INFORMATION AND COMMUNICATION TECHNOLOGY

INVESTOR FACTSHEET





Overview Of Botswana

Botswana is strategically located in the heart of the Southern African Development Community (SADC) – a region with more than 250 million people. Underpinned by good governance and a zero-tolerance to corruption, it is one of the most stable and investor-friendly economies in Africa. Although its economy has been anchored on resource endowments, particularly diamonds, the country is lauded as a developmental success story on the continent.

Botswana has created an enabling environment for capital and business to strive and support its strategic focus to diversify the economy into value-adding sectors that will serve a fast-emerging regional market. As a result it is the fourth most competitive economy in Africa, and one of the easiest African countries to do business in on the continent.

Botswana: Quick Facts

Indicator	
Population	2.1 million
Area	581,730 Km ²
Capital	Gaborone
Business language	English
GDP/capita	U\$ 7,136 (PPP)
Nominal GDP growth	5.9% (2013) 4.9% (2014) 4.2% (2015)
Change in CPI	7.9% (2012) 5.9% (2013) 4.4% (2014)
Corruption Perception Index Rank	31 (out of 175 countries)

Source: IMF, 2015, Transparency International, 2015, Bank of Botswana, 2015 & BITC

LEAST CORRUPT COUNTRY IN AFRICA

E: TRANSPARENCY INTERNATIONAL, 2015

BEST SAFETY AND RULE OF LAW IN AFRICA

SOURCE: HERITAGE FOUNDATION, 2014

2ND FREEST ECONOMY IN AFRICA

SOURCE: TRANSPARENCY INTERNATIONAL, 2015

COMPETITIVE CORPORATE TAX RATES, INCENTIVES

SOURCE: TRANSPARENCY INTERNATIONAL, 2015

3RD EASIEST PALCE TO DO BUSINESS IN SADC

SOURCE: IIAG, 2014

3RD BEST GOVERNED COUNTRY IN AFRICA

SOURCE: IIAG 2014

5TH MOST COMPETITIVE ECONOMY IN AFRICA

SOURCE: WEF, 2015

4TH HIGHEST HUMAN DEVELOPMENT IN AFRICA

SOURCE: IIAG, 2014



OVERVIEW OF THE BOTSWANA ICT SECTOR

Botswana's ICT demands are significantly met by imports at present creating an import gap amounting to around USD42 million in 2014 alone. The ICT sector alone contributes between 2% and 5% of Gross Domestic Product.

The majority of ICT supplies and services are imported from South Africa and to some extent Europe and USA. According to official data, ICT imports of computer hardware less than 10kg (HS8471.30), laptops (HS8471.41), accessories (HS 8473.30), other storages (HS 8523.51) were valued consistently over USD30 million from 2012 to 2014.

At present there is little or no ICT exports from Botswana. Investors into Botswana's ICT sector will benefit from her being a member of SADC and SACU, enabling preferential targeting of diverse and more numerous export markets. Tripartite cooperation countries (COMESA, EAC, and SADC) account for half (27) of the Membership of the AU with a Gross Domestic Product of US\$1.3trn, a population of 565 million and a combined landmass of 17 million square kilometers is another market extension. Market access conditions are governed by the provisions of the SADC Trade Protocol and the larger TFTA.

Opportunity 1: Mobile Money (mMoney) and Banking the unbanked-a financial inclusion imperative

Globally, 2,5 billion adults have no bank accounts and most of them in developing countries. Africa has the highest remittance market in the world valued at almost \$40 billion by end 2016. Current costs of sending \$200 average 12.3% with 50% market share held by two players for ³/₄ of African countries. There is therefore an opportunity for a holistic product that can be used by consumers irrespective of their bank or public telecommunication operators (PTOs). Where a mobile phone doubles as an account number, enables transactions across networks and offer remittances across borders. A further opportunity exists to tap into a USD2 billion market of remittances in Southern Africa.

Opportunity 2: eWaste

E-Waste by definition is all types of electrical and electronic equipment (EEE) that have been discarded by the owner as waste. Although e-waste is a general term, it can be considered to denote items such as TV appliances, computers, laptops, tablets and mobile phones. Between 2011 and 2016, global eWaste will increase by 125% from 41.5 million to 93.5 million metric tons due to the following:

a. the increased frequency at which they are replaced/ upgraded;

b. the transition from feature phones to smart-phones;c. new technology and software (Windows 10, etc.); andd. replacement / upgrade from desktops to laptops and tablets.

The opportunity is to set up a complete eWaste management system through partnership between GoB. local councils. private sector. There can also be value addition to eWaste by the introduction of EPR (Extended Producer Responsibility) program following the example of developed countries. This is a prospect for PPP to bring awareness to the public, collect eWaste, set up collection infrastructure, set up re-use programs (with smart procurement) and develop recycle/export centres within this sector. In Botswana, opportunities include information that 16.600 metric tons of eWaste are produced annually valued at \$2.3-12.5 million. Assuming a 10% modest increase in value after 10 years, the opportunity will be worth about \$6.0-32.3 million creating a potential 400-500 jobs. This assumption is based on the fact that Ghana processes over 10 times more amounts of eWaste creating 4500-6000 jobs. These opportunities also include the reuse of ITC equipment for local communities and schools and incentivised collection by implementing an "Extended Producer Responsibility" scheme.



Opportunity 3: TV White Space

TV White Space (TVWS) refers to the unused TV channels. These channels are used to be placed between active TV channels to protect broadcasting interference. It has been proven that these frequencies can be used to provide broadband internet access. The Non-Line-of-Sight: Signal achieves up to 10km coverage and propagates through trees, hills, walls and buildings, unlike WiFi's limited coverage. It allows for great coverage with minimal infrastructure capable of connecting many clients in a wide coverage area, with a relative small number of towers and infrastructure. TVWS devices can support up to 16 Mbit/s and are capable of connecting hundreds devices with one Base Station.

In addition, the rural TVWS stations could be powered with solar panels that could also power local schools/community centres. Pilot programmes for TV White Space (TVWS) include South Africa (provide low cost internet to Limpopo communities), Ghana (first commercial TVWS broadband service), Kenya, Namibia (62km x 152km area), Philippines (dense forest area) and Botswana (Kgolagano). The benefits include the following;

- TVWS could be the catalyst for closing the digital divide
- Enable more Batswana to be connected to WWW
- Help more SMEs grow and connect to WWW
- Become the enabler to develop e-services (Education, Commerce, Health, etc.)
- Assist the roll out of local content mobile apps
- Expanding infrastructure across Botswana could be leased or sublet to investors.

Other future opportunities are Telemedicine, eEducation, eVet (cattle, small stock, domestic) and Fleet management. Currently, the following companies are investing in TVWS; Google, Microsoft through Microsoft4Afrika programme, Adaptrum (hardware) and Carlson Wireless (hardware). Opportunities that exist in Botswana are premised on the fact that 950,000 people, 43% of the national population lives in

rural areas, most internet access is prohibited due to high cost and lack of infrastructure at \$15 for 800Mb of data. Mobile internet is still expensive, the cost of infrastructure is lower vs 3G, 4G and can be further subsidised by Kgolagano program.

There is currently no need for a licence fee for TV white space and indicative retail prices as per Ghana example (Spectra Wireless) with unlimited data. The nominal speeds can reach up to 16Mbits/sec.

- \$7.5 per month ½x speed
- \$8.5 per week 4x speed
- \$0.75 per day 1x speed

	Rural population penetration	Monthly turnover per user	Total monthly Turnover	Annual Turnover
Scenario 1			\$380.000	\$4.560.000
Scenario 2				\$6.840.000
Scenario 3	30%	\$2.50	\$712.500	\$8.550.000

Opportunity 4: TV Broadcasting

In Botswana currently, a digital migration is happening. The BotswanaTelevision(BTV)istheonlyfreenationwidebroadcaster while DSTv is a premium satellite broadcaster with estimated ~40-60,000 subscribers. There is an upward trajectory of the middle class who are seeking to get connected. DSTv satellite broadcaster bouquets prices increase rapidly every year and are prescriptive. Internet speeds increase leading to opportunity for TV streaming e.g. "triple play" packages. There is also a growing public interest in religious content, sports (South African football, NBA and beyond), local content (drama/comedy series and culture). In addition, due to the digital migration, there is an opportunity for private broadcasters and content producers (film producers).



Prospective opportunities include IPTV streaming video through internet (min 2.5-4Mbit/sec) and Video on Demand. Opportunities in ICT are premised on the fact that there are approximately 400,000 households in Botswana, and a rising middle class, currently 47% of national population seeking new ways of entertainment, the current satellite service provided by DSTV is expensive and prices increase an average 5-10% per annum, consumers try to close the gap by signing up to DSTV South Africa in grey market or purchasing Free to View decoders from South Africa, there is an opportunity for a private broadcaster to provide a value for money service to the growing middle class.

	Household penetration	Household monthly turnover	Total monthly turnover	Annual Turnover
Scenario 1				\$4.800.000
Scenario 2			\$600.000	\$7.200.000
Scenario 3		\$6.00		\$8.640.000

Opportunity 5: eHealth

It is worth noting that there are few specialized medical doctors concentrated in large villages or main cities, there is low penetration of landlines and lack of computer facilities across the country. Batswana have been adopting mobile devices (phones, tablets) at an increasing pace. eHealth and mHealth are fast growing sectors that could benefit many millions of Africans. Botswana could provide an innovative entrepreneur the opportunity to develop the appropriate eHealth content.

There is potential to pilot an eHealth software and management systems that will enable doctors to attend patients remotely. There is an existing eHealth pilot project dubbed "Kgonafalo" which is a partnership between University of Pennsylvania, Botswana's Ministry of Health and Orange mHealth. The key focus areas for this pilot project include Women's Health, Dermatology, Radiology and Oral Medicine. The pilot project

facilitates for Self-Care, which involves patients' use of mobile phones to enable adherence to medication and access to disease diagnoses and treatment information. The project also allows for Health Monitoring which involves the use of communication technology to enable communication in case of emergencies, mobilizing communities, provide healthcare professionals with access to information at the point of care and enabling the transmission of information and communication between healthcare professionals. The same project has the capacity to do Disease Surveillance which includes the use of mobile phones or tablets to detect and manage disease outbreaks allowing health workers to collect and communicate real-time disease occurrence information at a local level and share the data with centralized healthcare organisations, allowing health officials to promptly launch prevention and cure schemes, as well as analyse data.

Opportunities that exist in Botswana are premised on the following:

- Large size country. 580.000 sq. kilometres of areas, similar to France or Texas
- Public medical services not reaching remote areas
- Lack of specialised doctors and equipment
- Long delays seeking medical assistance
- Focus areas Medical treatment:
- Cardiac surgery (Heart)
- Ophthalmology (Eyes)Nephrology (Kidneys)
- Orthopaedics (Bones)
- Diabetes
- Spinal cord injuries
- Focus Areas Manufacturing and analysis:
- Diagnostics Facilities (Imaging and laboratory)
- Pharmaceutical manufacturing
- Biomedical equipment manufacturing



Opportunity 6: eCommerce

Additional opportunities in the ICT Sector include electronic commerce (eCommerce). This is the buying and selling of information, products and services via the internet. eCommerce started in Africa in the early 2000s and the three most popular • market segments of eCommerce are crafts and artifacts (traditional and modern), online entertainment (movies, films) and Service providers (translators, computer programmers, etc).

The landscape is evolving with increased internet users, mobile broadband and advent of smart phones, spread of social media and cloud computing with hard to capture data. The value of electronic commerce in Africa is at \$18.5 bn. Opportunity 7: Software and Apps Development BITRI's ICT related research and development is dedicated to technology solutions and next-generation products in priority areas of health (mobile technology, mobile apps, telemedicine) outlining the following areas worth of investment.

- **Education:** provision of (interactive mobile solutions), eLearning and self-tests with standard tutorial questions, access to past examination questions, a platform for students and private tutors to interact and platforms for student interactions
- **Agriculture**: mobile solutions to markets, information, best practices, and platforms/solutions to connect farmers with markets, logistics and transportation services
- **Transport systems;** intelligent transportation systems such as application of road sensors, automated statistic gathering, driver assistance communications, driver/ passenger information systems, road safety and obstacled etections, etc.
- Security and forensics: new measures to help in the criminal justice systems have never been much needed. Opportunities exist for appropriate digital evidence collection and handling,

signal processing to obtain key issues from recordings, authentication and validation of data/automated identification systems, training dedicated to responsible officers, and public awareness

- **Tourism and culture:** development of applications to provide intelligence on lodges locations and routes, attraction facilities, mobile devices interfaces to tourism portals, among others
- **ICT:** development of new communication methods and signal processing techniques for optimal frequency and spectrum allocations through spectrum sensing algorithms, radiation level testing for safety, cognitive networks and internet. Opportunities in Botswana are premised on the fact that 1.1% of GDP is the average eCommerce value in Africa at a value of \$18.5 billion. This is half of the current value in developed world. 1.4% of GDP is the value of eCommerce in South Africa, 3.3% of GDP is the value of eCommerce in Senegal the African champion, unfortunately there are no statistics for Botswana but it is expected negligible. The scenario below presents an opportunity based on a GDP of \$15.5 billion.

	Percentage of GDP	Equivalent territory	Annual Opportunity	Value for BW
Scenario 1				\$173.800.000
Scenario 2				\$221.200.000
Scenario 3				\$347.600.000
Scenario 4	3.3%	Senegal		\$512.400.000



Opportunity 8: BPO, Call Centres

There is a generous investment climate offered by IFSC dispensation under the operation of BPO, Call Centres. However, there is a declining cost of voice and data due to investments made by BOFINET. Botswana has a well-educated, English speaking labour pool ready to be employed by Business Process outsourcing companies and contact centres that serve clients in English speaking countries. Relative to Philippines, Botswana is not affected by harsh environmental factors like floods which is a regular phenomenon there and there are no limitations on foreign ownership relative to South Africa.

Botswana's geographical location in Southern Africa is ideal for the establishment of regional Business Process Outsourcing entities or Contact Centres to serve the Southern African Region.

Botswana's best place to find jobs - An employment platform for Botswana and Africa designed to allow employers to post job adverts and job seekers to search for jobs. A cost effective advertising solution available on all platforms (online, mobile phones, tablets etc). The site is easy to use so that your entire HR and Recruitment team can advertise jobs and search for candidates directly. The website is accessible on

www. careerpoolbotswana. com.

Robust Investment Incentives

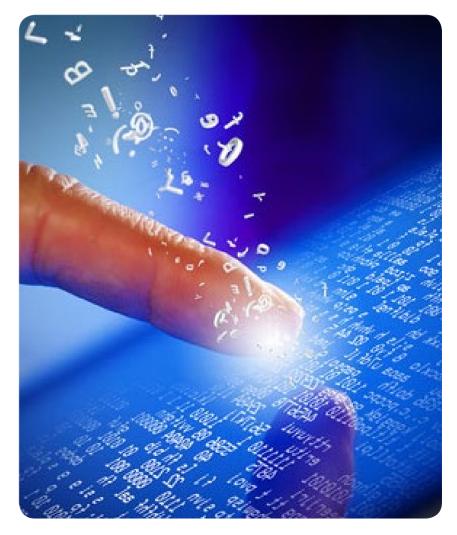
Botswana offers many incentives for investors. These include:

- No foreign exchange controls; remittance and full repatriation of profits and dividends
- · No restrictions on business ownership
- Duty-free import of machinery and equipment for manufacturing purposes
- Customs duty exemption on raw materials for goods going outside of SACU
- A liberal tax regime: 22% corporate and 25% personal tax, with

15% corporate tax for manufacturing and IFSC- registered companies (lowest taxes in the SADC region)

- Negotiable tax holiday (up to 10 years maximum)
- Deductible training rebate of 200%

Beyond incentives and as one of the most business-friendly and stable countries in the region, Botswana provides investors with a conducive and welcoming operating environment. A high degree of safety and security as well as a strong focus on the rule of law gives Botswana an edge over its regional peers.



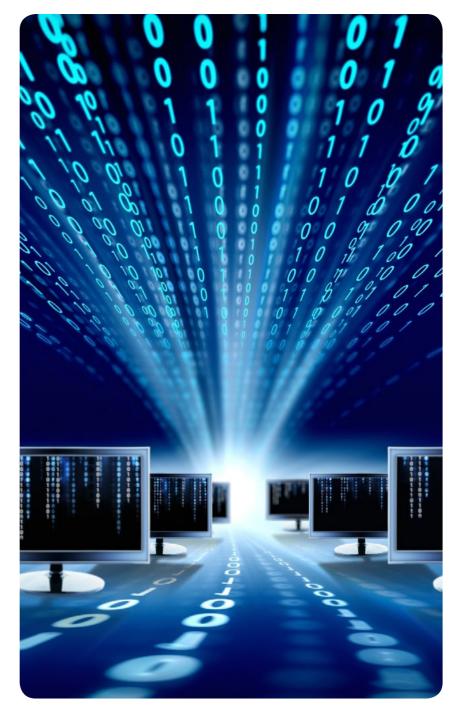


How The BITC Can Assist You Go Further With Your Investment

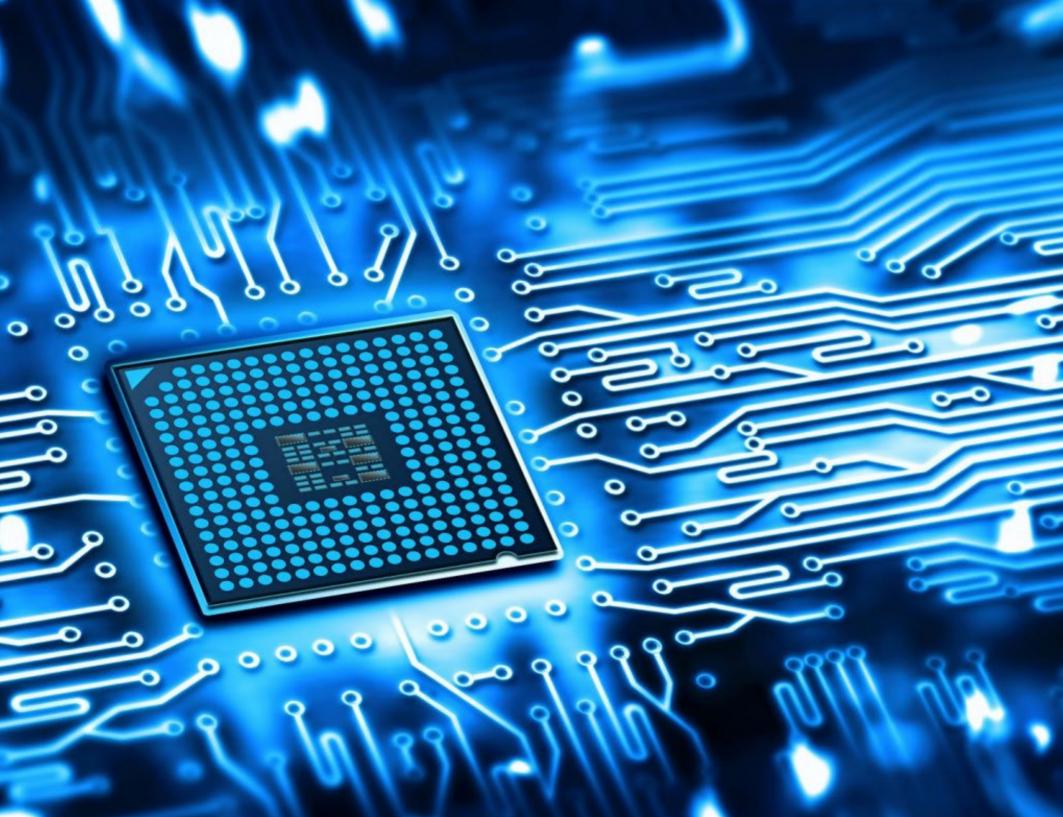
Botswana Investment and Trade Centre (BITC) is an integrated Investment and Trade Promotion Authority with an encompassing mandate of investment promotion and attraction; export promotion and development including management of the Nation Brand.

The organisation plays a critical role of driving Botswana's economic growth through attraction of FDI, domestic investment, facilitation of expansions and further spearheads the growth of exports by promoting locally manufactured goods to regional and international markets. BITC drives wealth creation for Batswana by creating platforms that will ensure increased citizen participation in the economy and Through this encompassing mandate, BITC is committed to assist you through a one-stop-shop with the following services to ensure your ease of setting up and doing business in Botswana:

- · Company and business registration
- Trade and business license applications
- Entry visas, work and residence permits
- Work permit exemptions
- Connection of utilities e.g. power, telecommunications and water
- Income tax and VAT registration
- Access to industrial and commercial land
- Facilitation of construction permits
- Allocation of BITC factory space (subject to availability)
- Environmental Impact Assessment (EIA) compliance
- Provision of information on the Botswana business climate, regulatory regime and investment opportunities
- Opening a bank account







Contact Details

BITC is ready to facilitate your investment. For further information and inquiries related to Botswana and opportunities in the Leather and Leather Goods Sector sector please contact:

Investment Promotion Business Unit Telephone: +267 3633 301

Email: enquiries@bitc.co.bw

BITC Head Office

Plot 54351, off PG Matante Road Central Business District (CBD) Gaborone, Botswana T +267 363 3300 • F +267 317 0452

United Kingdom Office 6 Stratford Place, W1C 1AY I London, T +44 207 499 0031 • F +44 207 491 8528

India Office No.43, Maker Chamber VI • Nariman Point, Mumbai-400 021 T +91 22 4360 2100 • F +91 22 4360 2111

South Africa Office

88 Stella Street, Sandown Mews - West Wing Sandton, Johannesburg T+27 11 884 8959 • F+27 11 883 7798

www.gobotswana.com

奈 enquiries@bitc.co.bw

www.facebook.com/bitc @Go_Botswana

📶 www.linkedin.com/company/botswana-investment-and-trade-centre

💽 @Go_Botswana



