

# GE Africa Innovation Centre Johannesburg, South Africa: 120 Days



GE Africa  
Innovation Centre



At the Forefront of African Innovation



# Background

## BACKGROUND

Launched in June 2016, and located in the African commercial hub, of Johannesburg, South Africa, the GE Africa Innovation Centre (GE AIC) serves Sub-Saharan Africa and is dedicated to the rollout of sustainable innovation programmes, projects and solutions for the region.

### **The GE AIC is:**

An integrated centre that is committed to innovation, collaboration, thought leadership, learning, ideation, prototyping, and commercialisation - leveraging the best of GE methodologies, technologies and tools.

## KEY OBJECTIVE

To work collaboratively with our key stakeholders on tackling Africa's biggest challenges - or opportunities - and innovating sustainable solutions to African challenges.

## FACILITIES:

- The GE Africa Experience: A digital and interactive exhibition and exploration zone, showcasing the best of African and GE innovation
- The GE Healthcare Experience: A hands-on training facility, equipped with the full suite of GE Healthcare technologies.
- Agile Workspaces: For GE employees, visitors, and resident faculty.
- The GE Learning and Development Centre: serving Sub-Saharan Africa.
- A Digital Laboratory: for Open Innovation and collaboration - the best of the GE Global Brain, on site in SSA.
- Flexible Innovation, Collaboration, Breakaway, and Ideation zones: throughout the building.
- The GE Work Cafe: serving fresh locally-sourced brain-food, and providing on-site catering for all training and events.

## IN RESIDENCE:

- GE SSA Healthcare, Learning & Development, Digital, Enterprise Development and Remote Monitoring [IPRC] teams as well as the GE SSA Innovation team and GE AIC facilities and operations.
- Visiting subject-matter experts, guest lecturers, and facilitators.



# Facilities



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GROUND FLOOR RECEPTION



The first LEED-certified GE building in SSA, the GE AIC includes locally sourced industrial design from across Africa - over 200 individual pieces .

The most note-worthy of the African designer furniture and installations, is a three-storey reception mural, created from over 3000 hand-carved wooden pieces by Botswana industrial designer, Peter Mabeo.



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GE AFRICA WORK CAFÉ







**GE AFRICA EXPERIENCE**



**Flexible digital and Interactive hands-on exhibition and demonstration space, with ideation, AR and VR stations and flexible space for 150 seated.**



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**FIRST FLOOR AGILE WORKSPACE**  
With Tele-presence and Breakaway Zones



**GE AFRICA HEALTHCARE EXPERIENCE**

8 stations: Reception; ER; CT; Surgery; Maternal Healthcare;  
Cardiology; Diagnostic Imaging; 16 pax Training



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Flexible training and break-away rooms: sliding, stacking doors. Writable walls; 9 projectors; mobile telepresence. Seat 5 to 120 pax



Top Floor: Versatile Learning & Development & Collaboration Centre



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# Achievements To November 2016

## INNOVATION & DIGITAL NETWORK

### GE Innovation Network: Global Challenges

- 4 Minds+Machine qualifiers
- 3 Slush Challenge submissions
- 2 submissions Predix Global Developer Pilot

### GE AIC Innovation Challenges

- Healthcare Accelerator with Standard Bank
- Women Entrepreneur Challenge with Lionesses of Africa
- Simulation & Modelling Start-up

### GE Digital Council, Academy and Lab

- Launch of SSA Digital Council
- Digital Academy: various engagements
- Transport Digital Lab

### GE AIC Innovation Workshops and Workouts

- Speed Workshops - For Universities: Wharton x1 ; GIBS x3; African Leadership University
- Full Day Workshops: Internal Clients:- 30 pax x1



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## STAKEHOLDER ENGAGEMENTS

### Key Client Engagements

- Key Clients including Crotonville delegation - 12 Corporate Leaders
- Various Diplomatic delegations

### Research Collaborations

- Research Institutions: CSIR; SABS - MoUs
- Tertiary Institution (Skills Development, Research): University of Pretoria; Wits; Johannesburg; VUT

### Multi-stakeholder Events [100 pax +]

- GE AIC Global Launch - 13 June 2016
- Compliance
- Healthcare - Breast Cancer Awareness

### Multi-stakeholder Events [0- 60 pax]

- Catered events - 150 +
- Healthcare Training - 20 sessions

### L&D - Crotonville Curriculum:

- 697 pax trained - over 25 courses

### Enterprise Development- Londvolota Trust

- Completion of first round - 18 entities trained & integrated into Supply chain
- Recruitment of second round

## OPEN & SOCIAL INNOVATION

### Digital Open Days & Ecosystem Workshops [50 - 120 pax+]

#### Ecosystem

- STEM Career Days - Secondary Schools; Orphanage x 3 events- 120 pax

#### Innovation and STEM Workshops

- Family and Friends Day - 180 pax
- African Ecosystem - 80 pax
- TedX - 80 pax

## BRANDING & COMMUNICATIONS

### Publicity & Publications

- Launch publicity - all global media platforms
- Ongoing features - architectural, industrial and business media
- Brochures x 2

### Social & Internal Communications

- Website; Facebook & Twitter - updated daily
- Monthly/Quarterly Internal Newsletters
- GE AIC You Tube Channel
- Slack introductions

### Promotional Products

- GE Innovation Fact Card Game
- Youth Placemat Logo Game
- Coasters, Lanyards; 3D printed flashdrives

Over 3261 recorded unique visitors since opening.





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GE AFRICA INNOVATION CENTRE GLOBAL LAUNCH  
Johannesburg, South Africa 13 June 2016





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**GIANT AFRICAN CREATIVE INNOVATION WELCOME**  
The Giant Match Puppets, a community legacy project from 2010 World Cup were present at GE Africa Innovation Centre Launch and later Family Open Day





**KEY CLIENT ENGAGEMENTS:**  
Multi-stakeholder and Ministerial Delegations. Africa CEO Jay Ireland goes virtual; South Africa CEO Thomas Condit with African Ministerial Delegation





FAMILY & FRIENDS OPEN INNOVATION DAY : OCTOBER 2016



Robotics; 3D Printing; VR Stations... and Giant Puppets



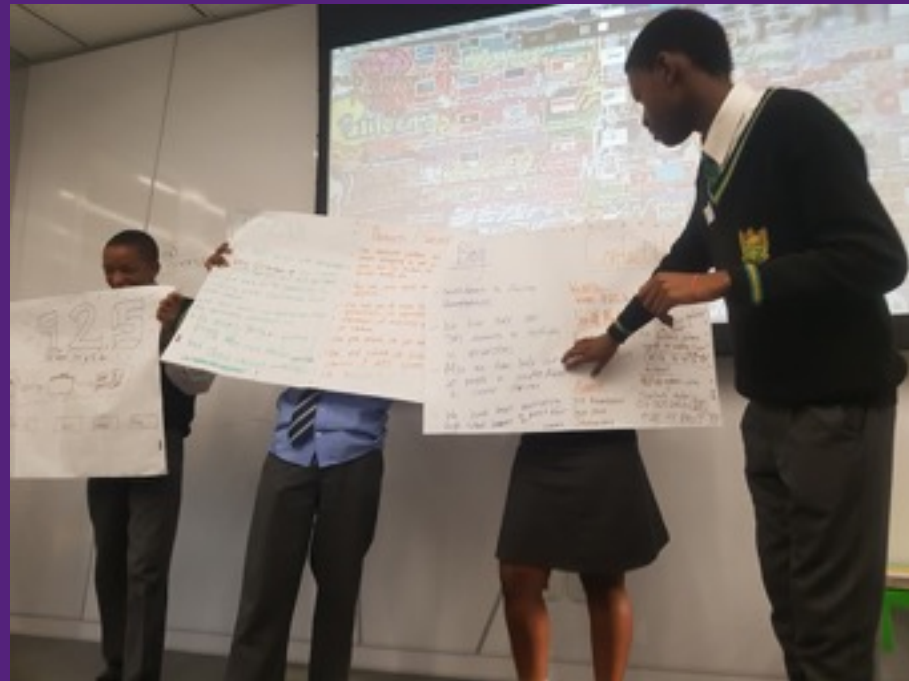


GIANT WELCOME: OPEN INNOVATION DAY: October 2016



# CAREER DAYS:

120 learners from across the region; 11 African Young Entrepreneurs - African Leadership Academy and SOS Childrens Villages







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INNOVATION WORKSHOPS &  
WORKOUTS  
GE AIC TOURS





## BOLD SPACE THINKING

Unlocking creativity and enterprise development at GE's Africa Innovation Centre

PLUS Gorgeous Green House & Novartis

- URBAN: Land Value Capture
- TECHNOLOGY: Biogas to energy
- BEST PRACTICE: Large-scale water saving
- MATERIALS: Lightweight concrete



**AFRICAN PROJECTS**  
 Burkina Faso | Congo  
 Egypt | Ghana | Guinea  
 Kenya | Morocco | Nigeria

**COMPREHENSIVE PRODUCT DIRECTORY AND COROB**



The GE Africa Innovation Centre (GEAIC) is located in the commercial capital of Africa - Johannesburg, South Africa. It is committed to collaboration, innovation and strategic dialogue with key stakeholders across Sub-Saharan Africa. The building was designed by Paragon Architects and occupation commenced during June 2016. Commissioned for GE Sub-Saharan Africa, the 2 654m² (GIA) building is located on Glenhurst Road, Rosebank, adjacent to key commercial and shopping nodes. It has accessibility to major road networks, public transport, community, religious and health centres.

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### African project GE Africa Innovation Centre - South Africa

The brief to Paragon Architects by GE Global Properties with future client, the GE Innovation Centre, was to create a mixed-use, flexible, functional, robust and sustainable environment highlighting the key principles of GE, industrial innovation and African collaboration.

The building is a three-storey, primarily East-facing glass structure taking advantage of the generally mild climate, with access and parking on the West, and overlooking an iconic golf course to the South.

The vision was to provide accessibility to a healthy environment and internalise this in the workplace - promoting an integrated and balanced health and wellness-driven work environment. Functional spaces include a publicly accessible ground floor with a health-focused work café and digital exhibition centre, collaboration zones, and an outdoor collaboration area.

The restricted access first floor is devoted to permanent tenancy and incorporates agile workspaces and a fully equipped GE Africa Healthcare training centre. The top-floor includes a flexible learning and development centre, collaboration rooms, and a multi-disciplinary laboratory. The basement parking includes, showers, bicycles and green leaf vehicles.

A holistic view was adopted for the building. Paragon Architects have arrived at a stage of sustainable design iteratively with a minimum level being quite high. Being more than the sum of its parts, the overall fit-out aims to achieve substantially more than the minimum levels set out by GBCSA and LEED for an interior rating. These include:

- Intelligent building monitoring system
- 100% on-screen energy/waste and water usage reports
- World Class VAV Aircon systems incorporating high levels of Fresh Air Input, and heat recovery systems
- The building aims to operate more efficiently than the market average
- Terraced gardens, and water-efficient Planted walls.

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# INSPIRING AFRICAN INNOVATION



General Electric's new innovation hub near Rosebank, Johannesburg, taps into African artistry to activate creativity and enterprise development on the continent. The project is aiming for both a 5-Star Green Star SA Interior rating and the US-based Leadership in Energy and Environmental Design (LEED) for Commercial Interiors Gold rating.

WORDS: HOLLANDI ORDENWALD IMAGES SUPPLIED



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### African project GE Africa Innovation Centre - South Africa

- Occupancy-controlled lighting
- Substantial external views for occupants
- Acoustically treated and designed environments
- Efficient water usage
- These on-site economic credits to the construction phase

**Aiming for LEED:**  
 The brief from the client was clear that to be an innovation centre, it had to prescribe to global and local best practice towards a more sustainable built environment. Through the design process this was questioned, debated, forward and ultimately the building is being evaluated and seeks to achieve GBCSA Green Star 5 Interior (As Built) rating and LEED Gold As Built rating. Combining international best practice and localized product in a LEED/GBCSA rated interior, whilst tying this back to the overall narrative concept and facilitating GE's high performance criteria and brand dynamics, was a challenging aspect of the brief.

**Inspiration for the interiors**  
 The fit-out was designed to be a dynamic and versatile, multi-floor space, with innovative and mobile structural elements and furniture. Its flexible environment fluidly facilitates collaboration, interaction, and innovation for all users.

Conceptually the space is informed by an African geometric design language, drawn from African settlements, fabrics and surfaces, abstracted-circles, angular and linear floral elements, which are integrated into the structure and aesthetic elements of the GEAIC, creating a uniquely African, but global, contemporary corporate spatial design.

The goal was to create a mixed-use, flexible, functional, robust and sustainable environment, highlighting the key principles of GE, industrial innovation and African collaboration.

As such, the fit-out through the use of the Customer Experience centre, healthcare experience, and training and development centre, shows users and teaches users about GE's technology towards African-localized sustainability in the industries of energy, aviation, healthcare, oil and gas and transportation.

This vision is drawn through the use of local African materials and products, facilitated through the most contemporary and innovative of African industrial design and interior design.

**Sustainability**  
 Through the localization process undertaken in the project, it became clear that an ethos in the industry needs to be placed on leveraging African creativity and innovative means to solve the challenge locally. It proved difficult to utilize (import) local products, which meet the legislative and performance requirements set in the GBCSA/LEED accreditation requirements.

The building is still very new and its spatial planning and flexible nature do not fit the standard mold, constant training and user education is being undertaken by the facilities team to establish a set user guide. Common breathing issues are more pronounced in the more mechanical systems with regards to user comfort and system usage, as these not only have to provide for all other use cases, but still need to meet the sustainability goals.

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## Open Innovation Programme

### Digital Exploration

1. VIRTUAL REALITY  
Ground Floor  
10h30; 11h15; 12h00; 12h45.
2. ROBOTICS  
2nd Floor  
10h30; 11h15; 12h00; 12h45.
3. 3D-PRINTING  
2nd Floor Lab  
10h30; 11h15; 12h00; 12h45.

### Physical Exploration

4. CENTRE TOUR  
Ground Floor GE Café  
10h30; 11h15; 12h00.
5. CUP-CAKE CRAFT  
2nd Floor Balcony  
10h30; 11h15; 12h00; 12h45.
6. PUPPETS  
Outdoor and Reception  
Photo opportunities through the morning.
7. 3D-PRINTED FLASH DRIVES & EXTRA SNACKS  
GE Café  
For Sale Through the day.



GE AIC  
Open Innovation Maker Day  
15 October 2016



## PROMOTIONAL MATERIALS & COLLATERAL

