our response to this imperative during the past financial year.

Driving socio-economic change to improve quality of life
While infrastructure development in Africa remains critical to its growth, socio-economic development (SED) is the key enabler in human development, poverty reduction, improved livelihoods and societal well-being. For almost half-a-century, Bigen has delivered sustainable infrastructure across the continent. Active in 19 countries across the continent, the Group's proactive humanitarian approach and influential contribution to socio-economic development is acknowledged widely by peers, partners, shareholders and others in the industry.

For the past decade our strategic foundation has been the springboard from which we have re-purposed the ability, culture and capacity of our people to lead the charge in infrastructure development inclusivity, impact and longevity.

Our social conscience, which is ingrained in our corporate culture, gave life to Bigen's Vision 2021 strategy: to create development impact for current and future generations that create benefit for the disadvantaged communities in proximity to the infrastructure we deliver for our clients.

Bigen's pursuit of becoming one of Africa's top-five development impact activists by 2021 is inherent in our role as a social enterprise. Achieving a keen balance between profitability and our passion for beneficiating community well-being is a business ethic that is aligned with helping Africa attain its Sustainable Development Goals (SDGs) by 2030.

The improved SED imperative
Our purpose of doing good while doing business is not merely a matter of altruism. It is formalised in our strategy, part of our DNA as a company and a passion we pursue with conviction. The relaunch of the Bigen brand at the start of 2018 reflects this commitment as well as our focus, unapologetically, on empowering entrepreneurs, women and the youth in the communities adjacent to where we work.
For our engineers and other professionals, contributing to societal well-being has become top-of-mind and concomitant with collaborating with public and private sector partners to deliver integrated and sustainable social and economic development benefits.

Our need to track, measure and evaluate our development impact and investments was given impetus with the launch of Bigen’s ImpactPro at the end of 2017. This is a first-of-its-kind electronic platform that monitors project progress against SED objectives and assists our clients and partners with real-time information for decision-making.

We implemented the first development phase of the ImpactPro during the past year and look forward to its full-capacity use. I believe this tool will add significant value to reporting on the long-term benefits of our SED activities in the years ahead.

Our performance context
Slow growth in the Southern African region and South Africa’s poor performance during 2018 had a spillover effect into neighbouring countries. Despite this challenging landscape and an intensely competitive global market, Bigen remained a valuable industry player with a reasonable financial performance.

I ascribe this resilience, also evidenced by a healthy balance sheet growth for the reported period, to our robust business model, diversified service offerings and customer base, strong leadership and committed, skilled people.
Accreditation, recognition and awards
Certainly, a highlight during the past year was the Group’s achievement of 51% black ownership (modified flow - through principle used) following a number of strategic appointments that included share ownership.

I am especially proud of the industry’s recognition of our work in gender empowerment during the reporting period. Bigen received the 2018 Standard Bank Top Gender Empowered Company in Infrastructure Development Award, endorsing our passion for empowering women as quality-of-life improvement leaders.

Bigen also won the South African Professional Services Awards (SAPSA) 2018 Infrastructure Development Company of the Year Award, while I was humbled to have received the SAPSA’s 2018 Lifetime Achievers Award.

Towards the end of last year, Bigen’s certification as a Large Enterprise B-BBEE Level 1 Contributor, which is relevant to our activities in South Africa, also confirmed our commitment to transformation, diversity, black ownership and investments in enterprise, leadership and people development. Going forward, we will ensure that Bigen retains its positioning as a valued trailblazer for social and economic development impact in an industry that is critical to creating prosperity in Africa.

Acknowledgments and appreciation
A heartfelt note of appreciation goes to our non-executive directors for their incisive guidance and to the board committees for ensuring conscientious governance and stable business systems that support the achievement of Bigen’s Vision 2021 strategy.

We again thank our clients, partners and suppliers for their continued and loyal support. Your contributions to our pursuit of socio-economic beneficiation are greatly appreciated and integral to our role as a development activist.

And on behalf of the Bigen Group, I commend with great appreciation the commitment, loyalty and sterling performance of the Bigen team. Indisputably our core asset, your invaluable contributions and unwavering passion for doing good while doing business resulted in projects with lasting impact and consistent value for our shareholders, clients, partners and the communities where we work.

A future perspective
As staunch African-optimists, we take pride in Bigen’s development footprint and the life-changing impact of our activities on Africa’s people.

We believe that it is time for Africa to tell its own story. A story in which social and economic development responds effectively to the complexity of the continent’s growth needs. A story in which Bigen is determined to champion the inclusivity, indigenisation, cohesion and human dignity that will liberate, inspire and empower those who will help us to build a better Africa.

Dr Snowy Khoza
Executive Chairperson
December 2018
At Bigen, our purpose of **doing good while doing business** defines who we are and what we do. Living our creed reflects a firm belief in respecting, supporting and adding value to our business environment and all who share in it. Experience has taught us that we grow by uplifting others. This means that we take seriously our role of entrenching social good in Bigen’s footprint, wherever that takes us.
2018

- Stakeholder acknowledgement as a valuable industry player

302

- Projects delivered across all major sectors in Africa

51,000

- Direct and indirect jobs created during 2018 (SDG 5)

1,5 million

- People benefit from water infrastructure

20,000

- Families provided with safe and secure housing services in the Real Estate Directorate alone (SDG 11)

US$ 45 million

- Investment over next 10 years in early-stage projects through the African Infrastructure Preparation Facility (AIPF)

US$ 67,000

- Contribution in cash and in kind donations to CSI beneficiaries during 2018

19

- Countries in Africa where Bigen delivered infrastructure development solutions

Development impact, our DNA...

MAJORiTY

- Employee-owned company

HEALThy

- Balance sheet growth in 2018

20%

- Net Group revenue from Namibian and Botswana operations, aligned with our strategic intent to expand our business beyond RSA and Mauritius borders

30

- Construction Education and Training Authority (CETA) bursaries issued for the 2019 academic year

IMPACT PRO

- First-of-its-kind electronic reporting tool to measure the socio-economic impact of infrastructure development projects

PRISM

- Project Risk Screening and Mitigation firm established to screen and analyse early-stage projects
**Business profile**

**Bigen** is a truly African infrastructure development group of companies based in Mauritius and South Africa (where we have 7 offices) and with regional offices in Ghana, Botswana, Namibia, Zambia and Mozambique. As a driver of socio-economic development impact through innovative, solutions-focused infrastructure, **Bigen** provides a broad spectrum of socio-economic, financial, technical, environmental and institutional services in the agriculture, energy, health, real estate, transportation and water sectors across Africa.

We focus on what truly matters. We understand the imperative of public and private sector affiliations in an intensely competitive business environment. We partner with experienced and reliable service providers with synergistic capabilities and commitment to value creation and practical solutions to deliver lasting economic change.

We consciously develop infrastructure that creates benefit beyond financial gain. We work with those whose lives are affected so that their stories of success build the legacies that will inspire and empower future generations. **Our development impact can be heard in the song of African women drawing water from a tap, from the laughter of successful entrepreneurs, and the rush of traffic along the roads that connect economies and cities. We see it in the smiles on faces of men, women and young people who return home from gainful employment on our projects. We see it on dark nights when energy generation lights up towns and homes and hear it in the gush of water that brings life and wellness to communities. These are the sounds and sights of infrastructure development impacts – a socio-economic imperative for sustainable growth in Africa that is helping a continent realise its potential – and we feel it in the very heartbeat of Bigen.**
Our clients and partners in agriculture, energy, health, real estate, transportation and water in 19 countries across Africa benefit from Bigen's innovative, bespoke infrastructure solutions that address the continent's economic challenges and support the achievement of its sustainable development goals by 2030.
OUR PEOPLE

People performance
Our people are at the core of our success and give substance to Bigen’s performance and service excellence. In return, we are committed to helping our employees realise their potential, deliver beyond expectation and fulfil their dreams.

We employ a host of professionals with diverse qualifications proficient in socio-economic development and the built environment.

Bigen’s Human Capital Development Framework was designed to support individual career expectations that are aligned with achieving our business goals ensuring that Bigen will meet the skills demands of the new digital era.

As an Employer of Choice, we want to attract, develop and retain the best talent in a work environment that provides employees with a superior value proposition.

Bigen employees benefit from work satisfaction in an agile learning environment and leadership that is committed, responsive and supportive of their well-being, growth and development. We base this on the 70-20-10 (experience / experiential learning – exposure / social learning / coaching – education / formal learning) principle to grow and develop all our employees.

Our leadership programmes aim to develop leaders proficient in business and technical leadership roles.

During the past year, almost 44% (157) of our 359 employees attended leadership development courses, while 90 participated in the Young Professionals Forum.

<table>
<thead>
<tr>
<th>Leadership programmes</th>
<th>Participants in fiscal 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Development (Exco)</td>
<td>12</td>
</tr>
<tr>
<td>Future Business Leadership</td>
<td>3</td>
</tr>
<tr>
<td>Technological Leadership</td>
<td>18</td>
</tr>
<tr>
<td>University of Life</td>
<td>16</td>
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<tr>
<td>Succession and Mentoring</td>
<td>18</td>
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<tr>
<td>Young Professionals Forum</td>
<td>90</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>157</strong></td>
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We also implemented a new senior managers programme (age 55 and above) to transfer skills timeously to younger mentees to address succession planning. Our focus is on actively establishing a targeted skills base with sufficient reserve talent in the pipeline to secure business continuity and ensure continued competitiveness.

Bigen’s bursary and candidacy programmes are at the heart of building our talent pipeline. Participants in our formal three-year candidacy programme are registered with Engineering Council of South Africa (ECSA) as a Candidate. Upon successful completion of the programme, they can register as a professional engineer, technologist or technician.

We supported 20 candidates in our bursary programme during the past year, while six graduates were employed permanently in January 2018.

RECOGNITION AND AWARDS

Bigen’s team of professionals has more than 200 years of combined knowledge and experience in creating development impact in the built environment. Over the years our efficient track record has been recognised with more than 50 prestigious industry awards. We remain humbled by this recognition of our commitment to doing good while doing business.

- Top 500 South Africa’s Best Managed Companies: Top 2 Awards for Best Performing Company in the Consulting Engineering Mining and Infrastructure Categories 2017
- African Business and Social Responsibility Award for Corporate Innovative Societal Action 2017
- CESA AON Engineering Excellence Award for Mentoring Company of the Year, 2017
- CESA AON Engineering Excellence Award for Water Reclamation Plant at Royal Bafokeng Platinum (Commendation) 2017
- Rated a Level-1 B-BBEE Contributor by MPower Ratings in terms of the Construction Codes of Good Practice in B-BBEE 2018
- Standard Bank Top Gender Empowerment Company Award 2018
- Standard Bank Top Male Driving Gender Equality Award to Bigen CEO, Anton Boshoff 2018
- South African Professional Services Awards (SAPSA) Infrastructure Development Company of the Year Award 2018
- SAPSA Lifetime Achievers Award to Bigen Executive Chair, Dr Snowy Khoza 2018
Conceived as a micro engineering business at the tip of the African continent in 1971, the Bigen story has transitioned from a company with a traditional engineering and management consultancy focus to one that is blazing the trail for infrastructure development impact, wherever the journey across Africa takes us.
In recent years, after almost half-a-century of delivering customised infrastructure solutions to clients all over the continent, the imperative of meeting Africa’s 2030 sustainable development goals highlighted the need to include and provide benefit for the people and communities on the periphery of Bigen projects.

Recognising and responding to this imperative has embedded a social conscience into the essence of our business, our purpose and how we work with and for the people of Africa. This inclusivity goes beyond commercial gain to addressing vulnerability, unemployment, exclusion and disempowerment.

A philosophy of doing good while doing business is now ingrained in our corporate culture as a common purpose. The Bigen DNA – how we do what we do – is an undertaking that our projects will benefit local communities as well as our clients, stakeholders and employees.

Our role as an influential driver of socio-economic development impact is also at the heart of Bigen’s support for African government to unleash the potential business opportunities that will accelerate growth and prosperity for the continent and all its people.

At Bigen, our DNA reflects our commitment to work hard at doing what matters, behave ethically (integrity), drive transformation (equity, empowerment and cross-skilling) and be responsible stewards of our people, planet and profit and collaborate with partners to achieve our goal.

Making the imaginable possible – our vision, values and culture

Vision
To be the preferred provider of sustainable infrastructure solutions as one of Africa’s top-five development impact activists by 2021.

Values
Purpose
What we do matters. We are passionate about taking ownership, adding value and walking the extra mile to make a difference in people’s lives, in our company and on our continent.

Probity
We are unashamedly ethical with zero tolerance for injustice, inequity and corruption. We dream big, walk the talk and seize opportunities to create sustainable solutions that uplift and empower the communities where and with whom we work.

Partnership
We are responsible stewards of our people, planet and profit and collaborate, share and work with partners and in teams as a family to achieve our goals. We hold one another accountable to uphold the spirit of Ubuntu – I am because we are.

Business intent, culture and conduct
Doing good while doing business, an undertaking that whatever we do will consistently benefit communities where we work, our clients, stakeholders and employees and improve the livelihoods and well-being of the people of Africa. Our culture reflects what we value: caring and accountability in our hearts, minds and conduct wherever we influence, interact and work with others to achieve desired results.

Aligned with our Vision 2021, our culture incorporates our systems, language, assumptions, beliefs and habits – the DNA that guides our conduct, among ourselves and towards those with whom we interact. Our culture supports leadership development and transformation within the company and in the countries where we implement our projects. Our leaders have signed a “morals by agreement” code that defines their conduct as effective leaders who collaborate with one another for the greater good of the company and the people of the African continent.

Corporate citizenship
As a resolutely ethical corporate citizen, our principles of inclusivity, equity and transformation are aligned with our values and ingrained in our corporate DNA. We champion accountability in our CSI projects and encourage and expect employee participation when we assist communities or individuals – this exemplifies Bigen’s DNA.
Bigen places a high premium on:

**Best business practices**
We benchmark against and align our business activities with international best practice and standards.

**Health and safety**
We apply the principles of the international ISO 45001 health and safety standard and comply with the health, safety and environmental (HSE) policies of our clients and partners.

**Environmental responsibility**
As a responsible environmental citizen, we align our ecological footprint with the green principles of the global ISO 14001 standard.

**Zero tolerance**
We live our organisational values with zero tolerance for bribery and corruption.

**Economic empowerment**
Our Level-1 Broad-Based Black Economic Empowerment (B-BBEE) status in South Africa affords Bigen 135% BEE procurement recognition for procurement ‘spend’. The BAGH Group is 51% black-owned (modified flow-through principle used).

**Social responsibility**
We apply localised and indigenised recruitment policies in countries of operation and design project structures to maximise the development impact on local communities.

**Managing quality**
Our ISO 9001 quality certification assures clients and partners that our quality system, standards and procedures ensure quality work, consistently.

**Professional association**
The professionals whom we employ are accredited by/affiliated to various professional organisations, such as the Engineering Council of South Africa; Institution of Municipal Engineers of Southern Africa; Institute of Waste Management of South Africa; National Home Builders Registration Council; Project Management Institute; South African Institute of Civil Engineering; Consulting Engineers South Africa; South African Institute of Electrical Engineers; Southern African Institute for Steel Construction; Water Institute of Southern Africa; Green Building Council of South Africa; International Water Association; American Water Works Association; South African Commission on large dams.

**Risk management**
Our international ISO 31000 certification is based on a world-class, fully automated risk management system that facilitates proactive risk management, including capital risk.
what we do matters

capabilities and services
What we do - our services, competencies and interactions

Bigen responds to Africa’s unique social and economic development (SED) needs with a blend of financial, technical, environmental, socio-economic and institutional services in the agricultural, energy, health, real estate, transportation and water sectors.

Actualising development impact is at the heart of our infrastructure solutions and encapsulated in our human-centric approach to meeting Africa-specific infrastructure needs with a lasting legacy for all our clients.

Capabilities and services

**SOCIO-ECONOMIC**
- Designing our projects through a human-centric lens in order to facilitate social and local economic development
- Facilitate skills development through business mentorship, education and training on infrastructure projects
- Promote economic inclusion of youth, women and the disabled through SMME support and development, job opportunities and preferential (local) procurement strategies that build local capacity
- Create sustainable solutions that address human and natural resources development goals to safeguard the environment for current and future generations
- Collaborate with governments, the private sector, communities and civil society to create human-centric living conditions and resources without undermining the integrity and stability of our natural systems

**FINANCIAL**
- Specialist financial, commercial and project management support
- Support the entire project development process using our considerable expertise and skilled resources

**TECHNICAL**
- Holistic, multi-disciplinary approach to infrastructure development
- Services across the entire infrastructure development value-chain, including feasibility studies, development funding, structuring and arranging, project preparation, management and implementation
- Customised, integrated infrastructure solutions that meet customer and regional requirements and facilitate local economic participation and empowerment
- ‘Fit-for-purpose’ bankable projects that meet client expectations and benefit community members who use the infrastructure

**ENVIRONMENTAL**
- Proficient, qualified and skilled environmental engineers, scientists, sociologists, psychologists, economists and analysts
- Local, regional and international experience in their respective fields
- Integrate academic and professional expertise with excellent project management skills to address public and private sector environmental and social challenges

**INSTITUTIONAL**
- Extensive institutional risk management and support services: part of our multi-disciplinary service offering
- Institutional risk management: political and economic analyses and strategic advice, stakeholder engagement and legal due diligence
- Capability institutional support service: policy advice and development, transaction advice and capacity building
Bigen’s strategic investment drive pursues the abundance of investment opportunities across Africa. We invest to create, capture, extract and share value with our shareholders, stakeholders and strategic partners.
The new reality of the world beyond Capitalism 2.0 is an economy in which impact, risk and return inform investment decisions.

As a responsible continental steward, **Bigen** invests strategically in infrastructure that is meaningful and sustainable. Our focus is on creating impact that supports the triple bottom line of people, planet and profit.

Our transition from an investment ‘intermediary’ to investment ‘wholesaler’ positioned **Bigen** to prioritise social and economic impact along with generating profit.

Our funding focus is on enterprises that support our purpose of **doing good** while doing business.

Our investment policy promotes smart thinking, accountability and value assessment as indicated in the table below.
During the past financial year our strategic investments, as aligned with Bigen’s Vision 2021 strategy, included capitalising the AIPF successfully and taking our first projects in the health, agri-business, energy and affordable housing sectors to financial close. We anticipate the implementation of these projects during 2019. The financial period also saw our direct investments into associated enterprises and concessionary special project vehicle (SPV) companies appreciate substantially. This delivered a handsome shareholder return with an increase of approximately 70% in investments and concessions on our balance sheet. Some of the earnings from professional fees and profits, which came mainly from investments and concessions, were reinvested into corporate social investment initiatives.

Firm agreements with like-minded international equity investment partners, signed during 2018, will extend our reach and take our strategic investment drive to the next level, giving impetus to doubling our enterprise value by 2021.

We step into 2019 excited about the road ahead and confident that Bigen will continue to make a meaningful and lasting impact on the lives of people and in communities on the continent.
Partnering and Partnership

Helping others to help themselves through inclusivity and empowerment is what matters.

Batho pele – putting people first – underscores Bigen's planning and actualisation of infrastructure development to create sustainable outcomes with impact. We work with like-minded local, regional and global partners to create social and economic benefit and long-term impact from and around the infrastructure we deliver.
Our responsibility, as a social enterprise, is to improve quality of life through inclusivity, localisation and indigenisation for and among SMMEs, entrepreneurs, women and the youth to build cohesive and resilient societies.

Our partnership strategy proactively leverages multi-disciplinary capabilities, drives earnings and is integral to the way we do business.

Our proactive partnerships
- Deliver infrastructure projects;
- Support our human-centric SED focus;
- Develop skills and build capacity;
- Position our capabilities and utilise our strengths; and
- Empower SMMEs to function optimally.

Bigen’s partnering approach is encapsulated in our Rubix partnership platform and unique African infrastructure supermarket. Our partner networks provide access to multi-disciplinary capabilities that enable us to multiply client value and jointly, with partners, reduce marketing overheads and increase overall marketing impact.

Bigen’s active engagement with European, Scandinavian and Canadian international development firms, as well as local and regional public and private sector partners, continually affirms Bigen’s position as a partner of choice in the African region.

During the reporting period, strategic partnerships augmented our sector project development and delivery capabilities in the agri-business, education (development of private schools) and energy (regional transmission) sectors. We also extended our advisory services to include institutional development, development economics, legal due diligence, policy development and reform and socio-economic impact monitoring and reporting services.

Localisation
Our Africa Expansion programme has established a network of international and local partners to further entrench Bigen’s continental supermarket footprint and support our SED inclusivity and localisation focus within various target countries. This ensures that wherever we work, local people and communities benefit from infrastructure projects.

Project pipeline
Our project pipeline is driven by delivering SED impact, investments that generate dividends, concessions to build infrastructure within government jurisdictions, a partnership platform that offers multi-disciplinary capabilities and solutions and engineering, financial and advisory services.

We work with partners and finance institutions to develop bankable infrastructure projects through the African Investment Partnership Fund (AIPF) and PRISM, a project risk screening and mitigation firm. Bigen established the AIPF in 2017 as the founder investor to deliver fundable projects across key sectors.

During the past year, we engaged with project promotors and development partners across Bigen’s operational sectors to develop a healthy project pipeline, as reflected below. Eleven of the 50 registered opportunities were identified for further assessment and development, while one are earmarked for formal AIPF investment appraisal.
we are driven by building communities

The key to Bigen’s growth has been a proactive infusion of a human-centric approach to development. This ensures that, wherever we work, economic inclusion, skills development, job creation and procurement opportunities – especially among women and the youth – are ingrained in delivering infrastructure that empowers people and uplifts communities.
Our Sectors

- Agriculture
- Energy
- Health
- Real Estate
- Transportation
- Water

Input

Value Created

- 51,000 jobs created
- 20,000 families provided with services in the Real Estate Directorate
- 4,223 people benefit from water infrastructure
- 1.5 million people benefit from sanitation infrastructure
- 570,000 people benefit from roads and railways
- 1,5 million people benefit from electricity
- 305,000 people provided with electricity
- US$ 69 million spent on subcontractors
- 35,000 people provided with services in the Real Estate Directorate
- 20,000 hours of skills training and development
- 51,000 families provided with services in the Real Estate Directorate
- 20,000 hours of skills training and development
- 570,000 people benefit from sanitation infrastructure
- 570,000 people benefit from sanitation infrastructure
Focusing on what truly matters
Development in Africa is layered and complex. Deeply unequal societies, major socio-economic challenges and a backlog of infrastructure development continue to derail Africa's economic growth and ability to attain its Sustainable Development Goals (SDGs).

As an impact-driven company, Bigen understands the imperative of addressing social and economic issues alongside meeting infrastructural needs. Our human-centric approach pivots on growing and investing in local economies with Africa-specific solutions to improve quality of life, as well as provide access to infrastructure.

Bigen's SED project focus addresses people's vulnerability, exclusion and unemployment and aligns our extensive range of services intentionally with localisation, indigenisation, transformation and poverty eradication as part of our approach to sustainable infrastructure solutions. For us, SED is part of our DNA and the epitome of doing good while doing business.

HOW we respond to Africa's SED imperatives
Our social conscience translates our thinking in order for us to design human centric approaches that benefit the indigent, underprivileged and disadvantaged in communities in which we operate.

Bigen's social conscience is ingrained in its DNA and informed by a deep understanding of how economic, social and sustainable development translates into sustainable infrastructure. Collaboration with governments, the private sector, communities and civil society enhances our response to socio-economic and local economic development challenges.

Our diverse employee complement enriches our project teams with a wide range of knowledge, skills and expertise that goes well beyond traditional engineering. This equips us with the capabilities to address SED/LED imperatives effectively through Bigen's project lifecycles every step of the way.

Integrated in our DNA is our vision to:

**EMPOWER** people
**IMPLEMENT** human-centric approaches to design and develop
**CREATE** accessible and accountable institutions for all facilities.

---

**People Skills : Employee Specialisation areas**

**Local Economic Development (LED) Strategy Design and Implementation**
To create solutions that facilitate communication and participation by different stakeholders. Practical way to create jobs, improve livelihoods and local economic circumstances for individuals and communities.

**Enterprise and Supplier Development (ESD) Programme**
To develop SMMEs and suppliers through a transparent, inclusive, empowering and maximum benefit creation programme.

**Skills Development Offering**
To create opportunities for employees and members of local communities to obtain project-complementary skills that can support future career success in the long-term.

**Monitoring, Reporting and Evaluation**
To provide clients with a platform that gives insight into project design, implementation and progress to take informed decisions about improving efficiency and effectiveness.

**Social Facilitation and Community Engagement**
To establish processes and relationships that will involve communities in long-term, sustainable outcomes and facilitate collaborative decision-making.

**Corporate Social Responsibility Strategy Design**
To create shared value and align social investment initiatives with existing business strategies.
We developed the **Bigen** ImpactPro in 2017 to measure development impact. The application provides a user-friendly electronic capturing and reporting platform with online and mobile access to monitor project progress against SED objectives throughout the project implementation life cycle.

Key SED outputs of infrastructure projects under construction are captured on site using ImpactPro’s online platform. The data provides information about employment and procurement, skills development, service delivery progress (homes built, services installed), project-related health, safety and environmental compliance and CSI initiatives.

ImpactPro provides viewing access of all the information and is visible to clients, stakeholders and the project team. The real-time information enables quick-decision making, planning and budgeting. The data also assists our clients to understand how their projects are improving the lives of communities and the environment. Clients can use the application to monitor project progress, adjust expected outcomes and redirect funding and activities timeously, if necessary.

During its first development phase in 2018, we used ImpactPro to measure the outputs of infrastructure projects across our key impact focus areas, as well as project spend on, inter alia, jobs created, skills training and entrepreneurship development.

In time, with comparative measurement and post-implementation impact assessment, ImpactPro will report on the outcomes and impact of projects to provide users with information about the long-term benefits derived from infrastructure developed as illustrated.

**Impact**

Measures the quantity, quality and efficiency of project goods and services, typically monitored continuously through project progress reports, such as the number of houses with sanitation installed and number of jobs created.

**Outcome**

Measures project results, sourced quantitatively and qualitatively and evaluated, such as the number of beneficiaries of the installed sanitation compared to the baseline and a resulting increase in household income due to jobs created.

**Impact**

Measures changes in the well-being of children, families or communities, sourced quantitatively and qualitatively and evaluated, such as the percentage change in water-borne illness in a community or the increase in economic activity over a period of time due to jobs created.

The use of the ImpactPro is also highlighted in the Development Impact section of this report, as applied to some of the profiled projects. The ImpactPro application is available from your Google Play Store, and Apple App Store.
delivering impact that matters

With our 48-year old footprint across Africa, we believe that our passion for doing good while doing business is impacting positively on people and communities, so that what we build together today will create a better tomorrow.

Agriculture

MARKET
off-take value chains

AGRI
engineering

URBAN
agriculture

Energy

44 local labourers trained and skills developed
22 000 dwellings with access to energy
86 000 consumer connections through renewable energy

305 000 people provided with electricity

IMPROVING quality of life by optimising the social and economic impact outcomes of infrastructure development on the continent of Africa is ingrained in our DNA, it is our raison d’être for driving social and economic inclusion through localisation, indigenisation, transformation, ownership and social responsiveness in all our projects.
1,2 million people benefitted from improved health care infrastructure

US$ 242 million construction contracts managed

35,000 people benefitted from transportation infrastructure

1,5 million people benefiting from water projects

Health

22 new beds and 2 treatment rooms in new paediatric unit

340 health facilities maintenance and repairs

2 hospitals (1 built and 1 refurbished)

370 new beds available to patients

Real Estate

3,900 permanent jobs created

20,000 families serviced

US$ 41 million spent on SMME's

Transportation

31,813 direct and indirect jobs created

24 communities benefiting from new transport infrastructure

12 QSE / ESE appointed

Water

462 jobs created

21 Communities benefiting from water infrastructure expertise

US$ 76,000 spent on skills development
Agriculture is a **KEY DRIVER** in economic development and inclusivity in Africa. Our impact-driven services focus on creating integrated value-chains to deliver food security, link farmers with markets and **IMPROVE QUALITY OF LIFE**.

There is no doubt that, continent-wide, a more sustainable approach to farming will protect the welfare of current and future generations of farmers. **Bigen’s** rationale for servicing this sector from our project portfolio platform is the belief that we can add significant value to:

- Improving land and water resource management for long-term productivity;
- Creating economic and societal well-being;
- Improving the safe supply of high-quality produce;
- Contributing to improved access and supply of high quality produce; and
- Mitigating and adapting to climate change.

**Possible Impact:**
Increased participation of black farmers in the agricultural value chain.
There is an agricultural project opportunity around every corner, including your own backyard.

Leona Archary, Profit Centre Manager: Agriculture

FILE

AGRICULTURE – A CASE STUDY

In order to unlock the full food production and economic potential of the Jan Kempdorp region in the Northern Cape, the integrity and efficiency of the extensive Vaalharts conveyance system needs to be ensured. The food production and water value chain also supports many communities, industries and other social services in the region.

The complex stakeholder relationships and the intimate dependency of the entire region on water security require proper planning. This planning was in the past largely done in silos by different stakeholders and the integrated master plan will aim at integrating the planning requirements from various perspectives.

The objectives of the revitalisation is based on a holistic development philosophy that aims for social upliftment and profitable agri-business on the existing scheme and in the communities surrounding the scheme. It is characterised by overall enterprise planning, human capital development, empowerment and access to information. It is underpinned by a financially sustainable development strategy alongside repair and re-design of existing infrastructure.

The main components of the programme consist of the following:

- Water infrastructure rehabilitation;
- Community water supply development;
- Agricultural project development;
- Restitution project development;
- Taung emerging farmer development and extension; and
- Sourcing of funds for the planning and implementation of the programme.
Vaalharts Revitalisation Project

<table>
<thead>
<tr>
<th>Location</th>
<th>Vaalharts, Northern Cape</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>National Government; Provincial Government; Local Government; Traditional Authorities; Commercial Agriculture; Agro-Industries; Restitution Communities; Development Finance Institutions</td>
</tr>
<tr>
<td>Stakeholders</td>
<td></td>
</tr>
<tr>
<td>Scope</td>
<td>Integrated Master Plan development for upgrading of bulk water infrastructure; secondary water infrastructure; irrigation development; community potable water and fund mobilisation</td>
</tr>
<tr>
<td>Value</td>
<td>US$ 298 000</td>
</tr>
</tbody>
</table>

**Intended project benefits:**

- **Doing good while doing business**
- **promote** water efficiency
- **promote** increased agricultural activities, job creation and agri-development
- **economic benefits** potential impact on agricultural development, job creation, enterprise development, value and supply chain development

Cateme Agri-Development Project

<table>
<thead>
<tr>
<th>Location</th>
<th>Tete Province, Mozambique</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>Vale Mozambique</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>Agri-Business Corporation; MPC Mozambique; Fair Foods Company and JC AfriGrow Mozambique</td>
</tr>
<tr>
<td>Scope</td>
<td>Develop and implement a sustainable agricultural initiative that will impact positively on skills; access to food; improved enterprise development; increased access to the agricultural value chain; improved environmental management and access to water</td>
</tr>
<tr>
<td>Value</td>
<td>US$ 104 058</td>
</tr>
<tr>
<td>Partners/Associates</td>
<td>Agribusiness Corporation; MPC Mozambique; Fair Foods Company and JC AfriGrow Mozambique</td>
</tr>
</tbody>
</table>

**Intended project benefits:**

- **Doing good while doing business**
- **promote** increased participation in the agricultural value chain
- **promote** enterprise development and job creation

**Bigen's role**

- Water infrastructure rehabilitation;
- Community water supply development;
- Agricultural project development;
- Restitution project development;
- Taung emerging farmer development and extension; and
- Sourcing of funds.
We believe in dreams.
Nearly **600 MILLION PEOPLE** in Africa still live without electricity, many in urban areas within a stone’s throw from an existing power grid. Harnessing Africa’s energy resources is catalysing sustainable change across the continent.

**Our development impact**

<table>
<thead>
<tr>
<th><strong>305 000</strong></th>
<th><strong>22 000</strong></th>
<th><strong>86 000</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>people provided with electricity</td>
<td>dwellings with access to energy</td>
<td>consumer connections through renewable energy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>141 741</strong></th>
<th><strong>44</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>people benefiting from less load shedding</td>
<td>local labourers trained and skills developed</td>
</tr>
</tbody>
</table>

Above-average growth in some African countries and recent shifts in many regulatory environments are increasing access to equitable and affordable energy in rural and urban areas across the continent.

**Bigen’s** energy services team continues to pursue opportunities to deliver customised energy sub-transmission and transmission solutions. This includes renewable energy generation from solar, wind and hydro power and thermal generation, specifically gas generation (generating electricity from heat using coal, natural gas, wood waste or geo-thermal energy).

We are conversant with the latest energy saving technologies, while our focus on the triple bottom line of people, planet and profit ensures that we integrate environmental performance, economic development and social responsibility in all our projects. This gives effect to doing **good** while doing business.
Energy is critical to the entire fabric of economic and social development in Africa. Thinking creatively about renewable energy, energy efficiency, infrastructure development solutions and development impact is a non-negotiable if we want to mitigate the negative impacts of energy production and consumption on the economy, society and the environment.”

Rhulani Matshidze, MD: Energy

In its technical advisory role to the Tanzanian Rural Energy Agency (REA), Bigen’s energy team is assisting the agency to improve access to modern energy services in the rural areas of mainland Tanzania. The focus is on finding creative solutions for renewable energy, energy efficiency and infrastructure development to address the lack of access to energy and mitigate the negative impact of energy production and consumption on the economy, society and the environment. This approach is also helping to mitigate connectivity obstacles, such as high costs, power theft and socio-political marginalisation.

“We are working with off-grid energy project developers to fast-track the implementation of especially solar energy products in remote and unsupplied areas where people do not have access to the current electricity grid”, says Rhulani Matshidze, Bigen’s MD: Energy.

Bigen’s assistance includes upgrading project development services tools, training project developers and lenders, assisting with mini-grid programme management, monitoring, evaluation and reporting and helping REA to implement mini-grid electrification support programmes.

“The incremental improvements in healthcare, agriculture, farming and overall societal well-being that are already visible are not only encouraging but also strengthens our commitment to doing good while doing business. We intend to leave a footprint that is sustainable and empowers self-sufficiency.”

ENERGY – A CASE STUDY

Energy is the lifeblood of economic and social development in Africa. The reality is that in large swathes of rural Africa many communities are still in the dark. In Tanzania, electricity is available only to about 17% of the rural population, while only about 20% of Tanzanians are not connected to an electrical grid. And since the country’s power is generated mainly through hydropower plants, electricity supply varies, especially in time of drought.
## Lufhereng Integrated Housing Project, South Africa

<table>
<thead>
<tr>
<th>Location</th>
<th>Soweto, Gauteng</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>Lufhereng Development Company</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>City of Johannesburg</td>
</tr>
<tr>
<td>Scope</td>
<td>The project is a mixed, integrated housing project with ± 22 000 residential units being implemented in phases over an estimated 10-year period</td>
</tr>
<tr>
<td>Value</td>
<td>US$ 76 million</td>
</tr>
<tr>
<td>Partners/Associates</td>
<td>OHSAS Consulting; Urban Dynamics</td>
</tr>
</tbody>
</table>

**Bigen’s role**

Design and project management, incl. confirming, securing and design of bulk connection point, design of link cable routes, switching stations, internal electrical infrastructure and street lighting and obtaining design approvals

**Development impact:**

**Doing good while doing business**

22 000 housing opportunities for people of Gauteng with the aim of housing 88 000 people

## Govan Mbeki Municipality Electrical Infrastructure Expansion and Electrification, South Africa

<table>
<thead>
<tr>
<th>Location</th>
<th>Embalenhle Township, Govan Mbeki</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>Govan Mbeki Municipality</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>Municipality; Local Communities; Eskom; SMME’s; DoE and National Treasury</td>
</tr>
<tr>
<td>Scope</td>
<td>Electrical infrastructure for Embalenhle Township and the development of a Master Plan for the Govan Mbeki Municipality</td>
</tr>
<tr>
<td>Value</td>
<td>US$ 3 million</td>
</tr>
<tr>
<td>Partners/Associates</td>
<td>Embalenhle Township</td>
</tr>
</tbody>
</table>

**Bigen’s role**

Providing a turnkey solution incl. the sourcing of funding, project engineering, project management, project construction and master plan development

**Development impact:**

**Doing good while doing business**

increase renewable energy supply to the Embalenhle community eradicate load shedding for the 141 741 residents in the community
### Leeuypoort North Bulk Electrical Project, South Africa

<table>
<thead>
<tr>
<th>Location</th>
<th>Boksburg, City of Ekurhuleni</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>Leeuypoort Development Company</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>City of Ekurhuleni; Conco; Reiger Park and Parkdene Communities</td>
</tr>
<tr>
<td>Scope</td>
<td>Provide power to 6 343 erven in the Leeuypoort housing development</td>
</tr>
<tr>
<td>Value</td>
<td>US$ 8 million</td>
</tr>
<tr>
<td>Partners/Associates</td>
<td>Urban Dynamics</td>
</tr>
</tbody>
</table>

**Bigen’s role**
Design and project management, incl. upgrading three 11kV switching stations and one 88/11kV substation and constructing a new 11kV switching station.

**Doing good while doing business**
- **25 000 housing opportunities** for the people of Ekurhuleni with the aim of increasing this to provide 100 000 people with housing
- **3 local subcontractors** employed
- **31 temporary workers** employed
- **Jobs** created for 27 male, 3 female and 14 local workers
- Development impact:
  - **Excavation, safety and environmental awareness training**

### Rural Energy Agency (REA) electrification through renewable energy mini-grids, Tanzania

<table>
<thead>
<tr>
<th>Location</th>
<th>Dar Es Salaam, Tanzania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>Rural Energy Agency (REA)</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>REA; Swedish International Development Agency; UK Department for International Development and World Bank</td>
</tr>
<tr>
<td>Scope</td>
<td>Upgrade REA’s project development services tools; training for project developers and lenders; management assistance for a mini-grid programme; programme monitoring; evaluation and reporting, and facilitating the implementation of REA’s mini-grid electrification support programmes</td>
</tr>
<tr>
<td>Value</td>
<td>US$ 2.3 million</td>
</tr>
<tr>
<td>Partners/Associates</td>
<td>Norconsult; Cresco Project Finance and S&amp;F Consultants Tanzania</td>
</tr>
</tbody>
</table>

**Bigen’s role**
Technical advisor to undertake the pre-grid electrification programme over an initial two-year period, with the option of renewal for a further number of years.

**Doing good while doing business**
- **86 000 consumer connections** through renewable energy mini-grids
- **Helping to achieve Tanzania’s economic development goals**
Africa bears **ALMOST ONE-QUARTER** of the world’s disease burden, yet benefits from access to only 3% of its health care workers and 1.5% of its total health care expenditure. Limited healthcare infrastructure impedes the continent’s ability to meet its health SDGs by 2030.

**Our development impact**

<table>
<thead>
<tr>
<th>22</th>
<th>340</th>
<th>2</th>
<th>370</th>
</tr>
</thead>
<tbody>
<tr>
<td>new beds and 2 treatment rooms in new paediatric burn unit</td>
<td>health facilities maintenance and repair</td>
<td>hospitals, 1 built and 1 refurbished</td>
<td>beds newly available to patients</td>
</tr>
</tbody>
</table>

In recent years, governments in Africa have shown renewed commitment to fast-tracking economic growth and attaining their SDGs. Our services provide health care infrastructure for public sector clinics, hospitals and health centres. **Bigen** also develops, provides maintenance and refurbishment and invests in private health facilities.

Our focus on creating social and economic development impact provides communities with localised solutions that improves sustainable health care in Africa.

**HEALTH SERVICES**

- Project preparation and feasibility
- Health planning
- Design services
  - mechanical, electrical, electronic, structural, civil and renewable energy
- Commissioning (medical equipment and all services)
- Project and facility (all services) management
“The demand for accessible quality health care is increasing on the African continent as life expectancy and socio-economic status improves. Many African countries are implementing Universal health coverage to remove the financial barrier to access healthcare. The burden of non-communicable diseases and trauma is increasing over existing infectious diseases. We therefore need to find innovative solutions to provide care beyond the provision of hospitals and usage of technology to supplement the limited number of health professionals available on the continent.”

Dr Victor Litlhakanyane, MD: Health

Invited to partner with the Reach for a Dream Foundation, Bigen’s Health team is helping to refurbish existing areas in public hospitals into delightful, bright, attractive and inviting play areas referred to fondly as ‘dream rooms’ by hospital staff and children alike. The refurbished rooms are brightly painted and furnished to create warm and inviting child-friendly environments where little patients can reduce their hospital-averse anxieties by engaging actively in a variety of play and learn activities.

According to Bigen’s Managing Director of Health, Dr Victor Litlhakanyane, dream rooms are already available in the Chris Hani Baragwanath and Chalotte Maxeke Hospitals and more are in the pipeline.

“We provide the materials and our employees do the actual work, with great joy and enthusiasm”, says Dr Victor. Bigen also secured a donation from Jumaluthech, a specialist clear-view fencing contractor, for security fencing around the outside area of the dream room at the Chris Hani Baragwanath Hospital.

Twelve Bigen employees spent almost a week on these projects and are looking forward to taking on other similar challenges.

HEALTH – A CASE STUDY

Every year, for the past 3 years, more than 2 000 children in hospitals in Gauteng have been enjoying the magical benefit of ‘dream rooms’ where, for moments in time, the trauma of life-threatening conditions can be forgotten as young hands and minds become immersed in the absorbing world of play.
**Ngwelezana Hospital, South Africa**

<table>
<thead>
<tr>
<th>Location</th>
<th>Empangeni, KwaZulu-Natal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>KZN Department of Health</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>Communities around the hospital</td>
</tr>
<tr>
<td>Scope</td>
<td>Convert existing eye clinic into a Paediatric Burn Unit at existing 100-bed Ngwenlezana Hospital at Empangeni</td>
</tr>
<tr>
<td>Value</td>
<td>US$ 12 million</td>
</tr>
<tr>
<td>Partners/Associates</td>
<td>Carte Blanche; DSTV; HDG Hospital Design Group; I-MEP; S&amp;W; Sakhiwo and SVP</td>
</tr>
</tbody>
</table>

**Bigen’s role**
Structural engineering for design of support beams, foundations and structural stability and design of steel members for architectural tree.

**Development impact:**
- **Doing good while doing business**
  - Contributed to **financing and construction** of new paediatric burn unit at hospital
  - **22 new beds/cots** for paediatric burns, dry and wet treatment rooms each, secure outside play area, dining area and architectural tree.
### Siloam Hospital, South Africa

<table>
<thead>
<tr>
<th>Location</th>
<th>Makhado, Limpopo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bigen’s role</td>
<td>Engineering services incl. civil, structural, mechanical and electrical engineering</td>
</tr>
<tr>
<td>Client</td>
<td>National Department of Health</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>Siloam community</td>
</tr>
<tr>
<td>Scope</td>
<td>Repair and build new 270-bed hospital at Siloam Hospital site</td>
</tr>
<tr>
<td>Value</td>
<td>US$ 49 million</td>
</tr>
<tr>
<td>Partners/Associates</td>
<td>Sakhiwo, Hospital Design Group</td>
</tr>
</tbody>
</table>

**Development impact:**

**Doing good while doing business**  
*promote local procurement and local labour during construction*

### Bambisana Hospital, South Africa

<table>
<thead>
<tr>
<th>Location</th>
<th>Lusikisiki, Eastern Cape</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bigen’s role</td>
<td>Project management services, incl. professional engineering services, site supervision and LED, SED and ESD activation, monitoring and evaluation</td>
</tr>
<tr>
<td>Client</td>
<td>National Department of Health and CDC</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>Siloam community</td>
</tr>
<tr>
<td>Scope</td>
<td>Refurbishment of existing 100-bed hospital at Lusikisiki</td>
</tr>
<tr>
<td>Value</td>
<td>US$ 12 million</td>
</tr>
<tr>
<td>Partners/Associates</td>
<td>Sakhiwo and Nemai</td>
</tr>
</tbody>
</table>

**Development impact:**

**Doing good while doing business**  
*promote local procurement and appointment of local labour during construction*
We regard the provision of housing and the related infrastructure as INTEGRAL TO CREATING SECURE, SERVICED, FUNCTIONAL AND SUSTAINABLE COMMUNITIES that enhance the quality of life of Africa’s citizens.

Our development impact

<table>
<thead>
<tr>
<th>US$</th>
<th>US$</th>
<th>3 900</th>
<th>20 000</th>
</tr>
</thead>
</table>
| 242 million construction contracts managed | 41 million spent on local SMME's | permanent jobs created | families serviced 

The unprecedented growth in urban development across Africa has seen governments and the private sector collaborating to create sustainable developments with a lasting impact on the quality of life of Africa’s people.

Access to housing, job opportunities and basic services is integral to creating secure, functional and sustainable communities. In doing good while doing business, our approach to real estate developments is by integrating residential, commercial, industrial and social land use in urban and rural areas to achieve long term sustainability and transformation on all levels.

Our track record includes some of the largest integrated urban housing developments in Africa, various rural housing developments, water and sanitation projects, roads and storm water projects, social and economic infrastructure, and industrial developments. We also have an impressive portfolio of asset management, project programme management and development management projects.
“Our philosophy of **doing good** while doing business is evident through all our infrastructure development projects bringing about social change, local economic development and access to basic services. Our track record includes some of the largest integrated urban housing developments undertaken in Southern Africa to date, providing amenities, services and homes to more than 250 000 families. Similarly, we have provided a formidable range of water, sanitation, roads and housing projects serving more than 1 000 000 people in various rural and urban communities.”

**Steyn van Blerk, MD: Real Estate**

Launched in 2018 as a Mega Project, the US$ 693 million Rama City project will be developed in phases over 10 years to meet the housing, economic and social needs of the communities of Ga-Rankuwa and Soshanguve. Bigen has been appointed by Rama City Development Company, of which the community is one of the shareholders. We provide project management, civil engineering and electrical engineering services for the development.

“Our emphasis on contributing to sustainable socio-economic development wherever we work is certainly being given effect at Rama City,” says Steyn. “The project will not only create local jobs during the implementation phase but we also aim to have focused skills development and training programs to assist beneficiaries with the skills to ensure economic participation in the long term.”

Rama City will provide different types of accommodation that ranges from low-cost, affordable middle-income and bonded housing to community rental and affordable social rental units to address the wide-ranging housing challenges in the area. Following a successful land restitution process, this Mega Project, situated on a 755ha farm next to Ga-Rankuwa and the Rosslyn industrial areas, is set to make significant in-roads into the growing housing backlog. The project will entail 10 fully serviced townships with more than 17 700 mixed-use housing units, as well as community facilities, business stands and industrial zones.

“We are excited about being involved in constructing these new ‘cities of the future’ and committed to our role in driving social and local economic development through the delivery of human settlements in Gauteng and continent-wide.”

**REAL ESTATE – A CASE STUDY**

By the middle of 2019, Bigen’s purpose of **doing good** while doing business will have contributed to improved livelihoods for at least 1 450 families when they take occupancy of newly constructed homes in Rama City, located to the north-west of Tshwane in Gauteng.
Rapid Land Release Programme, South Africa

<table>
<thead>
<tr>
<th>Location</th>
<th>Gauteng</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>Gauteng Provincial Government</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>Residents in Gauteng</td>
</tr>
<tr>
<td>Purpose/ Scope</td>
<td>Expedite release and allocation of land on identified sites to qualifying beneficiaries to construct houses for themselves, and for urban agriculture, township businesses, as well as sports and recreational purposes</td>
</tr>
<tr>
<td>Value</td>
<td>US$ 40 000</td>
</tr>
</tbody>
</table>

**Bigen’s role**
To analyse the readiness of 23 land parcels for commencement of services of installation as well as to recommend planning activities to complete land preparation. To analyse appropriateness of proposed development solutions in line with programme objectives and current socio-economic context and potential development impact.

**Development impact:**

Doing good while doing business

- **17 000** potential temporary jobs
- **12 000** potential housing opportunities serviced sites
- **600** potential full-time jobs

potential **social amenities** to include libraries, clinics, sports fields, parks, schools, creches, community and religious centres

Thorntree View Integrated Housing Development, South Africa

<table>
<thead>
<tr>
<th>Location</th>
<th>Soshanguve, City of Tshwane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>Valumax</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>Local communities and Government</td>
</tr>
<tr>
<td>Purpose/ Scope</td>
<td>Fast-track the release and allocation of affordable, bonded, subsidised and rental housing units; integrated in social and economic infrastructure, to address the housing backlog and service delivery challenges in the area</td>
</tr>
<tr>
<td>Value</td>
<td>US$ 79 million</td>
</tr>
</tbody>
</table>

**Bigen’s role**
Planning, design and construction monitoring of 49 000 mixed-use residential units over multi-years

**Development impact:**

Doing good while doing business

- **56** construction contracts to date
- **49 000** housing opportunities – serviced sites
- **257 000** temporary job days
- **34 400** full-time job days

**social amenities** including primary and secondary schools, training facilities, parks, pedestrian walkways, business sites, shopping centres, fuel stations and recreational facilities
## Department of Basic Education (DBE) Programme Support
### Unit for the Accelerated School Infrastructure Delivery Initiative (ASIDI) / Education Infrastructure Grant (EIG), South Africa

<table>
<thead>
<tr>
<th>Location</th>
<th>Nationally, all nine provinces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>DBE</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>ESKOM; provincial DBEs; *DPW; *SGBs and implementing agents including DBSA; Mvula Trust; IDT and *CDC</td>
</tr>
<tr>
<td>Purpose/ Scope</td>
<td>Implementing ASIDI and EIG funding to improve schooling conditions (basic safety and optimal functionality) at 24 000 schools nation-wide</td>
</tr>
<tr>
<td>Value</td>
<td>US$ 763 million over six years</td>
</tr>
<tr>
<td>Partners/Associates</td>
<td>BTKM; Mott MacDonald; Batsesa Engineering Services; Indigo Kulani; Aurecon and Core Focus</td>
</tr>
</tbody>
</table>

**Bigen’s role**
Programme and project management (decisions about maintenance, renovation, refurbishment, replacement, construction), engineering services (structural, civil, electrical), oversight, monitoring and evaluation, social facilitation, skills development and legal services, infrastructure and building assessments and enterprise development services.

### Doing good while doing business

**Development impact:**
- **500** schools replaced (built with inappropriate materials)
- **2 500** services projects (improved supply of water, sanitation, electricity)
- **improved sports** facilities, disabled access, communications technology and safety

*SGB: School Governing Body; DPW: Dept. Public Works; CDC: Centres for Disease Control

## Leeuwoort Development, South Africa

<table>
<thead>
<tr>
<th>Location</th>
<th>Boksburg, City of Ekhuruleni</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>The Leeuwoort Developments (Pty) Ltd</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>Local communities and Government</td>
</tr>
<tr>
<td>Scope</td>
<td>The purpose of the project is to implement mixed use developments in Sunward Park (Leeuwoort South) with Parkdene and Reiger Park (Leeuwoort North). The developments will include housing; retirement villages; commercial and industrial developments</td>
</tr>
<tr>
<td>Value</td>
<td>US$ 409 million</td>
</tr>
</tbody>
</table>

**Bigen’s role**
Development management project management civil & structural engineering electrical engineering construction monitoring contract administration

### Doing good while doing business

**Development impact:**
- **650 000** temporary and **2 800** full time job opportunities
- **3** sites identified within programme
- **3** allocated projects
- **26 000** housing opportunities
- **social amenities** libraries, clinics, sports fields, parks, schools, crèches, community centres and religious centres

*3 alloted projects
Transportation is integral to **TRADE AND SOCIO-ECONOMIC GROWTH** in Africa. Despite recent advances, only about one-tenth of trade is intra-regional. Improving the region’s cross-border transportation network to move goods, people and services more effectively is an imperative for creating future prosperity.

**Our development impact**

<table>
<thead>
<tr>
<th>4</th>
<th>13 369</th>
<th>5 000</th>
<th>4 738</th>
</tr>
</thead>
<tbody>
<tr>
<td>ground-breaking projects</td>
<td>direct jobs created</td>
<td>indirect jobs created</td>
<td>semi- &amp; unskilled jobs created</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8 631</th>
<th>24</th>
<th>75</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>informal jobs created</td>
<td>communities benefiting</td>
<td>professional jobs created</td>
<td>QSE/ESE appointed</td>
</tr>
</tbody>
</table>

Efficient and sustainable transportation systems create multiplier socio-economic benefits. In South Africa, for instance, the taxi industry transports 15-16 million commuters daily and represents 71% of the community public labour force, while a national road maintenance programme has created jobs and business opportunities for emerging contractors since 2010.

At **Bigen**, our transportation services reflect our commitment to **doing good** while doing business. We continue to pioneer the development of emerging contractors in road construction and maintenance. We also develop in-house procurement strategies for contractors to maximise localised small business development, such as in the multi-billion Namibian dollar rail project, profiled here.
"Our myriad of roads & rail projects richly contributes to the growth of various countries’ economies as it provide essential access to food, healthcare, education and employment. In addition, through our purpose of “doing good while doing business”, we empower communities through capacity building and employment of local community members and SMME’s."

Henk Bester, MD: Transportation

TRANSPORTATION – CASE STUDIES

Bigen’s involvement in two roads infrastructure projects in the Eastern Cape is providing members of adjacent communities with job opportunities, better-quality access to towns and villages, as well as improving operating conditions for commercial and farming businesses. “Our activities in the Eastern Cape are aligned directly with purpose of doing good while doing business and ensuring that we create sustainable socio-economic development impact wherever our projects take us. Through these projects, the commute and economic well-being of approximately 40 000 people has improved significantly,” says Henk.

The maintenance and repair of a section of the national road between Indwe and Maclear in the Eastern Cape, and repairs and safety improvements to roads and bridges in the towns of Indwe, Elliot and Maclear during the past year, resulted in 135 subcontracts awarded to 84 targeted enterprises from surrounding communities to the value of almost US$ 11 million. In addition, 589 jobs, including 20 fulltime positions at a cost of just over US$ 1,7 million, were created. This included empowerment opportunities for 34 women and 31 young people.

“A Bigen team is always available on-site to provide subcontractors with on-the-job training and assist them to increase performance and grow their businesses,” says Henk.

The upgrading of national routes in the southern region of the Eastern Cape saw Bigen’s participation in the project result in the creation of 692 jobs, including 16 fulltime positions at a cost of just over US$ 1,1 million. This included empowerment opportunities for 312 women and 285 young people.

The 60 small enterprises targeted for the project received 64 subcontracts to a total value of close to US$ 3,6 million and included 12 (20%) women-owned businesses. Bigen also issued 268 certificates to those who attended tendering and construction training courses.

Appreciation for Bigen’s assistance is perhaps best expressed in the words of one of the small business owners: “Bigen, thanks for everything and for your assistance. To be honest with you, you are a star. Bigen was always there when we needed you. The manner in which you handled us and the professionalism you displayed clearly shows me who you are. I have never seen somebody like you who is of assistance to the emerging contractors. Only few people are like you. Thanks once more.”

And in KwaZulu-Natal, the construction of two right-of-way-lanes for mixed-traffic road-use along 6.2 km of Josiah Gumede, Quashana Kuzwayo and Beviss Roads in Pinetown, created employment for six emerging contractors and 32 subcontractors from the local municipal wards in the area.

“We used the opportunity to sponsor several sports and school events, as well as some community functions. Direct interaction with communities gives us a greater understanding of their needs, hopes and dreams. Helping to fulfil these in even the smallest way, attests to Bigen’s belief that compassion also requires active support for those less fortunate.”
### Walvis Bay to Kranzberg Rail Project (WKRP), Namibia

<table>
<thead>
<tr>
<th>Location</th>
<th>Walvis Bay to Kranzberg, Namibia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>Ministry of Public Works</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>Government; general public and affected communities</td>
</tr>
<tr>
<td>Scope</td>
<td>Upgrading and improving ±220 km railway line between Walvis Bay and Kranzberg as part of the larger upgrade to Tsumeb (part of Namibia National Development Plan) to increase income equality and create jobs and high, sustained economic growth</td>
</tr>
<tr>
<td>Value</td>
<td>N$4 billion</td>
</tr>
<tr>
<td>Partners/Associates</td>
<td>Bigen Kuumba</td>
</tr>
</tbody>
</table>

**Bigen’s role**
Full engineering; procurement and construction management (EPCM), incl. initial studies to affirm upgrading strategy and freight demand profile to 2025, and develop a procurement strategy to ensure efficiency and economic value. Rail is integral to the green growth agenda, to greenhouse gases, air emissions and noise and vital to efficient freight transport and economic growth.

**Development impact (opportunities that will ultimately be generated):**

<table>
<thead>
<tr>
<th>Doing good while doing business</th>
<th>30-75 professional jobs</th>
<th>500-650 skilled labour</th>
<th>1 900-2 000 semi- and unskilled labour</th>
<th>2 500-2 750 informal jobs created</th>
<th>4 000-5 000 total indirect jobs</th>
</tr>
</thead>
</table>

### Pokuase Interchange, Accra Urban Transport Project (AUTP), Ghana

<table>
<thead>
<tr>
<th>Location</th>
<th>Pokuase Interchange, Accra, Ghana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>Ministry of Roads and Highways; Department of Urban Roads</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>Government and general public</td>
</tr>
<tr>
<td>Scope</td>
<td>Improve transportation for the commuting public; reduction in travel time and cost and overall enhancement of road safety and standards</td>
</tr>
<tr>
<td>Value</td>
<td>US$ 84 million</td>
</tr>
<tr>
<td>Partners/Associates</td>
<td>Associated Consultants Ltd</td>
</tr>
</tbody>
</table>

**Bigen’s role**
Joint appointment for technical design review, value engineering and construction supervision to construct 5 km Awoshie-Pokuase road, 3-tier interchange at Pokuase ACP Junction, 2 km Accra-Nsawam Highway, 2 km Kwabenya road and 10 km local roads.

**Development impact:**

**Doing good while doing business**

- **improved mobility**
- Access to **socio-economic opportunities**
- Facilitation of **regional integration**

Development impact:

- **Improved mobility**
- **Access to socio-economic opportunities**
- **Facilitation of regional integration**

**Doing good while doing business**

- **30-75** professional jobs
- **500-650** skilled labour
- **1 900-2 000** semi- and unskilled labour
- **2 500-2 750** informal jobs created
- **4 000-5 000** total indirect jobs
### Rustenburg Rapid Rail Transport (RRT) Feeder Routes, South Africa

<table>
<thead>
<tr>
<th>Location</th>
<th>Rustenburg, North West</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>Rustenburg Local Municipality</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>Thlabane Wards 8-11 &amp; 13</td>
</tr>
<tr>
<td>Purpose/Scope</td>
<td>Integration of various modes of transport with a high-quality, affordable, safe, rapid, reliable, accessible and environmentally friendly transport system</td>
</tr>
<tr>
<td>Value</td>
<td>US$ 2.4 million</td>
</tr>
<tr>
<td>Partners/Associates</td>
<td>Lotshepe Development Engineers</td>
</tr>
</tbody>
</table>

**Bigen’s role**
- Full engineering services: procurement and construction management (EPCM)

**Development impact:**

**Doing good while doing business**
- **US$ 2.4 million** spent on employing local subcontractors
- 20 subcontractors appointed and received PCs and certification
- **US$ 52 000** spent on training and skills development
- **189** employees benefiting from jobs created

---

### Rejuvenation of some national routes in the southern region, South Africa

<table>
<thead>
<tr>
<th>Location</th>
<th>Eastern Cape</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>South African National Roads Agency</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>Six local municipalities; local communities; farmers in/around villages and business owners</td>
</tr>
<tr>
<td>Purpose/Scope</td>
<td>Maintenance of ±1 483 km roads across the province</td>
</tr>
<tr>
<td>Value</td>
<td>US$ 9.3 million</td>
</tr>
</tbody>
</table>

**Bigen’s role**
- SMME procurement and subcontracting administrative assistance, incl. SMME pre-qualification, compiling, issuing, receiving, evaluating and adjudicating tenders, awarding motivational training and assisting with tender contracting

**Development impact:**

**Doing good while doing business**
- **407** jobs created, incl. 285 youths (18-35) and 16 full-time jobs
- **US$ 1.1 million** value of total number of jobs created
- 64 subcontracts awarded to 60 total targeted black-owned enterprises, incl. 23 women-owned and 15 youth-owned enterprises
- **US$ 3.7 million** spent on subcontractors engaged
- **66** subcontractors trained and skills developed
- **166** people trained, incl. 149 in tendering and 17 in construction
Life without water is not possible. Delivering affordable and sustainable WATER SOLUTIONS now is more important than ever. Every drop of water (dirty or clean) counts.

**Our development impact**

<table>
<thead>
<tr>
<th>462</th>
<th>1,5</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>jobs created during 2018</td>
<td>million people with access to potable water</td>
<td>water supply projects in neighbouring countries</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>30</th>
<th>US$</th>
<th>21</th>
</tr>
</thead>
<tbody>
<tr>
<td>sub-contractors appointed</td>
<td>76 million spent on training and skills developed</td>
<td>communities benefiting from water infrastructure</td>
</tr>
</tbody>
</table>

At Bigen, we aspire towards integrating the entire water infrastructure development value-chain and take decisive action to maximise development impact and improve quality of life. We supplement the in-house expertise of our water services team with strategic partnerships to deliver world-class services.

Our clients, and the communities where we work, benefit from our commitment to doing good while doing business. Our footprint in Africa tells the story of tailored solutions that source, transfer, treat and re-use water cost-effectively for governments, local authorities, mines, industries and local communities. Solutions that are helping Africa to meet its clean water and sanitation SDGs by 2030.
"Water provides life, is a phrase that means so much more in an arid country such as Botswana. People’s lives are improved in many different ways once they have access to adequate and reliable water."

Mias van der Walt, MD: Water

WATER – A CASE STUDY

Gaborone, the capital and economic hub of Botswana, is located in the semi-arid part of the country. The North South Carrier (NSC) regional water transfer system was completed and commissioned during 1999 to supplement raw water supply to Gaborone to support the capital’s continued growth and development.

Raw water from the Letsibogo and Dikgathlong Dams, located some 400km north east of Gaborone in eastern Botswana, is transferred via the NSC past the Palapye and Mahalapye demand zones to the Gaborone node.

The 60 Ml/day NSC transfer capacity to Gaborone was recently extended with the incorporation of a booster pump station. Botswana Ministry of Land Management, Water and Sanitation Services recently developed Pump Station 4.1 which is located approximately 120 km north-west from Gaborone with Bigen undertaking the FIDIC Yellow Book role of the Engineer.

The Pump Station 4.1 Works was completed and commissioned during 2018 and the NSC transfer capacity to Gaborone was increased from 60 Ml/day to 108 Ml/day. At the increased capacity of the extended NSC water and sanitation services to approximately 580 000 additional people can be provided in and around Gaborone.
### Maselspoort Potable Water Re-use Plant

<table>
<thead>
<tr>
<th>Location</th>
<th>Bloemfontein, Mangaung Local Municipality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>Mangaung Local Municipality</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>Communities in Bloemfontein area</td>
</tr>
<tr>
<td>Purpose/ Scope</td>
<td>Process upgrade of 130 ml/d IPR in order to have additional treatment processes to treat the raw water to potable standards</td>
</tr>
<tr>
<td>Value</td>
<td>US$ 55 million</td>
</tr>
<tr>
<td>Partners/Associates</td>
<td>Nemai Consulting; Makecha Development Ass.; Urban-Econ Development Economist and WRP Consulting Engineers</td>
</tr>
</tbody>
</table>

**Bigen’s role**
- Debottlenecking of the rapid gravity sand filtration process to increase the treatment capacity to 140 Ml/d;
- Dissolved Air Flotation unit process for removal of algae;
- Pre- and main ozonation process for treatment of organics, taste and odour, colour and pathogen inactivation;
- Integrated plant communication, control and SCADA system; and
- UF as final barrier of micro-organisms and suspended solids.

**Doing good while doing business**

190 000 people benefit from potable water

### North-South Carrier (NSC) Pump Station 4.1 and Associated Works on NSC 1 Water Transfer Project, Botswana

<table>
<thead>
<tr>
<th>Location</th>
<th>Serorome, Gaborone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>Ministry of Land Management; Water and Sanitation Services, Botswana</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>Communities in eastern Botswana</td>
</tr>
<tr>
<td>Purpose/ Scope</td>
<td>Raw water from the Letsibogo and Dikgathlong Dams, located some 400km North east of Gaborone in Eastern Botswana, is transfered via the NSC past the Palapye and Mahalapye demand zones to the Southern Node centered on Gaborone</td>
</tr>
<tr>
<td>Value</td>
<td>US$ 41 million</td>
</tr>
<tr>
<td>Partners/Associates</td>
<td>CWJV</td>
</tr>
</tbody>
</table>

**Bigen’s role**
The Pump Station 4.1 Works was completed and commissioned during 2018 and the NSC transfer capacity to Gaborone was increased from 60 Ml/day to 108 Ml/day i.e at the increased capacity of the extended NSC will provide water to approximately 580 000 consumers in and around Gaborone.

**Doing good while doing business**

200 local suppliers and subcontractors employed
1 480+ local labourers employed
5 811 locals and labourers trained

**direct** contribution to local economic growth
### Bospoort Potable Water Re-Use Plant (Phase 2)

<table>
<thead>
<tr>
<th>Location</th>
<th>Rustenburg, North West Province</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Client</strong></td>
<td>Rustenburg Local Municipality</td>
</tr>
<tr>
<td><strong>Stakeholders</strong></td>
<td>Communities in and around Rustenburg</td>
</tr>
<tr>
<td><strong>Purpose/Scope</strong></td>
<td>Expansion of water, sanitation, water re-use and pipeline projects in Rustenburg</td>
</tr>
<tr>
<td><strong>Value</strong></td>
<td>US$ 24 million</td>
</tr>
<tr>
<td><strong>Partners/Associates</strong></td>
<td>None</td>
</tr>
</tbody>
</table>

**Bigen’s role**  
Project management and engineering services to implement the following:
- Bospoort WTW (12Ml/d-24Ml/d capacity and process upgrade);
- Bospoort-Rustenburg pipeline replacement;
- Boitekong WWTW (8-18Ml/d expansion process upgrade);
- 20Ml/d DAF tertiary treatment at Rustenburg WWTW;
- Monakato WWTW upgrade;
- Rustenburg WWTW 42-60Ml/d upgrade inception report; and
- Buffelspoort WTW (5-10Ml/d) inception report.

**Doing good while doing business**

- Increased water availability to Rustenburg municipality
- Access to potable water for **500 000** people

### Bafokeng Rasimone Platinum Mine (BRPM):
Grey Water Re-use Plant, South Africa

<table>
<thead>
<tr>
<th>Location</th>
<th>Phokeng, North West Province</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Client</strong></td>
<td>Bafokeng Rasimone Platinum JV</td>
</tr>
<tr>
<td><strong>Stakeholders</strong></td>
<td>Phokeng and Surrounding Communities</td>
</tr>
<tr>
<td><strong>Purpose/Scope</strong></td>
<td>Water reclamation plant for re-use of grey water</td>
</tr>
<tr>
<td><strong>Value</strong></td>
<td>US$ 2.8 million</td>
</tr>
<tr>
<td><strong>Partners/Associates</strong></td>
<td>DJJ Conradie (Electrical Engineering) and Aqua Plan Construction</td>
</tr>
</tbody>
</table>

**Bigen’s role**  
WCDM strategy, water balance assessment, dynamic water balance, conceptual and detail design reclamation plant and pumping stations, tender documentation management and construction monitoring

**Doing good while doing business**

- Plant saving BRPM about **US$ 550 000** p.a
- Released **4m/d potable water** into neighbouring communities
- Reduced pollution of surrounding ground water sources
- Direct impact on **water security** to Rustenburg region
Our commitment to being socially responsible is reflected in how we treat one another and those with whom we work. We serve the communities affected by our projects with humility and understanding to promote inclusive growth, human dignity and societal benefit.
US$ 56 000
Bigen employees’ pro bono time

US$ 11 000
Bigen directorates cash contributions

US$ 67 000
Bigen 2018 contribution to beneficiaries’ value creation

7 University of Life (UoL) Akaretsa projects implemented

Country-wide support for Mandela Day 2018

Charity begins at home initiative implemented for Bigen employees

Akreetsa coordinators pool increased

As a socially responsible corporate citizen, Bigen’s inclusive, indigenised partnership approach to Corporate Social Investment (CSI) is intentionally part of our infrastructure development value-chain and aligned with our purpose of doing good while doing business. Our CSI initiatives support the less privileged with education, skills development, job creation, medical care and community infrastructure through:

- the Intuthuko Foundation on behalf of our clients; and
- our Akaretsa (include me) initiatives of doing good among ourselves and those less privileged in our business environment.
Our Akaretsa programme addresses cultural diversity, interaction and communication in the workplace and mobilises a broad spectrum of Bigen employees to participate actively in outreach work.

Providing employees with an informed understanding of the effect of culture and communication in intra-organisational behaviour has created an empathetic, constructive and productive work environment in which employees learn, grow and thrive.

Akaretsa initiatives also encourage our employees to help others, often in their own time (we encourage employees to spend at least 4 hours each month on doing good initiatives) and with their own resources. Employees, and some of our partners and suppliers, often join hands to contribute, in-cash or in-kind, to a number of specific causes and beneficiaries.

An example of this largesse is our annual Akaretsa fundraiser, launched five years ago and a highlight on Bigen’s annual events calendar. Bigen management, employees, clients, partners and suppliers contribute to the fundraiser. Over the years the stakes have risen significantly: from an initial US$ 13 800 in 2014 to US$ 69 000 in 2015 and US$ 134 000 in 2018, with a goal of US$ 346 000 in 2019.

Cash contributions to the fundraiser are distributed to specific, deserving NPOs to provide relief where it is needed most. Beneficiaries include CATCH, Durban Child and Youth Care Centre, Intuthuko, Nthuse Foundation, POPUP, TREE, Tshwane Child Welfare (Bramley Children's Homes) and Tygerberg Community Initiative. In-kind contributions include assistance with cleaning, maintenance, gardening or simply spending quality time with children and others living in disadvantaged conditions.

During the reporting period, we established a special task team to prepare business plans for all Akaretsa projects to increase their impact. Some of the 2018 Akaretsa projects in which Bigen employees were involved through pro bono time, included:

- the CRUX Urban Poverty Project After-School Care Programme, supervised children, assisted with homework, provided financial support, delivered groceries and helped with growing vegetable gardens. CRUX learners walked off with all the trophies for Best Learner in Grades 1, 6 and 7 at the Silverton Primary School awards ceremony in 2018 and were also acknowledged as best-in-class in all Grades;
- Lerato House, hosted girls’ participation in sporting activities at the CSIR; and
- Celebrated 2018 Mandela Day with the following initiatives:
  - Engo Children’s Home in Bloemfontein, provided sanitary products;
  - Shiloh Community Centre in Cape Town, donated food and clothes;
  - Durban Child and Youth Centre, donated food and established a garden;
  - Gonubie High School and Hope for Life NGO (sanctuary for homeless children) in East London, donated books and food, respectively;
  - Reathusa landfill/dumping site in Mafikeng, donated food to people living at the site;
  - Eastern Cape Child and Youth Care Centre in Port Elizabeth, provided party packs and printed shirts to 97 children; and
  - Funanani Early Childhood Development Centre in Mamelodi, Pretoria, painted and upgraded classrooms and play areas.
University of Life (UoL), a leadership development programme for young professionals, incorporates Akaretsa into Bigen’s leadership development programmes to further embed the spirit of doing good in future generations of Bigen employees. Initiatives include, among others:

- **Engineers Without Borders (EWB)/UP partnership**, project-based technical support, skills sharing, leadership and mentorship support for the pilot project at the Kutumela-Molefi Primary School to upgrade existing infrastructure;

- **Heart to Art**, assisted informal arts and crafts vendors in and around the City of Tshwane to use social media platforms to improve marketing, create e-commerce sales and establish distribution networks; and

- **Bigen/CCI training partnership**, provided free-of-charge resilience training to suitable NGOs, NPOs, PBOs and school and government leadership to provide managers and staff with the tools and skills to handle everyday operations effectively and equip leaders to deal with challenges competently.
Despite operating in an intensely competitive global market and prevailing uncharted economic and political terrain, the Bigen Group still managed to deliver a reasonable financial performance for the year ended 30 September 2018 and has remained a valuable industry player.
Financial drivers

We embrace opportunities and manage economic, environmental and social development risk to generate long-term shareholder value. Adherence to these principles supports our commitment to continuously improve our sustainability performance on a year-to-year basis.

Our dynamic business model, strong leadership, skilled people, diversified customer base and 'supermarket' of service offerings supported the Group’s resilience, with the majority of our directorates trading profitably.

During the reporting period, we continued to emphasise balance sheet growth, sustainable profitability and sound working capital management.

Performance highlights

Value for stakeholders

Our ability to translate strategy into actionable tasks/projects with development impact create ownership and wealth creation opportunities for our strategic partners and key professionals within the company. We generate financial value for all stakeholders, from employees (salaries and other benefits), the state and municipalities (tax revenues) and suppliers (payments for goods and services) to clients and consumers/communities (high-quality services) and shareholders (dividends and share appreciation).

Bigen also regards reinvestment for future growth as a strategic imperative that contributes to shareholder value.

Diversification

We diversify revenue and earnings across our business and services, market sectors and clients to mitigate cyclical trends that affect markets, industries and countries. This also ensures that we create socio-economic development (SED) impact across all sectors.

We enhanced our revenue streams to create a multi-dimensional business to give effect to our Vision 2021 strategy. Bigen’s advisory services are supplemented by earnings from investments and concessions and SED activities. These are leveraged through the Bigen Rubix, an African ‘supermarket’ of services that provides clients with the option of a single service supplier. The result, ensures that we continue to grow our balance sheet.

In addition to a solid reputation and consistently meeting client expectations, Bigen’s constructive stakeholder relations continue to result in repeat business. This is a significant portion of our revenue stream, annually.

Bigen maintains a robust business model and is set to continue with positive earnings in the 2019 financial year to ensure financial value creation for all stakeholders.
In essence, good corporate governance is about ethical and effective leadership that is principled, impact-driven and cognisant of the challenges and opportunities of today’s business world. It is a fundamental aspect of Bigen’s strategic and operational reality.

The salient elements of how we govern our business, are reflected in this section.
### PARALLEL OWNERSHIP STRUCTURE

**Bigen Africa Group Holdings (Pty) Ltd (BAGH)**
- Held from South Africa
- Business development in all SADC common monetary areas

**Bigen Global Limited (BGL)**
- Held from Mauritius
- Business development in all Sub-Saharan Africa non-common monetary areas

### SHAREHOLDING

**Shareholders/Holding companies (holdco)**
- Professional shareholders jointly hold a majority equity interest in the respective Bigen Holdco [BAGH and BGL Groups], aligning shareholder and management interests with the Bigen Group
- In South Africa, shareholding in the BAGH Group is held indirectly, employing the modified flow-through principle
- The Holdco [BAGH and BGL] make in-country investments, including in local equity
- A share ownership trust (BOT) was established to benefit persons unable to hold personal ownership in the Bigen Group of Companies

**Share placement**
- Share trading trusts have been established for each holding company
- Share trading trusts conduct all share transacting, apart from new issue and related share subscription
- There is a maximum of two share placement periods per financial year

**Share pricing**
- **Bigen** Group boards set the share price for each entity in advance of published placement periods
- Share pricing and dividend distributions follow shareholder-approved dividend policies; a dividend yield of 12-16% is policy

### GOVERNANCE

**Bigen Group holdco boards**
- Shareholders elect principal governing bodies for a three-year term in compliance with Bigen Group constitutional documents
- Appoint/nominate subsidiary and investment company boards
- Boards oversee/guide compliance with governance codes according to King IV and the National Code of Corporate Governance for Mauritius (2016), as well as Bigen Group constitutional documents, code of ethics, licensing, royalties and master service agreements, among others

**Subsidiary and investment companies (investco) boards**
- The subsidiary and investco boards are governed in accordance with an overarching governance framework set by the holdco boards, consistent with company law applicable in the various jurisdictions of Bigen’s operations

**Delegation of authority**
- **Bigen** boards delegate functions to board committees, the BAGH chief executive officer (CEO) or the BGL managing director (MD)
- CEO/MD delegate functions to Bigen Group prescribed officers

**Management**
- Executive Chair guides the governing bodies in their fiduciary duties and represent the triple bottom-line – People, Planet, Profit (PPP) – interests of all stakeholders
- CEO and MD manage day-to-day strategy implementation and operations
- Prescribed officers direct operational and key support service areas
Information and Communications Technology (ICT)

- Reports to the chief information officer (CIO)
- Responsible for information and document management, digital business continuity, technology development and trends, ICT policy

**IMPACT:** Robust, bespoke systems that enable and support business agility

Legal; audit and risk

- Reports to the chief risk officer (CRO)
- Responsible for legal services for partnerships, contracts, constitutional documents, procurement, internal audit and enterprise risk management, using a database management tool; a formal risk committee has been constituted with accreditation under ISO 9001:2015 and ISO 31000:2009; insurance (professional indemnity, public directors’ and officers’ liability, commercial crime and asset risks) is placed annually

**IMPACT:** Ethical behaviour, sustainability and risk management

Governance

- Reports to the company secretary
- Responsible for BAGH and BGL governance delivered to executive and board committees and various investment vehicles; contracts out foreign (non-RSA) governance, overseen by the Bigen Group company secretaries; maintains entity and partnership databases, oversees policies and compliance

**IMPACT:** Triple bottom line – People, Planet, Profit – compliance

Marketing

- Reports to the marketing director
- Responsible for organisational branding, positioning and internal and external communication

**IMPACT:** Bigen positioned as socio-economic development activist with a solid reputation throughout the African continent
• Transformation / indigenisation
• Innovation (creative confidence) and digital preparedness
• Eminence (Vision 2021, master practitioners, entrenching relevance of profession)

**We will tell Africa’s new story.**
We will tell the world about our unique heritage, our humanitarians, innovators and talented youth and our uniquely African challenges, our solutions and the opportunities we pursue to create a land of prosperity for all without prejudice and poverty.

And our story will talk about ordinary people achieving the extra-ordinary to build a better Africa for our children.

**We are future ready.**
We’d like to hear from you

Bigen Africa Group Holdings: BAGH
Tel: +27 (0) 12 842 8700  Fax: +27(0) 12 843 9000/9001
E-mail: pretoria@bigengroup.com
Allan Cormack Street off Hotel Street,
Cnr Meiring Naude Road, The Innovation Hub,
Pretoria, South Africa
P.O. Box 29, The Innovation Hub, Pretoria 0087

Bigen Global Limited: BGL
E-mail: info@bigenglobal.com
6th Floor, Tower A, 1 Cyber City, Ebene, Mauritius, 72201
www.bigengroup.com