The Tech-in-Braam programme is the result of a three-way partnership between government, academia and industry.

TOPPING UP TECH

The need to address the lack of skilled ICT candidates is more urgent than ever, says LINDSAY GRUBB

*I*n 2014, ITWeb Brainstorm's inaugural CIO Survey, run in association with Telkom Business, revealed that a lack of skills was one of the leading operational concerns for chief information officers.

The survey attracted 158 participants, with more than half falling into the financial, government, mining, manufacturing or ICT sectors. The results showed there was little prioritising of skills recruitment and development, which fell low on respondents' strategic priority list. Of the 158 respondents, 43% said they were actively seeking specific skills, 22% said they were increasing the use of outsourcing contractors, and just 20% said they had internship programmes in place.

The lack of prioritisation of skills recruitment and development is concerning, particularly when you consider that 67% of respondents rated "lack of skills" as the second-biggest operational concern, one which surely relates to their biggest concern: the inability to implement fast enough.

The lack of skilled ICT candidates is not a new issue, but the need to address it seems to be more urgent than ever, driven by an increasingly digitally focused, technology-driven global world. April 2015 saw Careers24 release its first recruitment trends report, which showed a 67% increase in the demand for candidates in the technology sector, based on usage patterns of recruiters and candidates applying for positions on the platform.

Investing in the future

The good news is that 2015 has started out on a positive note, with sizable investments for ICT research and development being made by local and international companies. Notable among those is the R700 million that global tech giant IBM has pledged over the next 10 years. The investment will support the local scientific community, funding research and bursaries for science students from undergraduate to masters level, and will assist start-up and maturing tech companies in their quest to move to the next level. The programme will be centred on IBM's new research lab, which was scheduled to launch in April 2015 and forms the heart of IBM's commitment to South Africa.

At the time of the announcement, IBM's director of research, Dr John Kelly, said in a statement: "South Africa provides an exciting backdrop as we look to expand our research efforts in the region. Our Africa-based researchers are part of a global community of IBM scientists who are forging the future of our company and ensuring that we remain at the forefront of scientific discovery."

The lab, which will be based at the University of the Witwatersrand's Tshimologong Precinct, joins the existing 12 labs with more than 3 000 researchers, located across six continents. The focus for researchers, according to IBM CEO Ginni Rometty, will be on big data, cloud and mobile technologies, while also creating new technologies for the global marketplace.

The lab will collaborate with the Department of Science and Technology (DST) as well as the Council for Industrial and Scientific Research. A further collaboration will be with the scientists at the Square Kilometre Array (SKA) project.

IBM is not the only international company

Based at the University of the Witwatersrand, the Tech-in-Braam programme aims to establish an ICT cluster in vibrant Braamfontein.

to collaborate with the SKA project. American multinational Cisco has also signed a Memorandum of Understanding with the DST, which will see the company investing more than R60 million towards the operation and skills training needs of the project to assist with the development of local skills and research, ensuring local candidates are prepared for jobs when the SKA project becomes fully operational in the mid-2020s.

Of the R60 million, R50 million is allocated to building a new centre for broadband communication at the Nelson Mandela Metropolitan University, which will focus on research around optical fibre data transport for the project. The remaining funds will be used for education and training of local community members in much-needed ICT skills, and will take place at the Cisco Networking Academy and Knowledge Centre in Carnarvon, in the Northern Cape.

Successful collaboration

Such collaboration is widely seen as a catalyst for success, one which requires the establishment of public-private partnerships to create spaces where creativity, research and development can flourish. The Tech-in-Braam/ Tshimologong Precinct programme, born out of a three-way partnership between government, academia and industry, speaks to this.

Based at the University of the Witwatersrand, the project aims to establish an ITC cluster in a unique and vibrant location in Braamfontein.

"It is hoped that by drawing talent and skills from the surrounding universities and schools, and nurturing them, the need for more skilled candidates in the ICT sector can be addressed."

Consider the success of Silicon Valley in the United States and Kenya's "Silicon Savannah", and the benefit of such clusters is clearly underlined, creating, as they do, a competitive and co-operative environment conducive to collaboration, innovation and expansion.

Tshimologong Precinct's proximity to centres of learning, a large pool of customers in need of ICT, and a constantly improving technological, residential and transportation infrastructure stand it in good stead. It is hoped that by drawing talent and skills from the surrounding universities and schools, and nurturing them, the need for more skilled candidates in the ITC sector can be addressed.

In February 2015, the University of the Witwatersrand and the Johannesburg Centre for Software Engineering (JCSE) received official endorsement from the Human Resources Development Council (HRDC) for the further development of the Tshimologong Precinct. The HRDC will assist by endorsing and brokering financial and other support from the

public and private sector, which will enable the JCSE to speed up the establishment of the technology hub. In addition, the creation of an international Business Innovation Zone network (BIZ-Net) – with collaborative partnerships between the University of the Witwatersrand, Ryerson University in Canada and Zone Start-ups in India – will expand the network of local and international hubs which support start-ups, entrepreneurship and skills development across the country.

It is a positive programme which aligns with a number of national priorities, by helping to launch new SMMEs, and fostering skills and youth entrepreneurship. It's not a short-term fix, but rather an investment in a long-term strategy which aims to reduce poverty and unemployment, while increasing inclusivity and contributing to the rejuvenation of Johannesburg's city centre.

This programme, together with major investments such as those of IBM and Cisco, hold the promise of a brighter ICT landscape, where skills are plentiful, and innovation and creativity are fostered. ●

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