

**The role of a high-quality  
skills development system  
in a dynamic economy:  
Considerations for South Africa**

**A Report to**  
**Tshikululu Social Investments**  
**FirstRand Foundation**  
**FirstRand Empowerment Foundation**

**From**



**SSACI**

**The Swiss-South African Cooperation Initiative Trust**

*August 2016*

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## Abbreviations used in Document

<b>BBBEE</b>	Broad-based Black Economic Empowerment
<b>BLSA</b>	Business Leadership South Africa
<b>BUSA</b>	Business Unity South Africa
<b>CEDEFOP</b>	European Centre for the Development of Vocational Training
<b>CET</b>	Community Education and Training
<b>CETA</b>	Construction industry Education and Training Authority
<b>CHET</b>	Centre for Higher Education Transformation
<b>CIP</b>	College Improvement Project
<b>CIPSET</b>	The Centre for Post-School Education and Training at the Nelson Mandela Metropolitan University, Port Elizabeth
<b>DBE</b>	Department of Basic Education (since 2009)
<b>DHET</b>	Department of Higher Education and Training
<b>DoE</b>	Department of Education (prior to 2009)
<b>Dti</b>	Department of Trade and Industry
<b>EMIS</b>	Education Management Information System
<b>ETDP SETA</b>	Education, Training and Development Practice Sector Education and Training Authority
<b>EU</b>	European Union
<b>FASSET</b>	Financial Services Sector Education and Training Authority
<b>FET</b>	Further Education and Training (used of TVET colleges prior to 2014)
<b>FETI</b>	The Further Education and Training Institute at the University of the Western Cape (now absorbed into the IPSS)
<b>FTE</b>	Full-time Equivalent
<b>IPSS</b>	The Institute for Post-School Studies at the University of the Western Cape, Cape Town
<b>MerSETA</b>	Manufacturing, Engineering and Related industries Education and Training Authority
<b>MOOC</b>	Mass, Open, Online Course
<b>NAMB</b>	National Artisan Moderating Body
<b>NBI</b>	The National Business Initiative
<b>NC(V)</b>	National Certificate (Vocational)
<b>N course</b>	National course (also called 'NATED' or 'Report 191' course)
<b>NEDLAC</b>	National Economic Development and Labour Council
<b>NQF</b>	National Qualifications Framework
<b>NSA</b>	National Skills Authority
<b>NSF</b>	National Skills Fund
<b>NSDS</b>	National Skills Development Strategy

<b>OECD</b>	Organisation for Economic Cooperation and Development
<b>QCTO</b>	Quality Council for Trades and Occupations
<b>REAL</b>	The Centre for Research into Education and Labour at the University of the Witwatersrand, Johannesburg
<b>SAIVCET</b>	South African Institute for Vocational and Continuing Education and Training
<b>SAQA</b>	South African Qualifications Authority
<b>SDA</b>	Skills Development Act
<b>SETA</b>	Sector Education and Training Authority
<b>SASCE</b>	South African Society for Cooperative Education
<b>SSACI</b>	Swiss-South African Cooperation Initiative
<b>TVET</b>	Technical and Vocational Education and Training (a synonym for VET)
<b>UoT</b>	University of Technology
<b>VET</b>	Vocational Education and Training (a synonym for TVET)

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# 1 INTRODUCTION

Every two years, young trainees from around the world compete at the World Skills Competition for gold, silver and bronze medals in a wide range of trades and occupations. Since its inception in 1950, this competition has been recognised internationally as *the* showcase of excellence in technical and vocational education and training (TVET), giving participating countries an opportunity to benchmark their national skills development systems against international standards. South Africa first entered the competition in 1993 and in 2015 was one of 55 countries competing in 50 trades. In the final 2015 medals count, South Africa came 41<sup>st</sup> out of 50 and, on average score, 45<sup>th</sup>. This was an improvement on previous competitions, in which South Africa did not win any medals at all.

In that same, 2015, competition, the ‘usual suspects’ did well: Australia, Austria, Brazil, China, Germany, South Korea and Switzerland. These countries have always excelled and it is instructive to note what they have in common. It is clearly not their geography, the size or architecture of their economies, or the design of their basic education systems, which differ widely. What they do have in common is that their national, public TVET systems are strongly influenced by the industries and employers they are intended to serve. Each country accomplishes this in its own way, but a partnership between government and employers, between the public and the private sectors, is *the* common factor in all successful TVET systems around the world. It is a factor that is noticeably weak in South Africa, close to non-existent at times, and is the single greatest obstacle to high-quality skills training in the country.

How this problem affects all aspects of the national, public TVET system, and what can be done about it, especially by the private sector, will be a recurring theme in this report. Other issues and problems will also be addressed, but this one is common to them all. It is both a challenge and an opportunity. Here is a national development imperative that is almost entirely within the power of the private sector to accomplish – indeed, that cannot be accomplished without the private sector. Government has clearly signalled its desire to partner with the private sector in developing a high-quality TVET system and has committed enormous resources of its own to that end. All that is required now is for the private sector to take up its required position. Should it do so, it will itself be the greatest beneficiary.

## 2 WHAT IS TVET?

Technical and vocational education and training (TVET) is the term currently favoured in South Africa for imparting – to young people especially – the knowledge, skills and competences required for skilled and semi-skilled work. TVET is synonymous with the term vocational education and training (VET) that is more common internationally. Both are often used synonymously with an older term, skills development, but TVET/VET is arguably more specific to the world of work. Whereas skills development may include any ability or capacity that is acquired through a deliberate effort - including personal and social capabilities that are not unique to the workplace – TVET is all about learning how to perform specific types of work to the standards demanded by the trade, profession or industry.

Characteristics of TVET are that it:

- Covers both the acquisition and the application of knowledge
- Involves generic and occupation-specific technical skills, as well as workplace-behavioural skills (often called “soft” skills)
- Typically focuses on intermediate-level occupational competence – that is, the skills of trade and craft workers, artisans, technicians and associate professionals

- Mainly happens post-school, though some secondary school curricula include TVET subjects or even a TVET stream, as do some higher education programmes, such as those offered by Universities of Technology.

Thus, TVET encompasses all preparation for the sort of work performed by the majority of people in modern, industrialised economies. The bulk of TVET in any country takes place in the post-secondary, pre-tertiary stratum of the national education and training system, and is practical rather than academic in nature. As a popular saying has it, TVET is preparation for the productive use of the head, the heart and the hand together.

### 3 THE VALUE OF TVET TO A COUNTRY

Ever since the industrial revolution in the 18<sup>th</sup> Century, progress and prosperity have been seen as largely dependent upon economic growth, which is in turn partially dependent upon the skills of the work force.<sup>1</sup> It would seem axiomatic, then, that the establishment of high-quality TVET systems would be considered essential to national development and be given high priority by governments. In fact, this has rarely been the case. A recent study by the Organisation for Economic Cooperation and Development (OECD) on skills training for employment across twenty countries noted that

“Vocational education and training (VET) can play a central role in preparing young people for work, developing the skills of adults and responding to the labour-market needs of the economy. Despite this role, VET has been oddly neglected and marginalised in policy discussions, often overshadowed by the increasing emphasis on general academic education and the role of schools in preparing students for university education. It has also often been seen as low status by students and the general public.”<sup>2</sup>

However, the 1990s and 2000s have seen numerous scientific studies of the value of national TVET systems, often in response to rising unemployment in many countries amongst even skilled workers in some economic sectors, chronic shortages of skills in other sectors, high social dropout rates and significant changes in the demography of the work force. From the research has come a greater appreciation of what TVET can do for the individual and for a nation’s economy.

For example, a 1999 study of TVET systems in seven industrialised countries found - despite the researchers’ initial scepticism - that TVET is a necessary though insufficient ingredient in the resolution of unemployment, lack of social integration, poverty and inequality.<sup>3</sup>

The OECD’s own research led to the conclusion that

“The economic benefits of VET are widespread. Several countries highlighted positive impacts on wages, employment, mobility and employment opportunity. There are also some indications that VET contributes to reducing unemployment and may protect people from becoming unemployed. In terms of benefits for enterprises, the evidence points towards positive impacts on productivity, innovation, employment growth and organisation culture. VET can also play an important role in improving economic conditions in disadvantaged regions and by reducing the skill mismatch between workers and enterprises. VET appears to be most effective when it accompanies changes in the workplace. Economic VET benefits at the

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<sup>1</sup> Jomo (1993), p1

<sup>2</sup> OECD (2010), p9. The countries studied were Austria, Denmark, Egypt, Germany, Israel, Kazakhstan, South Korea, the Netherlands, South Africa, Switzerland, the United Kingdom (England), and the United States (with case studies of Florida, Maryland and Washington State). Shorter exercises leading to a country commentary were undertaken in Belgium (Flanders), Canada, Iceland, Romania, Spain, Sweden and in Northern Ireland and Scotland in the United Kingdom

<sup>3</sup> Crouch *et al* (1999). The countries studied were France, Germany, Italy, Japan, Sweden, the UK and the USA

individual (micro) and enterprise (meso) level interact and are, at the same time, the basis for favourable outcomes at macro-economic level. <sup>4</sup>

These findings were corroborated by research conducted between 2005 and 2011 in 21 countries by CEDEFOP, the European Union's TVET research and advisory agency.<sup>5</sup>

Africa has had a similar experience. For example, a 2015 study of five African countries – Cameroun, Egypt, Ghana, South Africa and Tanzania concluded that:

“There has been recognition over the last ten years or more of the potential of TVET for economic upliftment, poverty alleviation and improving employability, particularly for out-of-school youth and adults.<sup>6</sup>

Findings such as these have persuaded the African Development Bank that TVET

“can make a necessary contribution to realising the ‘youth dividend’ in sub-Saharan Africa and... has a role to play in efforts to address youth unemployment and boost national economic activity.”<sup>7</sup>

Studies in Asian countries have likewise affirmed the importance of TVET to economic development and prosperity.<sup>8</sup> However, research there also highlights huge differences in the outcomes and impact of VET between countries where TVET is well-aligned to the needs of the economy and the quality of instruction is good, and countries where it is not. Herein lies an important lesson for South Africa that will be taken up later in this report.

Overall, it is now widely accepted that good-quality TVET is crucial to enhancing economic productivity and growth.<sup>9</sup> The importance of TVET is likely to increase as the world economy becomes more inter-dependent, more competitive and more driven by the application of technology to an ever-wider range of human activities. CEDEFOP estimates that around half of all jobs in 2020 will require a medium-level qualification, which will usually be achieved by some form of VET and two-thirds of new jobs will be in the technicians and associate professionals category – the category most closely linked to TVET.<sup>10</sup> In the same vein, a recent study of trends in the American economy concluded that by 2018 nearly one-third of job vacancies will require post-secondary training but not a four-year degree<sup>11</sup>. An international study by the McKinsey Institute for Governance saw critical skills shortages in countries that are currently experiencing high levels of youth unemployment. The researchers found that that:

“Across the nine countries that are the focus of this report (Brazil, Germany, India, Mexico, Morocco, Turkey, Saudi Arabia, the United Kingdom, and the United States), only 43 percent of employers surveyed agreed that they could find enough skilled entry-level workers. This problem is not likely to be a temporary blip; in fact, it will probably get much worse. The McKinsey Global Institute estimates that by 2020 there will be a global shortfall of 85 million high- and middle-skilled workers.”<sup>12</sup>

Middle-skilled workers are exactly what TVET systems are intended to produce.

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<sup>4</sup> OECD (2010), p18

<sup>5</sup> CEDEFOP (2011). The countries studied were Austria, Czech Republic, Cyprus, Denmark, Finland, France, Italy, Germany, Hungary, Iceland, Lithuania, Norway, Spain, the Netherlands, Poland, Portugal, Romania, Slovenia, Slovakia, Sweden and the UK

<sup>6</sup> Papier (2016)

<sup>7</sup> Oketch (2016)

<sup>8</sup> For example Ul Haq & Haq (1998), Tilak (2002) and Agarwal (2002). Collectively, their reports looked at Afghanistan, Bangladesh, China, India, Indonesia, Japan, Korea, Malaysia, Myanmar, Nepal, Pakistan, Philippines, Singapore, Sri Lanka and Thailand,

<sup>9</sup> Rauner & Maclean, (2008); Finch (1993); Min (1995); Labaree (1997)

<sup>10</sup> CEDEFOP (2011), p1

<sup>11</sup> Carnevale *et al* (2010)

<sup>12</sup> Mourshed *et al* (2014), p11

As the 2010 OECD report concludes:

“Increasingly, countries are recognising that good initial vocational education and training has a major contribution to make to economic competitiveness...

“The main outcomes stressed by countries are higher participation in the labour market, lower unemployment, the opportunity to acquire a qualification for all categories which did not previously have one and the chance to advance in a professional hierarchy.”<sup>13</sup>

## 4 OVERVIEW OF THE SOUTH AFRICAN TVET SYSTEM

### 4.1 Introduction

South Africa’s national, public TVET system may be said to date from the *Apprenticeship Act* of 1922 which standardised artisan training across the country. Based on British practice, apprenticeships were taken up by the burgeoning mining industry and then by other sectors of the economy, notably construction and manufacturing. This fostered the establishment of schools offering classes in the theory of the artisan trades, which were regulated and state-funded after 1928 in terms of the *Vocational Education and Special Schools Act*. As their curricular offerings were expanded and adjusted, they became Technical Colleges in 1981, Further Education and Training (FET) Colleges in 1998 and then Technical and Vocational Education and Training (TVET) colleges in 2014.

The 1922 *Apprenticeship Act* largely debarred Africans from formal artisanal training. This racist element was thereafter a significant feature of TVET generally in South Africa. The constraining effect that excluding over 80% of the population from substantial TVET would normally have had on the economy was for a while alleviated by a policy of subsidized immigration for skilled whites from foreign countries. However, by the 1970s, that no longer sufficed to meet the demands of a growing industrial economy and Africans were progressively admitted back into skilled work.<sup>14</sup> This trend climaxed in the *Manpower Training Act* of 1981, which officially opened apprenticeships to all population groups and led to significant expansion of TVET for Africans.

Another important historical feature of TVET in South Africa is its subordinate status to academic education. Even today, enrolment of full-time students or their equivalent in the country’s 25 universities outnumbers enrolment in the fifty TVET colleges by three to one. Universities collectively receive 76% of all state funding allocated to post-school education and training, while TVET colleges receive 18%.<sup>15</sup>

### 4.2 The Public TVET System

South Africa’s public post-school education and training system, of which TVET is an important component, is organised around the national Department of Higher Education and Training (DHET) and its related agencies and institutions, namely:

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<sup>13</sup> OECD (2010), p20

<sup>14</sup> Often, this was legitimised by classifying skilled African workers as “artisan-aides”, a vague term meaning someone authorised to perform quasi-artisanal work under the supervision of a qualified tradesman.

<sup>15</sup> DHET (2016). In 2014, the most recent year for which statistics are available, the country had 969’155 full-time students in its public universities and the equivalent of 328’000 full-time students in TVET colleges. State subsidies to universities in 2014 totalled R24-billion, compared to just R5.8-billion to colleges.



- 25 higher education institutions, including six universities of technology, offering tertiary-level programmes in technical fields of study, culminating in higher certificates, diplomas and degrees
- 50 public TVET colleges offering secondary and post-secondary level vocational and occupational courses culminating in certificates<sup>16</sup>
- 52 Community Education and Training (CET) colleges currently being planned, which will provide elementary academic and occupational courses to out-of-school adults and youths who have less than a Grade 9 education. In the meantime, the DHET is subsidising 1'828 small adult education and training centres providing such courses.
- The levy-grant system institutions, viz 21 Sector Education and Training Authorities (SETAs) and the National Skills Fund
- Four regulatory bodies responsible for qualifications and quality assurance: the South African Qualifications Authority, the Council for Higher Education, Umalusi and the Quality Council for Trades and Occupations
- Bodies responsible for artisanal training and development in the workplace: Indlela, the National Artisan Moderating Body and the National Artisan Development and Support Centre
- A fledgling national institute for vocational and continuing education and training (SAIVCET)

In addition, a number of consultative and advisory bodies - such as the National Skills Authority, the Human Resource Development Council and the Artisan Training and Development Monitoring and Evaluation Team - have some influence on the system.

Other government departments involved in the provision of TVET are:

- the Department of Basic Education (DBE), which has responsibility for funding and delivering occupational training programmes at Grades 10-12 in 446 technical high schools and over 1'300 ordinary secondary schools that offer technical subjects; the DBE also runs 470 "Schools of Skill" (formerly called "Special Schools") in which a range of occupational skills at different levels are offered to learners who are unable to cope with ordinary education
- the Department of Labour (DoL), which funds a number of occupational short courses, mainly in the construction industry (e.g. bricklaying, tiling, carpentry, geyser-installation)
- the Department of Trade and Industry (Dti), which funds occasional training programmes in high-value skills that are in critically short supply in the science, technology and engineering industries (e.g. toolmaking and laboratory technology)

In addition, some government departments – such as International Relations and Cooperation, Correctional Services, Defence, Police and Water Affairs and Forestry - operate their own, post-school institutions for training public servants in specialised fields. These are fully functional but fall outside the scope of this report because they are only open to employees of the relevant government department and only offer training related to the operations of that

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<sup>16</sup> A distinction is often made in South Africa between *vocational* training, which refers to training in a broad field of work or economic sector such as engineering or tourism, and *occupational* training, which refers to training for a specific job, e.g. electrician or travel agent. Vocational courses are usually college-based, full-time and years in duration, culminating in a certificate of learning. Occupational courses are usually shorter, may have a workplace learning component and, depending on the programme, may culminate in either a part-qualification certificate of learning (i.e. 'the holder knows about this job') or a full-qualification certificate of competence (i.e. 'the holder can do this job').

department. Thus, they are ‘public’ only in the sense that they are funded from the national fiscus but they are not open to all and do not offer courses that most people would benefit from.

Regarding the roles of government departments, it must be emphasised that, prior to 2009, TVET in South Africa was divided amongst a number of ministries – most notably those for Education and Labour – with little or no co-ordination. The creation of the Department of Higher Education and Training (DHET) in 2009, with responsibility for all post-school education and training, made it possible for the first time to talk of a *national* public skills development system. While the boundaries of the different ministries are not yet fully resolved (for example, the overlap between the TVET colleges run by the Department Higher Education and Training and the technical high schools run by the Department of Basic Education), it is safe to say that *training for skilled employment* is primarily the responsibility, and the core business, of the DHET. To other departments, including the DBE, it is an adjunct to their main remit. The DHET and its sub-structures must therefore be considered key implementation partners in any initiative aimed at improving the national skills development system.

In 2014, the most recent year for which official statistics are available, just under two million people were enrolled in South Africa’s post-school education and training institutions, all of which fall under the DHET, as shown in the following table:<sup>17</sup>

**Table 1:** Number of full-time equivalent students enrolled in public post-school education and training institutions, 2014:

	<b>Number of Full-Time Equivalent Students</b>
Higher Education Institutions (i.e. all universities)	969'155
- (of which, Universities of Technology)	(115'954)
TVET Colleges	314'154
Adult Education and Training Centres	262'621
<b>Total</b>	<b>1'934'159</b>

Enrolments in universities are increasing steadily by about 6% per year. Head-count enrolments in TVET colleges reached a peak of 893'000 in 2010 and have declined slightly since then. The picture for colleges is complicated by the fact most students do not attend full-time in any given year. A total of 702'383 students enrolled in 2014 but, of these, only 166'000 signed up for full-time studies for the entire year. The rest did shorter courses, mostly of three months’ duration if studied full-time or up to six months part-time.<sup>18</sup> Thus, if *head-count* enrolments in the TVET colleges are converted to *full-time-equivalents*, the figure drops from 702'383 to 314'154.

Adult education centres only offer part-time courses, mostly in basic education up to the equivalent of Grade 12. Only 5'300 students enrolled for skills development courses at adult education centres in 2014.<sup>19</sup>

The post-school education and training sector in general and TVET in particular offer fairly equitable access to the population at large, as the following tables indicate<sup>20</sup>:

<sup>17</sup> DHET (2016)

<sup>18</sup> DHET (2016)

<sup>19</sup> DHET (2016)

<sup>20</sup> Data for the general population taken from SAIRR (2014) and for the education and training institutions from DHET (2016)

**Table 2: Ratios of men to women nationally and in public post-school education and training institutions:**

	<b>Men</b>	<b>Women</b>
General population of S.A.	49	51
Higher education institutions	42	58
TVET colleges	48	52

**Table 3: Ratios of racial groups nationally and in public post-school education and training institutions:**

	<b>African</b>	<b>White</b>	<b>Coloured</b>	<b>Indian</b>
General population of S.A.	80	9	2.5	8.5
Higher education institutions	68	19	8	5
TVET colleges*	84	2	7	2

\*These percentages do not add up to 100 because 5% of enrolment forms from which the data are extracted are incomplete; however, this is not thought to affect the overall ratios significantly

Despite undoubted success in offering many South Africans access to opportunities for self-development and advancement, the country’s post-school education and training system is far from adequate to the population’s needs. As the DHET’s 2013 **White Paper on Post-School Education and Training** states:

“If the post-school system is to serve the country well, we need more places for people to learn, more types of courses and qualifications, and better quality education and training in general.

“The *Green Paper* described graphically the inadequate quality, quantity and diversity of education and training provision in our post-school system. It is worth noting that the number of youth aged 15 to 24 who are not in employment, education or training – the so-called NEETs – has grown since 2007... According to more recent figures from Statistics South Africa, in the third quarter of 2012, the NEETS comprise 3.2 million young people, making up 31.4 per cent of persons in this age group...

“As the *Green Paper* noted, one of the first challenges for the post-school system is to expand access to education and training over the next twenty years. This is essential not only to take account of the needs of the youth who complete school but also for those who do not complete their schooling; it is equally important in order to cater for the needs of adults who require further education and training opportunities in order to live fuller and more productive lives as both workers and citizens. Expansion of educational opportunities is vital if we are to provide the skilled labour required for the expansion of the economy in order to raise the living standards of our people.”<sup>21</sup>

Thus, the **White Paper** commits government to increasing head-count enrolments to 1.5 million in public universities, 2.5 million in TVET colleges and one million in continuing education and training (CET) colleges by 2030.<sup>22</sup>

### 4.3 Private Provision of TVET

In addition to the large and complex public TVET system, numerous private-sector training providers provide a range of accredited and non-accredited courses leading to official qualifications (both South African and foreign) or proprietary certificates in diverse fields. A few privately-issued certificates, such as those issued by the British ‘City & Guilds’

<sup>21</sup> DHET (2013), Section 3.3

<sup>22</sup> The National Development Plan targets TVET enrolments of 1.25 million. However, that figure appears to refer to full-time equivalents rather than headcount enrolments; hence the lower number.

organisation, have higher credibility in particular industries than some South African national qualifications. These courses are usually expensive compared to those offered by public TVET institutions, which are heavily subsidised by the state.

Some big companies have in-house training institutions that offer courses leading to public examinations and, hence, nationally-accredited certificates in skills related to their business. This is quite common in the mining, manufacturing and construction industries. In some cases, training is open to paying customers from outside the parent company and the institution effectively operates as an independent, commercial TVET college.

Private TVET colleges typically offer a much narrower range of courses than public ones and some are very specialised. Traditionally, their competitive advantage has been their close business links to particular industries, to whose needs they were highly responsive.<sup>23</sup>

After the establishment of the SETAs in 2000, innumerable small, private-sector training-providers sprang up, offering very short courses – usually a few days or weeks in duration - in low-level skills to large numbers of trainees. These courses became notorious for their poor quality<sup>24</sup> and the high fees they elicited from the SETAs who paid for them, most of which had little quality-assurance or contract-management capacity<sup>25</sup>. There is evidence of many training contracts being awarded as a result of corrupt relationships between service-providers and SETA procurement officers<sup>26</sup>. It is no coincidence that private-sector provision of TVET went into precipitous decline after the introduction of tighter controls over SETA disbursements by the DHET in 2013.

Exactly how big the private TVET sector is depends on how one defines it. A 2011 study commissioned by the DHET estimated the total number of private-sector training providers at about 6'000. However, fewer than 400 of these were accredited by Umalusi, the national Council for Quality Assurance in General and Further Education and Training, while about another 600 were accredited by one or more of the SETAs.<sup>27</sup> The majority of private-sector TVET providers enrol fewer than 100 learners at a time.<sup>28</sup>

If one looks at total enrolments in *all* courses, the numbers are impressive – over a million trainees a year by some estimates.<sup>29</sup> But this includes learners in very short, non-accredited courses who make up by far the largest group served by private-sector training providers. By contrast, enrolment in accredited training courses (i.e. courses that lead to a recognised national certificate) by private TVET colleges is small compared to the public colleges and has dropped from 358'000 learners in 2010 to 79'000 in 2014.<sup>30</sup>

What is important to note about private-sector provision of TVET in South Africa is that, contrary to international practice, it exists in complete isolation from the public TVET system.<sup>31</sup> This is a great waste of resources and a problem area in both policy and implementation that requires urgent attention.

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<sup>23</sup> Magnus & Koen (2013), p13; Akoojee (2007), p241

<sup>24</sup> Mummmenthey (2008) pp151-5; Grawitzky (2007) pp34-39; Kraak (2004), p44

<sup>25</sup> DHET (2012) pp64-70; Grawitzky (2007), p33

<sup>26</sup> Dr M.E. Nzimande, Minister of Higher Education & Training: address to SETA CEOs, Nov 2010. Specific cases have been the subject of media reports fairly regularly since at least 2003, sometimes resulting in the conviction of SETA officials.

<sup>27</sup> Blom (2011)

<sup>28</sup> Ibid

<sup>29</sup> ETDP SETA (2012)

<sup>30</sup> DHET (2016), p70

<sup>31</sup> McGrath & Akoojee (2010)

## 4.4 The Legislative and Regulatory Context

The regulatory dispensation now governing South Africa's TVET system emerged over twenty years from the old Department of Education, the Department of Labour, the Department of Trade and Industry, and since 2010 from the Department of Higher Education and Training. Its main documents are summarised in **Appendix A**.

Three key points emerge from a consideration of the legislation and regulations pertaining to skills development:

1. **There is a lack of policy coherence across different government departments.**  
For example:

- Although skills development - especially for out-of-school, unemployed youths – is described by government as one of its top priorities<sup>32</sup>, it is relegated to third place on the Department of Trade and Industry's Broad-Based Black Economic Empowerment (BBBEE) scorecard in terms of points attainable for it. Points for skills development are limited to expenditure on the training of employees or people considered temporary employees for the duration of the training.<sup>33</sup> In any case, no intervention in the development of TVET institutions or programmes – arguably the most valuable things a company could do for the cause of skills development - can yet earn that company credit on its scorecard. Efforts by the DHET since 2014 to persuade the Dti to change this state of affairs have been unavailing.<sup>34</sup> The net result is that companies not only have no incentive from the Dti to help improve the national TVET system *per se* but, even if they wished to of their own accord, are discouraged from doing so because any money thus spent will be lost as far as their BBBEE scorecard is concerned.
- The **Labour Relations Act (LRA)**, emanating from the Department of Labour, accords to apprentices, learners and even college or university students on short periods of work-based learning the same rights as permanent employees. This was not the case under the legislative regime that prevailed prior to that and, specifically, under the **Manpower Training Act** that regulated workplace training from 1981 to 1988. By making it difficult for employers to dismiss or even discipline an unsatisfactory trainee and by imposing upon the employer obligations to the trainee that were not present before 1995, the LRA discourages employers from taking on apprentices or learners.<sup>35</sup>

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<sup>32</sup> For example, in the **Human Resource Development Strategy for South Africa 2010-2013** (Department of Education, 2009), the **National Skills Development Strategy III: 2011-2016** (Department of Higher Education & Training, 2010), the **National Skills Accord** (Department of Economic Development, 2013) and the **Youth Employment Accord** (Department of Economic Development, 2013). All these documents had presidential and cabinet approval.

<sup>33</sup> Amendments to the BBBEE Act gazetted in October 2014 expand the scope of points for skills training. However, the status of these amendments is unclear because on 5 May 2015 the Dti postponed their implementation indefinitely. Presumably, then, the Dti's 2007 **Interpretative Guide to the Codes of Good Practice** still applies. This document states: "the Scorecard comprises three indicators: the first two measure monetary spend on black employees whilst the third measures the number of black employees who are enrolled in... programmes defined in the Learning programme Matrix" (p65; emphasis added). The **Broad-Based Black Economic Empowerment Amendment Act** (Act no. 46 of 2013) – the status of which is unclear at the time of writing - specifies "skills development spend on learning programmes for black employees" (p 56, Clause 7, emphasis added) as the basis for calculating a company's score in the Skills Development category.

<sup>34</sup> The authors have personal experience of engaging with senior Dti officials on this issue. No official has ever questioned the arguments for change but, as of August 2016, none has been able to effect it.

<sup>35</sup> The **Labour Relations Act** (Act no. 66 of 1995) defines an employee as "a person, who works for or renders services to any other person... if any one or more of the following factors are present:

- Paradoxically, the **Compensation for Occupational Diseases and Injuries Act**, also a product of the Department of Labour, makes no provision in the national compensation-insurance scheme for short-term learners in the workplace. Employers are therefore potentially liable for the full cost of any injuries to such learners and any claims arising from them – a major disincentive to employers’ offering work experience to learners.
2. **There are regulatory gaps.** Several items of legislation – such as the **Skills Development Act (SDA)** and the **Broad-based Black Economic Empowerment Act** empower the relevant ministers to promulgate regulations essential to the implementation of the Act. Years later, some of these regulations are not yet in place, which impedes action in terms of the Act. The continuing absence of regulations governing workplace-based learning programme agreements, mandated by the SDA in 1998, is case in point. Without these regulations, all forms of workplace-based training - including apprenticeships, learnerships and internships – are being implemented without a clear legal framework. This is worrying to employers.
  3. **The allocation of resources is not always aligned to stated objectives.** Some permanent institutions (such as the South African Qualifications Authority (SAQA) and the Quality Council for Trades and Occupations (QCTO)) have been set up to do essential work without stable funding. Unfunded mandates have been given to existing institutions or agencies. Large sums of money have been levied from the public and left unspent - in SETA budget surpluses, for example. It is unsurprising, then, that one of the recommendations of a 2014 review of South Africa’s TVET system by the OECD was for a systematic review of costing and funding.<sup>36</sup> This is currently under way and is scheduled for completion in March 2017.

Clearly, more work is required on the legislation and regulations governing the national skills development system and this ought to be led by the end-users of the product of that system, namely industry. The main objectives must be to:

- Reconcile contradictory provisions of different legislation and remove regulatory obstacles to skills training. This will have to be done by some kind of inter-ministerial committee, ideally with inputs from the National Economic Development and Labour Council (NEDLAC), the apex forum for discussions between government, business and labour on economic issues. In this, the private sector could make its voice heard strongly. Useful inputs and direction could also come from the Department of Performance Monitoring and Evaluation, which has a mandate to review policy formulation and implementation.
- Finalise long-pending regulations so that employers and training-service providers alike know exactly what their roles and responsibilities are and can operate within a clear legal framework. This is the job of three key ministers – that of Higher Education and Training, Labour and Trade and Industry. Their will to act could be galvanised by well-informed, high-level representations from industry, perhaps through Business Unity South Africa (BUSA) or Business Leadership South Africa (BLSA)
- Provide sufficient and perennial funding for essential structures and systems. The Minister of Finance plays an important role in this and he should therefore be courted by business to ensure that he understands what business needs. However, a major funding stream dedicated to skills training – the skills levy – runs outside of that

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- the manner in which the person works is subject to the control or direction of another person;...
  - the person’s hours of work are subject to the control or direction of another person; ...
  - the person is provided with tools of trade or work equipment by the other person”

All the above are present for any learner in the workplace, who is thereby deemed to be a full employee.

<sup>36</sup> OECD (2014), pp77-89

Minister's control. It is directed by the Minister of Higher Education and Training acting on the advice of two bodies in which business has guaranteed representation – the National Skills Authority and the Human Resource Development Council. Business therefore has two forums in which it could bring its influence to bear on the use of this large resource.

## 4.5 Funding

The public post-school education and training system in South Africa is largely funded from three sources:

- i. Annual **budget votes** for the DHET, which include provision for transfers to universities, TVET colleges and various sub-agencies such as the National Students' Financial Aid Scheme (NSFAS)
- ii. Funds raised through the **skills levy** on employers' payrolls, which are divided between the National Skills Fund (NSF) and the SETAs, either of which may make grants to public or private training providers; the bulk of SETA disbursements are to employers, who may use them to offset their own in-house training costs or to procure training from external service providers.
- iii. **Fees** charged by colleges and higher education institutions to individual students or corporate clients.

The scale of public funding (i.e. the sum of the first two of these sources) is indicated by the following table:

**Table 4:** *Funding of public post-school education and training institutions, 2014-15 financial year<sup>37</sup>*

<b>Area</b>	<b>Amount (R'000)</b>	<b>%</b>
Universities	24'155'093	45.7
TVET Colleges	5'817'173	11.1
Adult Education and Training Centres	1'927'300	3.6
National Student Financial Aid Scheme	6'138'832	11.6
SETAs	11'218'227	21.2
National Skills Fund	2'818'082	5.3
Other (including DHET's operating costs)	755'583	1.5
<b>Total</b>	<b>52'830'290</b>	<b>100</b>

South Africa's total public spending on education and training is high by international standards, accounting for about 7% of GDP and 20% of total state expenditure compared to OECD averages of less than 6% and 13% respectively. However, as noted before, TVET gets a relatively small slice of this cake.

The DHET's intentions to double the size of the TVET system and improve its quality at the same time have massive financial implications. The **White Paper** hints at this by stating that:

"The funding model should emphasise the intention to grow and diversify the sector, based on revised norms and standards..."

Core funding will be made available by the DHET for staff, infrastructure and student support services to enable colleges to be responsive and dynamic. Departmental funding should also cover foundation or bridging programmes, where these are approved by the DHET. Fees from those students who do not qualify

<sup>37</sup> DHET (2015) & DHET (2016)

for subsidies will also make a contribution. Other sources of funding must be explored by college managers, and should include SETAs and employers (especially for specific occupational programmes or short courses) as well as various private funding agencies.”

This translates into a commitment by government to put a lot more money into the colleges but also a realisation that the fiscus will not be able to meet all the costs of the proposed expansion programme. How exactly the resulting funding gap will be closed is still unclear.

One strategy must be to reduce wastage arising from poor pass- and throughput-rates. Taking the 2014-15 financial year as an example, we see that:<sup>38</sup>

- DHET spent a total of R5.8-billion on the TVET colleges
- The SETAs spent about R11.2-billion in total, of which an undisclosed amount, probably around R1-billion, went towards college-related programmes and projects
- NSFAS spent an additional R1.9-billion on bursaries for college students

The taxpayer's total investment in the colleges in that year was therefore in the region of R8.7-billion. Much of this was spent on the delivery of the college programmes, which are almost all 80% subsidised, i.e. the state covers 80% of the total cost and the student is liable for the remaining 20%. The average per capita cost of the three-year-long vocational programmes is R43'000 *p.a.*, of which the state pays R34'000 and the student R9'000. (The range between programmes is quite large, with the cheapest at R20'000 *p.a.* and the most expensive at R49'000 *p.a.*). Similarly, each three-month occupational course costs between R12'000 and R35'000, with an average cost to taxpayer of about R15'000.

This would be money well spent if most students passed. The problem is that the pass and through-put rates for the TVET colleges are very low, both in the vocational and the occupational courses. Exactly how low is debated. The through-put rate for the first cohort of vocational students, who enrolled in January 2007 and were due to graduate in December 2009, was a miniscule 4%. According to the DHET, this figure is now up to about 23% but figures to substantiate even that relatively modest claim have not come into the public domain. From the available statistics for 2010-2012, it can be established that, of 99'733 students who started the three-year National Certificate (Vocational) in public colleges in 2010:

- 33% passed their first year, of whom
- 43% passed their second year, of whom
- 39% passed their third year;

Which gives a final through-put rate of just 6%.

If each of those students cost the taxpayer an average of R34'000 *p.a.* in subsidies, then the cohort of 2010 accounted for about R2.2-billion of fruitless expenditure in their first year of study, R612-million in their second year and R300-million in their final year.

It might be even worse. According to the statistics, each year considerably more students enrolled in levels 3 and 4 than passed levels 2 and 3 the year before. In other words, the classes contain many repeaters of the previous year and tail-enders from previous cohorts. Even if one accepts the DHET's figure of 23% through-put, the failures and drop-outs from vocational programmes in TVET colleges cost the public about R1.6-billion per annum. They also represent a loss to industry of 75'000 potential skilled workers who went in for training but didn't come out with any qualification or, presumably, any marketable skills.

The notion of a through-put rate is not applicable to the three-month occupational courses offered by colleges because each course is freestanding and many students enrol for one with no intention of going on to the next level even if they pass. However, the overall average

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<sup>38</sup> DHET (2016)



national pass rate for each three-month course is about 37%. So, of an estimated annual enrolment of 200'000 in these courses in 2014-15, 126'000 failed at a total cost to the taxpayer of R1.9-billion.

Finally, the above figures exclude bursaries, which would also be lost on a student who drops out. Most students in vocational programmes have bursaries administered by the National Student Financial Aid Fund (NSFAS) that cover the 20% unsubsidised portion of their courses. Failures and drop-outs from TVET colleges in 2014 cost that scheme about R600-million.

So, in 2014-15, the DHET and the taxpayer got no return on R4-billion of the nearly R9-billion spent on the TVET colleges.

There are also huge inefficiencies in NSFAS's student loans scheme. Originally intended to be self-recapitalising from repayments by graduates of their student loans, it has never come close to financial sustainability. NSFAS's mandate since its establishment in 1999 has been to provide an "efficient and sustainable financial aid system for poor yet academically eligible students for loans and bursaries at public higher education institutions and TVET colleges."<sup>39</sup> Its achievements in terms of numbers of students assisted are impressive. From a total of R441-million in loans and bursaries to 29'176 students in the 1999 academic year, its disbursements have risen to R9-billion assisting 414'802 students in the 2014 academic year. Of these, R1.99-billion went to 228'642 students at TVET colleges and the remainder to university students. In total, NSFAS reckons that, in its entire existence, it has disbursed R50.5-billion to 1.5-million students.

The main challenge now facing NSFAS is how to collect money from its debtors. Currently, it is owed over R21-billion from more than half a million employed graduates to whom it made student loans. In the 2014/15 financial year, recoveries declined to R247.5 from R338.8 million in 2013/2014. As of 31 March 2015, the entity recorded a loan book with a nominal value of R21.3-billion but a fair value of just R6.1 billion.<sup>40</sup> The repayment rate on NSFAS loans is hard to establish from published information. Not all disbursements are loans – some are non-repayable bursaries – and even loan repayments are routinely reduced on the basis of good academic performance, prompt repayment and other criteria. What is clear is that NSFAS has recovered just R248'000'000 from over R50-billion disbursed. Most estimates put the rate of loan repayment at around 5%.

All this means that South Africa has what is arguably the most *cost-inefficient and ineffective* education and training system in history, characterised by massive investments and meagre returns in terms of both learning and labour market outcomes. The reasons for those poor outcomes have been extensively analysed and are well-known. At least some steps towards the solution are widely acknowledged. Some of these steps are attractive to government, some to business, and some to labour. None are appealing to all. Therein lies the challenge. Assembling a 'coalition of the willing' and guiding them on what steps to take must be a strategic priority for any state or non-state agency seeking to improve the national, public skills development system.

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<sup>39</sup> NSFAS (2015)

<sup>40</sup> Ibid

## 5 SYSTEMIC ISSUES

### 5.1 Objectives versus Realities

The purpose and objectives of TVET have long been contested ground in South Africa. Three consecutive National Skills Development Strategies (NSDS) since 2005 have seen skills training as a means of solving intractable social problems such as inequality, unemployment, juvenile delinquency, unjust discrimination, rural under-development and so on. It may indeed help in all these regards but only indirectly.

There is really only one purpose that TVET in any country can *directly* serve and that is to supply specific occupational skills to the labour market. The more the national, public skills development system is encumbered with other goals, the less likely it will be to accomplish its main objective of providing skills for the economy. This lack of focus bedevilled South African TVET colleges for years. It was only with the publication of the 2013 **White Paper for Post-School Education and Training** that the DHET asserted the primary function of the TVET colleges as being technical and vocational training *for skilled employment in the current economy*. Regarding this, the **White Paper** is unequivocal:

- “One of the main purposes of the post-school system is to prepare workers for the labour market, or to enable individuals to earn sustainable livelihoods through self-employment or establishing a company or cooperative. Everyone should be able to make a living for themselves and contribute skills to a developing economy.” (p8)
- “The main purpose of the [TVET] colleges is to train young school leavers, providing them with the skills, knowledge and attitudes necessary for employment in the labour market” (p16)
- “The main purpose of the TVET colleges is to prepare students for the workplace and/or self-employment” (p16)

This firm position is in line with best practice internationally. The OECD’s examination of TVET systems in twenty countries to date shows that a key feature common to effective TVET systems everywhere is a *focus on training for employment*.<sup>41</sup> Empirical studies of the outcomes of national, public TVET systems in eighteen countries by the prestigious Economic Research Institute at the Swiss Federal Institute of Technology in Zurich likewise led the researchers to the conclusion that the primary objective of any public VET system should be to prepare people for the labour market.<sup>42</sup>

Unfortunately, holding to this clear and well-based purpose, is in practice, undermined in South Africa by chronic instability in our programme offerings. TVET colleges currently offer two main programmes:

- the National Certificate (Vocational), usually referred to as the NC(V)
- Report 191 programmes, popularly known as NATED courses or simply N-courses, which historically provided the trade-theory component of apprenticeships.

Introduced in 2007 at levels 2, 3 and 4 on the National Qualifications Framework (i.e. the equivalent of Grades 10, 11 and 12 in academic high schools), the NC(V) was an altogether new curriculum and qualification aimed at providing students with a comprehensive and up-to-date foundation for lifelong learning and self-development in any of nineteen broad vocational fields (each roughly corresponding to sectors of the economy, such as agriculture, construction, engineering, finance and so on). The arrival of the NC(V) coincided with signals

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<sup>41</sup> Roseveare (2016). See also Stumpf *et al* (2012)

<sup>42</sup> Renold (2016)

from the Department of Labour that apprenticeships, of which the occupation-specific N-courses were an integral part, were to be abandoned in favour of learnerships, the new one-year training programmes that the DoL was then advocating as a more flexible and “customisable” approach to training.

At the same time, the then Department of Education began scaling down provision of the N-courses with a view to phasing them out completely by 2012. None of this sat well with industry which was – with some justification – sceptical about the value of learnerships, especially in the artisan trades where the level and duration of training required are not easily delivered through a series of relatively short inputs like learnerships. Since the NC(V) was not intended or designed to be part of a traditional apprenticeship, it did not seem to address the urgent need for more artisans and its credibility with industry suffered as a result. Moreover, despite being critical of the out-dated content of some N-courses, industry generally preferred these familiar occupation-specific programmes to the new and as yet unproven NC(V). There was also resistance to the introduction of the NC(V) from college managers and lecturers who did not agree with its design philosophy. Thus, the NC(V) was launched into hostile waters.

To understand the challenges associated with the introduction of the NC(V) and the objections to its continuation, one must remember that it was designed as a *foundation* for either industry-based training in a specific job or further study at higher education level. Though originally aimed at Grade 9 graduates from basic education, it soon attracted large numbers of matriculants (i.e. Grade 12 graduates) looking for further education in a specific vocational field. As a result, in any given NC(V) class, there is a mixture of students with very different prior levels of education and very divergent future intentions.<sup>43</sup> This is a difficult situation for the lecturer.

Moreover, the NC(V) is meant to incorporate both theory and simulated practice, in a 40:60 or 60:40 ratio, depending on the programme. Workplace experience is recommended but not required for graduation because the curriculum developers doubted whether enough employers would open their workplaces to students. The result has been that the overwhelming majority of NC(V) students spend three years, full-time, at college without once setting foot in the industry for which they are supposedly being trained. When, at the end of 2010, the DHET authorised colleges to resume registration of students for some N-courses after a hiatus of three years, a rumour took hold in colleges and industry that the NC(V) had lost a head-to-head contest with the N-courses and was about to be abolished. This misinformed but widely held belief has yet to be dispelled.

For their part, N-courses are entirely different in purpose and design from the NC(V) programmes. N-courses were never intended to be stand-alone courses but, rather, to be part of an artisan-trade apprenticeship (in the case of the engineering courses) or a work-integrated occupational learning programme (in the case of the business-administration courses). Ideally, each of the different N-course levels from one to six would be offered as the filling in a sandwich of workplace experience. If that were not possible, the student could front-load all the theory of his/her occupation – i.e. all the N-courses up to level six – and then undertake an internship of 18-24 months in fulfilment of the requirements for a National Certificate, which is considered a “whole qualification”, certifying competence in a specific line of work. In reality, after public technical colleges were opened to all races in 1981, the N-courses were effectively de-coupled from the workplace and were offered as stand-alone courses, without any practical component, to tens of thousands of school-leavers, who then found it difficult to get jobs without the workplace experience that employers had previously been accustomed to expect.

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<sup>43</sup> Wedekind (2016) and Towani *et al* (2016) found that NC(V) classes typically include Grade 9 to 12 students of varying academic abilities along with students who previously dropped out of school or have behavioural problems

In 2012, the QCTO began developing new occupational qualifications for the artisan trades and some white-collar jobs. The training programmes developed for these qualifications are expected to replace the N-courses for the related occupations. Differences between the QCTO and the TVET branch within DHET over who is responsible for developing the training programmes (as opposed to the description of desired learning outcomes) has delayed the introduction of the new qualifications to colleges. Trials of the first two – for electricians and plumbers – will commence in late 2016.

In short, then, the mix of programmes and qualifications in public TVET colleges is still unsettled. Current thinking within the DHET is that:

- The new QCTO occupational qualifications should progressively become the main programme offering of TVET colleges
- All N-courses will be phased out as the required occupational programmes are phased in
- The NC(V) should continue in the case of some business studies and financial programmes.
- From 2017 onwards, TVET colleges should also offer a Foundational Learning Certificate as a bridging programme from school to TVET; this programme has yet to be developed.

However, this remains subject to change. As frustrating as that may be to everyone who wants to see the national TVET system stabilised, there is actually an enormous opportunity here for business to step in decisively and help shape the programmes and qualifications offered at public TVET colleges. This point is taken up later as one of the recommendations of this report

## 5.2 Lecturer and Instructor Development

The calibre of the trainers and instructors is universally recognised as one of the most important determinants of quality in any TVET system. High-quality instructors produce highly skilled graduates and, subsequently, productive workers. Three aspects of the instructor's competence profile are considered especially significant, namely:

- Technical knowledge and skills
- Pedagogical skills
- Current and relevant industry experience

The current corps of lecturers in South African TVET colleges is weak in all three respects.<sup>44</sup>

In 2014, the DHET conducted an audit of college lecturers' qualifications, obtaining data from 73% of all lecturers then in service. (DHET, 2016)<sup>45</sup>. The findings, shown in the table below, indicate the extent to which lecturers in colleges meet minimum qualification requirements.

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<sup>44</sup> OECD (2014), Gewer (2013), NBI (2011), Bantwini & McBride (2011) and McBride *et al* (2009)

<sup>45</sup>DHET (2016b). This study was conducted for internal use by the Teaching and Learning Development Chief-Directorate of the Higher Education branch of the DHET and is currently not in the public domain. However, permission was kindly given for the statistics in this report to be quoted.

Table 5: Qualification status of lecturers in public TVET Colleges, 2014

<b>Qualification Status</b>	<b>% of practising lecturers</b>
<b>Unqualified:</b> Lecturers who have neither an academic qualification that represents at least three years of full-time post-school study at NQF level 6 nor a professional (i.e. teaching) qualification.	<b>12%</b>
<b>Academically qualified but professionally unqualified:</b> Lecturers who have an academic qualification at the correct level but do not have a professional (i.e. teaching) qualification.	<b>38.5%</b>
<b>Academically qualified and professionally qualified, but for schooling:</b> Lecturers who are qualified school teachers with academic and professional qualifications appropriate to academic schools.	<b>34.5%</b>
<b>Academically qualified and professionally qualified for the TVET sector:</b> Lecturers who have academic and/or professional qualifications that enable them to be recognised as fully qualified to teach in the college sector	<b>15%</b>

So the DHET’s assessment is that only 15% of the lecturers employed in TVET colleges in 2014 had the correct qualifications to teach in the sector - i.e. their academic/technical qualifications were at the correct level and their professional teaching qualifications were geared toward teaching in a TVET college. 73% of college lecturers were only partially qualified for their job and 15% were completely unqualified. This low level of professional competence has an enormously detrimental effect on the quality of instruction in the colleges.

This analysis takes into account only two of the three elements of a competent TVET instructor cited above – namely, technical knowledge and pedagogical skill. The third element – recent industry experience – is thinly and patchily spread across the college sector. A 2009-10 survey of lecturers in two provinces, Gauteng and KwaZulu-Natal, found that only 43% had both a technical qualification and industry experience, 26% had neither a technical qualification nor any industry experience and 29% had no teaching qualification or experience. The researchers noted that the lecturers’ limited experience of practising their trades in the workplace negatively affected the quality of their instruction and their ability to prepare their students adequately for the world of work.<sup>46</sup> A 2015 survey of lecturers in 28 colleges across the country found that 59% had some industry experience before taking up college teaching – mostly one to five years in duration. Only 23% had been back in industry to gain current experience in their field since they started teaching in the college, and only for a few weeks.<sup>47</sup>

Given their low levels of technical qualification and industry experience, it is clear that a massive, sustained effort will have to be made to upgrade lecturers in South Africa’s TVET colleges. Business can and, in its own interests, must play a major role in this, as will be seen later in this report. In fact, government policy strongly advocates engagement between colleges and industry as a way to improve the quality of teaching and learning in colleges, and to attain greater alignment between the college curricula and the skills needs of industry. For example, the DHET’s 2013 *White Paper* states:

“Arrangements could be made for college staff to get regular workplace experience so as to keep abreast of developments in their industries. Employers should also be in a position to advise colleges around issues of curriculum, and experts from industry could teach at colleges on a part-time or occasional basis.”

<sup>46</sup> Wedekind & Watson (2016), p76

<sup>47</sup> SSACI (2015a)

“Workplace experience required by lecturers will also be prioritised to ensure that their training is up to date with workplace needs and to provide lecturers with a better understanding of the needs of employers in their field.”

The **National Skills Development Strategy for 2011-2016** noted that:

“A critical component of this skills strategy will be that of focusing on the upgrading of college lecturers to improve their pedagogical, vocational and technical skills and ensure that they are exposed to the latest developments and technology both in the colleges and in industry”.

The 2011 **National Skills Accord** committed its signatories – government, organised business, organised labour and civil society to increasing opportunities for all forms of work-integrated learning within industry and to provide employees as expert lecturers in colleges. The second of its eight commitments requires that:

“Companies will annually make ... opportunities for training exposure in a work environment for at least 16'000 lecturers at [TVET] colleges.”

However, follow up reports show that little or no progress has been made in that regard.<sup>48</sup>

In industry, on the other hand, company-based TVET trainers usually have technical expertise and current experience in the practice of their specific occupation but little or no systematic knowledge of appropriate pedagogy for imparting it. While instruction in the public TVET colleges is largely imparted through talk-and-chalk lectures, instruction in industry is typically through ‘sitting-next-to-Nellie’. The absence recently of professional qualifications for TVET instructors in industry has meant that they have had few opportunities for developing their technical or pedagogical skills, or even a sense of being a distinct profession.<sup>49</sup> Thus, being a trainer in industry is often regarded as a dead end in one’s career or a last step before retirement.

To grow a corps of competent TVET lecturers in colleges and instructors in industry will require years of collaborative effort by government and industry. Related to this is the role of higher education institutions in supporting skills development. Traditionally, universities in South Africa worked in isolation from the colleges. Fortunately, a realisation of common interest is beginning to emerge. A few institutions – such as the Institute for Post-School Studies (IPSS), incorporating the Further Education and Training Institute, at the University of the Western Cape, the Centre for Researching Education and Labour (REAL) at the University of the Witwatersrand and the Centre for Integrated Post-School Education and Training (CIPSET) at the Nelson Mandela Metropolitan University in Port Elizabeth – are doing useful research and development related to TVET. In particular:

- IPSS is examining the thorny issues of differentiation and articulation in the post-school system and is developing post-graduate programmes, such as Masters and Ph.D. qualifications, aimed at building a cadre of local academics interested in post-school research and expanding the pool of expertise in South Africa.
- REAL conducts research and develops policy advice to government in all aspects of the post-school education and training system, with a particular emphasis on the education-to-employment transition; it also offers a range of post-graduate study programmes and short courses aimed at DHET, TVET college and SETA personnel.

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<sup>48</sup> HRDSCA (2015)

<sup>49</sup> To address this problem, in July 2015, the ETDP SETA registered a National Diploma in Occupationally Directed Education, Training and Development Practices. It has no technical-occupational content but focuses instead on generic human resource development skills such as planning, organising and reporting training programmes. As of August 2016, only 16 training-service providers – all in the private sector and most very small, had been accredited to offer the course. Its take-up by industry therefore remains to be seen.

- CIPSET is conducting research into socio-economic issues that affect the Continuing Education and Training colleges and is developing training programmes to support educators in those colleges

It should be noted that these institutes are not and will not be directly responsible for providing the new TVET qualifications (though they are providing input on curriculum design). That will be done by the education faculties at universities. It is not yet clear how or from where they will find enough experienced people to deliver these qualifications on the required scale.

Recently, two factors - one a push, the other a pull – have served to promote both pre-service and in-service industry experience for TVET college lecturers:

- In June 2013, the DHET adopted a set of professional qualifications specifically designed for TVET college lecturers. The official ***Policy on Professional Qualifications for Lecturers in Technical and Vocational Education and Training: the National Framework on Professional Qualifications for TVET Lecturers*** states:

“All TVET lecturers need to have up-to-date knowledge of the application in, and relevance to, the workplace of the subjects they teach. Therefore exposure to, and time spent in, structured learning experience in workplace/industry settings are crucial components of TVET lecturer qualifications.”

Since each new qualification requires a specified amount of industry-based professional experience, new entrants into the lecturing corps and current lecturers who seek to improve their qualifications will be required to spend some time in industry as part of their studies.

- A 2011 revision to the ***Employment of Educators Act*** requires TVET college lecturers to spend at least 80 hours a year in training and continuous professional development, which includes industry-based Work Integrated Learning (WIL). Since then, the DHET, as the employer of lecturers in public TVET colleges, has been in negotiations with lecturers’ unions on the introduction of a points system for quantifying and recording continuous professional development – including time spent in industry - undertaken by lecturers. Thus, even if a lecturer is not studying towards a formal qualification, he can obtain recognition for industry experience that could count towards promotion, salary increases and other kinds of career advancement.

Furthermore, the DHET’s ***Strategic Plan for the Period 2015/16 to 2019/20*** includes an outcome indicator that 30% of TVET lecturers should be undergoing specified periods of work in industry every two years from 2019.

It may therefore be said that, while the capacity of college lecturers and industry-based instructors represents an enormous challenge to expanding the scale and improving the quality of TVET in South Africa, important initiatives are under way to address this challenge. As in other critical areas described in this report, industry in general and the private sector in particular are indispensable to its success. Their role to date, and how it must change, are considered in a later section.

### 5.3 Poor Outputs

Given the problems with college curricula and lecturers’ qualifications that are described above, it is no surprise that pass rates and throughput rates are exceptionally poor in both the main curricular offerings of TVET colleges – the NC(V) and the N-courses. The net certification rate of the N-courses – i.e. students who have completed all six levels and then the National Certificate - has hovered around 12% for many years. This does not mean that the remaining

students did not benefit from getting a part-qualification at a lower level. Research indicates that passing N4 or above does improve one's prospects in the job market.<sup>50</sup> However, for so few who embark upon on the N-course route to see it through to the end suggests that, in its present form, it is not serving the needs of either the students or their prospective employers. This is due in part to the fact that many of these courses are decades out of date.<sup>51</sup>

The NC(V) has fared no better. Of its first intake in 2007, only 4% graduated on schedule at the end of 2009. The second intake (2008) fared somewhat better, with about 8% graduating in December 2010. Subsequent intakes have done better still, so at least the trend is upwards. But it is still nowhere near good enough. Factors that researchers have identified as contributing to the problem include:<sup>52</sup>

- An academically challenging curriculum with a heavy subject load which is particularly pertinent in light of the type of students completing the NCV
- Lecturers that were not adequately trained or prepared for the demands of teaching the NCV, which included, coping with new content, approaches and materials as well as practical component, demanding and unfamiliar assessment requirements, and teaching and managing large classes made up of a diverse group of mixed level students, many of whom had academic and language challenges
- Inadequate infrastructure to support the curriculum delivery as planned
- Poor management capacity to support of curriculum implementation

The OECD's verdict on all of this, following its 2014 study of TVET in South Africa, was that the system currently presents

“a confusing mix of overlapping and competing programmes and qualifications, inadequately developed programmes for adults and limited post-secondary vocational qualifications”<sup>53</sup>

Labour market outcomes – that is, the employment rate for graduates of the system – are also cause for concern. There is a high degree of convergence in the findings of studies over the past decade, which consistently indicate that only about 50% of TVET college graduates find jobs within a year of leaving college.<sup>54</sup> This is comparable to, but not better than, a Grade 12 school-leaving certificate, or matric, on its own. Since most college graduates already had a matric or equivalent when they entered college, it seems that the training they received there did not add much to their value in the labour market. Of course the sluggish performance of the economy in recent years has negatively affected employment across the board but the evidence indicates that the mismatch between skills and available jobs is also an important factor.<sup>55</sup>

The most recent research shows that:<sup>56</sup>

- Employment of TVET graduates who did not go on to further studies was 52% in 2014 and 47% in 2015
- Job prospects are about equal at 50% for an N6 or NC(V) level 4 graduate (the highest levels in each of those programmes) but are very poor for any qualification lower than that.

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<sup>50</sup> SSACI (2015b)

<sup>51</sup> Wedekind (2016)

<sup>52</sup> Wedekind (2016) and Towani *et al* (2016)

<sup>53</sup> OECD (2014) p38

<sup>54</sup> See, for example, Cosser (2003), Gewer (2007 & 2008), Altman & Marock (2008) and Marock & Gewer (2008)

<sup>55</sup> OECD (2013); Statistics SA (2014)

<sup>56</sup> Akoobhai & Schindler (2015); SSACI (2015b)



- Most college graduates take 6-12 months to find their first job and have two or three short work placements before getting a contract longer than one year; thus, most employed TVET graduates have had more than one job in the past four years and, on average, have worked for just 2.5 years of this period
- Gross earnings for college graduates are generally low, with 53% of those who find employment starting at less than R3'000 p.m., 5% at less than R1'000 p.m. and only 6% (usually artisans) earning more than R9'000 p.m.

How this situation can best be addressed is taken up in Section 3 of this report.

## 5.4 Artisan Training

Artisan training is the DHET's declared top priority. Although it is only one aspect of the broader skills development system, artisan training is so central to the maintenance of a modern economy – especially the manufacturing, engineering and extractive industries – that it deserves special consideration.

An artisan is essentially a skilled worker who produces things by hand. There are 125 recognised artisan trades in South Africa<sup>57</sup>, mostly concentrated in the engineering and construction industries, where they include such trades as boilermakers, carpenters, electricians, fitters and turners, mechanics, millwrights, plasterers, plumbers, welders and so on. There are also a few artisan trades in other industries such as food (e.g. butchers, chefs and confectioners) and personal services (e.g. hairdressers and tailors). Becoming an artisan requires completion of an apprenticeship – that is, formal, on-the-job training leading to competence in all aspects of a recognised trade or occupation. Notable features of an apprenticeship are that, in addition to some formal education in the theory of the trade, it requires a significant amount of practical training and authentic work experience under the supervision of a qualified practitioner. It usually culminates in an externally-administered trade test that establishes competence in all aspects of the trade and confers on the successful candidate a licence to practise it

In the mid 1980s, the high-water mark of apprenticeships in South Africa, there were about 46'000 apprentices in training at any given time, of whom about a quarter completed their trade tests annually.<sup>58</sup> Considering that the country was at the time producing over half a million school-leavers annually, this was actually a very small figure. Moreover, the number began to drop shortly afterwards as industrial output and the related demand for artisans decreased in the face of international sanctions against apartheid. Thus, by the time the democratic era dawned in South Africa and the first non-racial government was elected into office in 1994, apprenticeships were already in decline. That decline was accelerated by the *Skills Development Act* of 1998, which envisaged apprenticeships being replaced by learnerships, unit-standard-based programmes, typically a year in duration, comprising both theory and practice of a specific occupation. In 2000, a working group was established by the Minister of Labour to expedite the phasing out of all remaining apprenticeships.

Unfortunately, learnerships did not deliver the skills that the country's revitalized and growing economy needed. As a result of their short duration and focus on discrete, atomized, competences described in unit standards, learnerships simply failed to develop the holistic, integrated and high-level competence required by the artisan trades. Most of them were actually pitched at very low levels of occupational skill. Moreover, the fragmentation of responsibility as many SETAs - each with its own approved training service providers and

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<sup>57</sup> DHET: *National List of Artisan Trades*

<sup>58</sup> *SA Labour Bulletin*, Vol 16, no. 6 (2013), p42

trade-test centres - ran learnerships and apprenticeships to vastly different standards undermined confidence in the system as a whole and led to the emergence of unofficial rankings of supposedly equal qualifications.<sup>59</sup>

Complaints from employers about increasing skills-shortages grew to a crescendo in the mid-2000s. The implications of an acute skills shortage were brought home to the general public in 2007 when the supply of electricity fell short of demand and a programme of 'load-shedding' had to be introduced to husband resources. In the recriminations that followed, it became clear that an important contributory factor had been a lack of scheduled maintenance work on the national power generation and distribution network, partly as a result of insufficient numbers of artisans and technicians.

In retrospect it can be seen that 2003 was the nadir for apprenticeships and that, thereafter, sheer necessity drove both government and employers back to them. The *Skills Development Amendment Act* of 2008 formally reintroduced apprenticeships and created the QCTO to quality assure workplace-based occupational skills training.

Since the DHET took over responsibility for skills training (including the SETAs) from the DoL in 2009, there has been a concerted drive towards re-establishing systems and standards, reducing complexity, streamlining and centralising administration, and uniform quality assurance. Currently:

- One agency, the **National Artisan Moderating Body** (NAMB), which falls under the QCTO, has final oversight of all aspects of artisan training including:
  - Monitoring the performance of accredited trade test centers;
  - Moderating artisan trade tests;
  - Maintaining a national databank of assessment instruments for assessment and moderation of artisan trade tests;
  - Maintaining a national database of registered artisan trade assessors and moderators;
  - Recording artisan achievements;
  - Recommending the certification of artisans to the QCTO
- Since 2013, a **Generic National Artisan Learner Grant Funding and Administration System** (Government Gazette 35625) requires all SETAs to pay a standardized training grant for all apprenticeships. This is payable in four equal tranches at specified milestones.
- Trade test regulations have been standardised
- Trade test centres must be accredited by NAMB. As an interim measure, all trade test centres that were previously accredited by a SETA will retain their approval until further notice. However, they must administer test-items drawn from NAMB's item bank and submit all test-results to NAMB for moderation.
- Workplaces that wish to host apprentices must be approved by NAMB or a SETA authorised to do this by NAMB, according to revised, nationally standardised criteria.
- QCTO has embarked on a long-term process of developing new trade qualifications and curricula. Each new qualification describes the knowledge, practical skills and competences required to be an artisan. The knowledge component will normally be

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<sup>59</sup>From 2001 to 2013, at least 14 different SETAs ran apprenticeships without any agreement on the required standards of competence or even on the list of trades for which an apprenticeship and trade test were required. For just one trade – electrician – there were seventeen different registered curricula.

acquired at a TVET college; the practical skills may be acquired at college or a workplace, or a combination of the two; the competences *must* be acquired in the workplace. These new qualifications will, in time, replace the N courses in their entirety and many NC(V) courses as a route to a specific occupational qualification (but not as a general vocational qualification).

- New models of apprenticeship training – including accelerated programmes for candidates with certain levels of prior technical education, and locally-adapted versions of the renowned Swiss and German ‘dual system’ apprenticeships – are being piloted.
- Government subsidies for apprenticeships have been increased and made more easily accessible. Administration is being streamlined.
- Finally, a concerted campaign – including an annual national conference on artisan development and biennial national skills competitions - has been initiated to promote the status of artisan trades and raise the standard of apprentice training.

There are indications that, as a result of all these efforts, participation and throughput rates in apprenticeships are on the increase, though not entirely consistently. The total number of registrations and completions in the database of the National Artisan Development Support Centre, a sub-agency of NAMB, is shown in the following table:<sup>60</sup>

Table 4: Total number of registrations and completions of apprentices, per financial year, on NADSC database

	<b>Registrations</b>	<b>Completions</b>
<b>2011-2012</b>	21 540	12 129
<b>2012-2013</b>	23 594	11 614
<b>2013-2014</b>	27 069	17 427
<b>2014-2015</b>	28 302	14 270

Thus, in the 2011-12 financial year for example, a total of 21 540 persons registered for, and 12 129 completed, an artisan training programme. Each of these registrations and completions is a separate record, i.e. the 12 129 who completed are not necessarily drawn from the 21 540 who registered in that year. Some of them may be but, since artisan training typically spans three to four years, it is likely that the vast majority of completions in 2011 were registered in previous years.

The available data also show that:<sup>61</sup>

- Training of artisans, especially in scarce trades, is generally on the increase. It is very skewed towards two trades – electricians and fitters and turners - which probably reflects ease of access to these training programmes rather than current demand from industry. This suggests an ongoing mismatch between supply and demand.
- The successful completion rate for trainee artisans is higher than previously thought – perhaps as high as 75%, including trainees who pass the trade test on their second or third attempt. The introduction of stricter and more uniform assessment standards since 2014 may affect this figure.

<sup>60</sup> From SSACI (2016)

<sup>61</sup> Ibid

- The employment trajectory of newly-qualified artisans is very positive: 73% find jobs paying decent wages and related to their expertise within six months of completion of training, and a further 6% are able to support themselves through self-employment.
- Gender disparities remain in all trades and have actually increased over time, despite public campaigns to address them.
- Ethnic disparities are less noticeable and large numbers of young Africans are taking up artisan careers. Nevertheless, compared with the make-up of the general population, whites remain somewhat over-represented in artisan training programmes and blacks under-represented.

There are grounds here for optimism about the direction in which artisan training is now going. Concerns about quality remain: research suggests that most South African apprentices do not progress beyond a nominal level of competence in their trade.<sup>62</sup> But, with the help of employers – and *only* with their help - that can be remedied, a point taken up in the following section of this report.

## 5.5 Employers, the Private Sector and Workplace-based Learning

As noted in the introduction of this report, strong involvement of employers, especially from the private-sector, is common to effective national TVET systems everywhere. It is, in fact, *sine qua non* and its near-total absence in South Africa is the single greatest weakness in the national, public TVET system - the one above all that must be corrected for any significant improvement to take place.

To understand why this is so requires some historical perspective. Contrary to a mythology that is popular amongst business-people, the private-sector in South Africa has never had to pull its weight with regard to skills training. The majority of artisans and technicians were trained by a handful of state agencies and state-owned enterprises – such as Eskom, Iscor, SAR&H, the Department of Public Works and the defence force – whose mandate specifically required them to train beyond their own needs and who received numerous tax breaks and indirect subsidies to do so.<sup>63</sup> Even so, the number of trainees was always inadequate to meet the skills needs of the economy. The resultant skills gaps were filled by state-sponsored immigration from Europe, which brought in the balance of the required skilled workers. The result was that most South African companies never had to train to meet even their immediate skills requirements, much less those of the future. They simply asked the government to supply more – at state expense - whenever required. Thus, unlike, say, Swiss or German companies who know that if they do not train for themselves they will run out of skills, South African companies have long been accustomed to having much of their training done by someone else and paid for out of the fiscus. This explains why South Africa experienced a skills crisis after 2001, when state-sponsored immigration had ended and the state-owned enterprises, having been privatised, cut back drastically on training in order to become more competitive.

It also explains a critical difference in mind-set between South African employers and their counterparts in many other countries. The latter, having to carry all or most of the costs of training themselves, need to make their trainees productive (and hence cost-effective) as soon as possible. Research has repeatedly shown that apprentices in many other countries generate a net profit to employers, even though the employer receives no state subsidy for

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<sup>62</sup> Rauner *et al* (2012), pp43-61.

<sup>63</sup> Mukora (2008) & Bird (2001)

the training involved.<sup>64</sup> The longer the apprenticeship and the higher the level of skill involved, the greater the profit. The result is that employers in these countries tend to view training as an investment to be maximised. But, on the whole, South African employers usually view training as a cost to be minimised. It is significant that South African apprentices spend more of their time in college or company training centres than their counterparts in many other countries. This practice of keeping apprentices away from production – hostile to both quality and cost-effectiveness in training – is aggravated by South Africa's levy-grant system, which guarantees employers a subsidy of, at present, R150'000 per apprentice, regardless of the quality of training provided or the outcome thereof. That is one reason why over 90% of apprentices in German-speaking countries, where there are no state subsidies, complete their training successfully and on time, but fewer than 50% of South African apprentices, who are heavily subsidised by the state, do so.

The TVET systems in Switzerland and Germany are particularly instructive as research shows - they have the world's best cost-benefit equation for employers and labour-market outcomes (i.e. employment) for trainees.<sup>65</sup> A striking feature of both these countries' VET systems is that employers have taken on the primary responsibility for organising and administering them. Thus, in Germany, the 1969 *Vocational Training Act* obliges employers' representatives to draw up specifications for workplace learning in every recognised apprentice occupation, clearly showing what transferable skills and knowledge are to be developed, and how. All apprenticeships are supervised by regional chambers of commerce and industry, membership of which is obligatory for firms over a certain size. Each chamber has a vocational training committee, comprising equal numbers of employers' and employees' representatives, with both administrative and quality-assurance functions. The committees review and record all apprenticeship contracts, inspect employers' premises and other training sites to see that all legal and contractual obligations are being met, and administer the national examinations, in the development of which they have a major say. The chambers are also responsible for providing information to the public about apprenticeships (in which they are assisted by the Federal Employment Service), and for promoting apprenticeships amongst their members.

Similarly, in Switzerland, a plethora of trade and professional associations define the curricula and qualification procedures for apprenticeships, develop or at least approve all new VET training programmes and oversee their implementation. A recent OECD survey of employer engagement with apprenticeships found that the direct and decisive influence that Swiss employers have over every aspect of apprenticeships – including organisation, funding, curriculum content, assessment and certification – was a major reason for their high levels of confidence and participation in this form of training.<sup>66</sup>

Running the VET colleges usually falls to state governments in Germany and cantonal governments in Switzerland. The federal governments in both countries are mainly responsible for the development of overall education and training policy, benchmarking against international practice, harmonisation of local norms and standards, co-ordination of state or cantonal systems, and the creation of a supportive environment for apprenticeship training generally. But here, too, they are strongly guided by the main social partners - business and labour.

Important systemic support is provided to the governmental authorities and their social partners by national VET institutes – the Federal Institute for Vocational Education and Training (BIBB) in Germany and the Swiss Federal Institute for Vocational Education and

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<sup>64</sup> SERI (2015); OECD (2010); Rauner *et al* (2009); Zwick (2007); Muhlemann & Wolter (2007); Zwick (2007); Wolter *et al* (2006) ; Tremblay & Le Bot (2003), Bassi & McMurren (2000),

<sup>65</sup> Renold (2016). She also calculates that the costs of VET are typically split 60:40 between employers and government in these countries but the financial benefits are split 100:0.

<sup>66</sup> OECD (2009)

Training (SFIVET) in Switzerland. Both these institutes conduct high-quality academic and applied research into issues relating to VET and foster reflective practice and action-research capacity in VET colleges and company training centres. They play a critical role in the development of new training programmes and courses, especially their pedagogical, curricular and assessment aspects, as well as in the development of instructional materials and other resources for teaching and learning. They conduct pre- and in-service training of VET educators, trainers and instructors in both the public and the private sectors. They facilitate linkages and collaboration amongst all stakeholders in the VET system and often act as a central point of contact for trade associations, professional organisations, public colleges and government agencies. On the basis of all this, they are able to provide invaluable input to their governments on policy and regulatory issues. So influential have the two institutes in conclave with industry become that, in the words of one researcher:

“The [German] federal government makes the overwhelming majority of decisions on vocational training only after union and employers’ representatives and the BIBB have given their consent... This shapes the activities of the Federal Institute to such an extent that the role of the state is frequently reduced to a notary function.”<sup>67</sup>

The same is true of Switzerland. In short, then, we see in these two countries TVET systems that are mainly designed and implemented by the end-users of the product of the system – viz, employers. This is not the case in South Africa, where employers have been and still are conspicuously absent at all levels and in all sectors of the TVET system. As Business Unity South Africa, the apex body of organised business in the country, acknowledged in a submission to the Minister of Higher Education and Training in February 2016:<sup>68</sup>

“Employers do not have a very good track record in contributing to national discussions about skills. At the 2003 Jobs Summit, employer representatives made various commitments to improve the operations of SETAs. These included raising the level of employer representation on SETA Boards. There is little evidence of effective follow-up to implement the commitments made. Similarly in July 2011, employer representatives signed the *National Skills Accord*. This too sets out a series of actions that employers undertook to initiate to improve the implementation of the skills development strategy. Again there are few signs of concerted action to honour the pledges that were given. The policy statements produced by DHET – the *Green and White Papers* on post-schooling education and training – put forward significant proposals, with far-reaching consequences, but it is difficult to argue that employers have played a significant part in the subsequent debate about priorities for investment or strategies to improve operational efficiency.”

Of course, a sophisticated training system deeply embedded in a particular socio-economic context cannot simply be ‘cut-and-pasted’ from one country to another. However, there is no reason why the fundamental principles and even some specific procedures of good practice cannot be adopted and adapted elsewhere. The Swiss and German models were identified by the DHET as being of particular interest owing to their simple architecture, low cost, high quality inputs and excellent labour market outcomes. They are referenced in many of the discussion documents that preceded the government’s 2013 ***White Paper on Post School Education and Training***. In 2013, the DHET decided to set up a national institute of vocational education and training, modelled on SFIVET and BIBB. Much planning has been done on this but progress with implementation has been slow owing to business’s reluctance to enter into a joint venture of this kind. Meanwhile, in 2015, the DHET took a policy decision to adopt a Swiss-style dual-track approach to TVET wherever possible. Regarding this, Government Gazette no 39077 of 11 August 2015 states:

“The occupational qualifications being developed have a dual system approach to the training of apprentices as an integral part. The dual system of apprenticeship training requires that learners spend some time acquiring their knowledge and practical training at a [training institution] and thereafter

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<sup>67</sup> Steedman (2012), p14

<sup>68</sup> BUSA (2016). This document is not in the public domain but the draft version is quoted here by kind permission of BUSA’s Skills Development Advisor

immediately accessing a workplace to apply their knowledge and practical training to real life production environments.”

Again, business has been very slow to respond to the DHET’s overtures in this regard.

Ironically, the biggest loser in the current state of affairs is business itself:

- Firstly, it loses out on the profits that the trainees themselves could generate.
- Secondly, it struggles to get the skills it needs because insufficient training is taking place and even that is to unsatisfactory standards and is unsynchronised with industry demand.<sup>69</sup>
- Thirdly and most seriously, it locks itself into a vicious circle of rising costs and diminishing returns. Business pays corporate tax for, amongst other things, the funding of public TVET colleges, and, on top of that, a levy on payrolls for skills training specific to their sectors. When they do not get what they want from the agencies charged by government with the delivery of these services – namely, the TVET colleges and the SETAs – businesses generally do not try to improve them. They simply abandon their mandatory investment and procure from private training providers, at great additional cost, the goods they have already paid for twice through the taxman. It would surely make better business sense to help fix the colleges and the SETAs so as to get value for money from them and obviate the need to pay for skills training three times over.

The short sightedness of business’s policy of disengagement from the public skills training system is evident in its failure to provide sufficient places for workplace-based training such as apprenticeships, learnerships, internships and workplace-experience for students at TVET colleges and universities of technology. Such opportunities are essential to quality in any national TVET system. A study of TVET in eighteen countries led the Economic Research Institute at the Swiss Federal Institute of Technology in Zurich to the conclusion that:

The more time VET students spend in work-based learning, the better their labour-market trajectories and the greater the involvement of employers in the VET value-chain.<sup>70</sup>

In the same vein, the OECD lists the involvement of employers, especially in curriculum development, the provision of workplace training opportunities and assessments as indispensable to an effective national TVET system.<sup>71</sup> Of special interest to South Africa is evidence that, while a weak basic education system such as is found in this country creates difficulties for any TVET that follows, these difficulties can be overcome if the VET programme is strongly workplace-based. On the other hand, a college-based VET system simply reinforces the learning deficits created by the weak school system.<sup>72</sup>

Yet, the 2014 OECD review of “skills beyond school” in South Africa found that:

- “Key obstacles to a more effective [TVET system] include weak work-based learning and limited artisan programmes” (p11)
- “Work-based learning plays an essential role in high-quality vocational programmes. A wide range of international experience suggests that work-based learning plays an essential role in high-quality vocational programmes... But work-based learning is not only a powerful tool for developing both hard and soft skills and transitioning students into employment, it is also key to engaging employers and linking the mix of provision to employer needs... In South Africa, work-based learning is quite limited.” (p. 59)

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<sup>69</sup>See, for example, Kraak (1996 and 2008) on industry’s culpability for the mismatch between supply and demand in artisan training.

<sup>70</sup> Renold (2016)

<sup>71</sup> Roseveare (2016)

<sup>72</sup> Moukagni & Gonin (2016)

So the absence of opportunities of workplace-based learning has been a serious and constant obstacle to quality in South Africa's public TVET system.

Employers could not reasonably be expected to offer workplace-based training opportunities to students at public colleges and universities if it did not offer benefits to the business. This it does:

- It provides them with cost-effective, partially-skilled labour on demand. It allows them to cherry-pick the best students as future employees.
- It reduces significantly the costs of recruiting and inducting such employees, because they have been pre-exposed to the company's systems, processes, technology and culture.
- It provides job-enrichment for existing employees who are willing to train and mentor the students, and helps to promote a culture of learning within the company.
- Not least, it enables a company to influence the local college or university curriculum by show-casing its operations to the institutions' teaching staff as the model which students should be trained to implement - thus further reducing the company's need for, and costs of, future in-service training.

Relatively few South African businesses have grasped this opportunity and workplace-learning placements are hard to find for college and university students alike. A popular explanation for this is that the national economy is too small to accommodate large numbers of college and university students on temporary workplace experience. But this assertion does not stand up to examination. According to the South African Revenue Service, there are over half a million registered, tax-paying (i.e. profitable) companies in the country<sup>73</sup>. If each company took only *one* student on WIL at a time, the economy could comfortably host at least 500'000 *full-time* workplace learners per year, or a million on six-month placements or two million on three-month placements. This is enough for all the students at colleges and universities in the country combined. The actual number of students requiring WIL - i.e. those in occupational and vocational courses - would actually be considerably lower. So the real problem is not lack of capacity for WIL but lack of employer willingness. As the OECD noted:

"The principle of mandatory work placements in vocational programmes was already recommended in a previous OECD review of South Africa (OECD; 2008). It means that programmes will only be funded when training institutions develop and maintain the active partnerships that support work placements... International experience is that it can be made to work. In South Africa it is commonly argued that employers are reluctant to offer work-based learning. The same point is made in many countries. But what is striking about international experience is that poorer countries with relatively weak infrastructure (Romania), countries with very little history of employer engagement in the vocational system (Sweden) and countries with very high rates of youth unemployment (Spain) have all been successful in implementing mandatory arrangements."<sup>74</sup>

It must be admitted that public TVET colleges are not responsive to employers' overtures. This is largely because they are not dependent upon industry for their income. They are heavily subsidised by the state according to their head-count enrolment and the delivery costs of the programmes and qualifications that the DHET requires them to offer. Since the industries for which the TVET colleges are supposedly training are not really their clients - merely distant end-users of their product - the colleges' performance standards are generally unrelated to industry. This structural problem in the way colleges are funded allows them, if they choose, to see workplace-based training opportunities as nice-to-have rather than need-to-have.

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<sup>73</sup>SARS (2012), p103

<sup>74</sup> OECD (2016), p65



It must also be said that South African corporates have not got from government what they have often asked for – such as points on their BBBEE scorecards for efforts to improve the skills development system. Despite many promises from the DTI, which manages the BBBEE points system, this problem remains unresolved and is a powerful disincentive to companies that might otherwise have put effort more into this important issue. In addition, business has over many years become jaded with the constant changes in the TVET system, its complexity, its inefficiency and the resultant poor return on their mandatory investment in the form of the skills levy.

The DHET is aware of this weariness and frustration, and has declared its intention of improving the quality of TVET through closer relationships with industry generally and through workplace-based learning programmes in particular. According to the 2013 **White Paper for Post-School Education and Training**: “Work-place learning must be seen as an integral part of qualification and programme design.”<sup>75</sup> This will require a corresponding *rapprochement* from business towards the public TVET system and the opening of many thousands of workplace learning slots. But such cooperation is ultimately in the interests of all. As BUSA itself acknowledged:

“Skills Development is a shared responsibility, primarily between government and employers, who, with other stakeholders, are concerned to promote the interests of workers. Government has a duty to provide the regulatory framework to enable economic growth; to try to ensure that the demand for skills is met and that job seekers and workers have access to quality training to improve their competitiveness in the labour market. [Private sector] employers provide 75% of jobs and generate 85% of the country’s wealth. They have a direct concern that skilled people are available to support the growth and development of enterprises. They contribute also to the creation of a cohesive society in which business can flourish”<sup>76</sup>

Underscoring this view is the finding of the McKinsey research into over 100 TVET programmes in 25 countries that:

“Innovative and effective [education-to-employment] programs around the world have two important elements in common... First, education providers and employers actively step into one another’s worlds. Employers help to design curricula and offer their employees as faculty, for example, while education providers may have students spend half their time on a job site and secure them hiring guarantees. Second, in the best programs, employers and education providers work with their students early and intensely.”<sup>77</sup>

## 5.6 SETAs

Since their establishment by the Department of Labour in 2001 in terms of the *Skills Development Act*, SETAs have played a central role in funding workplace-based skills training in South Africa. This function had previously been performed by 33 Industry Training Boards (ITBs), employer-dominated bodies which mostly confined themselves to funding and administering apprenticeships. Part of the government’s rationale in replacing the ITBs was to involve a broader range of stakeholders – such as labour and the community at large - in skills training, and to widen the scope of that training to courses and programmes other than apprenticeships. Initially, 25 SETAs were established, together covering almost every industry and occupation in the economy. They have been rationalised and re-organised twice since then: in 2005, the original 25 were reduced to 23 and in 2011 to 21, at which time also they were shifted from the DoL to the DHET. Each SETA is an independent entity governed by its own board of directors, comprising representatives of employers and organised labour.

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<sup>75</sup> DHET (2014), p64

<sup>76</sup> BUSA (2016) *op cit*

<sup>77</sup> Mourshed *et al* (2014), p20

The engine of the SETAs is the levy-grant system set up in terms of the *Skills Development Levies Act* (1998) which imposes a 1% levy on all payrolls. Of the money thus raised, 80% goes to the SETAs and 20% to a central NSF, which was intended to be a strategic kitty from which skills training could be funded for groups, such as the unemployed, who are not served by any specific SETA. This arrangement was somewhat controversial from the start because it creates a funding stream outside of the general fiscus and therefore of the usual oversight, checks and balances in the fiscal system. The size of that stream is considerable – R14-billion in 2014-15, of which R11-billion went to the SETAs and R3-billion to the NSF.

SETAs are supposed to use this money for skills training relevant to the needs of their industry, through grants to employers or training service providers or bursaries for individual students. But their remit is broader than that and far broader than that of the ITBs. They must also conduct research into labour market demand and supply and from that produce five-year skills development plans, updated annually, for their sector of the economy. These sector skills plans should articulate with other government planning initiatives such as the National Skills Development Strategy, the National Human Resources Development Strategy, the Industrial Policy Framework and more recently the National Growth Path and National Development Plan. They can design new qualifications and curricula, and quality assure their delivery. They accredit training service-providers and approve workplaces as training sites. In fact, they could originally undertake almost any activity they considered necessary to their core objective of promoting skills training in their sector. Though this latitude has been reduced to some extent since then, it is still fairly elastic.

Regulations promulgated first by the Minister of Labour and since 2011 by the Minister of Higher Education and Training specify how SETAs must disburse training grants to employers, training providers and others. Details have been adjusted over the years but the basic formula has always been to disburse money through two mechanisms:

- i. **Mandatory grants**, i.e. disbursements that must be made to levy-paying companies on fulfilment of certain criteria such as the submission of an annual workplace skills plan or report
- ii. **Discretionary grants**, i.e. disbursements to employers, training service providers and other organisations to cover the costs of SETA-approved training or research.

With this mandate, these resources and much fanfare, the SETAs have been in operation for fifteen years.

The outputs, outcomes and impact of their operations have been disappointing, according to *almost every single independent evaluation or piece of research on SETA performance*. They have also been plagued by allegations and complaints about incompetence and dishonesty in their organisational workings.

The SETAs began by commissioning the development of hundreds of new courses based on the prevailing notions of competence-based training. SETA-developed programmes are easily recognised by their unit-standard-based structures. Demand for them has not kept pace with supply. An analysis of data held by SAQA on registrations and completions in learnerships and other SETA-driven courses indicates that most of their courses and qualifications have never been studied by anyone:

- Of 811 registered learnerships, only 522 have had any learners.
- Of 787 registered unit-standard-based qualifications registered, only 172 have been awarded to anyone
- Of 10'000 unit standards developed, only 2'200 have ever been part of any qualification awarded

- Of 20-million learning awards recorded on SAQA's database, only 27'000 are against SETA-developed whole qualifications

Within a few years, evidence of failure was starting to accumulate. One study in 2004 reported that:

"Although detailed information about the successes and challenges of SETAs is not currently available, the overall picture is not a positive one. SETAs are having great difficulty with the implementation of the NSDS [National Skills Development Strategy] and are most likely to fail in meeting the set targets. They have become new bureaucratic structures preoccupied with the development of administrative and policy systems which have not only hindered the implementation of the NSDS, but also created barriers to providers to fast-track education and training programmes and projects. ... The quality and effectiveness of the [SETA] skills-programmes is unknown."<sup>78</sup>

Another report in the same year was more specific about the nature of the problem:

"Much of the [SETA] training was of the short-course variety and too narrow in focus to meet specific employer requirements. It included training of the 'soft' variety – for example, training in health and safety issues or on industrial relations – and far less of the hard variety that would lead to whole qualification acquisition and significant upskilling of the workforce along the NQF"<sup>79</sup>

In 2007 a study of three SETAs (MERSETA, FASSET and ETDP) found that:<sup>80</sup>

- their programmes were unaligned with identified sector needs
- most learnerships were pitched at too low a level of skill for industry
- because of this, employment of previously-unemployed learners who had completed SETA-approved occupational training was low – just 46%

These findings were reinforced the following year by a study of learnerships in the construction industry, which concluded that:<sup>81</sup>

- Most learnerships were narrow and shallow, too short, contained outdated or inappropriate content and were pitched at too low a level to be useful for employment; they also incorporated very little practical or on-the-job training
- No systems were in place for quality assurance
- Learnerships were often offered to unsuitable candidates
- Most learners did not complete their training and those who did experienced inordinate delays in getting their certificates
- The link between training and employment was tenuous
- Overall satisfaction of learners was very low
- Employers were either unaware of the learnership system or dissatisfied with it, especially its bureaucracy; they also distrusted the construction industry SETA

By this time, employers had had enough. A report in **Business Day** on 14 June 2007 about a survey of their business's perceptions of the SETAs by the Centre for Development and Enterprise, a Johannesburg-based policy research and development agency, summed up the prevailing view:

"Few businesses [of the 40 surveyed] see any utility in SETAs. Complaints of bureaucratic rigidity and inappropriate, superficial course materials are widespread. [Typical comments about SETAs were] 'woefully

<sup>78</sup> Baatjes & Mathe (2004), pp409-410

<sup>79</sup> Kraak (2004), p44

<sup>80</sup> Grawitzky (2007)

<sup>81</sup> Mummenthey (2008)

inefficient', 'they don't do proper training', 'learners have a shocking standard of workmanship', 'the system is open to abuse', 'the benefits are virtually nil', 'they produce nothing'."

The transfer of responsibility for the SETAs from the DoL to the DHET in 2010 triggered a re-assessment of their worth. In an address to SETA CEOs in November 2010, Minister of DHET Nzimande listed his concerns:

- "There is a widespread perception, which I believe is at least to some extent true, that the SETAs have generated a whole new industry of service providers who have not prioritised training that matches the intentions of the SETAs. They have instead created parasitic and sometimes even corrupt relationships in the skills development arena. SETAs are also not adequately making use of our public education and training institutions, even where these have capacity. Instead, they are opting in the first instance to use private providers, including some with highly questionable credentials and levels of quality.
- "Developing Sector Skills Plans is core to the SETAs' mandate. The submitted drafts raise questions about the seriousness with which these are accorded priority in some SETAs. Many SSPs don't yield quality, credible information to guide learning programme plans by SETAs.
- "The attention paid to monitoring the quality of training by providers and workplaces is a great source of concern."
- "The comparison between the per capita cost of training and the associated outcomes is disgraceful. The average cost of a learnership is R40 000 to R50 000 per year. Adding the associated administration costs, i.e. the planning costs, project management costs, costs associated with accreditation and procuring providers, certification etc. – this could multiply threefold. Some of these learnerships are not even a year long."
- "SETAs accredit the training providers which they then appoint as service providers under them. Consequently, the favoured providers monopolise training and training material, escalating the costs further, but also playing the role of gate keeping."

The rising tide of criticism culminated in the establishment in March 2011 of a Ministerial Task Team to investigate and appraise SETA Performance. Its final report, published a year later, was an unflinching analysis of all that was wrong with the SETAs. It found that:<sup>82</sup>

- Their mandate was too broad, not clearly defined, and constantly shifting.
- Even so, many SETAs engaged in activities outside their mandate
- Planning was based on inadequate information and was therefore unreliable; most SETAs had little planning capacity and their planning processes were often non-chronological; for example, plans were developed for an entire sector before input had been received from most employers in it
- Without exception, SETAs' training targets were too low and often unrelated to stated priorities
- Most SETAs had concentrated on inappropriate or useless training (e.g. at too low a level or of too short a duration), especially for employed persons
- The quality of most programmes was dubious
- Many of the SETAs' preferred training service-providers were weak; supervision and quality assurance of their work was poor to non-existent
- Governance and accountability systems were weak:

"There have also been numerous governance challenges such that the fiduciary duties of the Boards and Executives of SETAs have been confused with the critical importance of stakeholder

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<sup>82</sup> DHET (2012)

participation in the strategic activities of SETAs. This has resulted in the worst of both worlds – poor corporate governance of SETAs and inadequate strategic focus on demand-led skills development. Further, a study commissioned by the World Bank suggests that fiduciary governance in many SETAs has been poor (Falkov, Marock, Johanson 2010). There is evidence of gross negligence and weak financial accountability and oversight in certain SETAs; lack of documentation for National Skills Fund income and expenditure; significant variations in SETA senior staff remuneration; lack of qualified senior management; and inadequate performance management”

- Administrative systems were unnecessarily complicated and bureaucratic

The task team made numerous recommendations for improving the SETAs. A few have been implemented but most were put on hold when, in 2012, Business Unity South Africa (BUSA) launched a legal challenge to proposed changes in the SETA grant regulations which would have had the effect of reducing the mandatory grants to employers and increasing the minister’s control over the remainder of the levy funds. It was ironic that two advocates of reform should thus be pitted against each other in court. The case was decided in favour of BUSA in August 2015, prompting the minister to propose new legislation intended to bring about a radical reconstruction of the SETAs from April 2018. The key changes proposed are that:

- The SETAs be renamed Sector Education & Training Advisory Boards (SETABs) with a mandate merely to advise the minister on TVET programmes and implement programmes approved by his department
- Employer representation on boards of the SETABs be reduced and the minister be given a power of veto on strategic and financial decisions
- SETABs be reduced in numbers and grouped in clusters with shared administrative services
- Funds raised from the skills levy be allocated as follows:
  - 20% to the National Skills Fund (NSF) for its discretionary use
  - 39.6% to NSF for ring-fenced projects agreed upon by the NSF and the SETABs; these funds will be disbursed by the NSF to whichever agencies are appointed to implement the projects – which could be a SETAB or a private-sector service-provider
  - 0.5% to NSF for the QCTO
  - 29.9% to SETABs for grants to employers
  - 10% to SETABs for their core administrative costs

Predictably, these proposals have triggered intense debate within government (including the SETAs themselves), organised business and organised labour. Final decisions on the SETA landscape and roles are not likely to be taken before the end of 2017.

Though BUSA has expressed concerns about some specific aspects of the proposals, its view that fundamental change is necessary has not changed. In a submission to the minister in March 2016, it stated:

“The mismanagement, illegality and cronyism that have been witnessed in the operation of some SETAs, and the management of the National Skills Fund, with little transparency, accountability and no impact measurement, have dented confidence in the skills development system.” (p11)

Many countries besides South Africa have experimented with sectoral skills councils, including nineteen countries in Europe, and India, New Zealand, Australia, Canada and Egypt. Their success has been extremely variable but those that have worked are characterised by:<sup>83</sup>

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<sup>83</sup> Todd & Woodgate (2015)

- Narrow mandates that do not make sectoral councils the principal drivers of skills development but assign them restricted roles in relation to other important stakeholders and agencies
- An inheritance of well-established traditions of sectoral cooperation (e.g. professional associations)
- Strong representation of, and participation by, industry: successful sector skills councils typically have CEOs of companies on their boards rather than mid-level managers
- Access to reliable labour market information
- A funding model that requires them to be responsive to employers' needs; usually this means a dependence on the sale of services for a critical portion of their income.

None of these success factors seems to be present in South Africa. Nevertheless, the government's huge investment of political and financial capital in the SETAs over the past fifteen years makes their continuance a foregone conclusion. That being so, business's best bet may be to lobby for just three key reforms:

- i. **Narrowing SETAs' mandate to doing the one thing no other agency is doing at present – namely, preparing workplaces as training spaces.** This would include advocacy, inspection, staff development, infrastructure development and support.
- ii. **Organising the SETAs around occupational fields**, rather than industrial sectors. Skills, after all, are not sector-specific but occupationally derived. The internationally-accepted Organising Framework of Occupations recognises just nine occupational fields. This would greatly reduce the number of SETAs required and make each SETA's field clear, logical and coherent. It would also eliminate the pernicious practice, common at present, of SETAs refusing to fund training in occupations most relevant to their industry but conducted by employers registered with other SETAs.
- iii. **Introduce an element of competition for resources between SETAs** This could be done by initially depositing all levies in the NSF, which could then allocate it as follows:
  - 0.5% for NSF's own organisational costs
  - 0.5% each to QCTO, NAMB and SAIVCET to cover core organisational costs
  - 20% to SETAs on a competitive bidding basis to bring employers into skills training and get their workplaces up to the standards required of accredited training sites
  - 78% to any and all service-providers on a competitive bidding basis to implement approved skills training. Within this arrangement, perennial and long-term training programmes, such as artisan training, could be allocated a ring-fenced budget for several years at a time, while another portion could be retained for once-off strategic initiatives.

Making SETAs 'sing for their suppers' in this way would not only eliminate duplications and overlaps of their functions but, by bringing market forces to bear upon them, would act as a powerful incentive to efficiency across the entire value-chain. It would also make the flow of funding clearer and possibly more transparent.

## 5.7 Disability Issues

Census 2011 estimated the incidence of disability in South Africa at about 11% of the general population. Compared to this, the percentage of disabled students in the post-school TVET system is very small indeed. The following table summarises the best available data on the number of disabled students in TVET colleges.

*Table 5: Incidence of disability in public TVET colleges, 2010-2014*

	<b>Total No of students</b>	<b>No of students self-declaring disability</b>	<b>= % disabled</b>
<b>2010</b>	358 393	834	0,23%
<b>2011</b>	400 273	1 459	0,36%
<b>2012</b>	657 690	1 369	0,21%
<b>2013</b>	639 618	2 266	0,35%
<b>2014</b>	702 383	2 406	0,34%

*Data source: Consolidated Annual Electronic Management Information System Reports from TVET Colleges*

Further, data collected by the DHET in 2011 show that students with disabilities accounted for only 1 per cent of the total enrolment at universities.<sup>84</sup> For so great a disparity to exist between the incidence of disability in the population at large and amongst students at public colleges and universities there must be serious systemic obstacles to the enrolment and retention of disabled people at those institutions. What and where those obstacles are have yet to be fully established.

Though disability issues are a stated concern of the *National Skills Development Strategy for 2011-2016*, they receive relatively little attention in the formal planning and implementation of skills training in South Africa. Currently, few public TVET colleges seem to have done much to improve access for disabled students or cater for their needs after enrolment. The DHET's 2013 *White Paper on Post School Education and Training* acknowledges that:

“Despite attempts to integrate disability into the broader policy arena, currently there is no national policy on disability to guide education and training institutions in the post-school domain. The management of disability in post-school education remains fragmented and separate to that of existing transformation and diversity programmes at the institutional level. Individual institutions determine unique ways in which to address disability, and resourcing is allocated within each institution according to their programmes. Levels of commitment toward people with disability vary considerably between institutions, as do the resources allocated to addressing disability issues. TVET colleges in particular lack the capacity, or even the policies, to cater for students and staff with disabilities.” (p45)

The DHET offers special bursaries to disabled students at both universities and TVET colleges but the annual uptake accounts for barely half of the funds available.<sup>85</sup> The DHET also offers additional funding to universities and colleges to improve the physical accessibility of their facilities to disabled students. But there is no requirement for the institutions to undertake systematic improvements in that regard or to ring-fence budgets for them

Some institutions have of their own initiative given serious attention to disability issues as part of a larger drive to promote better access and more inclusive learning. False Bay college in the Western Cape, for example, has a dedicated Inclusive Education Unit within its Student

<sup>84</sup> DHET (2013), p45

<sup>85</sup> Ibid

Support and Development Services Department. Services provided to disabled students by this unit include:

- physiotherapy
- scribes, readers and assistive technology
- personal and career counselling
- liaison and networking with other agencies that could be of assistance
- job placement

The unit also works to secure more resources for disabled students, raise awareness of their issues with other students and college management and advise the college on what it could do to improve the situation. This has resulted in disability issues being incorporated into the colleges' annual and strategic plans with a ring-fenced budget. But this is the exception rather than the rule amongst colleges.

The **White Paper** therefore commits DHET to the development of a strategic policy framework to guide the improvement of access to and success in post-school education and training for people with disabilities. The framework will hopefully create an enabling and empowering environment across the system by setting norms and standards for the integration of students and staff with disabilities in all aspects of university or college life. Work on this policy framework has actually started but it is not yet clear when it will be concluded.

On a far more positive note, data from the National Artisan Development Support Centre shows that:<sup>86</sup>

- The number of disabled persons completing artisan training increased dramatically between 2013 and 2014, and appears to be maintaining its new level in 2015 and 2016.
- The incidence of disability amongst completers of artisan training is now 13-14%, i.e. 2-3% higher than that of the population at large and far above that of students at university or TVET colleges.

This suggests, firstly, that barriers to apprenticeship training for disabled people are being removed or overcome and, secondly, that campaigns by SETAs and other public agencies to promote training opportunities for disabled people are bearing fruit. It is also possible, of course, that reporting has improved, but that would likely happen over a fairly long period of time and not in just one year, as the data shows from 2013-14 onwards. It should be remembered that certain types of disability preclude a person from some trades for safety reasons. For example, electricians cannot be colour-blind because wires are colour-coded; riggers cannot have mobility impairments because they usually work on scaffolding high above ground. And, of course, most trades require the physical strength and dexterity to fabricate items from hard and heavy metals. Given the very real limitations on what sort of artisanal work disabled people can do, it is all the more remarkable and much to their credit that they have been able to enter the trades in such numbers as they have.

Overall, though, it is clear that much more could and should be done by state and non-state actors with regard to disability issues in the post-school TVET system. The first step should be to finalise the DHET's policy framework on disability. Thereafter, a joint working group of DHET officials and representatives of civil society organisations active in the field of disability issues could develop a set of specific actions to put the policy into effect. At the same time, research could be undertaken to identify the main obstacles that people with disabilities face in accessing TVET and how these could be overcome.

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<sup>86</sup> SSACI (2016)



## 5.8 Technology

To date, technology has played a very limited role in the provision of TVET in South Africa. The *White Paper* notes that:

“Currently, ICT [information and computer technology] access is extremely uneven, making it impossible for education and other providers to fully harness the potential of using ICT to support teaching and learning, particularly at a distance. South Africa’s goal will be to ensure that this infrastructure is extended equitably to all post-school students. Recent increases in the availability of bandwidth, cloud services and affordability of end-user mobile devices such as laptops, tablets and smartphones make this goal attainable.” (p53)

Specifically, the DHET intends to improve ICT access in public TVET colleges by:

- Developing an integrated ICT plan that will provide strategic direction to the DHET for the improvement of equitable access to and use of appropriate technology across the post-school education and training system;
- Prioritising collaboration with the Department of Communications and other government departments and stakeholders to facilitate increased bandwidth and reduced costs for educational purposes, with particular emphasis on reaching those in more remote areas;
- Engaging with stakeholders to negotiate easier access to and reduced costs for Internet-enabled devices;
- Bidding for funds to ensure that a comprehensive, enabling ICT infrastructure is put in place for all providers of post-schooling, particularly providers of distance higher education
- Facilitating the shared establishment and management of ICT-enabled, networked learning support centres in areas where home-based provision is likely to be difficult in the short to medium term.

This is all about improving access to ICT. What students will get via ICT, once they have access to it, is not specified.

Herein lies a problem. The research literature on technology – and especially ICT – in the classroom is at best ambivalent.<sup>87</sup> There is a sizable body of research supporting the use of technology in education. But much of this research was funded and/or conducted by vested-interest groups such as software purveyors, IT industry bodies and the Bill and Melinda Gates Foundation. There is actually very limited evidence from independent studies to show that technology and online learning are capable of improving learning outcomes for most students, and some research suggests exactly the opposite. For example, a 2015 international study by the OECD found that investing heavily in school computers and classroom technology does not improve pupils’ performance and, indeed, is more likely to be associated with lower results.<sup>88</sup> It must be said that the study was conducted in academic, not VET, schools. But, drawing on data from more than 70 countries, it is still worthy of consideration. Amongst its findings are that:

- Education systems that have invested heavily in ICT have seen "no noticeable improvement" in internationally-standardised test results for reading, mathematics or science
- Students who use computers very frequently at school get worse results
- High achieving school systems such as South Korea and Shanghai province in China have lower levels of computer use in schools

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<sup>87</sup> Bowen (2012) & Herold (2016)

<sup>88</sup> OECD (2015)

- Singapore, with only a moderate use of technology in school, is top for digital skills
- Most disappointingly, perhaps, the socio-economic divide between students is not narrowed by technology but may actually be amplified

Most of this research was conducted in ordinary schools rather than in TVET institutions and so may not be directly applicable to TVET colleges. Indeed, TVET may be far more amenable to the use of IT than academic education because, by its very nature, TVET demands more flexible and interactive instruction than the traditional school curriculum and provides many more opportunities for a constructivist approach to learning in which learning comes by doing rather than by receiving. Also, self-management of learning, which is often an important element of ICT-based training programmes, is especially valuable in preparing students for the workplace. The growing use of ICT in higher education suggests that this mode of delivery can be effective in at least some contexts and suggests that its potential for wider application be explored.

Most TVET colleges in South Africa do make provision for some form of e-learning. Typically this includes:

- Issuing students in some courses with tablets on which all the learning material are pre-loaded
- Installing networked ‘smart boards’ and data projectors in classrooms
- Operating an e-learning centre at which students can get assistance in using computers in their studies and lecturers advice on how to use them in their teaching
- Online access to curriculum enrichment resources, past exam papers and model answers, to remedial tutorials and assessments, and to information and counselling on financial aid, health and wellness and the like

In addition, some colleges are experimenting with ICT for remote teaching of geographically separated groups of learners. This is being done in conjunction with European partner-institutions. Such initiatives have promise, but it is too early to draw any firm conclusions about them.

And there are many challenges. The colleges themselves commonly cite:

- Limited and costly bandwidth.
- Unfamiliarity with the technology on the part of lecturers and students
- The cost of maintenance of IT infrastructure and software
- Theft of equipment
- Shortage of suitable or customised software

Still, it may be possible to surmount these difficulties and make effective use of ICT in TVET. For example, massive, open, on-line courses (MOOCs) could be combined with structured workplace-based training. MOOCs, which are common internationally but as yet virtually unknown in TVET in South Africa, may be well-suited to the delivery of short knowledge-inputs to students. Given the parlous state of classroom instruction in the TVET colleges described earlier in this report, it is conceivable that MOOCs could be a valuable supplement and help to provide the foundation for workplace-based experience under the supervision of a competent practitioner. Should that prove possible, it would be a game-changer for TVET in South Africa akin to ‘Uber’ in the metered taxi industry. But it will require much experimentation and development to become a reality.

Blended learning – the combination of classroom instruction with web-based inputs – is another approach that is burgeoning internationally but has yet to be widely adopted in South Africa. There is no doubt that using sound interactive materials that are built on a solid

curriculum framework and mediated through a dynamic facilitator can be highly effective. From a study of education-to-employment programmes in 25 countries, the McKinsey Centre of Government concluded that ICT-based distance learning programmes could be a cost-effective way to provide effective TVET on a large scale. It noted that “serious games” and other kinds of simulations can and are being adapted to offer tailored, detailed, practical experience to large numbers at a comparatively low cost.<sup>89</sup> This is good news for South Africa where the costs of TVET are high and the outcomes disappointing. Funding for research and development in the use of ICT for instruction in TVET could well be a valuable contribution to the greater good.

It is not only students who could benefit from well-designed instructional programmes delivered through ICT. TVET instructors in industry and lecturers in colleges could be helped as well. Recent research has highlighted that instructors in industry are typically mature adults who would like to upgrade their pedagogical skills through a professional teaching qualification but are not in a position to undertake months or years of full-time study. They also have a low sense of their own academic ability and shy away from classic university courses. Therefore, courses and qualifications for TVET teachers are best delivered through flexible, mixed-mode programmes. These courses should be:

- Structured around tasks that reflect workplace practices and processes
- Constructivist, in that the participant learns by finding his/her own solution to practical problems
- Collaborative, in that the participant has to interact with other people (such as fellow TVET teachers, industry practitioners and academics in order to complete tasks)
- Multi-site based, in that each learning task requires the participant to read documents online, conduct applied research or enquiry in industry and do action-research in his/her own classroom or training workshop
- Self-directed, in that participants work their way through the curriculum at their own pace and undertake the various assessments when they feel ready

Web-based courses are potentially an ideal vehicle for such TVET teacher-education.<sup>90</sup>

A separate issue is the application of technology to management information systems (MIS) in TVET colleges and the DHET as a whole. Regular, accurate data is of course essential for policy formulation and implementation. Data-collection procedures are generally well-established in South African schools and colleges but the synthesis, analysis and interpretation of that data is sorely neglected. In the higher education domain, the Centre for Higher Education Transformation (CHET) provides just the sort of data consolidation and analysis service that is so lacking for the TVET colleges. This is unlikely to be remedied by the application of more technology. A human solution is required.

Recent experience confirms that data on the TVET system is disparate and often unreliable<sup>91</sup>. Many colleges struggle to provide the DHET with reliable data owing to a poor understanding of data management, poor resource allocation, insufficient human resources, lack of capacity amongst staff dealing with data and so on. Non-compliance (i.e. non- or late submission of source documents like class registers or mark sheets) is common. Thereafter, different sets of data from the colleges are held by different units within the DHET, making it difficult for any one agency to track and compare all indicators relevant to college performance. For example, enrolment data sits in the TVET branch of DHET, exam data sits in the Examinations branch, infrastructure and physical plan data, sits somewhere else. Currently, there is no regular data

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<sup>89</sup> Mourshed, *et al* (2014), p37

<sup>90</sup> Downing (2016)

<sup>91</sup> JET (2015)

analysis to understand key issues such as enrolment trends, exam results, throughput rates and patterns in different programmes, systemic blockages, etc. Support is urgently required at institutional and systemic levels for the effective operation of a management information system for generation of data that is current, valid and reliable.

## 6 SYSTEMIC IMPROVEMENT

### 6.1 Experience to Date

How to improve TVET is a vexed question in many countries and a critical challenge for South Africa. The literature on this is diverse and extensive but some important common threads emerge.

Firstly, a **systemic approach is required**. Like all complex systems, the provision of TVET in any country:

- Is composed of many interrelated parts
- Is embedded within other, larger systems (such as the provision of public education more broadly and, above that, government itself) and overlaps with still other systems (such as the fiscal system or the economy as a whole)
- Has both hard boundaries (such as the statutory delineation of responsibilities between government departments, or between state and non-state actors) and soft boundaries (such as established patterns of relationships between employers, trainees in the workplace and colleges)
- Accommodates multiple interest-groups and agendas (e.g. employers who want to make profits, trainees who want to get skills, government officials who want to implement regulations and politicians who want to show that they are deserving of re-election)
- Receives input from, and sends output to, all these interest-groups and the wider environment
- Comprises both transparent and opaque processes that transform inputs into outputs
- Is subject to both organic change (“just happened by itself”) and change by design (“we decided to...”)

All of which means that interventions at any one point send ripples through the entire system, evoke counter-impulses from all directions, trigger unforeseen adjustments and thus rarely lead directly, if at all, to the desired effect. The would-be improver must therefore try to manage the reform process on as many fronts and from as many angles as possible. Recognising this inconvenient reality, public TVET improvement initiatives in South Africa and elsewhere have usually adopted a long-term, holistic approach. But this has hazards of its own, such as overreach, mission creep, incoherence and unintended consequence.

For example, from 1998 to 2009, the South African national Department of Education, which then had responsibility for the country’s TVET colleges, undertook a radical, macro-level overhaul that encompassed their funding regime, regulatory environment, institutional landscape, governance structures and curricula. The results were mixed, with improvements in some areas, setbacks in others and a great deal of unfinished business. As a recent appraisal states:

“The transformation of the [TVET] college system since 1998 has been shaped by the shifting ideological and political imperatives of government. While the sector initially followed a trend towards increased autonomy and market-led delivery, it was clear that such an approach would inevitably conflict with the government’s agenda of redress, access and equity. As a result, government at various points sought to direct and drive transformation centrally in the absence of a longer-term strategy, and this created mixed messages as to the policy trajectory for colleges. The manifestation of this is a system which has not yet fully realised full transformation and still faces uncertainty and confusion as to its role in addressing the skills requirements for sustainable economic growth.”<sup>92</sup>

Soon after the newly-created Department of Higher Education took over the colleges in 2009, it launched a three-year College Improvement Project (October 2011 – Dec 2014) aimed at fifteen dysfunctional colleges in the Eastern Cape and Limpopo. The project involved a comprehensive turnaround strategy that, if successful, would serve as a model for wider application. It targeted six areas, namely:

- i. Quality of teaching and learning
- ii. Student support services
- iii. Operational management,
- iv. Financial management
- v. Governance
- vi. Information systems, especially electronic systems

Turnaround of the colleges in the project was considered to require a comprehensive strategy across a wide spectrum of college activities. The approach sought to place student performance and success at the centre of the intervention and gear all the other interventions towards this. Therefore teaching and learning were seen as the main focal points and given the lion’s share of the resources dedicated to the project. About half-way through the project, it became clear that tackling all six areas simultaneously required a level and intensity of engagement that was beyond the project’s resources. The objectives and inputs were then ‘slimmed down’ to focus on a narrower range of activities likely to have a direct impact on:

- Containing growth in enrolments
- Improving the three classic metrics of college performance, namely pass rate, throughput rate and graduate-employment rate.

A summative evaluation of the project in late 2015 found mixed results across the participating colleges. The explosive growth in enrolments that disrupted many colleges around the country in this period was successfully contained in most of the project colleges. Pass-, through-put and graduate-employment rates also improved in most project colleges, though not consistently. In short, much innovative work was done through this project and much learned from it. But it was never plain sailing and it is not yet clear whether the best practices have been institutionalised in the participating colleges or can be implemented across the entire college system.<sup>93</sup>

Drawing on this experience, the DHET produced a revised turnaround strategy for colleges as individual institutions, which requires them to focus on seven areas of functionality:<sup>94</sup>

- i. Institutional Management and Governance
- ii. Financial Management, Human Resource Management and other Corporate Services
- iii. Curriculum Delivery
- iv. Professional Development of Academic Staff

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<sup>92</sup> Gewer (2016), 24

<sup>93</sup> Marock *et al* (2016)

<sup>94</sup> DHET (2012b)

- v. Student Support Services during pre-entry, on-programme and exit
- vi. Infrastructure, Facilities and Equipment Management
- vii. Partnerships, Linkages and Relationships

Regarding systemic improvement as a whole, in its 2013 *White Paper* the DHET lists its top five priorities as being to:

1. Redress historical inequalities in the provision of education and training
2. Create a single, co-ordinated post-school education and training system
3. Expand access to, improve the quality of and increase diversity of provision within that system
4. Link post-school education and training to work, so as to equip students to earn sustainable livelihoods and contribute to economic growth and development
5. Be responsive to the changing needs of individuals and the economy

In a more-or-less parallel development, the Human Resource Development Council undertook a study of the TVET sector in 2014, leading it, recommend that the DHET concentrate more specifically on three priority areas:

- **Strengthening linkages between TVET colleges and SETAs by:**
  - reforming regulations to ensure that SETAs engage with public TVET colleges;
  - Aligning SETA service level agreements with the work of TVET colleges
  - Establishing a performance monitoring system for SETA-TVET college partnerships
  - weeding out “fly-by-night” private training providers
- **Building the capacity TVET college management by**
  - Strengthening institutional management structures
  - Providing pre- and in-service training for management personnel
- **Promote continuous professional development programmes for college lecturers by:**
  - Establishing a professional body for TVET lecturers similar to that which exists for schoolteachers
  - determining minimum qualification requirements for professional registration as a TVET practitioner
  - developing a performance appraisal system tailored to TVET colleges
  - Establishing partnerships with industry through which lecturers are able to spend time in the workplace to upgrade their knowledge of industry practice

The OECD’s 2014 review of TVET in South Africa had the benefit of access to all these documents and, from these and its experience of similar reviews in many other countries, produced the following specific recommendations:<sup>95</sup>

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<sup>95</sup> OECD (2014)

### 1. **Simplify vocational pathways**

- Vocational programmes, especially those that start at the level of senior secondary school (Grades 9-12), should be merged into two main tracks: an institution-based track and a work-based track
- To meet the needs of adult learners, develop second chance vocational programmes and ensure flexible forms of provision
- At post-matriculation level, offer more diplomas and certificates
- Improve pathways from initial vocational to higher-education programmes.

### 2. **Build partnerships between vocational training and the economy**

- Make workplace learning mandatory for vocational programmes
- Co-ordinate vocational provision through a strategic body that would also involve industry stakeholders
- While maintaining a national curriculum, allow flexibility to accommodate local needs
- Invest in better data, particularly on labour market outcomes

### 3. **Reform funding arrangements**

- Within the levy-grant system, shift responsibility for discretionary grants from the SETAs to the National Skills Fund
- Simplify the SETAs' administration of the mandatory grants
- Adjust the funding formula for colleges to accommodate the full costs of programmes and offer incentives for improved completion and employment rates

### 4. **Strengthen professional development for college lecturers and leaders**

- Improve pre-service professional training
- Enable lecturers to spend time in industry
- Bring industry experts in the colleges

### 5. **Support completion and transition**

- Provide targeted support to ensure adequate levels of literacy and numeracy among those pursuing vocational programmes
- Offer incentives for completion to both institutions and students
- Offer high-quality career guidance and information before and during vocational programmes.

Any intervention in TVET in South Africa should align with these priorities.

The second key point to note about systemic improvement in TVET is that **the educators in the system are key to any improvement strategy**. This is implicit in much of what has been described above but it cannot be overemphasised.

There is a growing body of research evidence from around the world that one of the best ways to improve the calibre of college-based instructors is to send them into industry. Internationally, providing workplace exposure for teaching staff at VET institutions has been found to help bring the classroom curriculum into closer alignment with the skills needs of industry, motivate

the lecturers to 'raise their game' and generally promote long-term cooperation between college and company<sup>96</sup>. A summary of some recent research on this in several countries is found in **Appendix B** of this report.

Given the value of industry experience to TVET college lecturers in a system, such as South Africa's, in which the quality of instruction in the colleges is weak and the college lecturers are inexperienced in industry, industry experience must be an important and integral part of any improvement intervention. For this reason, several SA government policy documents – including the *National Skills Development Strategy for 2011-2016*, the 2011 *National Skills Accord* and the 2014 *White Paper on Post-School Education and Training* – have recently emphasised the importance of workplace exposure for lecturers.

Two recent developments are promoting both pre-service and in-service industry experience for TVET college lecturers:

- I. In June 2013, the DHET adopted a new set of professional qualifications specifically designed for TVET lecturers, each of which requires a specified amount of industry-based professional experience. Thus, new entrants into the lecturing corps and current lecturers who seek to improve their qualifications will all spend some time in industry as part of their studies.
- II. Since that time the DHET, as the employer of lecturers in public TVET colleges, has been in negotiations with lecturers' unions on the introduction of a points system for quantifying and recording time spent in industry as part of a lecturer's continuous professional development. Even if a lecturer is not studying towards a formal qualification, he/she can thereby obtain recognition for industry experience that could count towards future promotion, salary increases and other kinds of career advancement.

It may therefore be said that the main areas for fruitful interventions by external agencies in the TVET system are fairly well defined and some specific government initiatives for systemic improvement are already under way in those areas to which non-state actors could add much value.

## 6.2 Levers of Change

Three key messages should have emerged from this report so far:

1. The national, public TVET system is, and has for some time been, in the throes of radical change.
2. All stakeholders in the system – government, business, labour and civil society – have a common interest in getting the system to work optimally.
3. Though the state is for the moment the main custodian of the system, neither government nor any other stakeholder can shape those changes to the desired results without the assistance of employers and therefore of the private sector, where the overwhelming majority of employers are to be found.

This is a rare conjunction of factors in the private-sector's favour. Simply stated, it means that **the private-sector currently has within its grasp an essential mechanism for transforming TVET in South Africa for the better**. Doing so would be overwhelmingly in the private sector's own economic and political interests.

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<sup>96</sup> For example, Bukit (2012), Clayton (2012) and Schüller & Bergami, (2008).



It has already been noted that, in all countries with effective TVET systems, employers are central role-players. Indeed, the degree of employer involvement in a TVET system can be used as a proxy measurement for that system's effectiveness.<sup>97</sup> Wherever TVET systems are strong, it will be found that individual companies and business collectively make important inputs to the TVET value-chain, which like many business processes, has four elements:

- Design
- Implementation
- Quality assurance
- Feedback for re-design

**Business can make invaluable financial and human-resource contributions to each of these elements, each of which may be considered a lever to effect change. Moreover, as this report has already argued, there are two “master-levers” for achieving quality in any TVET system – *the workplace as training site* and *the practitioner as trainer* – and they are in the hands of the private sector.**

### 6.3 Recommendations

On the basis of the afore-going arguments and in accord with best international practice, the following lines of action are recommended to private-sector agencies interested in improving the national, public TVET system in South Africa. The exact nature of the action chosen will naturally depend on what resources each agency has at its disposal.

To improve the **design** of the TVET, its programmes and qualifications, the following interventions are recommended:

- Help determine labour-market demand and the current and future skills needs of industry:
  - Fund research and non-governmental research agencies
  - Offer bursaries and scholarships at post-graduate level labour-market studies
- Ensure high-quality programmes and qualifications are being implemented in public TVET colleges:
  - Fund the development of teaching and learning curricula for the new occupational qualifications being designed by the QCTO<sup>98</sup>
  - Offer bursaries and scholarships in curriculum development studies, especially to college and UoT personnel
  - Second technical experts from industry to curriculum development teams
  - Promote the adaptation of new technology to TVET (such as MOOCs and other forms of e-learning) by funding research, especially action-research, into the use of technology in TVET

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<sup>97</sup> Renold (2016)

<sup>98</sup> The QCTO has registered over 30 such qualifications with SAQA, with about 100 more to come. So far, only two have curricula because no government agency is mandated to develop them (it is considered a private-sector responsibility) and none has a budget for it. The two existing curricula were developed by SSACI as a private initiative aimed at catalysing collaboration between government and industry on this important work. Unsurprisingly, these are the only new occupational qualifications offered at public TVET colleges and the only ones for which any trainees have yet been registered.

- Assist with the establishment of specialised TVET training units in higher education institutions (universities and universities of technology):
  - Provide seed funding for such units (government subsidies start to kick in after a few years)
  - Second training experts from industry to such units, especially in specialised technical fields
  - fund study trips to and exchanges with international institutions that have a strong tradition in VET instructor / lecturer training
  - offer bursaries and scholarships for lecturers to obtain the new professional qualifications for TVET lecturers

To improve **implementation** in TVET institutions, the following interventions are recommended:

- Test new ideas through pilot and proof-of-concept projects:
  - Fund such projects, several of which are currently in their design phase; they include accelerated and dual-system apprenticeship programmes, apprenticeships in non-artisan trades and professional qualifications for industry-based TVET instructors
  - Fund the secondment of technical experts from industry to the design, implementation and evaluation of such projects
- Facilitate the provision of specialised and advanced training beyond the initial training offered by public institutions:
  - Fund the development and delivery of such training
  - Organise and fund rigorous independent evaluations of training and the dissemination of findings
  - Make training available to instructors in public TVET institutions on a subsidised or cost-recovery basis
- Create access to workplace-based training slots for college and UoT students and their lecturers:
  - Engage with existing agencies in this field such as the Swiss-South African Cooperation Initiative and the South African Association for Cooperative Learning
  - Commit to the international best-practice ratio of 1 learner for every 7 other employees in the workplace
  - Offer periods of workplace experience to college and UoT lecturers and students
- Bring industry expertise to bear on public institutions:
  - Fund the secondment of technical experts and industry instructors to colleges as guest-lecturers and part-time instructors
  - Offer existing in-house trainer-training courses to college and UoT lecturers
  - Make instructional materials in electronic format available to the DHET's on-line Lecturer Support System - particularly materials that can 'bring the world of industry to the classroom'

To improve **quality assurance** in TVET institutions, the following interventions are recommended:

- Promote the assessment of student performance against industry standards:
  - Fund the development of such assessment instruments, including trade test items and integrative, summative assessment tasks (ISATs) for college students in the workplace
  - Offer bursaries and scholarships in educational assessment studies, especially to existing college and UoT personnel
  - Fund the secondment of technical experts from industry to the DHET’s examinations branch, the QCTO and NAMB to help develop assessment instruments
- Promote systemic monitoring and evaluation:
  - Co-fund and co-govern with the DHET the proposed SA Institute of Vocational and Continuing Education and Training (SAIVCET)

To promote **feedback** to TVET institution:

- Institute industry awards to TVET institutions and practitioners

For any of the above interventions to be worthwhile, they must be planned in such a way that they:

- Are **aimed at, and designed for, positive and substantial systemic impact**, not benefit to individuals, however many and however deserving. This will be a mind-set change for many corporate social investors.
- **Focus on the system’s established priorities for change**. These are well-known to, and widely accepted by, all other stakeholders. Ignoring them will shatter all hopes of collaboration and all prospects of success.
- Will be a **minimum of five years in duration** and, ideally ten; systemic change is a long-term project.
- **Can be sustained indefinitely** beyond the period of the actual intervention “by Treasury or trade”, i.e. either the changes brought about by the intervention will be worth paying for forever out of the fiscus, or they will be the natural by-product of services that customers of the TVET system will always want to buy. These ‘customers’ include students, who are consumers of the training being offered, and industry, which is the end-user of the product of the system.
- Have a **strong developmental hypothesis**, i.e. logical connections between inputs, outputs, outcomes and impact. This includes having clear measuring criteria for impact and cost-effectiveness

This will require the commitment of resources – time, people and money – well in excess of what business has been accustomed to put into TVET to date. But, as this report has argued, much of its current expenditure on TVET is fruitless and wasteful. Business sense dictates that the private sector stop throwing good money after bad and start investing in TVET initiatives that have the potential to deliver decent dividends.

Finally, and despite the many criticisms of the existing TVET system expressed in this report, it must be said that TVET in South Africa has some definite strengths upon which private-sector interventions can build. Foremost amongst these are that:

- TVET is a high priority for government and the recipient of massive state funding; there is both a willingness and an ability on government’s part to increase funding for initiatives that have the potential to deliver better outcomes or greater cost-effectiveness

- There are pockets of great expertise, good institutions and best practice:
  - The Universities of Technology, for example, are generally well run and highly regarded by industry and their qualifications are internationally recognised.
  - A number of public TVET colleges across the country - such as the College of Cape Town, False Bay, Gert Sibande, Northlink, Orbit, Umfolozi and WestCol – have distinguished themselves from the majority by their impressive pass-, throughput- and employment-rates.
  - Artisan training, which almost collapsed during the 1990s and early 2000s, has been revived and is growing apace; its quality is being improved at the same time.
  - The new occupational qualifications being developed by the QCTO incorporate design features drawn from best international practice and experience
  - Within the small but energetic Vocational and Continuing Education and Training branch of the DHET can be found some of the clearest thinkers and most able administrators in the field. Considerable expertise can also be found in university-based research institutes such as the IPSS (UWC), REAL (Wits) and CIPSET (NMMU), all mentioned before in this report, and in non-governmental organisations active in TVET, such as JET Education Services, the National Business Initiative and the Swiss-South African Cooperation Initiative.
- The OECD identified other strengths of South Africa’s TVET system as being:<sup>99</sup>
  - The DHET’s open and committed approach in the face of major challenges
  - A well-established national qualifications framework
  - A strong capacity for analysis
- The trend since the creation of the DHET in 2009 has been towards more coherent and integrated policies and systems

Never was there a better time than the present to effect the necessary changes.

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<sup>99</sup> OECD (2014), pp8-10

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## RESPONDENTS

The following people were interviewed or consulted in connection with this report. Although their views were taken into account, no opinions expressed in this report should be attributed to any of them in particular.

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