THE RACE TO ZERO

POST CONVENTION REPORT

11TH GREEN BUILDING CONVENTION 2018

3-5 OCTOBER 2018
CENTURY CITY CONFERENCE CENTRE

GREEN BUILDING COUNCIL
SOUTH AFRICA
CONVENTION REPORT FOREWORD

The 2018 Annual convention was an overwhelming success, which was mainly due to the high quality of presentations; plenary sessions packed with global thought leaders; a programme that catered for different built environment stakeholders; and the highest percentage of public sector participation in the convention’s history. We hosted 740 delegates in total, which is a significant increase from 2017.

We received exceptional feedback from delegates and the level of engagement was characterised by oversubscribed sessions – from the opening ceremony, to the breakaways and finally the closing plenary.

There is a number of key highlights and outcomes from this year’s convention; my selected few include:

• The Race to Zero does not end. There is no final destination, because once a point of zero impact on the environment is reached, the need still exists to consider additional interventions to sustain and evolve the positive impact of Net Zero. We learned during the convention that mitigating climate change is no longer the Holy Grail. The narrative is thankfully changing to suit a progressive community of environmentalists, Paul Hawken’s Project Drawdown showed us that there are a number of solutions that, if implemented, could reverse climate change. Not mitigate it, reverse it!

• The Department of Public Works launched its green building policy, which aims to increase the efficiency of buildings; support sustainable construction; and to roll out a bankable business case for “green” projects. The launch of this Policy signalled a positive step by the public sector, the largest property owner in South Africa, to effectively transform their buildings. The successful implementation of the Public Works Green Building Policy can result in effective public private partnerships in the green building movement.

• Urban planning and innovative social housing solutions in urban spaces, aimed at enhancing integration and sustainability, cannot be ignored. The introduction of vertical gardens in inner-city developments does not only add health and wellness benefits but also act as much needed carbon sinks within heavily polluted spaces.

• Internationally, Net Zero projects aren’t getting built because they save on energy costs. The investment case is that these buildings are better to be in, delivering far better quality workplaces and homes. They are more comfortable, healthier, built to last, sustainable and drives running costs down dramatically.

• For cities to grow in a sustainable manner, developments must take the opportunity to move green design beyond the building scale. Green public spaces, connectivity and urban mobility play a critical role in sustainable cities.

Our jam packed plenary stage consisted of a curated selection of powerful speakers that took us on a journey of economics, planning and design; different applications; practical steps; leadership considerations and passion for a greater course.

We promised a different convention experience and we delivered. Our breakaway sessions were structured to meet the needs of different disciplines in the built environment space. They ranged from panel discussions to masterclasses, workshops and thought leader presentations. The GBCSA launched its quarterly publication +Impact (pronounced “positive impact”) at the convention and will use this as a platform to celebrate successes and to share ideas and lessons learnt on our collective efforts to create sustainable places to live, work, play and learn in.

Our state-of-the-art exhibition and networking opportunities were geared towards creating lasting business relationships and collaborations that will see us advance this noble course. The pledges made on our green wall are so inspiring and give us an indication that sustainability in the built environment will be driven by the most committed and capable stakeholder base.

None of this would’ve be possible if it wasn’t for our generous sponsors, pioneers in their own right, who walk hand in hand with the GBCSA in creating such a dynamic platform for engagement. We made sure that each delegate left Century City Convention Centre more enriched and inspired than when they arrived.

We look forward to seeing you at the 12th Green Building Convention in 2019!

Kind Regards
Dorah
CEO, Green Building Council South Africa
WHO ATTENDED

DELEGATES

340

DAYS

North West 0.28%
Gauteng 42.27%
KZN 2.55%
Eastern Cape 0.28%
Western Cape 51.06%
International 3.55%

THE RACE TO ZERO
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**DELEGATE PROFILE**

**THE RACE TO ZERO**
The 11th Annual Green Building Convention was held at the Century City Conference Centre and Hotel in Cape Town from 3 – 5 October 2018. The convention attracted more than 740 delegates from the built environment sector in a Race to Zero.

The Green Building Council of South Africa (GBCSA) was extremely fortunate to count sponsors committed to building green in our corner. They helped shape a convention with impact and meaning:

**LEAD SPONSORS:**

Belgotex

Proud Sponsor of Paul Hawken

Growthpoint Properties

Standard Bank

**Gold Sponsors**
- Department of Environmental Affairs
- GIZ
- Climate Change Flagship Programme

**Silver Sponsors**
- Department of Public Works
- Mott Macdonald
- RMS
- Virgin

**Bronze Sponsors**
- RICS
- Resource Design
- Xanita

**Supporters**
- Green Building Design Group
- J.P. Morgan
- WPN

The focus of this year’s convention was on achieving Net Zero carbon, waste and ecological buildings; and increased collaboration in the built environment. The convention provided a platform for thought-provoking plenary and breakaway sessions that took a deep dive into critical issues such as Net Zero buildings, climate change, urban planning, technology and sustainability.

The convention hosted more than 100 international and local speakers with high profile thought-leaders such as Paul Hawken (sponsored by Belgotex), James Law, Dr Makhosi Khoza, Prof Anne Kerr (sponsored by Mott Macdonald) Maria Chiara Pastore, Dr Luyanda Mpahlwa, Prof Robert Peña and Edward Garrod. This year the convention offered delegates with the unique opportunity to design their own adventure by pre-selecting which sessions and presentations they want to attend. The interactive and cutting-edge exhibition area and experience lounges gave delegates access to almost 40 exhibitors showcasing innovations in the built environment.

During the convention the GBCSA celebrated a major step forward with government as the Ministry of Public Works handed over the Green Building Policy. The policy, spearheaded by Minister Thulas Nxesi, aims to provide leadership in the built environment through the transformation of government owned buildings to meet acceptable green standards.
Speaker Teasers

Exhibiting Opportunities

Join these top international and local speakers as they share their insight into the future of the built environment. Don't miss out on the Green Building Convention 2018! Click here to register [bit.ly/2GNA4Pf].

Partner with the Green Building Convention 2019 for your opportunity to access the most influential leaders and decision makers in the industry. Grab this exciting opportunity to engage meaningfully with delegates and promote your brand in the Race to Zero! [bit.ly/2jBASD].
THANKS TO OUR LEAD SPONSORS

BRANDING

GREEN BUILDING COUNCIL
SOUTH AFRICA

THE RACE TO ZERO
BRANDING
Speaker presentations were made available for delegates after the Convention so this report is by no means an in-depth content analysis, but rather an overview of the convention as a whole.

DAY ONE

PRE-CONVENTION SATELLITE SESSION – GREEN CAFÉ: CITIES IN THE RACE TO ZERO

- City of Cape Town
- City of Johannesburg
- Ethekwini Municipality (Durban)
- City of Tshwane

SPEAKERS

PAUL CARTWRIGHT
Programme Manager for New Building Efficiency, C40
Introduction to the C40 Cities SA Building Programme

SONGO DIDIZA
Chief Executive Officer, Green BDG
Welcome to the Green Cafe Net Zero

MEGAN EUSTON-BROWN
Director, Sustainable Energy Africa
Overview of the Cities: Provide Context regarding the Progress made, Challenges experienced and Potential Solutions and Next Steps

MUTSA KAJESE
Chief Executive Officer, Ubuntu Lab
Introduction of Building Design Panel

CHILUFYA LOMBE
Sustainability Consultant, Solid Green
Net Zero Energy

MANFRED BRAUNE
Managing Executive: Sector Development & Transformation & Executive Director, GBCSA
Net Zero Carbon Standards and Certification

LISA REYNOLDS
Executive Director, Green BDG
SANS Standards and Regulation

KEVIN NASSIEP
Executive Director, City Of Cape Town
Electricity Integration

DR JAISHEILA RAJPUT
Chief Executive Officer, TOMA-Now
Circular Economy

VIOLA MANUEL
Business Woman and Entrepreneur
Integrator

METHULI MBANJWA
Director of Forethought Africa
Innovation

SHAUN SLABBER
Director, Novu Energy Africa
Monitoring and Control

MARY HAW
Principal Professional Officer: Renewable Energy & Energy Efficiency, City of Cape Town

JOHN MULATYA
Project Manager, MML Turner Townsend, Kenya

VICTORIA BURROWS
Project Manager: Advancing Net Zero Project, World Green Building Council

HASTINGS CHIKOKO
Regional Director for Africa, C40 Cities, Climate Leadership Group
Reflections
Earlier this year the mayors of South Africa’s major metros Johannesburg, Tshwane, Cape Town and Durban committed to introducing mandatory requirements that will ensure that all new buildings are energy efficient. This is to achieve the ultimate target of zero carbon in all new buildings by 2050. This work forms part of the C40 Cities South Africa Buildings Programme.

The session was aimed to support the implementation of the programming through sharing strategies, solutions and best practices with local government stakeholders, the private sector, civil society organisations and government agencies.

The session included presentations from each of the four cities and was followed by a facilitated discussion. Delegates heard that buildings are responsible for 46% of carbon emissions, strengthening the C40 cause towards reducing this staggering statistic.

GBCSA chairperson, Faieda Jacobs officially welcomed delegates to the 11th Annual Green Building Convention by reflecting on the accomplishments of the organisation. Since the GBCSA launched in 2007 it has certified 400 buildings. Jacobs remarked that it had become “unfashionable” for buildings not to be certified green. In fact, certified green buildings are outperforming buildings without it by more than 3%, effectively strengthening the case for building green.

Jacobs also indicated that the GBCSA has trained over 7,000 professionals in green building, while 92 SMMEs have been trained with thanks to funding from J.P. Morgan. She said that it was critical to have more people work in this sector.

In her opening remarks, GBCSA CEO, Dorah Modise reflected that while the accomplishments of the organisation was significant, there was still more to do. She acknowledged the presence of several African Green Building Councils participating in the convention, saying that it was testimony to the strides Africa is making in the green building sector. Modise cautioned that there were still many people who don’t understand green and sustainability, but that the GBCSA was committed to amplifying and educating households about living green.

Belgotex CEO, Edward Colle introduced keynote speaker, Paul Hawken, a renowned environmentalist and author from the US. The company sponsored Hawken’s visit to South Africa. He told delegates that the company was participating in sustainability discussions, because they are committed to building a better South Africa. He urged delegates to leave a positive impact for the generations to come.

Hawken started his keynote address by highlighting how much the narrative has changed around Net Zero buildings. People are taking it more seriously and it has currency. Hawken was presenting Project Drawdown, a comprehensive plan that maps, measures and models substantive solutions to reverse global warming.

He presented some of over 100 of these that have the collective power to achieve real savings in carbon emissions and ultimately reverse global warming. These solutions include wind turbines, reduced food waste, women smallholders, indigenous people’s land management, afforestation, refrigerant management and educating girls.

“The world depends on the leadership of business. Without business leadership it will be very hard to get where we need to be.”

Hawken cautioned that the language used to speak to people about climate change is not working. Fearmongering is ineffective. The current rhetoric makes people numb to the cause, To get people to truly engage, we need to use the right words to effectively get the right message across.

“When we talk about reversing climate change, we’re not just talking about the atmosphere. We are talking about us. To make a difference we need to address the human needs,” he added.
The convention held a vibrant welcome cocktail in the exhibition space to give delegates an opportunity to network and engage with the innovative exhibitions. During the cocktail the Department of Public Works launched the Green Building Policy by officially handing it over to the GBCSA.

The aim of the policy is to provide leadership in the sustainable building sector, providing a Speaking on behalf of Minister Thulas Nxesi, the department’s Nkosazana Khubeka indicated that government wanted and needed to play an active role. The Department of Public Works is responsible for over 90,000 buildings in the country, positioning it as a critical player in the green building environment.

“It’s important that we play our part and change the way we do business and use clean energy.”

The policy was officially handed over to GBCSA chairperson, Faieda Jacobs and CEO, Dorah Modise.
The first plenary of the convention tackled the issue of innovative urban planning that not only addresses the global housing problem, but also reimagines urban spaces to become sustainable and green. The plenary was facilitated by Lynette Ntuli, the MC for the convention.

“Conventional architecture has begun to fail. It is not making an impact on urban housing problems around the world.”

James Law, the CEO and Founder of Cybertecture looked at how technology and design could help solve the global housing problem. He stunned delegates with the current housing problem in Hong Kong where tiny nano flats can cost up to US$300,000. That amounts to over R4-million in SA and the floor space barely covers 18.5 sqm!

Law warned that conventional architecture is failing to make an impact on the urban housing problem around the world. This is where innovative design and technology comes in to play. Cybertecture developed two alternative housing structures that is redefining architecture as a means to make the world a better place.

The OPOD is made from repurposed water pipes and costs less than US$15,000 (about R220k) to build. It’s both compact and mobile, so it doesn’t just take up little space, but can be moved if necessary. The ALPOD, constructed from recycled aluminium, is a high-tech unit that is also easy to move around and takes up very little space.

Law announced that the OPOD project is coming to South Africa, starting with a pilot project in the Masiphumelele township in Cape Town. He called on collaborators to partner with in a bid to make a difference in SA where housing remains a burning issue in urban areas.

“The planet doesn’t care where you create renewable energy. It just needs it to happen.”

Edward Garrod celebrated Elementa Consulting’s 100th Net Zero energy building as he shared ideas around how the green building sector can operate within a commercially constrained property context. He said that Net Zero energy buildings were possible to build and didn’t need to cost more to build. He said it was critical to “transition from innovation to replication” to achieve Net Zero goals.
Garrod said that we needed to start thinking on a larger scale, outside of buildings, how cities can share energy. He said that grid storage was cheaper than building a new power station, so storing renewable energy was undoubtedly the way to go.

“Because the population is growing, we need more cities, but we need these cities to be green”

Maria Chiara Pastore of Stefan Boeri Architetti fascinated delegates with a presentation on vertical forests. These urban ecosystems demineralises urban spaces; reduces urban pollution; improves biodiversity; and offers people with the opportunity to reconnect with nature.

One such forest, the Milan Vertical Forest absorbs 30 tons of CO2 and produces 19 tons of oxygen a year. Building a vertical forest costs about the same as a normal building and just about 10% more to maintain.

“We need to engage. If you take it from the top down, you are going to have a problem. We need to include the people in the discussion and make them a part of it.”

Dr Luyanda Mpahlwa of Design Space Africa asked a critical question: who owns the city? When it comes to spatial planning inclusivity is important. He said that 72-million people live in African cities, which are making these spaces a mess due to the rapid urbanisation. In turn, Cape Town residents are spending 40% of their income on travel costs, which is largely due to the lack of adequate housing. Mphalwa said it shows that we need to rethink city planning.

He called Cape Town a “fragmented city”, saying existing spaces needed to be utilised better and more inclusive spaces needed to be designed.

He says that government hasn’t led any major urban renewal projects, which has largely been driven by the private sector. Incentives for developers would give a major boost to construct low cost housing, a practise that is common in the rest of the world.

CONCURRENT SESSION 1A: URBAN PLANNING FOR SOUTH AFRICA’S NEW NORMAL

SPEAKERS

HASTINGS CHIKOKO
Regional Director for Africa, C40 Cities, Climate Leadership Group
How Four South African Cities Strive to Make All New Buildings Zero-Carbon

LITEBOHO MAKHELE
Programme Manager: Sustainable Cities, South African Cities Network
Accelerating the Transition Towards Sustainable Cities

GILLIAN MAREE
Senior Researcher, Gauteng City Region Observatory (GCRO)
Urban Livability Dynamics Within the Gauteng City Region

JOSIAH LODI
Chief Director: Urban Development Planning, Department of Cooperative Governance and Traditional Affairs (CoGTA)

South Africa’s cities are faced with a number of challenges created by rapid urbanisation and they need urgent interventions to ensure a better life for their residents. This session checked in with policy-makers and practitioners to help delegates shape a better understanding of what is being done to reverse the impact of climate change. The session put a spotlight on South Africa’s Integrated Urban Development Framework, inner-city regeneration programmes, and the rise of precinct developments.
CONCURRENT SESSION 1B: BETTER TOGETHER – THE POWER OF COLLECTIVE ACTION IN THE BUILT ENVIRONMENT

SPEAKERS

PROF. ROBERT PEÑA
Associate Professor of Architecture, University of Washington (UW)
UW Center for Integrated Design, Bullitt Center
Community Engagement and Deep-Green Buildings

DR BARBARA HOLTMANN
President, Women in Cities International (WICI)
What It Looks Like When It is Fixed

EDWIN MASEDA
Chief Director: Facilities Management, Department of Environmental Affairs
Building and Operating a Green Building for a Public Sector Institution: Lessons Learnt

DR MARCO MACAGNANO
Associate Director: Head of Sustainability, Bentel Associates International
Integrated Systems Design and Planning

TSHEPO NTSIMANE
Head: Metros, Intermediate Cities and Water Boards, Development Bank of Southern Africa (DBSA)
The Building Blocks of Collaboration Within the Built Environment

Throughout the convention a common theme emerged, which was the need for increased collaboration. Singular action isn’t going to make a difference, but collective action will. In this session it was established that new standards of collaboration were required to build sustainable urban environments. Built environment professionals from SA, the US and elsewhere explored the impact of teamwork across professions, sectors and disciplines.
Cape Town’s Day Zero marketing campaign, precipitated by a severe drought in the Western Cape, proved to drive water consumption down. But to achieve an overall shift in SA’s urban centres to thrive on less water is a conundrum. In this session speakers looked at how investors price in water efficiencies; draw links with the built environment; and explored the risks of doing business-as-usual vs making significant operational changes.

There are several studies that show that happier employees make for more productive employees. In this session speakers explored the impact green interiors are having on the wellness of people in a working environment and on the increased spend of shoppers in beautifully designed environments. The outcome shows that green interior is independently impactful despite the condition of the host building.
CONCURRENT SESSION 1E: TAKING GREEN HOME – TANGIBLE CHOICES FOR THE FUTURE OF SOUTH AFRICAN HOMES

SPEAKERS

Graham Cruickshanks
Managing Executive: Market Engagement, Green Building Council of South Smart Homes

Tahane Mahlaole
Dealmaker, International Housing Solutions (IHS)

Candlewood Crescent and Jackalberry: A Case Study

Dr Hildegarde Fast
Lead: Energy Security Game Changer, Department of Economic Development and Tourism, Western Cape Government

Incentivising Green Home Interventions Among Consumers

Richard Stretton
Principal, Koop Design

A Case for Sustainable Off-Grid Homes and Sustainably Sourced Materials

In the age of sustainability the green building environment has an increased responsibility to provide education and solutions to revolutionise homes to have a positive environmental impact. The question is, are green homes a reality across all sectors of South African society? This session’s panel of experts delved into the future of investing, building, buying and living in sustainable home.
CONCURRENT SESSION 1F: TRENDSPOTTING WITH GLOBAL SUSTAINABILITY LEADERS – A PANEL

SPEAKERS

VICTORIA BURROWS
Project Manager: Advancing Net Zero Project, World Green Building Council
Net Zero and World GBC Trends

JANE AFRANE
Regional Head: Africa Network, World Green Building Council (WorldGBC)

MAY YUSUF
Chair, Sudan Sustainable Building Council (SSBC)

CHISAMBWE DOUGLAS KATENGO
Chair, Zambia Green Building Council (ZGBC)

This session hosted an interactive panel with thought-leaders from green building councils from around the world. They examined the top trends driving the transformation of buildings and business, and energising communities and cities.

RESPONSE PANEL:

MUDDY RAMRAKHA
Member of the Board for Africa Yoga Project & Kenya Green Building Society

DENNIS PAPA ODENYI QUANSAH
Green Building Lead, Climate Business Department, IFC Ghana

CONCURRENT SESSION 1G: STANDARD BANK BRAINWAVE STAGE

SPEAKERS

RICKY SCHNETLER
Environmental Officer and Green Building Acting Professional, AVENG Grinaker-LTA
The Development and Evaluation of a Waste Water Purification System for the Refinement of Cement-Contaminated Effluent at a Construction Site: A Comprehensive Green Building Case Study

HENNING BRAND
Business Development Director, Solarus
Solarus Power Collector Technology & Case Studies including Actual Calculations of Efficiency

RAJESH LALLOO
Chief Technical Officer, OptimusBio Pty Ltd
Biotechnology - Perhaps the Missing Link in the Green Building Agenda

LISA LOWENTHAL
Founder and Director, SkeemSaam
Enabling Informal Recyclers (Reclaimers/Street Surfers/Urban Waste Miners) Through Social Entrepreneurship

LAETITIA COOK
Lecturer, University of Pretoria (UP)
Impact of Technology on the Property Sector

CECILIA CHINGA
Registrar, South African Council for the Landscape Architectural Profession (SACLAP)
The Role of Landscape Architecture in the Race to Zero
CONCURRENT SESSION 2A: BUILDING INCLUSIVE AND RESILIENT CITIES IS HARD, BUT WE CAN DO IT

**SPEAKERS**

**HELEN BOTES**  
CEO, Joburg Property Company  
The Development and Evaluation of a Waste Transforming a City’s Property Portfolio

**AMIRA OSMAN**  
Professor of Architecture, Tshwane University of Technology (TUT)  
Creating Inclusive Urban Environments

**KHALIED JACOBS**  
Director: Jakupa Architects and Urban Designs  
The Planning Paradox: Leaving Space for Others

In the Race to Zero an important milestone we need to reach is achieving Goal 11 of the Sustainable Development Goals and that is to create cities that are inclusive, safe, resilient and sustainable. In this session sector leaders discussed the role of built environment stakeholders in reversing the effects of Apartheid spatial planning and the implementation of sustainable development practices to create a better life for cities and their people.

CONCURRENT SESSION 2B: THE BOTTOM LINE – PROVING THE FINANCIAL VALUE OF GREEN BUILDINGS

**SPEAKERS**

**PHIL BARTTRAM**  
Executive Director, MSCI  
The MSCI South Africa Annual Green Property Index

**DANIE HOFFMAN**  
Senior Lecturer, Faculty of Engineering, Built Environment and Information Technology University of Pretoria (UP)  
The Cost of Green: Latest Results from the Joint Study Undertaken by the GBCSA, ASAQS and University of Pretoria of the Cost Premium of Building Green Star Buildings

**DIRKJE BOUMA**  
Group Treasurer, Growthpoint  
Growthpoint’s Green Bond Listing on the JSE in 2018

**LYNETTE NTULI**  
Chief Executive Officer, Innate Investment Solutions  
An Investors Perspective: Green Investment Strategy Considerations

The financial viability of green developments, together with the return-on-investment, continues to be top of mind for property developers, owners and managers. While this has always been a grey area of speculation, today the data exists and demonstrates the performance of green building assets in real-time. In this session delegates learned about an array of products and market trends that are making the positive case for sustainable building.
CONCURRENT SESSION 2C: THE BENEFITS OF TURNING BROWN BUILDINGS GREEN – CASE STUDIES FROM THE IMPLEMENTERS

SPEAKERS

**DR ANNE KERR**  
Global Head of Cities, Mott MacDonald – Hong Kong  
*Setting the Stage from a Global Perspective*

**ILSE SWANEPOEL**  
Head of Utilities, Redefine Properties  
*Roadmap to Zero for a Portfolio: A Case Study*

**MFUNDO XULU**  
Director, Department of Public Works  
*Aspirations to Turn Brown Buildings Green: The Public Sector*

**STEPHEN WETMORE**  
Lead: Sustainable Business & Innovations, WWF-SA  
*The World is our Office – Working with Nature*

Many lessons have been learned by those who were among the first to retrofit buildings and transform them into sustainable spaces. This session explored benefits of turning brown buildings green; the financial benefit, the cost per square metre; and the challenges.

CONCURRENT SESSION 2D: POSITIONING THE BUSINESS CASE FOR NEXT ZERO NEW BUILDING PROJECTS

SPEAKERS

**PROF. ROBERT PEÑA**  
Associate Professor of Architecture, University of Washington [UW] UW Center for Integrated Design, Bullitt Center  
*The Bullitt Center and the Economic Case for Deep-Green Buildings*

**EDWARD GARROD**  
Principal, Integral Group  
*International Perspectives on Business Case for Net Zero*

**ENRICO DAFFONCHIO AND CHILUFYA LOMBE**  
Director, Daffonchio Architects | Sustainability Consultant, Solid Green  
*78 Corlett Drive: Net Zero Carbon Certified – A Net Zero Carbon Certified Case Study and Business Case*

**NARDO SNYMAN**  
Sustainability Director, Marc Sherratt Sustainability Architects  
*Net Zero Water & Net Zero Carbon – A Case Study*

**MARC SHERRATT**  
Managing Director, Marc Sherratt Sustainability Architects  
*Linden Vleiuis Residential Project - Net Zero in Progress. What is the Business Case for Mid-High End Residential Buildings to go Net Zero?*

In this session the business case for Net Zero and close to Net Zero projects were demystified with the presentation of case studies supporting the benefits of sustainable building. Both local and international projects showed the return on investment, available technology, income generation and the motivations for Net Zero certification. During his presentation, Elementa UK’s Edward Garrod told delegates that a survey measuring people’s satisfaction with Net Zero versus other buildings, green buildings outperformed them by 20%. This is a significant indicator, which translates to staff loyalty, retention and productivity. Growthpoint’s Nardo Steyn showed off someone of the property giant’s Net Zero buildings, indicating that they now have 100 certified green buildings in SA.
CONCURRENT SESSION 2E: STANDARD BANK BRAINWAVE STAGE

SPEAKERS

VAHIN PARMANANDA & MTHOKOZISI SIBISI
Master of Architecture Students, UKZN
A Winning Concept: Solar/ Creek/ Community

TESSA BRUNETTE
Senior Façade Designer, ARUP
Eco-Positivity – It’s in the Walls

DR MEHRAN ZARREBINI
CEO, Mathe Gp/Van Dyck Floors
Creating Worth from Recycling Tyres in South Africa

GERALD MANDEVHANA
Architect, Jack Mutua Architects
Analysis of Vertical Photovoltaic Systems on High-Rise Commercial Buildings in Windhoek, Harare & Johannesburg

JANET PEACE
Product Manager, Bidvest Execuflora
Bringing Home to the Office

LOUIS-GILLIS JANSE VAN RENSBURG
Director, Fresh Life Produce
Sustainable Food Producing Rooftop Gardens
The GBCSA Gala Dinner was a burst of colour as guests redefined black tie with attire and accessories that celebrated green. From the expertly prepared food to the magnificent entertainment from Majozi, the green building fraternity had a night to remember.

Outgoing GBCSA Chairperson, Faeida Jacobs handed over the symbolic knobkierie to incoming chair, Nathi Manzana. Manzana committed to focusing on building more collaborative partnerships when he takes the leadership seat.

GBCSA also honoured leading green projects and heroes during the gala event. The categories recognise the leading green projects in South Africa, which includes the Highest Rate Building, Best Quality Submission, Edge Innovative Housing Project and the Net Zero Innovative Project Award. Game-changers in the built environment are also honoured in the Established and Rising Green Star categories, respectively.

The criteria for qualifying green projects are based on submission data gathered during the GBCSA’s Green Star certification process and the strength of the submissions. Individuals are nominated by the industry and their Green Star engagement is also taken into consideration.

This year’s nominees presented tough competition and judges certainly had their work cut out for them, but the winners and runner ups were announced as follows:

**HIGHEST RATED BUILDING**
- **WINNER:** 78 Corlett Drive, Johannesburg (Project Owner: Legaro Properties / AP: Solid Green)
- **RUNNER-UP:** Watershed, Cape Town (Project Owner: V&A Waterfront / AP: Sow & Reap)

**BEST QUALITY SUBMISSION**
- **JOINT-WINNER:** Liberty Umhlanga, Durban (Project Owner: Liberty Group / AP: Misplon Consulting)
- **JOINT-WINNER:** Menlyn Reconfiguration Phase 1, Tshwane (Project Owner: Public Investment Corporation / AP: Aurecon)
- **RUNNER-UP:** GBCSA Offices, Rosebank, Johannesburg (Project Owner: GBCSA / AP: Ecocentric, Terramanzi)

**ESTABLISHED GREEN STAR**
- **WINNER:** Sally Misplon, Misplon Consulting
- **RUNNER-UP:** Annelide Sherratt, Solid Green

**RISING GREEN STAR**
- **WINNER:** Jesse Hamman, Solid Green
- **RUNNER-UP:** Daniel Grewan, LTM Energy

**EDGE INNOVATIVE HOUSING PROJECT**
- **WINNER:** Belhar Gardens Rental Estate, Cape Town (Project Owner: Madulammoho Housing Association)
- **RUNNER-UP:** Ravenswood (Candlewood Crescent), Boksburg, Johannesburg (Property Owner: IHS Investments)

**NET ZERO INNOVATIVE PROJECT**
- **WINNER:** Two Dam Sustainable, Montagu, Western Cape
- **RUNNER-UP:** Lindon Vleihuis Residential Development, Johannesburg
5 OCT FRI

PRESENTATION SUMMARIES

DAY THREE

GBCSA/WPN WOMEN’S BREAKFAST
GBCSA kicked off the last day of the convention early, co-hosting a women’s breakfast with the Women’s Property Network (WPN). Guests were delighted to hear from keynote speaker, Suzanne Ackerman, Director of Transformation for the Pick n Pay Group. She is also the Board Director and Chairman of the Ackerman Pick n Pay Foundation and SBI (Small Business Incubator).

Ackerman inspired guests with a powerful presentation on purpose, stewardship and mindfulness. GBCSA CEO, Dorah Modise captured the spirit of the breakfast:

“We are starters, doers and finishers. We would like to continue to grow women. That’s why today we are talking about transformation.”

PLENARY TWO: A NEW URBAN FORM

SPEAKERS

DR MAKHOSI KHOZA
Executive Director: Local Government Programme, Organisation Undoing Tax Abuse (OUTA)
The Future South African City: The Role of Local Government

DR ANNE KERR
Global Head of Cities, Mott MacDonald, Hong Kong
Smart & Sustainable Cities: In the Dawn of an Information Age and the Rise of a “Cyber” Age: How Do We Maintain Citizen-Centricity While Enhancing Resource Efficiencies Within a Developing Economy

THE ROLE OF CLIMATE CHANGE FLAGSHIP PROGRAMMES IN THE RACE TO ZERO CARBON – A PANEL:

REITUMETSE MOLOTSOANE
Director: Climate Change Monitoring and Evaluation – Mitigation & Emissions, Department of Environmental Affairs

GREGOR SCHMORL
Project Director: Energy Efficiency in Public Buildings and Infrastructure Programme (NAMA Support Project) and Component Manager: Climate Support Programme - Flagship Support, GIZ

GRAHAME CRUICKSHANKS
Managing Executive: Market Engagement, Green Building Council of South Africa (GBCSA)

MAPHUTI LEGODI
Deputy Director, Department of Energy

ANDREW MOTHA
Control Environmental Officer: Municipal Waste Support, Department of Environmental Affairs
The second plenary of the convention kicked off with a fiery presentation by Dr Makhosi Khosa, who heads up OUTA’s local government programme. Those who know her as a former MP, know that Dr Khosa has a no-nonsense approach towards corruption and governance.

“If we don’t have the right leadership, we have a problem.”

Dr Khosa said that one of the major issues in local government was a lack of the “right” leadership. She said that while we have “brilliant” legislation, the problem is adequately implementing it. The larger issue was how critical the role of local government is and if it doesn’t work it has an adverse effect on how we achieve a better life for the people of SA.

“Everything is about local government, without it we might as well give up on fixing anything for the people of South Africa. We need to fix local government.”

The politicisation of municipalities; poor service delivery the erosion of ethics; by-laws not catching up with the age of disruptions and innovations; outsourcing of local community responsibilities to councillors and administration; and irrational municipal demarcations are just some of the challenges facing local government.

“Unfortunately God stopped manufacturing the land when he created the earth. There isn’t going to be any more land, we can’t buy more from heaven. We need to make the best of the land we have.”

Dr Khosa reiterated the need for leadership and an openness to innovation in local government. In her opinion greening townships should be one of these innovations as many of these settlements have very little to no trees. She also called for regional integration to deal with the knock-on effect that challenges facing local government has – what happens in Emfuleni will in time have an effect on Johannesburg.

Meanwhile, Anne Kerr of Mott MacDonald painted a staggering picture of rapid urbanisation citing UN stats which show 50% of the world population living in cities, using 60% of the world’s energy and producing 75% of greenhouse gasses. These challenges require innovation solutions.

“Technology doesn’t make a smart city, technology enables a smart city.”

Kerr hailed Singapore as a leader in smart cities by harnessing the power of networks, data and info-comm technologies to improve living, create economic opportunities and build a closer community. But she warned that it was important to ask who owns the data generated by smart and open cities.

She said that while these cities are open to vulnerabilities such as hacking, it doesn’t mean that data should be abandoned. It just means that we need to seriously understand all aspects of data management and policy to prevent and mitigate risks.

The plenary concluded with a panel discussion led by the Department of Environmental Affairs on the role of climate change flagship programmes in the race to Zero carbon.
CONCURRENT SESSION 3A: THE RACE TOWARDS ZERO WASTE

**SPEAKERS**

**MASOPHA MOSHOESHOE**
Executive Director, New GX Enviro Solutions

*Red Tape vs the Drive for Sustainability: A Multiple Waste Recovery Facility for the City of Tshwane – A Case Study*

**KIRSTEN BARNES**
Waste Economy Analyst, Green Cape

*Secondary Construction Materials - Why We Should Design “Waste” Into Our Sector*

**SALLY-ANN KASNER**
Executive Associate, JG Afrika

*Net Zero Waste*

**HEIN FOURIE**
Manager, GCX Zero Waste

*Wild Coast Sun: A Practical Example for Zero Waste*

In this session expert speakers delved into the nuts and bolts of the built environment, relating to the waste generated by this sector which account for 40% of waste in landfill sites worldwide. They reflected on unique opportunities to implement solutions during the construction and operation phases that alter waste generation and management throughout the life cycle of a building. They also explored new innovations and why property developers, owners and tenants are lagging in waste management.

CONCURRENT SESSION 3B: FROM THE INSIDE OUT – WHY GREEN TENANT OPERATIONS MATTER

**SPEAKERS**

**WESLEY NOBLE**
Head of Changing Business for Good, Virgin Active South Africa

*Virgin Active’s Pathway to Net Zero Water, Carbon and Waste by 2030 – Progress Challenges, Opportunities, Lessons Learnt*

**BENJAMIN BIGGS**
Engineer, JG Africa

*Case Study: Toward Net Zero using Water Sensitive Design*

**QUENTIN ZEVIO**
Energy Manager: Woolworths Real Estate Development

*Targeting Green Star Existing Building Performance Rating. The Important Role Tenants Play, Landlord/Tenant Challenges and Opportunities. The Woolworths Experience*

**ELENE’ OLWAGEN AND SMITA WAGHMARAE**
Interior Design Team Leader & Interior Architect, Boogertman+Partners

*Case Studies: The Value of a Green Interior – Google JHB Office and Boogertman+Partners JHB Office*

During the session speakers presented case studies in favour of green interiors that incorporate Net Zero thinking in operational spaces. These studies map an interesting journey that respond to the challenges, benefits and return-on-investment of incorporating Net Zero practises.
CONCURRENT SESSION 3C: A BIRD’S EYE VIEW ON USING THE SCALE OF A PRECINCT TO CONTRIBUTE TO NET ZERO

SPEAKERS

MARLOES REININK
Sustainable Building Consultant, Solid Green
Oxford Parks: Inner City Urban Redevelopment – Challenges and Opportunities Associated with Brownfield Neighbourhood Scale Sustainable Development

ERIC NOIR
Managing Director, Design for Abundance Precinct Planning

CHILUFYA LOMBE
Sustainability Consultant, Solid Green
Kenya Nairobi Project: Masterplan Vision for a New Neighbourhood

Throughout the convention the importance of urban planning was prevalent and points to the need for holistic solutions, rather than a building by building approach. In this session delegates heard from the experts about the benefits of precinct planning with real life case studies to support their efficacy. They were able to show how precinct planning ensures that good design; including community and environmental outcomes are considered from the start. In the end precinct developers can seamlessly integrate these considerations with urban design and development plans.

CONCURRENT SESSION 3D: REGENERATION – A MASTER CLASS

SPEAKER

PAUL HAWKEN
Environmentalist, Entrepreneur, Author and Activist - USA Sponsored by Belgotex

Renowned environmentalist, Paul Hawken was without a doubt a highlight at this year’s convention. Forget about mitigating climate change, Hawken is in the business of reversing it. Other than being free with his time and expertise during the convention’s many networking opportunities, Hawken also presented this master class on regeneration, saying it was “game on” when it comes to climate change. The empowerment of women, education and complex economies are some of the elements that he cited as conducive to a more sustainable and equal society, which in turn can contribute to reversing climate change. Hawken’s contribution to the convention undoubtedly left a mark on the green building fraternity, rejuvenating its efforts to create a greener world for the benefit of all.
CONCURRENT SESSION 3E: GREEN ISN'T A COLOUR, IT'S A PROMISE – A DISCUSSION WITH THE DECISION MAKERS

RESPONSE PANEL

HELEN BOTES
CEO, Johannesburg Property Council

AMELIA BEATTIE
CEO, Liberty 2 Degrees

NEELS GROBLER
Head of Facilities Management, Broll Property Group

PORTIA TAU-SEKATI
Chief Executive Officer, Property Sector Charter Council

LYNETTE NTULI
Chief Executive Officer, Innate Investment Solutions

The GBCSA convention hosted its first ever C-suite panel to talk about sustainability in business, roping in heavyweights who unpacked top trends driving the transformation of the built environment sector towards sustainability. The definition of sustainability in business is constantly evolving and now covers a wide range of issues that directly influence how companies navigate environmental and social challenges. Delegates were able to learn from the source how sustainability is impacting their businesses.

CONCURRENT SESSION 3F: HOW TO DELIVER HIGH PERFORMANCE BUILDINGS - FROM DESIGN TO HANDOVER

SPEAKERS

RICHARD ROOLEY
FREng, ASHRAE
Bridging the Gap Between Tenant Expectations and Designing and Handing Over High Performance Buildings: Case Studies and Lessons Learnt

ANDRE HARMS
Sustainability Engineer And Director, Ecolution Consulting
Best Practice Commissioning Overview: Lessons Learnt and Benefits

YOGESH GOOLJAR
Partner & Director, PJCarew
High Performance Design. What are Lessons Learnt and Benefits Experienced from a Few Designs that Worked Well and Those That Didn’t Work Well, Once Handed Over to Tenant/Owner

SIMON PENSO
Director/Founder, Imbue Sustainability
Client Perspective on the Benefits of Proper Commissioning Handover and Building Tuning
CONCURRENT SESSION 3G:

SPEAKERS

SIBUSISIWE NDAMASHE  
Technical Assessor, Agreement South Africa  
A National Eco-Label System for Building Materials and Products

NHLANHLA NDLOVU  
Director, Hustlenomics  
Smart Grid Solutions

MICHAEL LOUW  
Lecturer, University of Cape Town  
Net Zero Home Designed by Students as Part of the International Solar Decathlon Competition

MARK MCCORMICK, DANIEL NAVARRO, NICHOLAS TENNICK  
Students, University of Cape Town  
Upgrading Existing Medium-Density Residential Buildings with Strategic GBFIs holds the Key to increasing Affordable Housing in Cape Town

CLOSING PLENARY: BEYOND ZERO

SPEAKERS

NKOSINATHI MANZANA  
Incoming Chair, Green Building Council South Africa  
Launch of Smart Home Campaign

PAUL HAWKEN  
Environmentalist, Entrepreneur, Author, and Activist  
Drawdown – What’s Next?

PROF. ROBERT PEÑA  
Associate Professor of Architecture, University of Washington (UW)  
UW Center for Integrated Design, Bullitt Center  
Creating the Context for Socially Equitable Environmentally Resilient Communities

DR MORNE DU PLESSIS  
Chief Executive Officer, WWF-SA  
Listening to Nature

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DORAH MODISE  
Chief Executive Officer, Green Building Council South Africa  
Closing Remarks & Announcement of 2019 Convention
Prof Robert Peña kicked off the closing plenary talking about the context of socially equitable environmentally resilient communities with reference to the world’s greenest building, the Bullitt Center in the US.

"Modern buildings are on life support. They are plugged in. As soon as they are unplugged, they cannot function."

He said that the intention of the Bullitt Center was not to still be the greenest building in a couple of years, but rather to be trailblazer for green buildings of the future. He says the starting point for any green building is the context. You have to look at the climate, the landscape, the culture and most importantly the people – it is more than just building pretty facades.

Dr Morne Du Plessis, CEO of WWF-SA entertained guests by using the transient and complex nests that birds build as an analogy for the built environment. It shows that we have much to learn from nature. It shows us exactly how we can build sustainably, for example the sociable weaver’s nest is like an optimally designed apartment block for birds! He reminded delegates to use nature’s Google, as it is backed by 4-billion years of research and development.

Delegates were surprised with a special video message from Virgin Group founder, Sir Richard Branson, who together with his team committed to Net Zero Virgin Active buildings by 2030. He urged more business to come on board with the Net Zero vision.

"Your attendance is an indication of your commitment to sustainability in your business and it is this commitment from business that is going to help us collectively tackle climate change."

Paul Hawken returned to the stage to talk about what is next for Project Drawdown, the crux of it being the need for more collaboration to ensure that we effectively reverse climate change.

The convention was closed by GBCSA CEO, Dorah Modise, who officially launched next the Green Building Convention 2019, aptly themed “Beyond” as the green building sector continues its journey towards creating a sustainable planet with a green future filled with possibilities.