

Digital gateway to Africa

Cape Town's Creative Software Design and Development sector

Publication jointly
compiled by Wesgro, City
of Cape Town and PwC

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THE WESTERN CAPE DESTINATION MARKETING,
INVESTMENT AND TRADE PROMOTION AGENCY –
SOUTH AFRICA



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Foreword by the Executive Mayor of Cape Town

It gives me great pleasure to present this publication to not only the people of Cape Town, but also South Africa and international investors and businesses.

This unique publication on Cape Town's Creative Software Design and Development sector, presents us with current trends and investment opportunities in the sector.

The City of Cape Town collaborated with Wesgro and PwC in developing this brochure.

We believe that partnerships like these are essential to achieve our goals of building, as articulated in the five key pillars of this administration namely; to build an opportunity city, a safe city, a caring city, an inclusive city and a well-run city.

Information and Communications Technology (ICT) is one of the priority areas in the Integrated Development Plan. It is aligned to our goal of building an opportunity city that creates the enabling environment for economic growth and job creation to take place. It also has strong linkages to our plans to build a well-run city by using cutting edge technology to boost our capacity to deliver services efficiently.

To this end the City is making considerable investment in infrastructure projects that will position Cape Town as a modern global city.

These include the integrated rapid transport system that will, once completed, connect residents to centres and opportunities throughout the metro and the roll-out of broadband infrastructure that is expected to deliver major benefits to the economy of Cape Town.

The City's broadband project will reduce telecommunication costs and improve high speed data communications not only in municipal buildings but to local businesses.

It will also make provision for spare capacity for the private sector; reduce costs to end users; boost our competitive advantage and help boost economic growth, development and inclusion – especially in previously marginalised areas.

In this publication, you will find exciting initiatives by various stakeholders in the Creative Software Design and Development sector that reflect the growth of the ICT industry in Cape Town.

I would like thank all the stakeholders who worked tirelessly to ensure that the publication is rich with details one needs to know about the ICT industry in Cape Town. And I hope that it will go a long way in guiding potential investors to invest in our City.

Patricia de Lille
Executive Mayor of Cape Town



Message by the CEO of Wesgro

Cape Town's Creative Software Design and Development sector is alive with diversity and growth, an optimism that stems from the spectacular surroundings of the City of Cape Town. More importantly, business leaders and key organisations believe that Cape Town is the springboard into Africa.

Since 2006, more than R1.5 billion has been invested into Cape Town's software and IT services sector. More than a third of this amount has specifically been invested into the creative industries cluster. Key source markets include the United States, the United Kingdom, Germany, Netherlands, France and India.

Increased investment in broadband infrastructure and a greater demand for internet connectivity in the City of Cape Town will be fuelling growth in the Creative Software Design and Development sector. Globally competitive academic institutions and entrepreneurial innovation coupled with an increase in access to capital will ensure that Cape Town continues to be a favourable investment destination in the global technology ecosystem.

Nils Flaatten
CEO, Wesgro



Message by the Partner in Charge, PwC Western Cape

I am delighted and honoured for PwC to join forces with the City of Cape Town's Economic Development Department and Wesgro, to present this unique publication on Cape Town's Creative Software Design and Development sector.

Through this exciting journey, PwC has met some incredible entrepreneurs and visionary individuals who drive Cape Town's technology ecosystem. We share their tangible excitement, pride and commitment.

We believe that Cape Town's innovative spirit and talent fuel the growth potential in this sector globally. In particular, Cape Town is uniquely positioned to respond to the many opportunities that Africa's high-growth mobile and internet markets will bring to the rest of the world.

I trust that this publication will provide valuable information to potential investors into Cape Town's Creative Software Design and Development sector, illustrating the attractiveness of Cape Town as an investment destination. Furthermore, as the largest professional services firm in Cape Town, PwC is ready to assist investors striving to achieve success.

In conclusion, I express my thanks to the project team that made this leading publication possible: Faith Kolala (City of Cape Town), Gail Smith (Western Cape Government), Ebrahim Khan (Wesgro), Grant Greyling (Wesgro), Karabo Maelane (Wesgro), Tertius van Dijk (PwC), Christelle Rassou (PwC), Vasili Sofiadellis (PwC) and Jens Heinrich (PwC).

Danie Fölscher
Partner in Charge, PwC Western Cape



Photo: The Cape Town International Convention Centre (CTICC)



Contacts:

City of Cape Town's Economic Development Department:

Faith Kolala

Tel: +27 (21) 417 4020

E-mail: faith.kolala@capetown.gov.za

Wesgro:

Karabo Maelane

Tel: +27 (21) 487 8600

E-mail: karabo@wesgro.co.za

Grant Greyling

Tel: +27 (21) 21 487 8600

E-mail: grantg@wesgro.co.za

PwC:

Tertius van Dijk

Tel: +27 (21) 529 2563

E-mail: tertius.van.dijk@za.pwc.com

Christelle Rassou

Tel: +27 (21) 529 2083

E-mail: christelle.rassou@za.pwc.com

Vasili Sofiadellis

Tel: +27 (21) 529 2382

E-mail: vasili.sofiadellis@za.pwc.com



*Cape Town is unique,
agile, innovative and
diverse.*

*The town of Stellenbosch
is included in our
discussion due to its close
proximity to the City of
Cape Town and the
important role that it
plays in this sector.*

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The software industry is a supporting hub for most industries and sectors. In particular, given the global demand for software design and development, Cape Town is in a unique position to become a true global innovation hub.

In Section 1 we present the following Top ten reasons to invest in Cape Town's Creative Software Design and Development sector, a huge growth sector in the Western Cape:

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Section 2: Doing business in Cape Town

Cape Town provides favourable conditions for doing business. In this section we feature general information that would be of interest to an investor. This information is provided for general guidance only. It should thus not be used as a substitute for consultation with professional tax, accounting, legal or other competent advisors. Before making any investment decision you should consult a professional advisor who has been provided with all pertinent facts relevant to your particular situation.

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Section 3: List of selected Creative Software Design and Development companies in the Western Cape

As the Creative Software Design and Development sector consists of many small entities, the list featured here is not exhaustive. We list some of the start-ups which have either already grown substantially or have the ability of growing substantially.





Section 1

*Top ten reasons to invest in
Cape Town's Creative Software
Design and Development sector*

Photo: Cape Town Harbour





***I** Strength of South Africa's banking sector provides a niche for the use of software development*

According to a recent study by BMI, South Africa's Information Technology, Q4 2012, South Africa's banking sector is forecast to grow rapidly over the next ten years, with technology driving waves of innovation. The growth of the middle class has fuelled strong uptake in banking services, and the growth of mobile and internet banking will be key drivers of IT sector spending. Africa's retail banking sector is forecast to grow at an 18% CAGR between 2010 and 2020. Internet and mobile connectivity has become plentiful. Across Africa locally owned banks are turning to IT vendors to help them to enhance efficiency and launch new services through the application of IT.

The big four banks in South Africa (FNB, ABSA, Standard Bank and Nedbank) continue to be at the forefront of innovation as they seek to meet the requirements of changing client behaviour. Interestingly, a recent survey, carried out jointly by World Wide Worx and FNB, highlights how cell-phone banking has increased significantly in the past year. The Mobility 2011 survey shows that 44% of cell-phone users in urban areas now use banking services, compared to 27% a year earlier. In smaller towns 27% of cell-phone users rely on mobile banking. In total, 37% of South Africans above the age of 16 are using cell-phone banking services.

FNB has recently been named the world's most innovative bank at the BAI-Finacle Global Banking Innovation Awards (2012). The awards are designed to honour banks globally for game-changing products, services, practices and other achievements.

The following page highlights an interview with FNB's CEO, Michael Jordaan: He talks about, among other things, similarities between Cape Town and Silicon Valley, the software competency in South Africa and potential for growth.

Q&A with Michael Jordaan, CEO of FNB

“The most innovative bank in the world” – The BAI-Finacle Global Banking Innovation Awards, 2012

Why Cape Town as the next ‘Silicon Valley’?

Silicon Valley and Cape Town have some interesting similarities. The Silicon Valley culture attracts wealthy entrepreneurs because of the ability to network and connect with like-minded people in close proximity to each other. Tech geeks are attracted by the quirky coffee shops and architecture and the opportunity to share and perfect ideas with equally quirky people. Both groups are highly mobile and are able to work from anywhere in the world – they are not constrained by offices, and thus have the luxury of choosing a ‘space’ that speaks to the creative and unconventional spirits inherent in them.

Cape Town is quite similar in culture, it’s cosmopolitan, with an offering to quirky tech intellectuals and up-and-coming wealthy entrepreneurs. The Cape architecture – combining new and old – and the coffee and wine culture is important in bringing together highly mobile, wealthy and tech savvy individuals. Both Cape Town and Silicon Valley have the significant presence of a university, which encourages research and academic innovation that spills over into the business hub around it. Both have a culture of networking, which is important to entrepreneurs, and an attractive lifestyle. Cape Town is already known as the IT and asset management hub in Africa and is a popular tourist destination, attracting foreign interest and expertise.

Perhaps the only elements left to turning the Cape into a Silicon Valley are the presence of more venture capitalists (although there are a number of foreign VC funds actively looking to invest in African projects) and tax breaks that encourage venture funding and entrepreneurial activity.

What is your view of the software competency in South Africa?

The software competency in South Africa is world class, and we experience this on a daily basis with the skills and expertise we see in FNB with the creation of our Banking App, GeoPayments, FNB inContact, etc, which are world class software innovations. In my view, there is still a need to encourage tech start-ups to grow and Cape Town would certainly be an attractive destination for tech ventures.



Michael Jordaan – CEO, FNB

Your view on the software development and mobile applications market segment’s potential for growth? Growth into Africa?

Definitely – Africa and South Africa are ripe for growth in this space, particularly because of the proliferation of cellphones throughout the continent. We are also seeing apps created by South Africans that are world class, and I truly believe that with some capital funding we will see a number of venture software developers emerging who will compete with the rest of the world.

Your view on South Africa’s innovation potential?

Interestingly, one often finds that the countries under the greatest social pressures are the best innovators. Once again, Africa is ripe for innovation, especially in the tech space given the spread of cellphones in the last few years. While there are clearly areas of the market that are threatening to foreign investors (i.e. mining industry) one should not underestimate the power of innovative large and small businesses and entrepreneurs who are already competing on a global scale and will do increasingly in years to come. There certainly would be interesting venture capitalist opportunities in South Africa and Africa as a whole.

Intellectual property, patents, copyrights – is this an issue for you?

The world of banking innovation moves incredibly fast and we don’t manage to patent all of our new products. We rely more on developing a culture of innovation internally, which is hard to patent and hard to copy. We find that this is the best protection against a very competitive banking community.

Research and development spend?

We spend a large amount on new product development at FNB because we recognise that this is critical to remaining ahead of our competition in a highly competitive environment. Our research is often most effectively done through Twitter – we see what works and where the issues lie through keeping a close eye on what our customers are saying.

All our IT development happens in-house and we are extremely proud of that. As we expand into Africa and India we use the same platforms as we use in SA, which allows us to roll out our technology and innovation in an efficient manner.

Photo: FNB building in the Cape Town Business Centre







II

An entrepreneurial environment with great success stories

Cape Town's entrepreneurs are at the heart of the Creative Software Design and Development sector. Selected companies are featured here based on world-class innovation and expertise.

Mark Shuttleworth is a household name in South Africa and to many abroad. He is an alumnus of the University of Cape Town.

He has championed innovation and made science hip again. He founded Thawte in Cape Town; the first certificate authority to issue Secure Socket Layer (SSL) certificates to public entities outside of the United States, quickly accounting for 40% of the global SSL market. Thawte was originally run from Shuttleworth's parents' garage. His original project was to produce a secure server not fettered by the restrictions on the export of cryptography which had been imposed by the United States. The server, Sioux, was an adaptation of the Apache HTTP server; it was later integrated with the Stronghold web server as Thawte began to concentrate more on their certification activities.

In 1999 VeriSign acquired Thawte in a stock purchase from Shuttleworth for US\$575 million. Both VeriSign and Thawte had certificates in the first Netscape browsers, and were thus 'grandfathered' into all other web browsers. Before VeriSign's purchase, they each had about 50% of the market. In August 2010, Symantec acquired VeriSign's security business.

Proceeds from the sale enabled Shuttleworth to become the second space tourist and to found the Ubuntu project. In September 2000, he also formed HBD Venture Capital, a business incubator and venture capital provider. In March 2004 he formed Canonical for the promotion and commercial support of Ubuntu's free software projects.

Since Mark Shuttleworth's success, a number of creative software design and development companies have been founded in Cape Town.

Koos Bekker's key innovations include the birth of M-Net, Supersport, MultiChoice (Satellite DSTV), and M-Web in South Africa, as well as the encryption provider Irdeto in Holland; the co-creation with other shareholders of MTN locally and Tencent in China.

Most recently his entrepreneurial creations included the initiation of the broadband service Entriq in the US. He has also been instrumental in the transformation of Naspers since he took over in 1997, both financially and strategically.

Naspers is a leading multinational media group, incorporated in 1915 as a public limited liability company and listed on the Johannesburg Stock Exchange in September 1994. The company also has an ADR listing on the London Stock Exchange.

Naspers operates platforms that link users to media, e-commerce, advertising, content and means of communication. The group's principal operations are in internet platforms (e-commerce in particular), pay-television and the provision of related technologies and print media. They focus on attaining sustainable market positions in growing emerging markets which they believe present above-average growth opportunities – most of their businesses hold leading market positions. Their most significant operations are located in emerging markets. This includes South Africa and the rest of Sub-Saharan Africa, China, Latin America, Central and Eastern Europe, Russia and India.

In China, they hold a 34% interest in Tencent, a leading provider of internet and mobile and telecommunications value-added services. To date, Tencent has recorded 784 million monthly active Instant Messaging user accounts and 74 million fee-based IVAS registered subscriptions.

Mail.Ru Group is the largest internet company in the Russian-speaking world and one of the leading Internet companies in Russia. They own a 29% stake in Mail.ru Group. It comprises the most popular Russian free-mail service and two major RuNet instant messengers. Mail.ru Group owns two leading Russian social networks (Odnoklassniki and MoiMir), and holds a significant investment in social network VKontakte.

In Eastern Europe, the Allegro Group comprises a whole suite of e-commerce services, including marketplace (auction and fixed-price transactions) platforms, classifieds platforms, comparison and social shopping sites, as well as a payments platform. Allegro now operates in 20 countries and seven verticals.

In 2009, Naspers bought a majority stake (now 95%) in BuscaPe, a leading online shopping comparison player in Brazil. It is now expanding across the broader e-commerce value chain. Brazil is also the home of OLX, one of the world's largest free classified sites.

Their African operations include Kalahari.com, Korbitec and PriceCheck. Kalahari.com is the market leader in South African e-commerce, whilst PriceCheck is a leading shopping and mobile price-comparison engine.

Overall, their strategy is to provide entertainment, trading opportunities and information and the ability for users to participate in communities wherever they are. Through their various operations, Naspers wants to be useful to the communities they serve and use their expertise to that end.

“Cape Town shares many features with San Francisco: beautiful beaches, proximity to wine country, quality of living. But the two most important for an internet group like us: good universities and a hub of inventive young people.”

**Koos Bekker –
CEO, Naspers**

Fundamo, a Visa company, was founded by Hannes van Rensburg in 2000 and launched the world's first mobile financial service for the unbanked in developing economies in 2002.

Operating globally, Fundamo is widely regarded as the world's largest specialist mobile financial services provider. Today, Fundamo powers 51 deployments in 34 countries and works with leading mobile money providers including First Bank Nigeria, MTN and Telenor.

Since its foundation 12 years ago Fundamo has led the industry. Here are just some of the milestones:

- 2002 - Fundamo launched the world's first mobile financial service in a developing economy, with Celpay.
- 2006 - Fundamo reached more than \$1 million in revenue.
- 2009 - MTN and Fundamo announced the largest ever roll out of mobile financial services globally in a deal worth \$9.7 million.
- 2010 - Fundamo announced the world's first shared mobile financial services platform in Pakistan. Vodafone Qatar in partnership with Fundamo launched Vodafone Money Transfer, the world's first international mobile-to-mobile remittance service.
- June 2011 - Fundamo was acquired by Visa Inc. for \$110 million and now operates as a wholly-owned subsidiary.

In the last 12 months, Fundamo has powered the launch of three new deployments - FirstMonie with First Bank Nigeria in Nigeria and Celpay with Celpay International in Uganda and Zimbabwe.

Mobile money can precipitate radical, positive shifts in the economic and social fabric of developing economies. But technology itself is not an agent of positive change – it has to be directed, guided and supported every step of the way. It's the business of mobile money that's at the heart of successful services, and this continues to be Fundamo's primary focus.

“Cape Town attracts the brightest talent, visionary entrepreneurs and powerful investors making it one of the leading technology ecosystems in the world – our story is a testament to what is possible.”

**Hannes van Rensburg –
CEO, Fundamo**



Mxit

www.mxit.com

With 10 million active users, Mxit is Africa's largest mobile social network. The application works on close to 3,000 types of handsets enabling users across the globe to chat, play games, trade and join communities of like-minded people.

Since its inception in 2005, Mxit has always balanced fun content such as games and chat rooms with meaningful services such as education and social programmes.

In 2008 the social enterprise, RLabs, developed The Angel Network, which uses Mxit to provide real-time help and counselling to people in the Cape Flats. This model of anonymous, instant, mobile text-based support has been adopted by a number of other organisations such as Helpline and FAMSA.

Mxit is a social networking platform with millions of highly engaged users. In the past year Mxit has opened up its technology and its user base to enable third parties to use the platform as a foundation for mobile app development for emerging markets. Currently there are over 500 developers from Africa actively creating applications for Mxit. The acquisition of mobile community specialist, Motribe, bolstered Mxit's ability to build and maintain communities of interest for organisations and brands.

Mxit's plans for 2013 include proactively growing its user base into the rest of Africa as well as improving the ease with which the service can be used by both users and organisations.

"We have the perfect combination of globally competitive talent combined with big and interesting real world problems and the resilience and unstoppable attitude of a wildebeest. How can we fail?"

*Francois Swart –
Interim CEO, Mxit*

Clickatell

www.clickatell.com

Founded in 2000 in Cape Town, Clickatell is a global leader in mobile messaging enablement to organisations, providing more than 15,000 enterprise, government, medium and small business and application developers with the ability to alert, interact and transact with their customers and constituents on any mobile device.

Today Clickatell delivers SMS messages to over 960 mobile networks across more than 220 countries and territories, utilizing its global coverage footprint. Clickatell delivers SMS through its next-generation Clickatell Messaging eXchange (CMneXt) to nearly every mobile phone user in the world.

In addition, with the Clickatell Transaction eXchange (CTX), the company is providing the essential link between the mobile consumer's wallet and various value-added services (VAS) accessible via any mobile device. Clickatell moved its corporate headquarters (and CEO) to Redwood Shores, California and today has over 130 employees worldwide. Numerous accolades exist including the following in the last two years:

- 2010 – ten years of being the world's largest Online SMS mobile messaging Gateway.
- 2011 – Raises Series-B financing round led by Sequoia Capital and DAG Ventures in order to build out mobile transaction services capability in sub-Saharan Africa with Clickatell Transaction eXchange (CTX). Chosen as a winner in Lead 411's 'Hottest Companies in Silicon Valley' awards.
- 2012 – Services over 55 enterprise customers throughout Africa, including six out of the top six banks in Africa. Wins the 'Top 100 Most Innovative Companies in America' award from Red Herring.

Clickatell's vision is to change the way businesses engage with their customers on mobile. The adoption of mobile transaction services is already transforming lives and livelihoods, not just by connecting Africa's largely impoverished population to the resources of the digital economy, but also by enabling Africans to become digital producers and service and technology innovators. The mobile phone is predicted to become the number one point of engagement between businesses (whether banks, retailers or SMEs) and their customers in the mobile age. The scale of this change will make the internet revolution look like a storm in a teacup.

“Entrepreneurs are determined, self-motivated individuals, who do not typically accept compromise and have a larger than life perspective of the world. For this reason, more and more entrepreneurs choose Cape Town as the place to launch their start-up, due to its progressive culture, strong ICT infrastructure and community of like-minded entrepreneurs and mentors who live there.”

**Pieter de Villiers –
CEO, Clickatell**

ACI/Postilion/S1 Corporation

www.aciworldwide.com

Mosaic Software was started by two local entrepreneurs, both computer science graduates of Western Cape based universities, in 1994.

Mosaic Software created Postilion, a high-end payment transaction switch built on open-systems technology.

In 2004 S1 Corporation acquired Mosaic Software; in 2012 ACI Worldwide acquired S1 Corporation.

In its first decade Mosaic Software moved from a small South African company into one of the top four payments providers globally.

By 2004 the company had a presence in 40 countries with over 180 customers. By 2012 the Postilion customer base had increased to more than 350 in over 75 countries. Today, Postilion is used by, amongst others:

- two of the largest core system providers in the United States
- seven of the top 20 banks in the Middle East
- four of the top ten most valuable global retail brands
- a master debit network in the United States
- three of the largest ATM manufacturers in the world
- one of the world's largest gift card issuers
- five of the top ten European banks
- two of the largest retailers in Asia Pacific
- six of the top ten retailers in the United Kingdom
- 17 of the top 20 banks in sub-Saharan Africa
- seven of the top ten retailers in sub-Saharan Africa, and
- eight African inter-bank payment switches.

Globally more than 350 Postilion customers process over ten billion transactions annually from over 100,000 ATMs and 750,000 POS terminals. ACI has one of the most diverse and robust product portfolios in the industry, with application software spanning the length of the payments value chain. Today, ACI has more than 1,650 customers including 24 of the top 25 banks and 14 of the top 35 retailers.

With the acquisition of S1 Corporation in February 2012, ACI expanded its market position and global presence with enhanced scale, breadth and additional capabilities to deliver solutions across the global spectrum of financial institutions, processors and retailers.

“Universities in the Western Cape produce some of the country’s top computer scientists and we are lucky enough to have been able to have them work with us. It is a reflection of the enthusiasm and calibre of the people we employ that has helped us grow from a small Cape Town start up into a global organisation that has been hotly pursued by global corporations.”

**Deon van Biljon –
Vice President & General
Manager, ACI’s African
Operations**

Amazon Web Services

<http://aws.amazon.com>

The Cape Town Amazon Development Centre was opened in early 2005 as work began on what would become the Amazon Elastic Compute Cloud (Amazon EC2).

Amazon EC2, and other Amazon Web Services (AWS) offerings, ushered in the first practical on-demand computing infrastructure, and in the process defined a whole new industry. A software development team was built in Cape Town and then in August of 2006 Amazon EC2 was launched to the general public.

In the years since, Amazon EC2 has grown substantially and remains the leader in its market with customers of all sizes, ranging from one-man start-ups to large enterprises in various locations around the world. In addition to a broad range of international customers Amazon EC2 has a physical presence in nine locations.

Customers include a variety of well-known names including Netflix, NASA, Instagram, the New York Times and the Washington Post. Each day, AWS adds the equivalent server capacity to power Amazon when it was a global, \$2.76 billion enterprise (circa 2000). One third of web surfers visit a site powered by AWS on a daily basis. Each day, Amazon servers send or receive 1% of internet traffic in North America. Most recently the final speeches of the US Presidential campaigns for both parties were supported entirely by AWS infrastructure.

AWS continues to grow rapidly around the world and are far from done. In 2012 they began to build an AWS developer support team in Cape Town to continue to provide customers with the high calibre support they've come to expect. Over the coming years AWS will continue to expand both their development teams and their support teams in Cape Town. AWS is confident that the best is yet to come, both in Cape Town and around the world.

“Cape Town’s growing start up community demonstrates the breadth and depth of the talent that calls Cape Town home, and the drive and determinism that makes it possible to translate ideas into reality. That talent is a big part of our success in Cape Town over the past 7 years.”

**James Greenfield –
Senior Manager, Amazon Web
Services**

Triggerfish Animation Studios is Africa's largest animation studio and the continent's answer to Disney/Pixar and DreamWorks. Established in 1996, Triggerfish is transforming perceptions of Africa and inspiring a continent through its world-class animated feature films, *Adventures in Zambezia* and *Khumba*.

Adventures in Zambezia - starring Samuel L. Jackson, Leonard Nimoy, Jeff Goldblum and Abigail Breslin - is Africa's most successful film export. The film was selected for screening at the prestigious Annecy International Animation Film Festival and won the Best South African Feature Film category at the 2012 Durban International Film Festival. In 2012, *Zambezia* was Israel's most successful independent film over the summer and Russia's most successful foreign independent animation film beating many rival established studio films.

Triggerfish's second film, *Khumba*, for release in 2013, is a significant commercial, technical and artistic step-up. The film has been picked-up by independent distributor, Millennium Entertainment, with a guaranteed US theatrical release and a record advance ever paid for an African-produced film.

Triggerfish co-founder & CEO, Stuart Forrest, won the 2012 Sanlam/Business Partners Innovator of the Year award. He is a member of the International Academy of Television Arts & Sciences and was selected as a judge for the 2012 International Emmy Awards.

Triggerfish produces world-class animated feature films that compete with the best studio films. Triggerfish is at the vanguard of low-cost content creation and audience discovery for animated feature films offering a better risk/reward proposition than the traditional studio 'hits' driven business model.

It is believed there is no one else in the world better able to produce world-class content at their price point. Beyond developing their film slate, Triggerfish will create an ecosystem of casual games, eBooks and edutainment content deeply integrated with their films' Intellectual Property.

"Cape Town is Africa's heartbeat of creative capital with the teams and the talent necessary to bring the continent's unique creative voice to the world."

**Stuart Forrest –
CEO, Triggerfish Animation
Studios**



Photo: "Khumba" - Triggerfish's second film for release in 2013

Entersekt

www.entersekt.com

Entersekt was founded in 2008. The four founding engineering graduates worked together to provide a way to allow consumers to securely authenticate electronic transactions using their mobile phones. Only four years after starting as essentially a garage operation, Entersekt currently employs more than 45 employees and has opened offices in Atlanta (United States) and London. They have been given the stamp of approval by Visa, MasterCard and American Express to operate as a 3D-Secure ACS vendor, securing online credit card payments with their technology.

In 2011 Entersekt was selected as one of “the top ten most innovative security firms in the world” at the global security RSA Conference in San Francisco.

Entersekt has developed and implemented a world class security platform providing an enterprise security foundation for banks, and eliminating the need for multiple security solutions. The Entersekt solution is the first transaction authentication solution in the world that encrypts data directly from the bank to the customer’s mobile phone, to have been rolled out to banks’ end users.

The Entersekt solution provides hassle-free encryption that can be used on all makes of mobile devices, enabling true secure communication directly from the bank to the consumer.

Entersekt is going from strength to strength as it aims to revolutionise online banking security on a global scale over the next few years.

The ultimate goal is for the Entersekt solution to become the worldwide standard for secure user identification in the online space – and they’re well on their way to achieve this.

“Cape Town has all the ingredients necessary to become a true global innovation hub: excellent feeder schools, a picturesque landscape, a great climate... and just that unique blend of entrepreneurial spirit and naive optimism that inspires creativity.”

**Schalk Nolte –
CEO, Entersekt**

DVT

www.dvt.co.za

DVT was founded in 1999. Today, DVT services are required by more than 2,500 companies in SA. Recently, they have introduced some specialised or niche service offerings that complement their more general offerings. This combination optimises their chances of success by hedging across various markets and profit margins.

DVT is constantly changing to adapt to their growth and market conditions. DVT believes that change is the key to success. The companies that will be most successful are not those with the best ideas, or unique services, but those that are the most adaptive to change.

DVT's insight into what makes a business valuable, how to increase this value, and how to constantly balance growth with profit and working capital requirements means they are set up to become the largest independent software and services business in South Africa. DVT now employs more than 400 staff. For the past 12 months they have averaged net headcount growth of more than 15 professionals, management and support staff per month. Their federal model means that management responsibility and ownership of profit centres is never compromised by size. They simply keep management and professional staff ratios constant and in line with what they need to succeed.

DVT engages with more than 100 clients, including some of the largest corporates in SA. Current corporate clients include Vodacom, Old Mutual, Woolworths, Visa, Santam, Wesbank, Standard Bank and Momentum. They have a strict fiscal management policy and – as a legacy of being a previously public company – keep tight control over working capital, costs and compliance and legal activities.

Their future will be characterised by more change to accommodate their growth in core competencies, and adding more specialised services and solutions. Their size, breadth and depth of skills, both managerial and professional, also mean that they can consider a more comprehensive range of solutions that covers a broader spectrum of services. DVT will also remain what it is today: a practical delivery specialist offering specific solutions for specific problems, underpinned by demand and supply economics.

“Cape Town has the depth and concentration of skills to become a technology hub in South Africa. The lifestyle and work-life balance attracts exceptional people from all over the world. This, in itself, provides the momentum to build a great technology hub.”

**Chris Wilkins –
CEO, DVT**



Business Systems Group

www.bsg.co.za

Founded in 1997, BSG is based in South Africa and the UK with a staff complement of 200 people. Their software centre of excellence is based in Cape Town, the city where they laid down their roots. They service the technology design and development stages of their national and international change programmes from Cape Town.

Hosken Consolidated Investments Limited (HCI) is a 40% equity partner.

BSG as an IT professional services business has a proud track record in helping clients across multiple customer segments (e.g. financial services, insurance, retail, petrochemical, telco) succeed, by developing authentic relationships based on trust and delivering results.

BSG are passionate about being a proactive force for positive change. Their clients have a deep understanding of “why” their organisations exist and how that translates to strategic intentions - BSG delivers business value by helping their clients better understand which initiatives are the right ones to take on. By defining and understanding the purpose for change, they design practical programmes and projects to build the bridge between business expectation and technology implementation.

There service offerings focus on improving business operations and include:

- Business consulting services including analysing the business challenge, identifying business options for change and translating these into practical solutions involving people, process and technology.
- Delivery management services that assure delivery outcomes at a work stream, project and programme level – creating visibility, delivering value and reducing risk.
- Technical consulting services, including architecture, technical project management, and software development (Java and .Net).
- Training and change services that address the people impact of change to maximise impact and ensure sustainability.

“BSG have long believed that everything about Cape Town, its iconic landscapes, the innovating aspirations of its people, the desire for embracing change and ever evolving infrastructure make it a destination that’s already unlocking its potential as a global Information Technology centre.”

**Greg Reis –
CEO, BSG**

Maxxor

www.maxxor.com

Maxxor specialises in cross-platform application development with a focus on mobile platforms. They develop cutting-edge web applications and mobile applications that help their enterprise customers to successfully communicate with and interact with their consumers. Maxxor also help them to mobile-enable their employees through enterprise mobile applications. They run an independent games studio that designs and operates hugely popular multiplayer online games for mobile phones and online social networks. Their gaming domain expertise allows them to offer specialist entertainment-focused services and products to clients.

Their flagship game is called Moonbase (www.moonbase.mobi). It is a multiplayer online strategy game for mobile phones. Moonbase was initially launched on Mxit in 2010 and found some popularity with South African youth. In 2012, they reached out to international audiences with a brand new version of the game targeting Android, iPhone and PC.

The game can now be played on Mxit, on Facebook, on Mocospace (a US mobile social network), on Mig33 (a mostly Asian mobile social network), on an Android phone, on an iPhone or iPad and on the mobile web. All players play inside the same game world regardless of which platform they are on.

Since launch over 2 million people have played Moonbase across Mxit, Facebook, Mocospace and Mig33.

At peak times Moonbase attracts 35,000 players daily, generating over 400 million page impressions per month.

“Cape Town has exceptional tech talent. The city is fast moving up the ranks of global technology hubs.”

**Mustapha Baboo –
CEO, Maxxor**



KRS

www.krs.co.za

KRS have been creating business software for South African companies for 25 years.

Their core value is that people matter, so they invest heavily in internship programs to attract the brightest young graduates, and they keep staff through a policy of lifelong learning and career growth.

They have branches in Cape Town and Gauteng, employing approximately 60 software professionals. Their clients include listed companies.

They understand package software development, and the additional quality, stability and performance required when a new release goes out to thousands of users.

Their software skills cover Cloud deployment, large enterprise databases, and front-ends from web to Mobile – all delivered by experienced agile teams.

KRS sees skills investment as a critical success factor for South Africa over the next few years. They want to grow their internship program, and assist other companies with their internship and training needs.

They are bringing experience in large scale corporate systems into the exciting new software areas such as Mobile and web, providing a new generation of responsive, available-anytime business applications.

“Cape Town is an extraordinarily creative town – the city has attracted some of the most innovative, creative people in IT, looking for the fantastic lifestyle that we have, and investing all their considerable talents back into growing Cape Town into the Silicon Valley of Africa.”

**Lorraine Steyn –
CEO, KRS**



SKA Project

www.ska.ac.za

South Africa is hosting 70% of the world's most powerful radio astronomy telescope – the Square Kilometre Array (SKA). South Africa has already demonstrated its excellent science and engineering skills by designing and starting to build the MeerKAT telescope – as a pathfinder to the SKA.

The MeerKAT telescope will comprise 64 offset Gregorian dishes each 13.5 m in diameter. Engineering prototype for MeerKAT has been completed and is known as KAT-7. Working with South African industry and universities, and collaborating with institutions around the world, the South African team has developed technologies and systems for the MeerKAT, including innovative composite telescope dishes and cutting edge signal processing hardware and algorithms.

Processing the vast quantities of data produced by the SKA will require very high performance central supercomputers capable of 100 exaflops per second processing power. This is about 50 times more powerful than the most powerful supercomputer in 2010 and equivalent to the processing power of about one hundred million personal computers.

The SKA radio telescope is not only physically large, but also complex and comprised of millions of different parts. The designers of these parts need to know how they will be used and how they will fit together. This is where System Engineering comes in – it is a formal way to ensure that the hardware and software is fit for purpose and is value for money.

The technology being developed for MeerKAT is cutting-edge and the project is creating a large group of young scientists and engineers with world-class expertise in the technologies which will be crucial in the next 10 – 20 years, such as very fast computing, very fast data transport, large networks of sensors, software radios and imaging algorithms and big data.

“Developing large-scale astronomy facilities, such as the MeerKAT and the SKA, can become a powerful driver of scientific, socio-economic and human capital development throughout the continent of Africa, for the benefit of the world. We are proud that this African bid is being led by South Africa.”

*Naledi Pandor –
Minister of Home Affairs, who played a key
role in securing the SKA bid for Africa*





III

Various initiatives support the thriving community in innovation

There are several initiatives in the Western Cape which are aimed at raising the profile of the Western Cape as a global start-up hub and area of innovation. These initiatives have resulted in increased local and foreign investment which should further fuel the growth of the sector.

Project/Area	Overview
The Cape IT Initiative (CITi) www.citi.org.za	CITi is a non-profit organisation dedicated to developing an information and communications technology hub in sub-Saharan Africa. It supports the ICT sector in the Western Cape and works between government and the private sector. It aims to establish strong links between different sectors and recognises the connection between ICT and design.
Bandwidth Barn www.bandwidthbarn.org	The Cape Town-based Bandwidth Barn has been in operation since 2000 and is today regarded as one of the leading ICT business incubators in the world. The Bandwidth Barn is a wholly-owned subsidiary of the CITi. The Bandwidth Barn has played an active role in injecting and supporting ICT entrepreneurship into the Western Cape economy. Its 49 tenants and more than 50 successful graduates add more than R800 million per year to the economy in revenue alone. The Bandwidth Barn has contributed to almost 2,500 direct and indirect jobs. This substantial boost to the ICT sector has further trickle-on effects in skills, innovation and service delivery enhancement.
Silicon Cape Initiative www.siliconcape.com	The Silicon Cape Initiative is a non-profit, private sector community organisation introduced in 2009. Its vision is to establish an ecosystem in the Western Cape that attracts and brings together local and foreign investors, technical talent and entrepreneurs so as to foster the creation and growth of world-class IP start-up companies that are able to compete with other similar hubs around the world. Silicon Cape does not compete with for example CITi and Bandwidth Barn but complements them and ensures that their successful projects and opportunities will be highlighted. Silicon Cape is more of an awareness campaign and a global brand which serves to catalyse conversation, attract interest and highlight opportunities and challenges, and create a focal point that the community across the board can own and rally around. Today Silicon Cape has over 4,000 members active in a variety of sectors.



"Having lived and worked in Cape Town for the last sixteen years, I feel inspired and humbled to have been part of the transformational change that has occurred in driving this city towards fast becoming a global technology centre harmonised by world class academic institutions, a sincere and committed political will, together with endless innovative companies with entrepreneurial spirits."

Greg Reis
 – CEO of BSG,
 Chairperson of CITi,
 Board Member of
 Bandwidth Barn

Project/Area	Overview
The SABLE (South African Business Link to Experts) Accelerator www.sablenetworks.com	This international group is dedicated to helping South African entrepreneurs, new venture start-ups, academic institutions and companies commercialise technology innovations, promote and protect intellectual property, fund new business concepts, finance growth, as well as expand into global markets. Academics from the technology transfer and innovation offices of both University of Cape Town and Stellenbosch serve on the faculty of the SABLE Accelerator.
Blackberry apps lab in Cape Town www.rim.com	The Blackberry apps lab opened in November 2012 in Cape Town. It provides local developers, including students, start-ups, entrepreneurs and others, with access to resources in development, marketing, sales and training to help them expand their ideas and business opportunities. The Blackberry apps lab aims to fostering mobile innovation in the Western Cape and helping to grow South Africa's next wave of mobile app developers.
The UCT Samsung Mobile Innovation Laboratory (SMILe) www.cs.uct.ac.za	SMILe – Samsung's first innovation unit in Africa – is a multimillion-rand project launched in April 2011 for an initial period of three years. It aims to increase mobile innovation and skills development. The partners in the joint venture include UCT's Information Systems Department and the Computer Science Department as well as the Cape IT incubator, Bandwidth Barn. Its beneficiaries are ICT sector academics, practitioners and researchers.
Cape Town Partnership www.capetownpartnership.co.za	Cape Town Partnership is a development facilitation agency focused on the mobilisation, coordination and alignment of public, private and social resources. It is a collaboration between the public and private sectors working together to develop, promote and manage the central city of Cape Town. It is an independent non-for-profit organisation that seeks to add value to public services and planning processes.



"The Western Cape has a highly networked, innovative, entrepreneurial IT start-up community. The combination of our four universities, two business schools and two medical schools; regional strengths in film, design, multi-media, financial services, asset management and retail; as well as an established cluster of mobile application and mobile payments companies, remote sensing and M2M communications devices; and innovative software development houses, makes us a highly innovative Tech and Design region."

Jenny McKinnell
– Executive Director,
CITi and Bandwidth
Barn

Project/Area	Overview
RLabs www.rlabs.org	RLabs is a global movement and registered Social Enterprise that provides innovative solutions to address various complex problems. It creates an environment where people are empowered to make a difference in the lives of others. The RLabs' 'main hub' is in Athlone, Cape Town, but it has activity in the United Kingdom, Europe, Asia and Central Africa with a goal of reaching all continents by 2012. Vision: To impact, empower and reconstruct local and global communities through innovation.
MIH Media Lab http://ml.sun.ac.za	The MIH Media Lab at Stellenbosch University was founded with the purpose to promote research in 'new media' technology in South Africa. In close partnership with MIH, the internet division of Naspers, the MIH Media Lab aims to participate in research on next-generation technologies that will influence the ways in which humans interact with computers, the Web and other forms of electronic media. Current research projects include gaming, next generation internet, conditional access, media distribution and augmented reality.
InnovUS www.innovus.co.za	InnovUS, Stellenbosch University's technology transfer company, supports the University's researchers and students in the further development and commercialisation of their ideas and inventions through patenting, licensing and establishing spin-out companies. InnovUS Instant Access™ licensing will meet the need for a streamlined process and provide the private sector with the opportunity of introducing new technologies in the workplace effortlessly and without any financial expenses beforehand. With this initiative InnovUS is hoping to forge strong bonds with business partners in the private sector, improve competitiveness and stimulate job creation.
Start-up Weekends	Start-up Weekends are 54-hour events where developers, designers, marketers, product managers, entrepreneurs and start-up enthusiasts come together to share ideas, form teams, build products and launch a start-up.
Pitch London – Silicon Cape Initiative	A trade mission of 11 Western Cape tech start-ups went to London to showcase their businesses and develop relationships with investors and potential clients in November 2012. The objective of the mission was to give the 11 businesses that attended access to inventors, mentors, entrepreneurs, acceleration and innovation labs in London.



"Cape Town is not just a hotbed for IT innovation but a catalyst for breakthroughs in technology, especially for emerging markets."

Marlon Parker
– Founder of RLabs,
Head of Mxit Reach

Project/Area	Overview
CIO Forum www.cioforum.co.za	The CIO Forum evolved as an informal social network of academics and information systems professionals in the Western Cape. The forum is open to Chief Information Officers (CIOs), academics, professionals, industry, corporates, government, graduates, students and other stakeholders. The forum provides CIOs with insight into the academic program, research and initiatives being undertaken by participating universities. It also enables academics to share, learn and engage with key decision makers in the ICT sector.
IBM Innovation Centre www.ibm.com/za/aic	International information technology company IBM has opened a special centre in Cape Town to help promote computer skills development and business growth in the country. The so-called Cape Town Africa Innovation Centre, located in Century City in Cape Town, provides existing local businesses, start-up companies, independent software vendors, IT professionals and the academic community with training, consultancy services, infrastructure and hands-on assistance to help solve business problems and bring new technologies to market.
The Animation School www.theanimationschool.co.za	Launched in 2000 in Cape Town, the Animation School is South Africa's leading internationally accredited animation and visual effects training centre. They consistently produce qualified digital animators with practical skills in the creation of 3D-animation and visual effects. The Animation School offers a three-year animation diploma and equips students with cutting edge animation training enabling them to become highly qualified and sought after animation professionals. Its students consistently win top honours at various award ceremonies and its graduates have been employed by leading studios.
Design City 2014 www.capetown2014.co.za	Cape Town is the fourth city to hold this biennial appointment and marks the first for the African continent. Awarded to cities based on their commitment to use design as an effective tool for social, cultural and economic development, the World Capital Design® (WCD) has become more than just a project or a programme. Today, it is a global movement and serves to acknowledge that design can, and does, impact the quality of human life. The International Council of Societies of Industrial Design President and Member of the Selection Committee, Dr. Mark Breitenberg stated, "It is encouraging to see how Cape Town plans to use design as a tool to solve urban challenges. I am confident that this new member of the WCD family will demonstrate to the world how design is expanding in application and influence."



"The Western Cape has been a hidden corridor of software innovation for decades with a wealth of talent in creative design, software programming and systems thinking."

Roderick Lim Banda
– Chair of ICT
Portfolio Committee,
Cape Chamber of
Commerce and
Industry, CIO
Forum, CenCRA,
CPUT





IV

Venture Capitalists and other funding providers

Photo: Stellenbosch winelands

Funding provider	Overview
Knife Capital www.knifecap.com	Knife Capital (formerly Powered by VC) manages HBD Venture Capital's South African portfolio of investments. HBD VC is a South African venture capital fund founded by Mark Shuttleworth in 2000. Knife Capital is currently in the process of raising a Growth Equity Fund with first closing of between R100 million and R150 million. The investment fund targets companies in need of expansion capital, with an existing revenue flow and a verifiable customer base, matched by significant market potential. The investment size will range between R10 million and R30 million per first round investment.
4Di Capital www.4dicapital.com	4Di Capital is an independent early-stage technology venture capital firm based in Cape Town. 4Di Capital Early-Stage Technology Fund 1 targets start-up investment opportunities with high growth potential at the seed and early stages in the mobile, enterprise software and web sectors.
Invenfin http://invenfin.com	Invenfin is a seed and early stage venture capital fund. As part of Remgro Ltd, the company has an established, global business network with a proven track record. The funding requirements are flexible but all investments must have unique intellectual property. Invenfin is interested in all types of innovation, in all sectors. This may involve a new product, process, software innovation, device, technology or business model. The company is looking for profitable opportunities that can succeed internationally. Invenfin aims to provide early stage venture capital as well as the supporting skills and networks and strategic advice required by start-ups to increase their chances of success.
World of Avatar http://worldofavatar.com	World of Avatar invests in companies that create applications that enable the people of Africa to make a better living using their mobile phones. The group comprises several companies from diverse mobile backgrounds who share a common vision, smart ideas and a frontier spirit.



“Cape Town is not just a ‘pretty face’ – the amount of cutting edge innovation that is happening here is a constant surprise to me. The quality of deal flow for investors who know where to look makes Cape Town a very attractive investment destination.”

Andrea Böhmert
Director, Knife Capital

Funding provider	Overview
88mph www.88mph.ac	88mph makes investments in early stage mobile-web companies targeting the African market; focusing purely on ideas with potential to scale across Africa. Besides funding, start-ups have immediate reach to Africa's biggest growth markets via the fund's tech hubs in Nairobi and Cape Town and an agreement with several local hubs across Africa. This environment creates a competitive setting where start-ups spend three intensive months launching products and finding customers. 88mph makes investments simultaneously in 10-12 start-ups, enabling them to learn from each other and make use of their extensive network of business and tech professionals as well as dedicated start-up mentors.
Business Partners www.businesspartners.co.za	Business Partners is a specialist risk finance company for formal small and medium enterprises in South Africa and selected African countries. The company actively supports entrepreneurial growth by providing financing, specialist sectoral knowledge and added-value services for viable small and medium businesses. Business Partners has recently launched a R400 million Venture Fund in which ICT is one of the focus industries.
Hasso Plattner Ventures Africa (HPVA) www.hp-ventures.co.za	HPVA is an investment company based in Cape Town. The company actively provides venture capital and growth funding through its first fund of €39 million. HPVA invests in innovative technology companies with a proven track record of growth and a business model that is substantiated by the generation of historical revenue. Besides innovative technology and growth, the company also seeks to find companies that are managed by like-minded skilled individuals who understand what it takes to build and exit a global business.
Technology Innovation Agency (TIA) www.tia.org.za	TIA invests in seven technology sectors with ICT being one of them. The typical thematic areas in which TIA seeks to contribute to economic value include smart infrastructure, smart industries, e-education, e-health and e-government. TIA has identified ICT as a key sector in the Western Cape and are seeking to get involved in larger initiatives such as clusters and incubators in the Province. For TIA, ICT innovation that has strong intellectual property that would create a global uniqueness, together coupled with commercial potential would be the type of ideas being sought. TIA would typically invest in a range of R500,000 to R20 million through one of its funding products being the Technology Development Fund, Start-up Equity Fund, Industry Matching Fund or Idea Development Fund.
AngelHub www.angelhub.co.za	AngelHub is a Business Angel Investment Group that pools funding, expertise and networks from a diverse range of early-stage Angel Investors for investment in high-growth South African ventures to accelerate growth and create value.
Google Umbono www.umbono.co.za	Google launched a start-up incubator called Umbono. Umbono is a Google fund and accelerator based in Cape Town. The incubator aims to support the local tech ecosystem by offering local start-ups access to seed capital, Google mentorship and angel investors. The company is an integral part of the Silicon Cape Initiative and invests seed capital of between \$25,000 to \$50,000 in South African based start-ups.





V

*World-class skills
provided by the four
universities in the
Western Cape*

Photo: University of Cape Town (UCT)

Strong Human Capital Base

Matriculants (Grade 12) - the closest UK equivalent in the country to the A-Level Standard	- The Western Cape possesses a number of qualified matriculants who are eager to up-skill themselves. - The Western Cape has the second highest matric pass rate in South Africa at 82.8%, 8.9% above the national average of 73.9%. In total there were 36,992 successful matriculants in 2012.
The local industry is also supported by qualified graduates from 4 key tertiary institutions	- University of Cape Town (UCT) - UCT's MBA is ranked 60th globally by Financial Times - University of Stellenbosch (USB) - Cape Peninsula University of Technology (CPUT) - University of the Western Cape (UWC)
The University of South Africa (UNISA)	UNISA also produces local graduates. However, this is an open distance university and the number of Western Cape based graduates could not be confirmed.
Two main skills areas supplying skills into the ICT sector	The first area relates to electrical and electronic engineering; and the second relates to computer science and information technology qualifications.
Large pool of basic skills (graduates)	Due to the growth of the ICT sector within South Africa over the last 10 years there has been significant growth in the number of graduates with ICT skills. Currently there is a large skill pool of entry level IT skills present in the South African economy.
Highly skilled personnel present within specific sectors	The Western Cape ICT sector in specific has pockets of highly skilled personnel. These pockets of skills have developed due to the growth of the Business Process Outsourcing (BPO) sector in the Western Cape as well as the sophisticated nature of Financial Services Sector in the Western Cape.
Other attributes	South Africa is well known for its cultural similarities with especially the UK, but also with Australian and US markets, making it an ideal customer service destination for English voice based interaction.

South Africa's tertiary education system produces a large number of qualified actuaries (three times as many as India), Chartered Accountants and other specialists each year, many of which come from the Western Cape.

Graduates produced in the Western Cape by the four tertiary institutions in 2010.

University	ICT Sector*				Total			
	Degree	Masters	Doctorate	Total	Degree	Masters	Doctorate	Total
Cape Peninsula University of Technology (CPUT)	613	12	3	628	7,350	95	11	7,456
University of Cape Town (UCT)	248	51	14	313	4,634	911	154	5,699
University of Stellenbosch (USB)	131	53	10	194	5,942	1,121	174	7,237
University of the Western Cape (UWC)	140	8	2	150	3,250	315	58	3,623
Sub Total graduates in the Western Cape	1,132	124	29	1,285	21,176	2,442	397	24,015
University of South Africa (UNISA)**	427	5	-	432	25,538	474	55	26,067
Total graduates	1,559	129	29	1,717	46,714	2,916	452	50,082

*These graduates primarily relate to electrical and electronic engineering and to computer science and information technology qualifications.

**This is an open distance learning institution, offering internationally accredited qualifications

Source: www.sagra.org.za

Technology companies funding research at universities

As per the Financial Mail, October 2012, there is a long tradition of technology companies funding research at universities, but over the past few years in the Western Cape this trend has accelerated.

The University of Stellenbosch (USB), through funding provided by Naspers, opened its new facility for the MIH Media Lab in October 2012. The university and the media giant have been collaborating since 2008, when they formed a research group with four postgraduate students that focused on developing a new media service. Currently, it has 32 postgraduate students from different academic departments (electrical and electronic engineering; mathematical sciences; socio-informatics and business management) that participate in research on next-generation technologies. Naspers views the MIH Media Lab as a way to come up with inventions that will add directly to its bottom line. Students are also strongly encouraged to consider starting their own businesses.

The University of Cape Town (UCT) has also attracted corporate backing. Global electronics group Samsung has funded the establishment of a laboratory that specialises in the development of mobile applications. UCT also has the Centre for Information & Communication Technologies for Development (ICT4D) and the Centre for IT & National Development in Africa, which both look at ways to use technology to address developmental issues. The ICT4D centre is funded by the Berlin-based Hasso Plattner Institute but also gets funding from the likes of Microsoft and Nokia. Microsoft is funding the development of games at UCT for its Xbox platform.

Other involvement from industry

There are various interactions between the ICT industry and the universities on different levels. A few are listed below:

- UCT partnered with tech business incubator the Bandwidth Barn to teach students how to run their own businesses.
- USB is supported by InnovUS in the commercialisation of ideas and inventions.
- The CIO Forum partnered with the Centre for Chief Information Research in Africa (CenCRA) situated with the Department of Information Systems in the Faculty of Informatics and Design at CPUT.
- CapaCITi 1000 is a unique training, internship and intern support programme at the CITi. It was created to fast-track unemployed IT graduates into IT careers in critical short supply areas.



Photo: MIH Media Lab



Photo: Graduates of the City of Cape Town and IBM funded CapaCITi 1000 IBM RPG programme at their graduation in October 2012





VI

*Highly attractive
environment &
lifestyle*

Photo: Camps Bay beach

Cape Town is one of the world's most attractive cities and one of the best cities to live in due to its extraordinary natural environment and its sophisticated infrastructure and cosmopolitan lifestyle:

- **Health:** The City's private health facilities are world-class and major state teaching hospitals offer excellent medical care, attracting an increasing number of foreign patients for services that are either more expensive in their home countries or subject to long waiting lists. The private medical insurance sector is well-established and a variety of products is available. Emergency medical care is available to anybody, resident or non-resident, at any provincial or private hospital with a casualty facility.
- **Education:** Cape Town has many superb public and private schools offering a wide choice of subjects and extra-curricular activities. Many of these schools rank as the top public schools in the country. There is a mix of co-ed and single-sex schools and boarding facilities are available in many cases. There are at least four international schools including German, Italian and French. There are four universities and a number of tertiary colleges.
- **Recreation and culture:** With over 110 venues for cultural consumption – from arts and museums to high-end designer retail – the city has something for everyone to experience. Cape Town's incredible variety of recreational opportunities is a major part of its appeal. Hiking, climbing, mountain biking, golf, scuba diving, surfing, kayaking, sailing and parachuting are all popular outdoor activities. The theatre scene is diverse and vibrant and the city has an excellent symphonic orchestra as well as thriving opera and ballet companies that mount several productions a year. Live popular music and jazz can be heard any night of the week.

The Mercer group annually conducts quality of life and cost of living surveys that cover more than 460 cities across five continents. Quality of life is measured according to a variety of criteria including economic, political, cultural, health, education, recreation, housing and the natural environment. According to Mercer's 2012 Quality of living survey, Cape Town is ranked 89th out of 460 countries and is considered the city with the second highest quality of living in Africa after Port Louis, and is ranked fourth if the Middle East and Africa is grouped together.

Middle East and Africa	Americas	Asia Pacific	Europe
Dubai (73rd)	Vancouver (5th)	Auckland (3rd)	Vienna (1st)
Port Louis (82nd)	Ottawa (14th)	Sydney (10th)	Zurich (2nd)
Abu Dhabi (78th)	Toronto (15th)	Wellington (13th)	Munich (4th)
Cape Town (89th)	Montreal (23rd)	Melbourne (17th)	Düsseldorf (6th)
Johannesburg (94th)	Honolulu (28th)	Perth (21st)	Frankfurt (7th)
Source: Mercer, 2012			

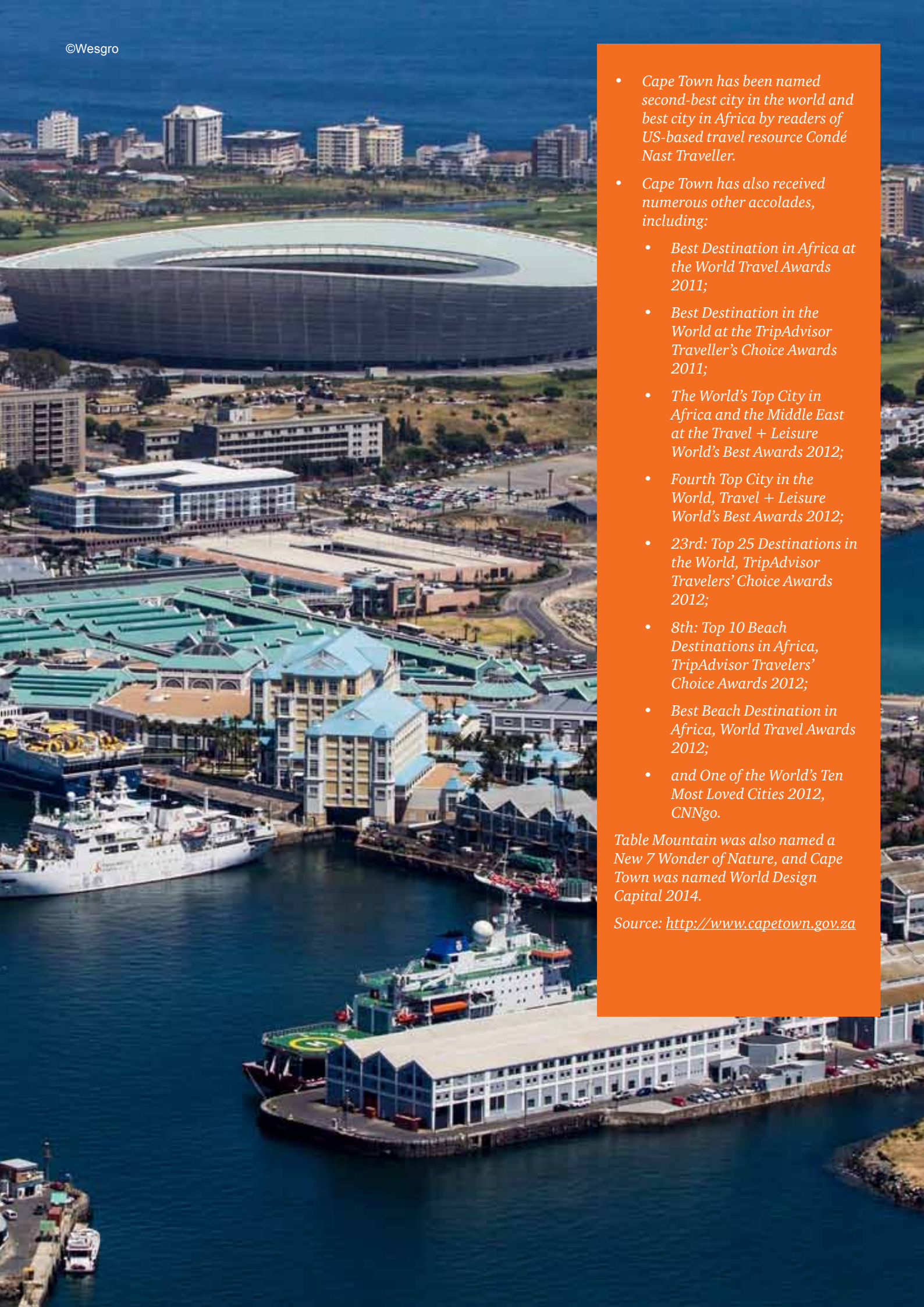
The world's most popular customer-driven traveller advisory site, TripAdvisor, has given Cape Town a new reason to celebrate its tourism status by naming it the No.1 destination of the Top 25 Destinations in the World in their 2011 Travellers' Choice Awards. After being placed 25th in 2010, Cape Town has trumped traditional travel cities like Paris, France (placed fourth), London, United Kingdom (eighth) and Rome, Italy (seventh) to take the top spot.

Source: <http://travel.cnn.com/explorations/life/cape-town-named-worlds-top-travel-destination-246390>

Cape Town makes Top 5 in Conde Nast list for Best Cities in the World 2011.

Cape Town's geographical location makes it a natural international hub for the Sub-Saharan market.

Photo: Cape Town Harbour



- Cape Town has been named second-best city in the world and best city in Africa by readers of US-based travel resource Condé Nast Traveller.
- Cape Town has also received numerous other accolades, including:
 - Best Destination in Africa at the World Travel Awards 2011;
 - Best Destination in the World at the TripAdvisor Traveller's Choice Awards 2011;
 - The World's Top City in Africa and the Middle East at the Travel + Leisure World's Best Awards 2012;
 - Fourth Top City in the World, Travel + Leisure World's Best Awards 2012;
 - 23rd: Top 25 Destinations in the World, TripAdvisor Travelers' Choice Awards 2012;
 - 8th: Top 10 Beach Destinations in Africa, TripAdvisor Travelers' Choice Awards 2012;
 - Best Beach Destination in Africa, World Travel Awards 2012;
 - and One of the World's Ten Most Loved Cities 2012, CNNgo.

Table Mountain was also named a New 7 Wonder of Nature, and Cape Town was named World Design Capital 2014.

Source: <http://www.capetown.gov.za>





VII

*Increasingly faster,
more reliable and
affordable
broadband = new
opportunities*

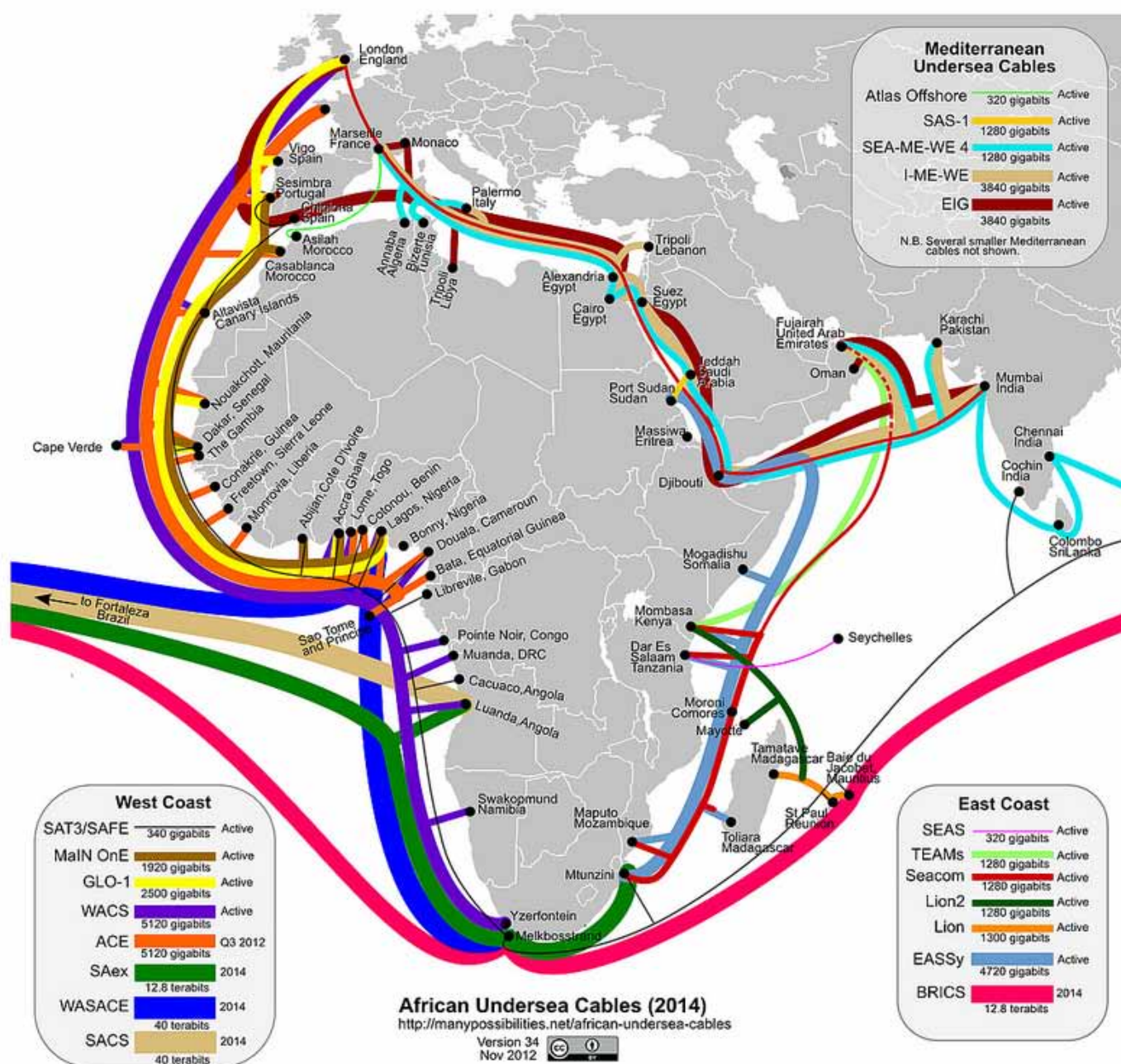
Broadband capacity is expected to rise to 24Tbps when the South - Atlantic Express (SAex) is completed in 2013

In spite of relatively high prices, wired broadband capacity is expected to grow dramatically in the next few years.

South Africa had fibre capacity of 2.69 terabytes per second (Tbps) at the end of 2011.

Capacity is expected to increase significantly due to the West African Cable System (WACS) that has become commercially available and also the Africa Coast to Europe (ACE) that became operational. Capacity is expected to rise to 24Tbps when the South-Atlantic Express (SAex) is completed in 2013.

The WACS and the ACE cable links Western Africa to Europe, while the SAex will provide connectivity to Brazil and the United States and in future provide onward connectivity to India, China and other Asian countries through SEACOM.

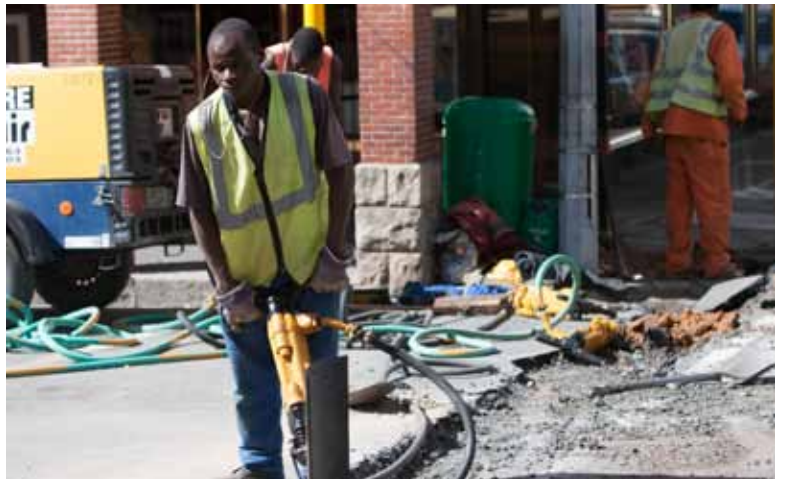


Source: <http://manypossibilities.net/african-undersea-cables/>

In addition to developments in international connectivity, domestic broadband will benefit from new Ka-band telecommunications satellites that will provide Internet access to areas not currently served by the wired infrastructure. The shutdown of analogue television signals, now rescheduled for June 2015, will free up valuable spectrum in the 800MHz band that will be allocated to mobile broadband. The availability of this spectrum will facilitate the emergence of Long Term Evolution (LTE) 4G technologies that will provide for fast mobile broadband.



In December 2011, the City of Cape Town, as part of its broadband infrastructure project, completed a R125 million, 500km optic fibre network project, thereby increasing the City's bandwidth by approximately 1,000 times. The project was aimed to provide low-cost broadband to support municipal services while it will lease excess capacity to other third-party network users in order to encourage economic growth.







VIII

*Significant
strategic
opportunities in
the IT market in
South Africa*

Photo: View from Table Mountain cable car

Overview: South Africa's telecommunication sector

Fixed-line telephony

Relatively low rate of fixed-line telephony with 4.2 million fixed-line connections.

Two operators:

- Dominated by Telkom South Africa – listed on the JSE
- New entrant Neotel (2006) – majority owned by India's Tata Communications.

Mobile operators

South Africa has four licensed mobile operators:

- MTN
- Vodacom (majority owned by UK's Vodafone)
- Cell C (75% owned by an international telecommunications holding firm, Saudi Oger)
- Telkom South Africa's 8ta

Virgin Mobile is the country's only mobile virtual network operator.

Undersea cables and connectivity

An increase in the number of undersea cables linking South Africa to the rest of the world has seen a shake-up in local internet access.

While mobile phones are driving usage, data costs are being driven down by the increasing number of undersea cables connecting sub-Saharan Africa to the rest of the world.

Undersea cable capacity to South Africa at the end of 2011 was 2.69Tbps and it is expected to rise to 24Tbps in 2013.

Broadband

The National Broadband Policy address the availability, accessibility and affordability of broadband; the building of an information society; and promoting the uptake and usage of broadband.

Spectrum allocation is done via Sentech.

Local connectivity

With the arrival of several international data cables to South Africa's shores, focus has shifted to improving connectivity within the country, by building national and city-wide fibre-optic cable networks.

The government, via the Department of Communications, aims to implement a national broadband network to ensure universal access by 2020.

Broadband Infraco, the state-owned company tasked with improving internet access and bringing down broadband prices, sells high-capacity long-distance transmission services to telecoms operators, internet service providers and other value added network service providers.

MTN, Vodacom and Neotel are jointly building a 5,000 km fibre-optic cable network connecting several major centres across South Africa. The first phase of the cable, linking Gauteng with KwaZulu-Natal, was commissioned in June 2010.

FibreCo Telecommunications is building a 12,000 km national open-access fibre-optic broadband network, which will increase the supply of long-distance capacity between major cities such as Johannesburg, Cape Town and Durban, as well as towns and rural areas along the route. It is a partnership between Cell C, ICT firm Internet Solutions, and investment management and advisory firm Convergence Partners.

Provinces, via their municipalities, also have plans to invest in affordable broadband infrastructure. The Western Cape aims to connect the 4,000 government facilities and every school in the province to a broadband network, as well as ensure the public has easy access to ICT facilities.

Source: www.SouthAfrica.info

Size of South Africa's IT market and growth potential – Biggest in Africa

South Africa has the largest IT market value in Africa and the 20th largest in the world (eighth in IT spending as a proportion of GDP in the world). IT market values include hardware (computer hardware sales), IT services and software.

As illustrated by BMI, South Africa comprises the largest portion of the IT market value in the Middle East Africa (MEA) region, totalling around US\$12 billion in 2011.

BMI projects growth in the South African IT market value from US\$11.9 billion in 2012 to US\$19.8 billion in 2016 (US\$ 2012 -2016 CAGR of 13.5%; faster than real GDP growth). The government remains the most important IT spending vehicle and given South Africa's relative developed economy, market opportunities for IT vendors exist in most sectors, including financial services, healthcare, distribution and logistics, retail, power, defence and education.

The telecoms sector also received a boost from liberalisation measures and the launch of 3G mobile networks. The increasing adoption of broadband is also increasing retail demand.

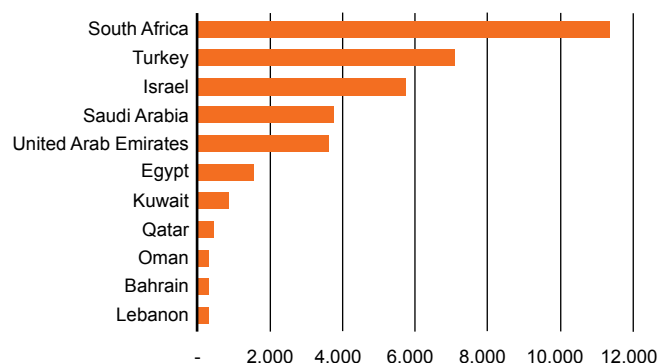
Government authority

BMI indicated, in a recent study - South Africa's Information Technology, Q4 2012, that the South African ICT sector is regarded by the government as an enabler of increasing competitiveness in other sectors, as a source of future export earnings and a key enabler to achieve development goals. The government has implemented a number of frameworks for IT policies: infrastructure development; digital divide and partnerships. The South African Info Tech Industry Strategy (SAITIS) and Info 2025 Vision include a focus on building infrastructure, especially in secondary towns designated as export zones.

Several organisations are charged with the development and implementation of national IT policies, but the most prominent is the State Information Technology Agency (SITA).

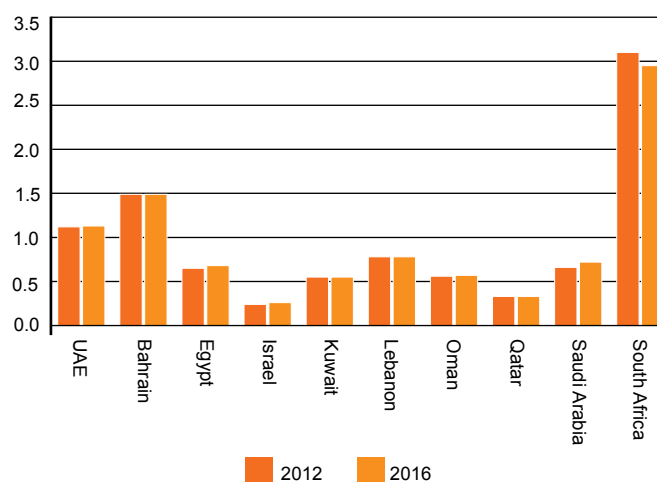
Policy and legislative change also aims at realigning ICT policy with government's development goals. The ICT department has a Vision 2020 policy which aims to push South Africa's ICT exports to 30%, create 1 million jobs, grow the industry's GDP contribution to 10% and achieve 100% broadband coverage and increased access for rural areas.

IT Market Values (US\$mn), 2011



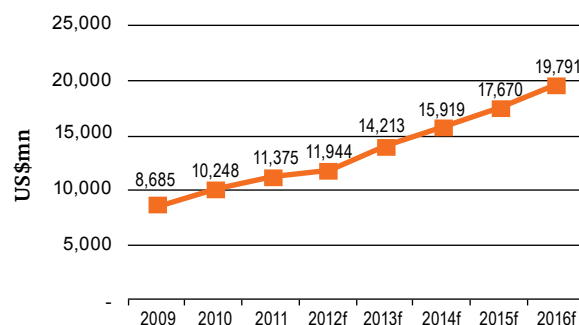
Source: BMI

IT Market Size as a % of National GDP



Source: BMI

South African IT Market Value (US\$mn)



Source: BMI

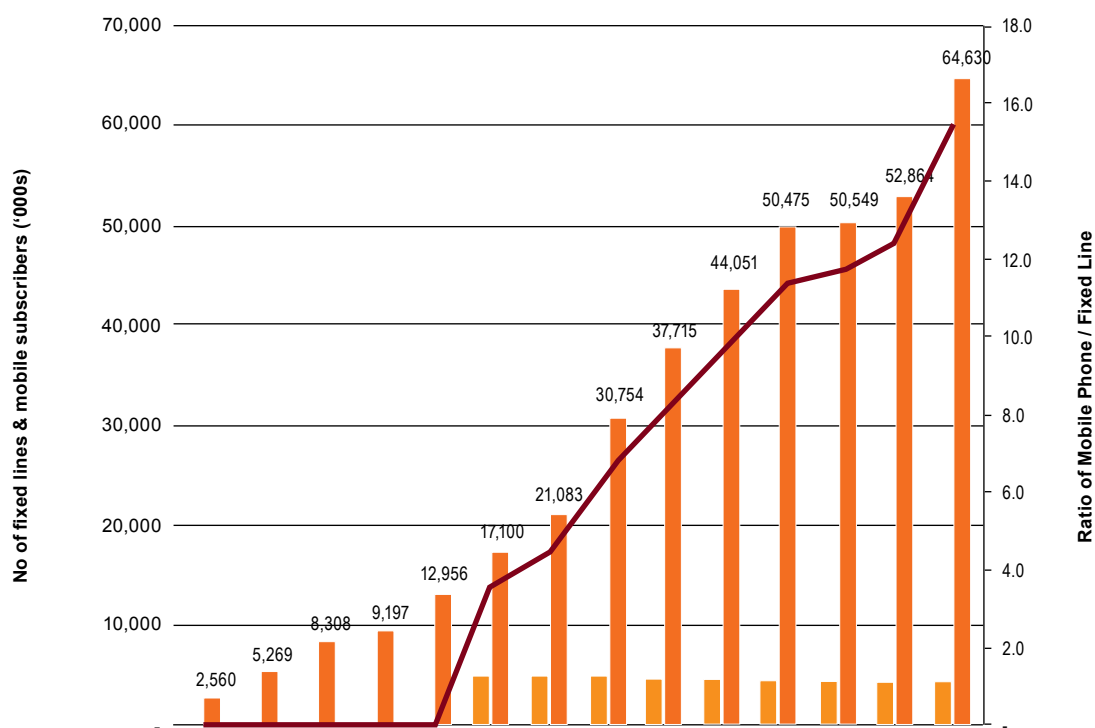
South Africa – Telecommunication Sector

According to a recent study by PwC, Communication Review – telecoms in Africa: innovating and inspiring, the South African telecommunications sector boasts one of Africa's most advanced telecom markets in terms of technologies and services. Telecommunications is one of the fastest growing sectors of South Africa's economy driven by growth in mobile telephony and broadband activity.

BMI, in their South Africa's Information Technology, Q3 2012, report, estimated that Vodacom (with 49.1% of subscriber market) and MTN (34.1% of subscriber market) dominate the South African market. However, strong growth in subscriber numbers have also been achieved by Cell C (14.2% market share) and 8ta (2.1% of market share).

The ratio of mobile phone subscribers to fixed line subscribers increased significantly from 3.6x in 2003 to 15.5x in 2011.

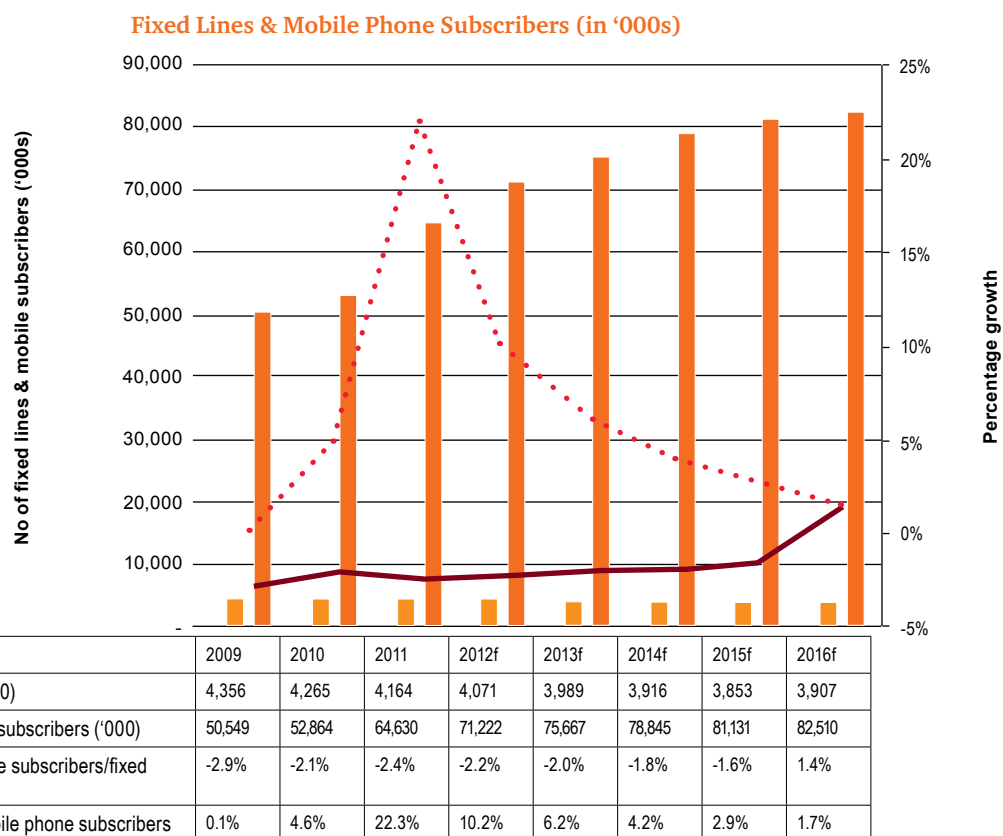
Fixed Lines & Mobile Phone Subscribers (in '000s)



	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
No. of fixed lines ('000)	-	-	-	-	-	4,805	4,821	4,715	4,660	4,578	4,488	4,356	4,265	4,164
No. of mobile phone subscribers ('000)	2,560	5,269	8,308	9,197	12,956	17,100	21,083	30,754	37,715	44,051	50,475	50,549	52,864	64,630
Ratio of mobile phone subscribers/fixed line subscribers	-	-	-	-	-	3.6	4.4	6.5	8.1	9.6	11.2	11.6	12.4	15.5

Source: BMI, Q3 2012

BMI estimated in their South Africa Telecommunications Report, Q3 2012, the number of mobile subscribers in South Africa at 64.63 million at the end of December 2012 (reflecting a 128% penetration rate). Despite the high penetration rate, subscriber numbers are expected to continue to grow to 82.51 million in 2016 (implied penetration rate of 156.5%).



Source: BMI, Q3 2012

South Africa – Internet users and penetration rate

BMI aligned their historical data and forecast for the number of internet users in South Africa to new data published by the International Telecommunication Union (ITU) relating to new data available at the end of 2011.

The ITU estimated internet penetration in South Africa at 21% at the end of 2011. This translates to approximately 10.5 million internet users based on BMI data and reflects the increasing use of wireless technologies and smartphones to access the internet. BMI estimated that the number of regular internet users in South Africa will be approximately 13.5 million in 2012 (a penetration of 26.6%). An average 15.9% growth rate is forecasted during the remainder of the forecast period to bring the number of internet users to around 24.3 million (46% penetration rate) at the end of 2016.

Telecoms Sector – Internet – Historical Data & Forecast

	2009	2010	2011	2012f	2013f	2014f	2015f	2016f
No. of internet users ('000)	5,296	6,500	10,500	13,462	16,439	18,962	21,465	24,255
No. of internet users/100 inhabitants	10.8	13.1	20.9	26.6	32.1	36.7	41.1	46.0
No. of broadband internet subscribers ('000)	2,120	3,173	4,156	5,008	5,733	6,329	6,795	7,040
No. of broadband internet subscribers/100 inhabitants	4.3	6.4	8.3	9.9	11.2	12.2	13.0	13.4

Source: BMI, ITU 2012

Across the Europe, Middle East and Africa (EMEA) region the number of internet users is expected to grow significantly.

South Africa is projected to advance the most in percentage terms, with penetration rising to 46% in 2016. Egypt, where the second biggest increase is forecast, is expected to have a 55% penetration by 2016 (up from 40% in 2012).

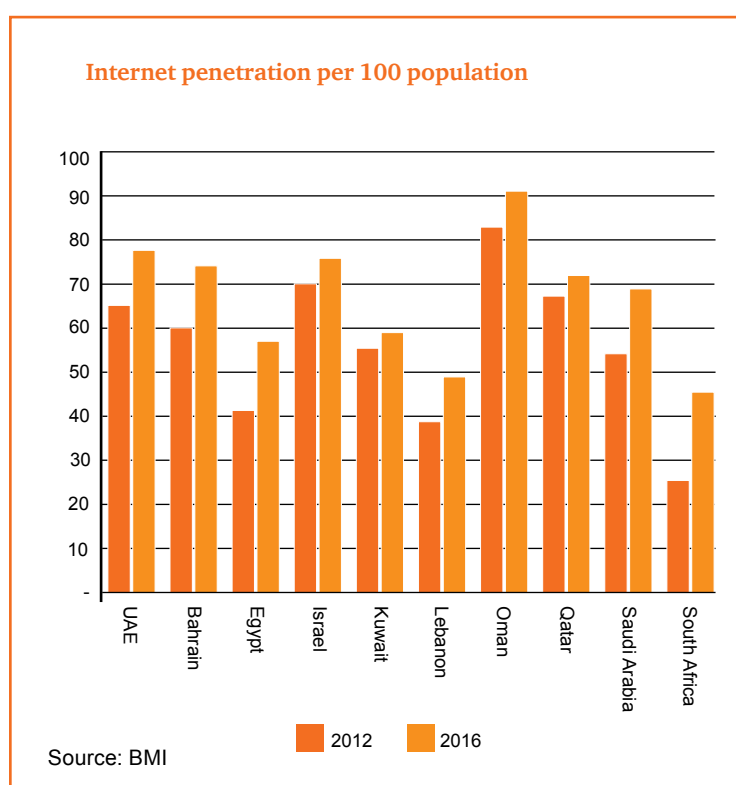


Photo: Robben Island







IX

*South Africa – being
part of a billion
people in Africa*

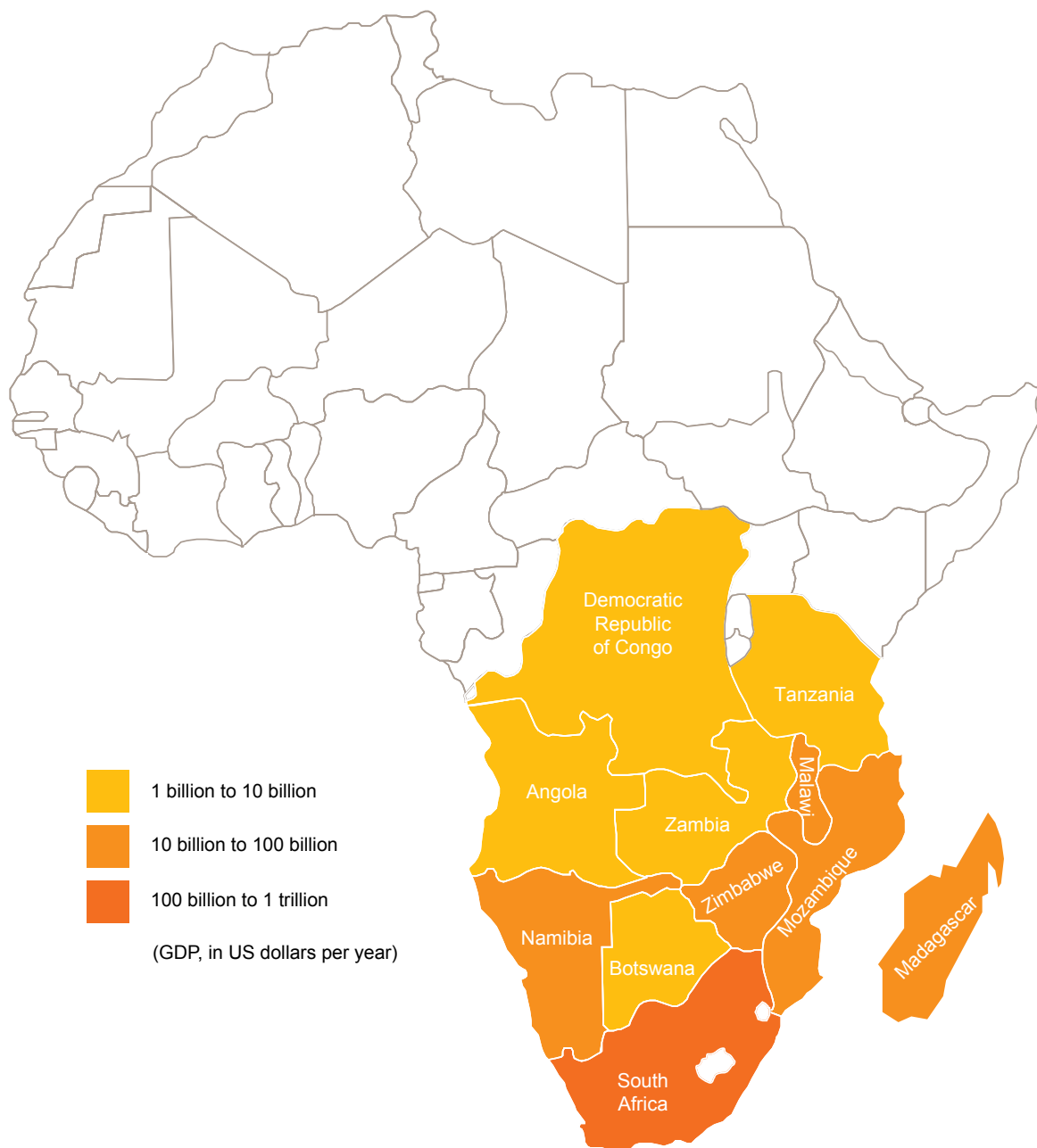
Photo: Crowd at soccer game

South Africa is one of the fifteen countries that are members of the Southern African Development Community (SADC). The economies of the SADC members are highly divergent although operating to a (mostly) common macro-economic framework.

The main participating countries (by population) are:

- Democratic Republic of the Congo (68 million)
- South Africa (51 million)
- Tanzania (45 million)
- Mozambique (23 million)

Current SADC statistics put the combined population at 257 million people and an aggregate GDP of \$483 billion.

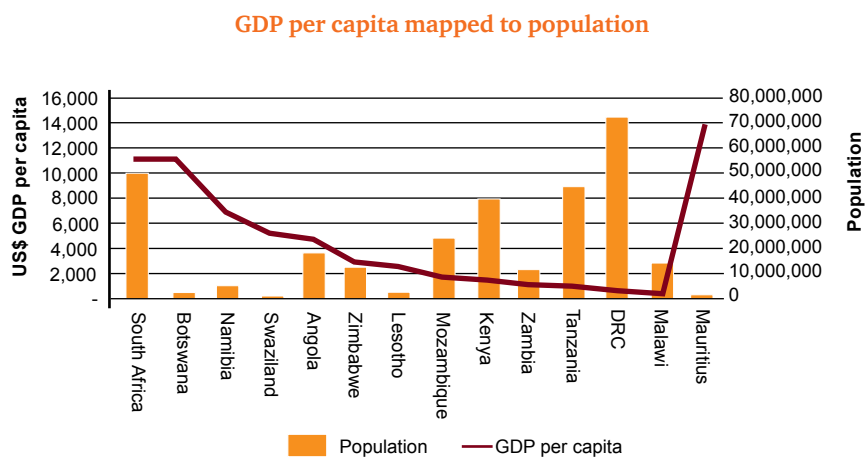


Source: Wolfram Alpha, 2012

South Africa dominates total SADC GDP

Of the total regional SADC GDP of circa \$483 billion, South Africa's contribution is circa \$340 billion. South Africa is the only country with a large population and relatively high GDP.

After South Africa, the ranking is: Angola (\$35 billion); Tanzania (\$21 billion); Zambia and Botswana (\$14 billion each).



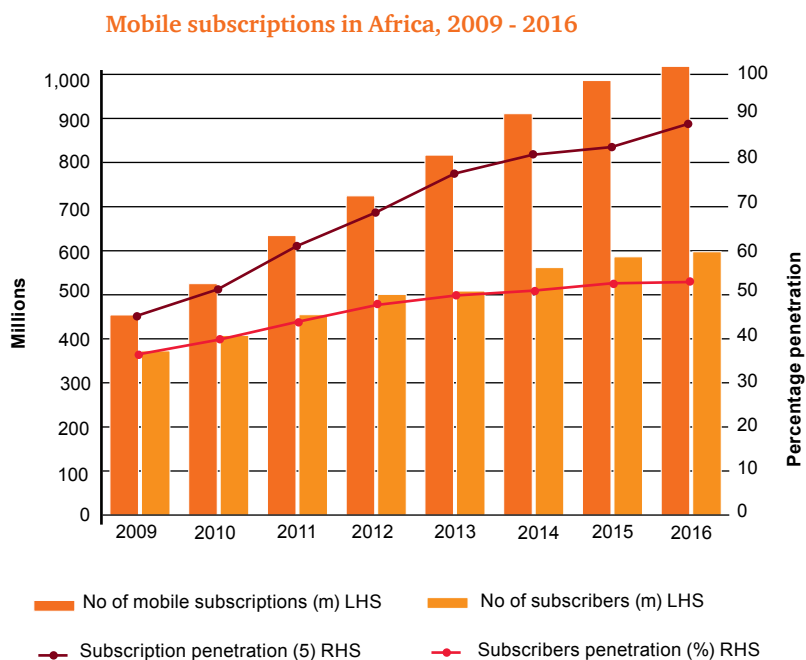
Source: Wolfram Alpha, 2012

Mobile penetration

South Africa has mobile penetration of over 100%. According to research by GfK RT, one in ten of the mobile phones being sold in the Middle East and Africa are now dual SIMs.

As statistics from Informa Telecoms and Media confirm, this high use of dual SIMs has opened up a significant gap between 'subscription penetration' and 'subscriber penetration'.

It is evident that Africa's mobile market potential is largely untapped.



Source: Informa Telecoms and Media





X

Exports to Africa

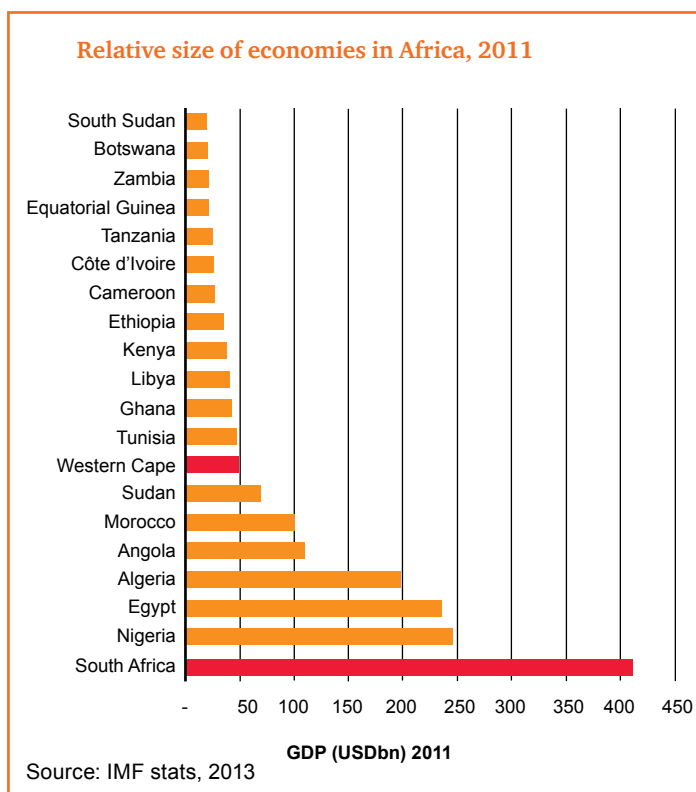
South Africa is the 10th biggest exporter to the rest of Africa and ranks as the biggest economy in Africa

Photo: Cape Town harbour

Top 20 Global Markets Exporting to Africa

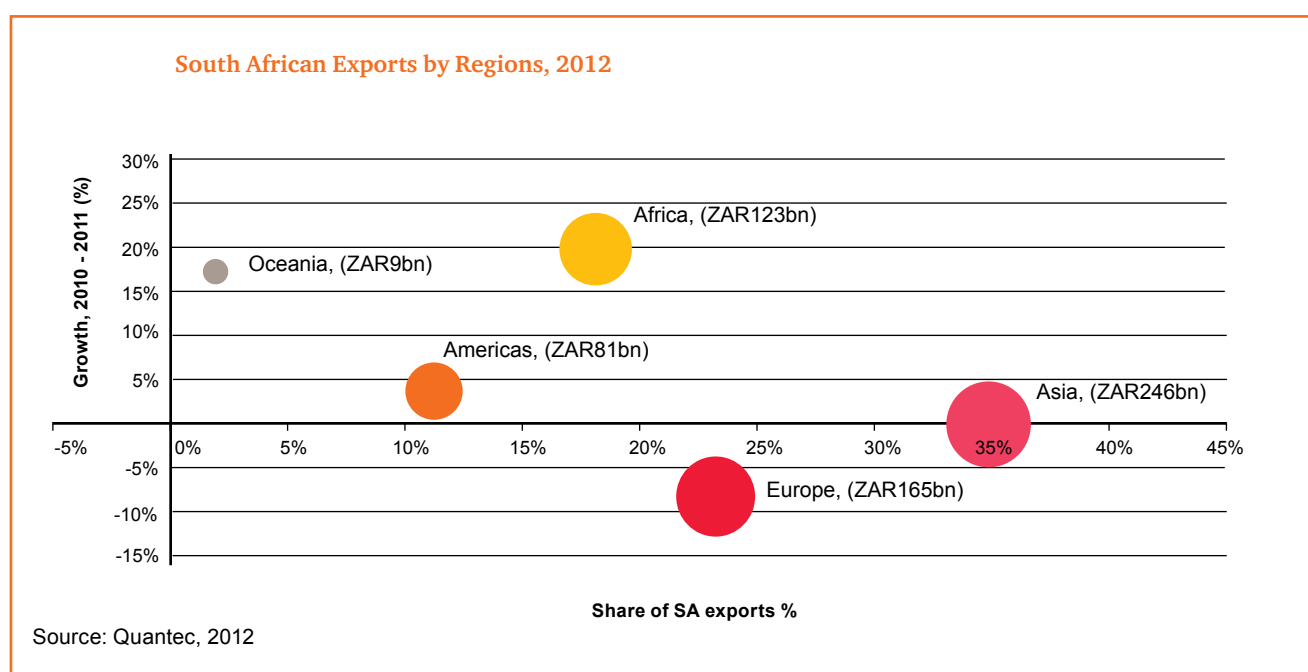
Rank	Exporters	Value 2011 (ZARbn)	Share
1	China	524	16.2%
2	France	281	8.7%
3	United States of America	235	7.3%
4	Germany	205	6.3%
5	Italy	159	4.9%
6	Republic of Korea	130	4.0%
7	United Kingdom	127	3.9%
8	Netherlands	125	3.9%
9	Spain	116	3.6%
10	South Africa	106	3.3%
11	Belgium	98	3.0%
12	Japan	95	2.9%
13	Brazil	88	2.7%
14	Turkey	74	2.3%
15	Singapore	66	2.0%
16	Russian Federation	59	1.8%
17	Thailand	55	1.7%
18	Sweden	47	1.4%
29	Portugal	44	1.3%
20	Malaysia	43	1.3%
Total Exports		3 231.56	100%

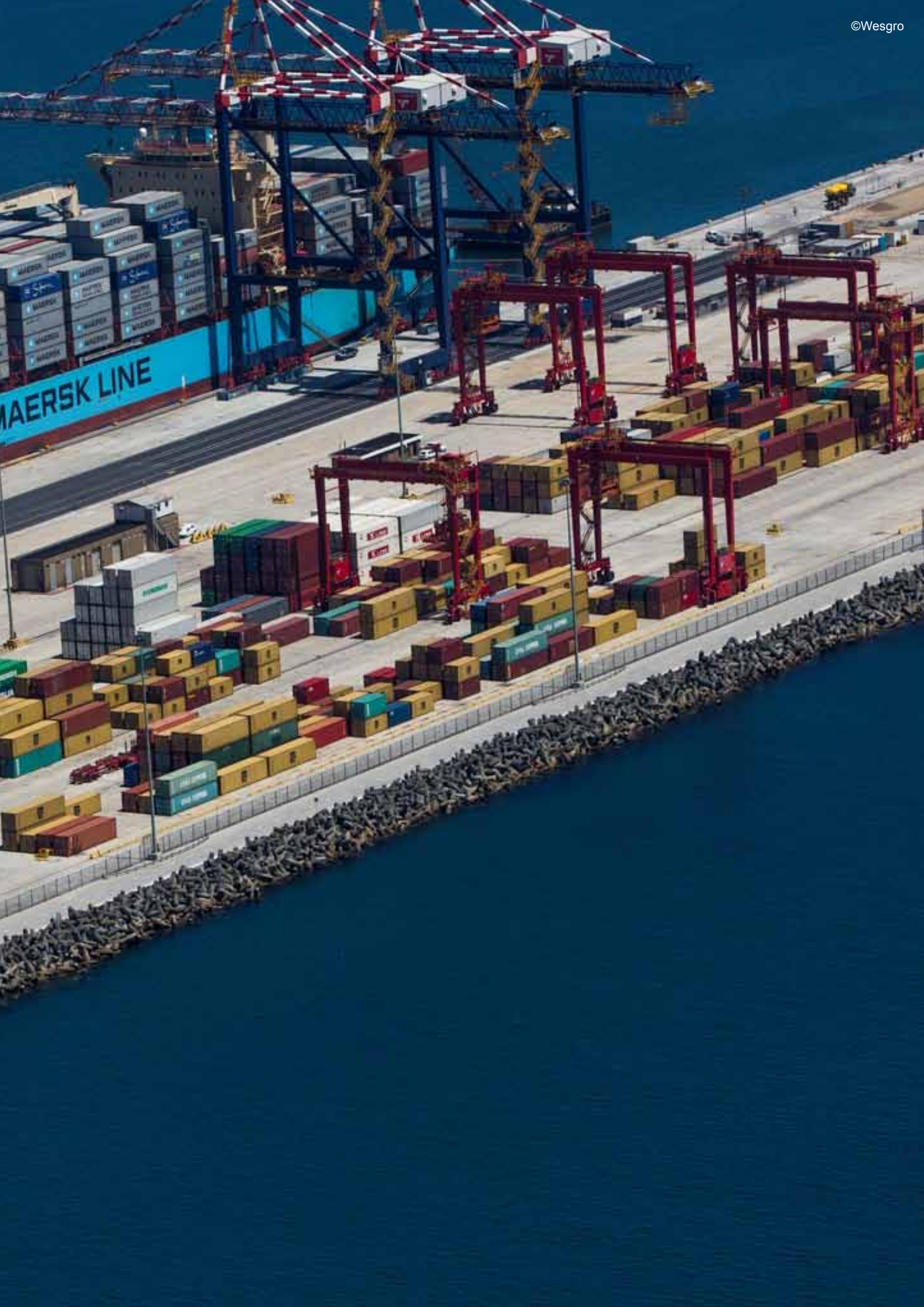
Source: Trade Map, 2012



The rest of Africa was South Africa's fastest growing export region in 2012 growing at 20% from 2011 to 2012 to ZAR123 billion.

Asia was South Africa's biggest trading partner in 2012 estimated at ZAR246 billion, followed by Europe at ZAR165 billion.









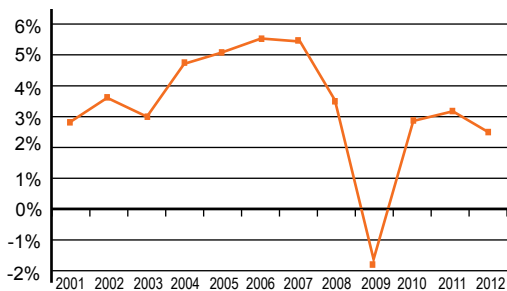
Section 2

Doing business in Cape Town: South Africa in numbers - country overview

Photo: Cape Town International Airport

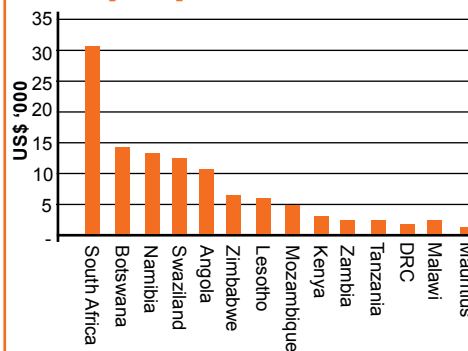
Key macroeconomic indicators

South Africa Real GDP growth in (%)



Source: Historical median from major financial institutions in South Africa, PwC analysis

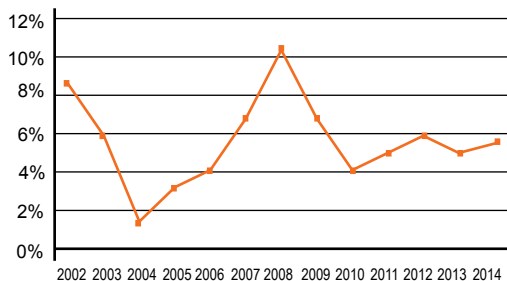
GDP per capita, 2011



Source: The World Bank

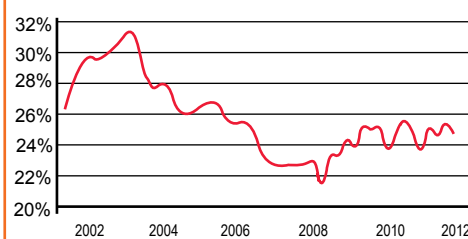
Just like almost every economy in the world, South Africa was exposed to the global economic downturn in 2008/2009. However, it is now on a significant recovery track, with a strong potential for economic development in the longer term.

South Africa, Inflation (CPI) rate (%)



Source: Consensus forecasts of major financial institutions in South Africa; PwC analysis

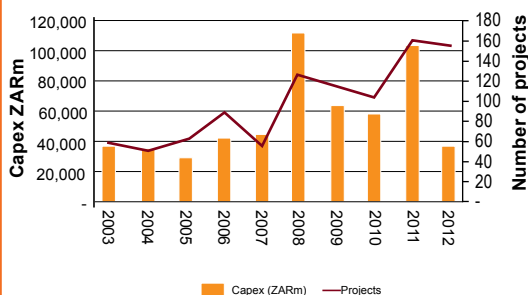
South African unemployment rate



Source: www.tradingeconomics.com
Statistics South Africa

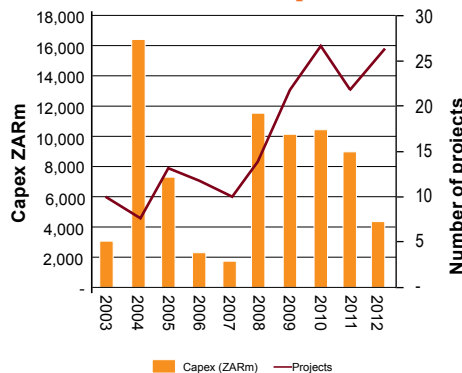
Availability of labour force in South Africa remains high. This obviously creates significant social concerns, but also indicates the availability of the labour force for a potential investor.

FDI Flows to South Africa, 2003 - 2012



Source: FDI Intelligence, 2012

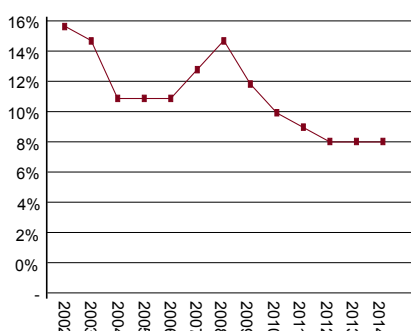
FDI Flows to Western Cape, 2003 - 2012



Source: FDI Intelligence, 2012

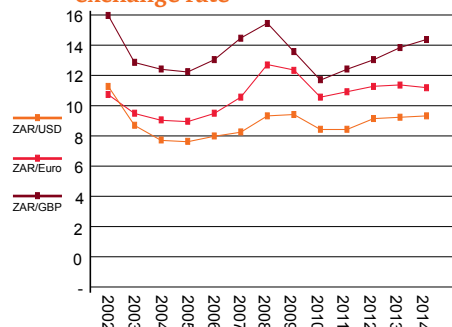
Inward foreign direct investment has grown exponentially in the last decade in South Africa.

Prime interest rate in South Africa



Source: Consensus forecasts of major financial institutions in South Africa; PwC analysis

ZAR/USD/EUR/GBP average annual exchange rate



Source: Consensus forecasts of major financial institutions in South Africa; PwC analysis

South Africa provides favourable conditions for your business – Cape Town has a strong FDI track record

South African Overview		
 Stable political environment	 Growing economy and affordable labour	 Favourable business conditions for foreign investors
Political environment	Economic performance	Other business drivers
Internal stability, expected continuity - Broad political stability is likely to persist, owing to the African National Congress' (ANC) dominance at a national and provincial level.  - Relatively strong, independent institutions, including the judiciary and security services.  - Persistently high levels of poverty have led to political disenfranchisement and the attraction of new political groupings. 	Recovery underway - The government has pursued a prudent fiscal policy since 1994, allowing it to increase public expenditure at a time of economic downturn.  - The country has rich mineral resources and is the continent's financial hub.  - Despite a decrease in profitability, South Africa's banking sector has remained stable amid the global recession and subsequent recovery.  - Increasing the trend rate of growth is essential to long-term plans to alleviate poverty. The government is planning a raft of microeconomic reforms, including improved skills training, to address this.  - The government's Black Economic Empowerment (BEE) initiative should increase equality in the participation and ownership of financial resources, although over the medium term the costs of compliance will be high.  - South Africa and Cape Town have a strong FDI track record of increasing FDI inflow in the last eight years (12% CAGR 2003:2011). 	Legal & tax environment - Ease of doing business in South Africa - Ease of setting up a company  - Protection of investors - Transparent and liberal tax system Infrastructure - Despite decades of isolation under apartheid, the business infrastructure is modern, enabling South Africa to serve as the financial and business hub of the continent.  Proximity to markets - South Africa has close trading ties with Europe and can serve as a manufacturing and export hub for both European and Asian markets. 

Source: BMI and PwC Analysis

Key – Impact on Market (Opportunity vs. risk)

Positive 

Stable 

Negative 

Ease of doing Business in South Africa

South Africa is ranked remarkably high in international comparative studies, scoring well for its liberal and transparent business environment.

Starting a business is viewed as a quick and easy process requiring only five procedures.

Investors are also well protected as South Africa was ranked 10th in the world by the World Bank out of 185 countries.

The South African economy is highly ranked for its ease of doing business, economic freedom and transparency – and has been strongly improving.

	2012	2013
World Bank: “Ease of doing business”	#41	#39 out of 185 countries
“Getting Credit”	#1	#1 out of 185 countries
“Protecting Investors”	#10	#10 out of 185 countries
“Starting a business”	#43	#53 out of 185 countries

- Launching a business in South Africa is a straightforward process. According to the World Bank, it can be measured through four criteria: procedures required to establish a business, the associated time and cost, and the minimum capital requirement.
- Entrepreneurs can expect to go through five steps to launch a business in South Africa over 19 days on average, at a cost equal to 0.3% of gross national income (GNI) per capita.
- There is no minimum capital requirement to obtain a business registration number, compared with the Organisation of Economic Cooperation and Development (OECD) average of 13.3% of GNI.

South Africa’s data protection laws, products and certifications are world renowned and have similarities with those used in the UK and EU. According to the World Economic Forum, South Africa is ranked 1st in the world for strength of auditing and reporting standards.

Starting a business in South Africa

Indicator	Eastern Europe & Central Asia	Middle East & North Africa	OECD high income	Sub-Saharan Africa	South Africa	Turkey	Saudi Arabia	Nigeria	Brazil	Kenya	India
Rank	-	-	-	-	53	72	78	119	121	126	173
Procedures (number)	6	8	5	8	5	6	9	8	13	10	12
Time (days)	14	23	12	34	19	6	21	34	119	32	27
Cost (% of income per capita)	6.8	29.8	4.5	67.3	0.3	10.5	5	60.4	4.8	40.4	49.8
Paid-in Min. Capital (% of income per capita)	5.0	72.3	13.3	116.	-	7.2	-	-	-	-	140.1

Note: This ranking relates to 185 countries

Source: World Bank

Cape Town's infrastructure can support your business – it offers road, rail, air and sea connections

Cape Town's infrastructure: road, rail, air and sea

Road and rail	Air	Sea
- Cape Town has an excellent road infrastructure. Three arterial routes lead into Cape Town, namely the N1 from Johannesburg via the Karoo and the Cape Winelands, the N2 from the Garden Route and Overberg and the N7 from the West Coast and Namibia. - The City of Cape Town has started to transform the road-based public transport services by a concept known as Bus Rapid Transit (BRT) - BRT is a high-quality bus-based transit system that delivers fast, comfortable, and cost-effective urban mobility with segregated right-of-way infrastructure, rapid and frequent operations, and excellence in marketing and customer service. - Metrarail Western Cape is a network of commuter and suburban rail services in and around the metropolitan area of Cape Town. It is operated by Metrorail, which operates commuter rail services in the major cities of South Africa. The routes are probably the most comprehensive of any of the cities in South Africa.	- The airport is situated only 17km from the city centre and easily accessible from all Cape Town areas. - The airport handles nearly 5 million passengers annually - There are regular scheduled flights to most parts of the country and the airport is serviced by a wide range of carriers, including various low-cost airlines. - It is currently connected by direct scheduled flights to 23 major cities in 19 countries. - In addition, a one-flight connection via either Johannesburg or Durban (both of which are about two hours flying time from Cape Town) links the city to 59 cities in 52 countries. - There are a number of commercial development opportunities at sites around the airport's perimeter, including a bustling industrial zone.	- About 90% of South African export volumes is seaborne. - Cape Town Port competes with Alexandria for recognition as the most famous port in Africa and is regarded as one of the most beautiful harbours in the world. - The Port of Cape Town is fully equipped to handle all types of general break bulk and containerised cargo through its specialised terminals and is linked to a vast inland transport infrastructure. - It is ideally suited to serve as a hub for cargo between Europe, the Americas, Africa, Asia and Oceania. - In 2009 the port handled more than 3,000 vessels with an estimated 13m tonnes of cargo. - The Port of Saldanha Bay is South Africa's largest natural anchorage and port, situated 60 nautical miles north-west of Cape Town.

The Western Cape's infrastructure, showcased during the 2010 World Cup, is world class; from roads and power through to education, healthcare and entertainment, making it an easy place to conduct business.

Administrative and Tax environment

Company registration and administration

- No government approval or license is required to register a business in South Africa. Depending on the nature of the business being undertaken, certain approvals may be required from relevant authorities before operations are started.
- Foreign owned companies are treated equally to locally-owned, although in certain limited cases businesses with non-resident ownership of 75% or more are restricted in their local borrowings.
- The Companies and Intellectual Property Commission (CIPC) administers company registrations and reporting. A foreign company may begin local operations in South Africa without local incorporation, as a branch. Such branch office should be registered within 21 days of the start of business at CIPC.
- Company registrations can be completed directly via CIPRO; alternatively most legal and accounting firms offer registration and business advisory services.

Taxation

- South Africa operates a residence-based tax system. Individual income tax is levied on a sliding scale up to a maximum of 40%; companies pay a flat rate of 28%, as well as a withholding tax of 15% on dividends declared, which can be reduced in terms of an appropriate double tax agreement. Capital gains tax is levied on the disposal of immovable property or assets.
- Branches are also taxed at 28%, with no profit remittance tax.
- Additional taxes and levies include :
 - skills development levy of 1% of payroll
 - worker's compensation and unemployment insurance fund premiums
 - transfer duty (sliding scale up to a maximum of 8%) on transfer of land and buildings, and
 - securities transfer tax of 0.25% on transfer of shares and securities.
- VAT is levied at 14% on goods and services, with various supplies qualifying for zero-rating or exemption.
- Further information relevant to taxation in South Africa is available from the South African Revenue Service website (www.sars.gov.za) or PwC.

Double taxation agreements

- Foreign investors are subject to South African income tax on income from South African sources only, subject to the provisions contained in Double Taxation Agreements (DTA) concluded by the South African government with the governments of other countries. South Africa has a wide DTA network, with over 73 in force and more in process.

Incentives:

South Africa offers potential cost savings of approximately 50% to source destinations such as the UK. This is supplemented by a national incentive scheme by the Department of Trade and Industry that pays investors up to R112,000 (approximately €10,000) for each job created and maintained over a three year period.

Source: BPeSA 2011/12 Key Indicator Report

The Western Cape offers a region specific incentive to Business Process Outsourcing (BPO) investors. It provides all new BPO investors to the Western Cape with free telecoms services for the first six months of operation.

Source: <http://www.frontiermarketnetwork.com/article/438-the-king-of-bpos>

Exchange and remittance of funds

- Exchange controls and remittance of funds transactions are regulated by the South African Reserve Bank. Capital inflow is generally unrestricted.
- Prior approvals should be obtained for investments, alternatively they should be placed on record, to enable future remittance of funds. In principle, all funds invested into SA together with profits should be able to be repatriated if the correct procedures are followed.
- Specific remittances such as royalties may require separate approval.

Tax/exchange control incentives

- The 'International headquarter company' regime enables the establishment of a South African holding company for investments into Africa and abroad with significant tax and exchange control concessions.
- Advance tax rulings are available subject to certain requirements.

Incentives:

A 150% deduction is available for qualifying research and development expenditure undertaken in South Africa, including where this is undertaken for foreign entities on a contract basis.

World-class companies from the Western Cape

JSE Listed Companies from the Western Cape



Source: McGregor BFA

Foreign Subsidiaries in the Western Cape



Source: Wesgro

How can you finance investment in South Africa?

South Africa's financial services sector is large and highly sophisticated, offering a wide variety of financing options to suit business needs.

- For local companies, short-term borrowings from the major commercial banks, mainly in the form of overdrafts is the most popular source of finance. The prime rate in March 2013 stands at 8.5%, although interest rates tend to be more negotiable when clients buy multiple financing products from the same source. Relationship banking is well developed. Access to bank financing products improves with a proven track record and many new, smaller businesses opt for self-financing.
- Businesses with non-resident ownership of 75% or more are restricted in their local borrowings to overdrafts, financial leases for capital equipment and mortgage bonds and foreign-owned companies must often furnish a parent guarantee. No restrictions apply when foreign companies borrow from abroad.
- Longer-term funding is available from the merchant-bank affiliates or divisions of commercial banks, most of which specialise in specific industries. Leasing and rental schemes are the most popular options for financing vehicles, property and industrial assets, with full-maintenance leases for vehicles. All the major banks in Cape Town have specialist services in this area.
- Since 2004 foreign-owned companies may list on the JSE Securities Exchange and issue bonds through the Bond Exchange of South Africa.
- The South African bond market, the Bond Exchange of South Africa (BESA), is regarded as a leader amongst emerging economies.
- Most medium-and long-term development financing still come from parastatal institutions such as the Industrial Development Corporation (IDC), which favours investments likely to create jobs, promote exports or develop new technology. Foreign borrowing has increased since 1994, with syndicated loans and bond issues particularly popular.
- The Development Bank of Southern Africa (DBSA) is Southern Africa's premier infrastructure development finance institution. The DBSA seeks to be a leading change agent for socio-economic development and economic integration in Southern Africa, and a strategic development partner to the wider African region south of the Sahara.
- Private equity finance is an increasingly popular investment vehicle. A full list of members of the South African Venture Capital and Private Equity Association (SAVCA) is available on www.savca.co.za.
- The main venture capitalists in the Western Cape have been discussed in Section IV.

List of major banks

ABSA Bank

FNB

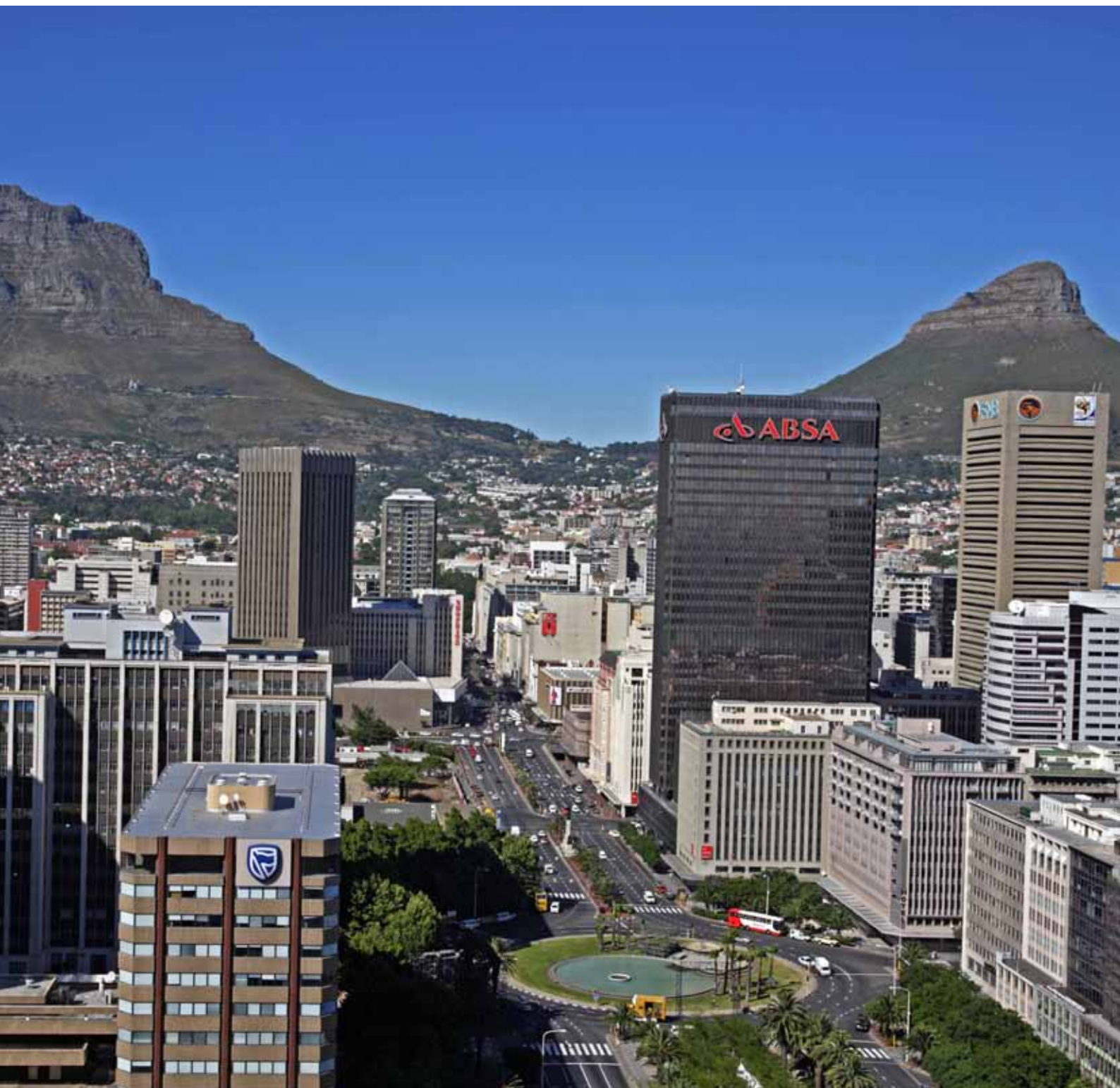
RMB

Standard Bank

Nedbank

Capitec

Investec





A photograph of a waterfront scene. In the foreground, there is a body of water with ripples. A small white boat with a red roof is docked. Behind the boat is a yellow building with white window frames and a balcony. To the left of the yellow building is a white building with a balcony. In the background, there is a large, flat, brownish hill under a clear blue sky. A bird is visible in the upper left corner.

Section 3

List of selected Creative Software Design and Development companies in the Western Cape

Photo: The V&A Waterfront

Company	Description	Website
...XYZ Design	...XYZ Design is an award-winning design firm, globally recognised for their leading-edge, innovative design solutions. Established in 1999, they put South African design on the world map with products like the wind-up radio for the Freeplay Foundation. Their work is performed within medical, ICT, industrial and development models.	http://dddxyz.net
2go	2go is a mobile social network targeting users in emerging markets, particularly in Africa. 2go users message each other for free, meet new people and share updates and photos with friends and family. 2go's mobile currency, GoCredits, enables users to buy content, play games and message each other in chat rooms. 2go's success lies in its simple elegant user interface, nimble and highly scalable platform, and its support for Blackberry (with BIS integration) and over 800 feature phones (which still dominate handset penetration in Africa).	www.2go.im
4iMobile Applications	4iMobile Applications develops high quality mobile applications and supporting web infrastructure and web sites. It has development skills in all major mobile phone platforms, and is a one-stop shop for mobile applications development.	www.4isoft.co.za
22seven digital	22seven uses clever technology to show you your money differently, and draws on insightful psychology to help you think about it differently. Once you've linked your online accounts to 22seven, you can start looking at your money in ways you never have, and doing more with it.	www.22seven.com
Acuo Technologies	Acuo Technologies was established as a software engineering house in February 2002 and is a member of Reunert Limited. In addition to a number of niche products, Acuo offers application development and integration services that allow diverse systems to be incorporated into automated business solutions using components that facilitate the combination of data, processing and functionality of multiple underlying processes. These processes could be accessed by browser based applications that run on various platforms (PCs, terminals, handheld devices and mobile phones).	www.acuo.co.za
Airborne Consulting	Airborne delivers custom solutions utilising the latest Microsoft technologies and tools. Airborne specialises in delivering large scale, complex systems such as cloud computing, service based integration, rich client applications (web, windows and mobile), and data intensive applications (on-line transaction processing and on-line analytical processing).	www.airborneconsulting.co.za
Alacrity	For more than a decade Alacrity has provided the South African financial services and retail industries with software solutions and technical resources. Whether they're building bespoke solutions, supplementing an in-house technical team or maintaining client systems through their outsource division, their approach is to partner with their customers to ensure they achieve the required business benefit and maximise return on their clients' IT spend.	www.alacrity.co.za
BetTech	BetTech Gaming is a provider of premium technology solutions to sports betting companies. It was formally founded in August 2009 and has a market leading product, the BetTech Sports wagering solution. BetTech Sports is allowing medium and large bookmakers the functionality that previously only the world's largest bookmakers had available.	www.bettech.com

Company	Description	Website
Blue Cube Systems	Blue Cube Systems, is a technology company focussed on real-time in-line instrumentation for the minerals processing industry. The company designs, manufactures, distributes, and supports a range of analysers for the measurement of composition in dry, solution and slurries process streams.	www.bluecubesystems.com
Bluegrass Digital	Established in 1996, Bluegrass Digital is a leading provider of cost-effective web solutions and online marketing services to a wide range of global clients. With offices in London and Cape Town, they have a diverse pool of knowledge and expertise, bringing together creativity and innovative technology to deliver results.	www.bluegrassdigital.com
Buongiorno (iTouch)	iTouch was formed in Cape Town in 1995 and started out by developing SMS services and interactive voice response technologies. The company now has branches in 13 countries, selling its mobile entertainment products and services to operators in 23 countries. iTouch was bought out by Buongiorno.	www.buongiorno.com
Cobi Interactive	Cobi Interactive specialises in assisting clients conceptualise, design, develop and implement their mobile strategy. Their team is experienced in mobile application development as well as user experience and interface design. With a focus on quality of software developed, transparent communication and an honest approach to the way they do business, their in-house team is equipped to assist with clients' mobile needs.	www.cobiinteractive.com
Colour Accounting	Accounting Comes Alive publishes the Color Accounting graphical learning system to make a lasting impact for students, learning and development managers and training providers.	www.accountingcomesalive.com
Dating Lab	The Dating Lab specialises in building and managing high-quality branded dating services. For the last 17 years they have been providing successful print and online dating solutions to a variety of media client owners.	www.thedatinglab.com
EDH	EDH is a local software development company that has led the way in 3D radar tracking devices including those used to measure the speed of tennis serves at Wimbledon, as well as similar applications for cricket, golf and military use.	www.edh.co.za
Evly (Africa)	Evly is a social marketing suite for brands and agencies. They improve and optimise communication between clients and their customers, making engagement more meaningful and measurable.	www.evly.com
Flash	Flash is a system that enables the informal sector to vend airtime and electricity by using Global System for Mobile Communications (GSM) technology. This technology allows a vendor to print a receipt with the electronic voucher number. Flash currently has over 50,000 of these vendors in the informal sector namely home shops, large and small spazas and hair salons, etc. Their focus is to create wealth for individuals and employ and partner with like minded people. They create opportunities and convenience through technology.	www.flash.co.za
Fontera	Fontera is a development company which specialises in the development of customised mobile, web and social media campaigns and applications.	http://fontera.com

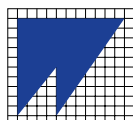
Company	Description	Website
Framework One (Africa)	Framework One specialises in bespoke enterprise system development and business process automation, using cloud based Windows Azure services. Rapid development is done using their in-house developed framework and custom built Visual Studio extensions.	www.frameworkone.co.za
GLS Software	GLS Software develops and maintains software for engineering infrastructure analysis, design and management purposes, primarily in the fields of water and sanitation engineering.	www.gls.co.za
Greatsoft	Greatsoft's integrated practice management software solutions are designed to automate key administrative processes in a firm. Their software products are developed around their clients requirements.	www.greatsoft.co.za
Handguns and Tequila Software (H&T)	H&T is a technology agnostic, cloud consultancy that has experience advising on and delivering cloud application development solutions for large enterprises.	www.handgunsandtequila.com
iKineo	iKineo is a next-generation consultancy that designs and manages positive brand experiences to meet specific goals for their clients. They develop and implement relationship marketing, brand activation and related communication strategy for leading-multinational companies and government.	www.ikineo.com
IMQS	IMQS has strategically partnered with engineering companies, and in doing so has merged engineering services with GIS based asset management software, resulting in integrated asset management information system.	www.imqs.co.za
Infology	Infology is an information management service provider with a focus on legal risk management. Through the use of their software and a network of industry partners, Infology is able to provide an end-to-end information management framework that addresses the legal challenges that present themselves to an organisation.	www.infology.net
Intrepid solutions	Intrepid solutions business model is to partner with entrepreneurs who have a great idea for a smart business application but lack the IT know-how and resources to execute it. The company will partner with applicants on a shared risk/reward basis to develop the solution if the proposed idea holds promise of a sound business model.	www.intrepidsolutions.co.za
JamiiX	JamiiX is a cloud solution provided to groups, organisations, businesses, governments and individuals to manage multiple conversations from different social media and instant messaging platforms.	http://jamiix.biz
Korwe	Korwe Software is a technology partner offering products, services and consultation. Their speciality lies in workflow, state, device-recognition, enterprise patterns, software engineering, Java, Grails, C#, C++ and an understanding of related communications and social networking technologies.	www.korwe.com
Kuza (Africa)	Kuza allows you to put your business on the internet using only your mobile phone. Their free mobile app allows you to create a business website in just five minutes. You can quickly add photos and recommendations to your site so new customers will see the high quality of your work. Your website is automatically listed on Kuza's main page and is optimised in order to be found on Google. Your Kuza website will help you meet new customers and grow your business.	http://kuza.com

Company	Description	Website
Liquid Thought	With more than a decade of experience as an innovative technology solutions provider, Liquid Thought delivers digital, collaboration and customer relationship management (CRM) solutions. Their core digital services include digital strategy, web and mobile design and development, content and eCommerce systems, eCRM, search engine marketing (SEM) and insights.	www.liquidthought.co.za
Liquorice Africa	Liquorice Africa is a digital marketing agency based in Cape Town, Johannesburg and Durban. The company specialises in CRM, digital, web, internet, web 2.0, web 3.0, integrated marketing and strategy. Their clients include: Unilever, Auction Alliance and SAB.	www.liquorice.co.za
Mobiflock (Africa)	Mobiflock is a mobile safety and security company that offers businesses, parents and individuals peace of mind when using smart phones and tablets. The parental control for smart phones and tablets protects the device and its data, as well as creating a safe way for businesses to mobilise their workforce, or for children to enjoy the benefits of smart devices.	www.mobiflock.com
Motribe	Motribe is a platform enabling users, brands, agencies and publishers across the world to build and manage their own (private) mobile social communities. They can use the services of Motribe to create the content and engage their community by sharing information, chatting and for example uploading photos afterwards. Motribe has 20,000 operators located around the world to build these mobile communities and covers 2 million users in emerging markets.	www.motribe.com
NioCAD	NioCAD started as a research and development project at Stellenbosch University in 2001 and was funded by the South African National Research Foundation's Innovation Fund from 2007. The company develops Electronic Design Automation and Computer Aided Design software for emerging technologies and has a focus on integration, automation and collaboration.	http://niocad.com
Nusoft	NuSoft is a web development and internet solutions company. They develop websites, internet software solutions, corporate image and brand designs for companies worldwide.	http://nusoft.co.za
Obami	Obami is an international recognised, award-winning, social learning management system. It brings everyone within the education space together – learners, teachers and parents, as well as governing bodies and companies.	www.beta.obami.com
Open Box	Open Box is a software development consultancy focused on the real estate industry.	www.openboxsoftware.com
Optisolutions	They develop innovative business applications over a variety of industries as well as various other ICT services.	www.optisolutions.co.za
Prezence	Prezence is a prominent digital agency, specialising in the complex world of digital technology enabling brands to interactively reach out to their target audiences and beyond.	www.prezence.co.za
Quirk	Quirk is a marketing agency. They deliver marketing solutions for businesses and brands that seek to engage with connected audiences. They accomplish this through campaigns, platforms and software applications that take advantage of the rapidly evolving relationship between technology and consumer.	www.quirk.biz

Company	Description	Website
redPanda	Specializing in building customized applications for the retail industry, redPanda's business and development experience extends across the spectrum of retail business, from point-of-sale, back office, merchandise, hire purchase debtor control and credit granting, to warehousing, stock logistics and HR management.	www.redpandasoftware.co.za
Silulo	Silulo is an all-in-one provider of IT related products and services including computer training skills and knowledge, business services, website development, computer and accessory retail sales as well as repair and maintenance services. Targeting the youth and middle aged, male and female township residents of the Western Cape, Silulo has found and serves a largely untapped niche market due to a lack of IT access in these areas.	www.silulo.co.za
SmartGrid Technologies	SmartGrid Technologies focuses on the design, development, manufacturing and operational monitoring of remote monitoring modules fully integrated with internally developed data management software. The modems use existing Global System for Mobile Communications (GSM) and satellite technology and networks.	www.igrid.co.za
Snapplify	Snapplify is a mobile solutions provider that enables publishers, authors and content providers to package their books, magazines and brochures into digital publications for company branded Mobile Apps. These apps are then distributed globally via relevant App stores.	www.snapplify.com
Strike Media	Strike Media is a premier full service mobile marketing agency, delivering customised mobile campaigns and services to brands and organisations, driving rapid and measurable return on marketing investments. Their customers benefit from their proven technology as well as their expertise in combining technology and marketing.	http://www2.strikemedia.co.za
The Data Factory	The Data Factory is an outsourced service provider providing solutions to the retirement funding industry, with a niche focus upon early withdrawal administration, specifically covering processes associated with unclaimed benefits, surplus apportionment schemes and section 37 death claims.	www.datafactory.co.za
Virtual Mobile Technologies (Ramp)	Ramp is a secure mobile enterprise application platform aimed at managing the complete enterprise environment required to create, deploy and manage secure native mobile applications.	http://ramp.virtualmobiletech.com
wiGroup	wiGroup is a pioneering software business with a focus on the development of mobile transaction and application technology, while specialising on the integration into a retailers point of sale (POS) software. Their mobile payment capabilities include offerings such as mobile in-store payments, mobile money transfer, mobile coupons and vouchers and mobile loyalty.	www.wigroup.co.za
Yellowtail	Yellowtail Software is a Dutch-owned Cape Town based software development company. Yellowtail Software focuses on business portal solutions. They help their customers put business functionality online where their customers, suppliers and partners can use that functionality.	www.yellowtail.co.za
Yola (previously known as Synthasite)	Yola's award-winning Sitebuilder is fast, free, flexible and makes it easy to create a professional-looking website without third-party advertisements. It attracted an investment of US\$5 million from Reinet Investments and have subsequently transferred its main operations to the US.	www.yola.com

Source: Internet





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