



Synthetic analysis on the skills development and economic responsiveness role of education and training institutions in South Africa:

TOWARDS AN INTEGRATED PUBLIC-PRIVATE PARTNERSHIP STRATEGY FOR SKILLS DEVELOPMENT IN THE TVET COLLEGE SYSTEM

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List of abbreviations and acronyms

BEE	Black Economic Empowerment
CoS	Centre of Specialisation
DANIDA	Danish International Development Agency
DHET	Department of Higher Education and Training
FET	Further Education and Training
HEDCOM	Heads of Education Departments Committee
HRDC	Human Resource Development Council of South Africa
ILO	International Labour Organisation
IPSS	New Institute for Post-School Studies
ITE	Institute for Technical Education
LMIP	Labour Market Intelligence Partnership
MOU	Memorandum of Understanding
NEET	Not in employment, education or training
NQF	National Qualifications Framework
NSDS	National Skills Development Strategy
NSF	National Skills Fund
NTI	National Tooling Initiative
OECD	Organisation for European Cooperation and Development
OT	Occupational Teams
PPP	Public-private partnership
PRAID	Planning, Research and Institutional Development
SACPO	South African College Principals' Organisation
SAIVCET	South African Institute for Vocational and Continuing Education and Training
SDG	Sustainable Development Goal
SESD	Support to Education and Skills Development
SETA	Sectoral Education and Training Authority
SKA	Square Kilometre Array
TDM	Tool, Die and Mould Making
TVET	Technical Vocational Education and Training
UNESCO	United Nations Educational, Scientific and Cultural Organization
VEI	Vocational Enterprise Institution
WBL	Work Based Learning
WIL	Work Integrated Learning

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Introduction

South Africa, like other emerging economies struggling with high unemployment, poverty, inequality and slow economic growth, is characterized by a disconnect between unfilled job vacancies, especially at the semi-skilled and skilled levels, and a very large proportion of young people between the ages of 18-24 who are not in any form of employment, education or training (Reddy et al, 2016; Field, et al., 2014:8; Perold et al., 2012). Despite an increase in those who manage to access education and training institutions, drop-out rates are high, throughput rates are low, and not all those who graduate develop the right skills needed by employers.

As in many other systems around the world, there is strong evidence that South African public TVET institutions are not able to respond to the needs of the labour market effectively. While there are hundreds of thousands of vacancies in the artisanal sector in South Africa, graduates from TVET colleges lack the skills and competencies to perform in the job market (Kraak et al., 2013). Programmes and new initiatives have very low market value, largely due to weak links with employers during and after training. There is significant misalignment between what the DHET aspires to, the skills training (public and private) taking place, and the skills employers want.

Therefore, there is a growing policy and strategic emphasis on the potential role of public-private partnerships (PPPs) in promoting alignment in the skills development space (DHET, 2016a). DHET has identified the need for an integrated partnership approach in skills training within the TVET sector that brings together all stakeholders including public, private and non-profit, Sectoral Education and Training Authorities (SETAs), related government departments as well as employers and employer organisations. DHET proposes that partnerships can help colleges to grow opportunities for work-integrated learning programme placements, as well as increase the avenues for students to find employment after graduation (DHET, 2013:16). The *White Paper on Post-school Education and Training 2013* has identified PPPs as an instrument to increase the responsiveness of TVET colleges to local labour markets (DHET, 2013; DHET, 2008). Partnerships between education and training institutions and employers are important because workplace exposure is an essential element of the students' training (DHET, 2013: viii). Work-experience and on-the-job training consolidate the practical skills needed to perform in the working world. PPPs are required to ensure sufficient and meaningful opportunities for students to undertake this training.

PPPs between TVET colleges and local businesses also create a mechanism through which colleges can ensure their curriculum is in line with local industry needs. They are mechanisms that can help college staff to secure workplace exposure, to update and enhance lecturing staff skills. Similarly, the knowledge of employers could be utilized through partnerships for employer part-time or occasional teaching in TVET colleges.

However, developing successful partnerships remains a challenge for the TVET system as well as for stakeholders across all tiers of public and private governance – at the national, provincial and local levels. While the private sector does make significant contributions towards supporting education and training in South Africa, these efforts are largely uncoordinated, ad hoc and usually over-lapping and unsustainable (JET, 2015a).

This synthesis report therefore aims to inform strategic thinking in the TVET branch, towards devising a coordinated strategy to promote PPPs across all tiers of the system.

This requires a number of steps.

The first step is to understand *what could be*, to inform changes and new mechanisms by drawing on evidence from the public-private partnership (PPP) literature in relation to the TVET sector. While the PPP approach has been successful in other regions and systems, there is a need for a careful review of the various forms, mechanisms and strategies that have been used to build capacity for PPPs within the skills and training space, in economies at similar stages of development to South Africa. Examples of PPPs in other contexts are reviewed in Chapter 1, to observe how PPPs between TVETs and other external stakeholders can be developed in future. Through the literature review, we identified three core attributes of PPPs: an inclusive governance approach, an accountable funding framework, and an education and training system that integrates theory-based learning and practical training.

The next steps focus on understanding *what exists*, as a basis for proposing changes and new mechanisms. Throughout the analysis, we adopt a tiered approach that identifies and distinguishes responsibilities at the national, provincial/municipal, institutional/college levels and local employers (including industry, employer organisations, and civil society).

We situate the current strategic initiatives to promote partnership in South Africa within the context of shifts and developments in the TVET policy landscape over the last two decades. The aim of Chapter 2 is to focus on the macro-level of national policy mechanisms and initiatives currently introduced to build PPPs for skills development. Many of these mechanisms were introduced only in the past few years, but colleges have long been enjoined to build partnerships with the private sector. We discuss how policy promotes the inclusion of private sector stakeholders in governance, funding, and education and training in the TVET system. To gain an understanding of the current partnership practice at the meso-level of institutions, Chapter 2 also captures the nature of PPPs in TVET colleges, as colleges attempt to respond to policy expectations.

Chapter 3 proposes strategic considerations to build capacity for PPPs in the South African TVET system. Chapter 4 concludes the report by providing specific recommendations on how DHET can work with the colleges to build an integrated PPP system in TVET in South Africa.

1 A review of the literature on public-private partnerships in TVET

Public-private partnerships have been defined in a wide range of ways in the policy and academic literature. In South Africa, there is a lack of clarity and consistency in the use of terms relating to PPPs and the forms that these might take. According to National Treasury's PPP Unit (www.ppp.gov.za/Pages/whatisppp.aspx),

"South African law defines a PPP as a contract between a public sector institution/municipality and a private party, in which the private party assumes substantial financial, technical and operational risk in the design, financing, building and operation of a project."

Two types of PPPs are specifically defined:

- *where the private party performs an institutional/municipal function*
- *where the private party acquires the use of state/municipal property for its own commercial purposes. A PPP may also be a hybrid of these types."*

It is clear from the definition above that the broader policy focus tends to be on promoting specific kinds of PPPs, mainly PPPs involving the procurement of services. In relation to skills development, the Human Resources Development Council (HRDC) of South Africa notes that the term "partnership" is very loosely used by government, and that the focus seems to be on "the quantitative dimension of partnerships – the number of partnerships – rather than outputs" (HRDC, 2014b:33). It is thus not surprising that we find significant gaps in relation to key current policy priorities.

We thus firstly explore how PPPs have been defined in the policy and academic literature towards gaining clarity on the concept, specifically in relation to their role in the TVET sector. Secondly, using a structured literature review, we reflect on the nature and role of PPPs in education and training systems to identify key components and mechanisms of successful PPPs for skills training and development within TVET systems. The literature review includes literature on PPPs in general, and PPPs in education and training systems. Thirdly, drawing on the review of the literature, we propose a model for coordinating PPPs at a national level that outlines the types of actors involved and their responsibilities.

1.1 Defining public-private partnerships (PPPs)

Dingwall et al. (2013) usefully propose that PPPs can be defined based on the goals and the formal structures involved. Most PPPs have become major tools for infrastructure investment by the private sector in the public domain (Hodge and Greve, 2007). PPPs aimed at **sourcing funding** have been perceived as a means to enhance private investment in public sector projects (Hodge et al., 2007; OECD, 2008). In such economic or business models, PPPs are defined as "an arrangement between the government and one or more private partners (which may include the operators and the financiers) according to which the private partners deliver the service in such a manner that the service delivery objectives of the government are aligned with the profit objectives of the private partners..." (OECD, 2008:12).

PPPs are also perceived as a way to achieve a **social agenda**, such as solving a social problem in a community (Mital and Mital, 2006). They aim to bring the voices that have hitherto been on the periphery into development planning, while achieving efficiency in planning, management and monitoring. According to the former UN Secretary General, Ban Ki-Moon, “addressing global challenges requires a collective and concerted effort, involving all sectors. Through partnerships and alliances, and by pooling comparative advantages, we increase our chance for success” (Chung and Meissner, 2011:2).

A third type includes PPPs that are typically defined in terms of **training goals** and involve a range of public and private actors, from government policy makers to local businesses and colleges. Often, in such partnerships, “the government guides policy and provides the majority of the funding and training, while the private sector delivers opportunities for training services to students” (Patrinos, et al., 2009:1). Such partnerships involve a two way approach to skills training, combining theoretical learning in public colleges with a practical component integrated in workplace training provided by the private sector. Within such partnerships, the theory learned is linked to real life experience and practical skills development in the workplace.

PPPs in education could also be aimed at addressing infrastructure challenges, such as constructing new colleges and buildings, or at increasing the number of student enrolments, increasing financial support through private funding, and lastly to enhance education experience and graduate outcomes. Therefore, successful partnerships demand a degree of equal input from the private sector on **the goals**, as well the **governance and implementation** of the partnerships.

PPPs may also be targeted at different levels. Waddock (1991) outlines three types of partnerships: federal partnerships, systemic partnerships and programmatic partnerships. **Federal partnerships** “develop at a regional or industry-wide scale, and represent a coalition of interests working together to meet a generalised identified need” (See Bridgman, 2003:211). **Programmatic partnerships** are characterized by a narrow focus or objective and usually involve not more than two or three stakeholders at a technical level and for a contractually limited time frame. Both the federal and programmatic can be perceived as limited in their scope and representation or number of stakeholders involved (Waddock, 1991). **Systemic partnerships**, on the other hand, are rather complex and operate on a longer term basis. They seek to achieve broad-based goals and often have to engage with multi-level policy sectors such as economic development, education and skills development, and employment, and at different levels. According to Waddock, (1991:513-514), systemic partnerships can serve a “deeply catalytic role in resolving a long-term problem by focusing attention on it and changing the way that it is handled by other social actors”.

Conceptually then, depending on the field, PPPs have been conceived as a business model (OECD, 2008), a theoretical tool (Amornvuthivorn, 2016), or as a paradigm shift in public sector management and policy (Dunbar, 2013).

1.2 Defining PPPs in the TVET sector

The notion of a paradigm shift seems to prevail in the TVET literature globally. As the influential Third International Congress on TVET in Shanghai, May 2012 concluded, “scaling up existing models

of TVET provision to include more young people and adults is not the solution” to the challenges facing skills development, but rather “it also involves a paradigm shift that includes the active involvement of relevant stakeholders such as industry” (Dunbar, 2013:3).

In South Africa also, the need for a paradigm shift has been highlighted. The challenge for TVET colleges is to shift “from administrative compliance to adaptability innovation” (Njengele, 2013 in HRDC, 2014b:6). This may be difficult for colleges in the current context of policy turbulence in the TVET sector.

In a recent document advising on how to achieve the shift in thinking and practice, the HRDC of South Africa made a notable effort towards defining partnerships in the TVET sector: “a formal relationship with joint rights and responsibilities between two or more parties in co-operation to achieve mutual goals” (HRDC, 2014b:9). Emphasis is placed on “formality, obligations, shared risk and purposiveness” (HRDC, 2014b:9). PPPs are defined as partnerships where parties “undertake a joint business project of mutual benefit, constructed around a business plan with various partners contracting to provide services” (HRDC, 2014b: ix). In line with the trend in the literature, the HRDC distinguishes a PPP from a “social partnership”, which “is structured around a social agenda...to solve a problem or provide a service”; an “education partnership”, which is “developed between an education organization and a prospective business employer for the purposes of two-way learning...to complement classroom based-learning”; and a “learning partnership” where the parties involved “commit to a learning agenda for their own professional development” (Singizi, 2011: 7 in HRDC, 2014b:ix).

For the purposes of this report, we propose a broader, overarching definition of PPPs than that proposed by the HRDC, in order to capture the different modalities and purposes of PPPs found in the TVET sector. Based on the HRDC’s definition of a partnership, we define a PPP as **a formal relationship with shared responsibilities between public and private sector actors in co-operation to achieve mutual goals that may take the form of a joint business venture, a joint education and training agreement, or a social partnership structured around a social agenda.**

In the next section, we explore how PPPs have been used as a policy mechanism for TVET in other countries. How can PPPs enhance skills development and graduate employment as an outcome from the TVET sector? While taking account of differences in context and levels of development of the economy and the education and training system, we identify key components and mechanisms of successful PPPs for skills development within TVET systems. We emphasise the importance of a tiered approach, highlighting the roles and responsibilities of the range of stakeholders at national, provincial/regional/sectoral levels, as well as at local firm or college levels.

1.3 Comparing PPPs in TVET across countries in the global South

A TVET system’s success in skills development is increasingly linked to the capacity to partner with external stakeholders such as government departments, industry, employer associations, occupational bodies, and civil society (Lucci, 2012). How do governments in different countries promote and use PPPs as a mechanism for this purpose? Table 1.1 below provides a detailed summary of PPPs across the countries compared in this section.

Table 1.1 Comparing PPPs in TVET across countries in the global South

	Education system	TVET Governance model	Forms of training at TVETs	Finance mechanisms	Success factors (challenges) of the system
Most of USA, Great Britain and Global North countries.	Liberal Market Economy	Privatisation of TVETs. Usually governed by skills councils or industry or sector councils in a PPP contract	<ul style="list-style-type: none"> - Wide variety of education or training institutions. - The NQF awards credit for all accredited courses within the system. Community colleges provide off-the-job training and apprenticeships. - Close contact with firms provide for placement for on-the-job training 	<ul style="list-style-type: none"> - Initially financed by firms and private. - Increasing forms of PPPs such as the voucher systems (UK), grants (USA), skills levies and other forms of co-financing. 	<ul style="list-style-type: none"> - Efforts to integrate TVE as a highly regarded alternative to general. - Industry volunteers to provide opportunities for on-the-job training. - Highly responsive to market needs as employers provide majority of training. - Training could be very narrow such that skills are not applicable to other sectors.
Germany	Dual (corporatist) system: State provides appropriate environment for PPPs	PPPs governed by 'intermediary' institutions / chambers independent of the state and private companies. Yet regulate vocational qualifications.	<ul style="list-style-type: none"> - Dual training of classroom and industry base training - Enrols more than 50% of all students from upper secondary. 	Largely state-subsidised with voucher system	<ul style="list-style-type: none"> - High quality basic education level - Role of state and business ensure responsiveness but also quality. - Vocational schools combine 2-days in classroom with 3-days at professional employers. - Integrated TVET and general education pathways.
France	State regulated.	The State Ministry is the central player in skills development. Determines skills needs and training process.	Integration of practical components in upper secondary training and professional schools (grande ecoles) Three pathways after sec. school: univ (4 year degree); technical colleges (2 year training); lower grade vocational training.	State funded at all public institutions.	<ul style="list-style-type: none"> - The model provides consistency in qualification levels within occupational skills categories. - But highly bureaucratic and less responsive to market demands. - More politically influenced.
Singapore	Highly centralised	<ul style="list-style-type: none"> - Institute of Technical Education as the main TVET provider - The ITE governed in a PPP model 	<ul style="list-style-type: none"> - Combination of in-class training and exposure to traineeship, on-the-job training in partnership with large number of employers and employer associations. - Reduction in number of core modules in favour of more-cross-disciplinary studies. - 	<ul style="list-style-type: none"> - funded by a combination of mechanisms, viz: Tax incentives, donations, matching government grants, scholarships, etc. - Voucher system also existed 	<ul style="list-style-type: none"> - ITE governed by a board of 20 members: with half of the members representing corporate partners. - Chaired by chairperson of an engineering firm. - Works very close to industry for practical skills. - Coherent planning across all relevant government agencies.

					<ul style="list-style-type: none"> - Singapore has one of the best basic education system in the world. - Rebranding of TVETs from 'dumping ground' status. - TVET and polytechnics area viable route to university
Malaysia	Federal democratic system	Governed as a PPP under the Human Resource Development Council. HRDC composed of reps from employers, government departs, and independent members	<ul style="list-style-type: none"> - With the shift from vocational to technical schools in the 1990s. - Vocational schools emphasis academic subjects and skills training; while technical schools focus on more science and maths based subjects - Majority of training takes places in the private sector through in-house training. 	<ul style="list-style-type: none"> - Government provides some financing - Bulk of finance comes from skills levies from employers which are paid to companies to train. 	<ul style="list-style-type: none"> - Based on the high demand of skills in the growing economy, government could steer industry into training. - Emphasis was placed on practical training in vocational training. - The PPP between government, training institutions and industry was a success in governance and financing TVET.
South Korea	Strong centralised system	TVET government run under the MoE and HR. Policies are centralised at national level. Less PPPs.	<ul style="list-style-type: none"> - Vocational and general system exist. - Training is largely in government technical schools. - 	<ul style="list-style-type: none"> - Financing is from government with tax from firms. - Some firms provide private qualifications. 	<ul style="list-style-type: none"> - Good basic education system. - Responsive government policies. - Growing economy with high skills demand. -
Mauritius	Market economy	Mauritius Employers Federation and Industrial and Vocational Training Board in PPPs	-	<ul style="list-style-type: none"> - Skills levy of 1% of wage bill into the IVTB. - Grant refund by government to companies that train. 	<ul style="list-style-type: none"> - System is largely owned by the private sector. - The equal government – private representative in the IVTB supports better management and responsiveness. - Close partnership between government and business.
Rwanda	Market economy with strong state control	Government ministries. With little or no input from the private sector.	<ul style="list-style-type: none"> - TVET and general education are largely separated. - TVET training is largely misaligned to the skills needs of employers and hence irrelevant curriculum. - Class sizes are too large and system is largely under-resourced - Lack of practical exposure 	<ul style="list-style-type: none"> - Financing is largely from government and insufficient. 	<ul style="list-style-type: none"> - TVET system is largely dysfunctional and unresponsive to skills demands. - Limited funding and resourcing. Need for a skills levy and better management/governance structure (PPP).

The contribution of the private sector to planning, financing and skills training within the TVET sector has been widely recognised by scholars (Agrawal, 2013; Hodge et al., 2010) and major development organisations (World Bank 2011, UNESCO, 2015; ILO, 2012a, 2012b; European Commission, 2003; amongst others). The McKinsey Global Institute (2012) report *Africa at Work* goes so far as to claim that “the private sector is the only long-term solution to creating stable jobs, raising living standards and reducing poverty”. The post-2015 SDGs too, clearly articulate the need to involve the private sector more into the design and implementation of skills development initiatives, but there is evidence that the sector continues to be largely excluded (Lucci, 2012).

Considering the economic, transformative and equity role that TVETs have to play in most societies, UNESCO (2013) perceives PPPs as a mechanism to shift from a supply-driven to a supply-and-demand-driven approach that is needed to address youth unemployment. In South Africa, the HRDC has referred to industry as a “key driver” in the TVET system as it “plays a major role in the setting of occupational and competency standards; it is the underbelly of the national qualifications framework and quality assurance provisions” (HRDC, 2014b:7).

Hawley (2007), among others (Fawcett, 2014; European Commission, 2013; Dunbar, 2013), provides a framework for collaboration in developing policies, governance structures, funding systems and curriculum frameworks, with a shared goal of improving service efficiency, enhancing transparency and strengthening democratic processes, especially in market economies. Further evidence from the literature shows that PPPs are used in more state-driven economies, as well as in Developmental States to assist financing of the system while also ensuring relevance of the curriculum and training through various forms of partnerships (Dunbar, 2013). A detailed review of models, structures and policies in Europe and Eurasia (Fawcett et al., 2014) concluded that a successful TVET system requires consistent policies on a wide range of issues from governance, delivery, financing and access, which must be placed in a broader partnership framework of the country.

While PPPs have been acclaimed widely as an approach for development, some scholars have warned of the incompatibility of PPPs with public governance frameworks (Hodge et al., 2010). A key aspect of the PPP approach is an integration of the different stakeholders’ efforts. An effective line of communication between employers, TVET colleges, PPP governing bodies (such as SETAs) under the guidance of a national and regional policy framework facilitates the flow of information regarding the changing nature of quality and quantity of skills needed by employers across sectors. Such a framework requires a tiered approach that engages at national, provincial, firm and college levels (cf HRDC, 2014b).

Based on our review of the literature on PPPs in general, and within the TVET sector, we identify three critical dimensions to consider in promoting PPPs in the TVET sector: governance, financing and training. The remainder of this section is organized around these three dimensions, and seeks to engage with three key questions:

1. What forms of governance, within the PPP, are appropriate for the different levels/tiers of engagement: national, regional/provincial/sectoral, firm and college or institutional levels?
2. What financing mechanisms are appropriate and sustainable?

3. What forms of training and skills development partnerships ensure a win-win for all stakeholders – learners, colleges and employers?

1.3.1 Types of governance and levels of partnerships

The nature of TVET governance at national and regional level significantly influences the effectiveness of the system and the types, nature and strength of partnerships.

1.3.1.1 High-level governance structures at the national level

The presence of an appropriate national framework involving active stakeholders (representatives of enterprises, workers, learners and civil society) in the planning, management, curriculum design and qualifications development and assessment appears to be critical.

Most countries have a high-level governance structure to promote PPPs at the national level. The National Skills Development Cooperation in **India**, which is 51% industry-owned and 49% government-owned, is a typical example. It actively promotes the involvement of employers through the establishment of Sector Skills Councils and providing seed funding (Oleynikova, 2007 in Dunbar, 2013).

In **Malaysia**, Hawley (2007) traced the success of the Human Resource Development Council since 1992. The council was made up of a team of diverse stakeholders including representatives from employer organisations, government departments, and independent members of society. This new agency took over the work of the public vocational sector, which had made little impact on skills development and growth in the labour force.

In **Singapore**, the Ministry of Education established the Institute of Technical Education as the primary provider of career and technical education. Its governance model, described as unique (Amornvuthivorn, 2016) was chaired by the Chairman of an Engineering firm, Jurong Engineering Ltd. Half of ITE's board of governors were representatives of corporate partners. The ITE board oversaw governance issues related to policy formulation, curriculum development, student intake, quality assurance and consistency of standards across the colleges.

While the **Korean** system remains strongly government-led at national level, the fundamental reorientation of the sector to a National Qualification Framework led to substantial engagement from the private sector at regional and sectoral level. Through a number of policies by the Ministry of Labour and related mechanisms such as the Employment Insurance Scheme, the private sector has been incentivised to engage in skills training with significant success (Kim, 2001).

While these successes are products of complex contextual processes, it remains clear that for each case the **private sector became a key player in the management, course design, funding and assessment of skills training programmes, in partnership with the education and training institutions**. Most evident from the analysis is the ability to link skills training processes to skills shortages and work-based learning opportunities in the economy. A key aspect of the changing governance structures is the shift from a supply-driven approach to skills development, to one based on employers' involvement in articulation of demand for the relevant skills needed.

Evidence from successful cases strongly suggest that supply-driven systems governed by central governments, and the slow pace of government bureaucracy, are key factors limiting successful partnerships. The International Labour Organisation (ILO, 2012a, 2012b) emphasised the leadership role of employers and workers in developing and managing competency standards and monitoring mechanisms in skills development within TVET systems.

1.3.1.2 Challenges for South Africa

While there is strong evidence of sponsorship in South Africa, there is limited evidence of structured TVET governance structures involving employers. The new 'Lead SETA' initiative, which promotes interaction between the SETAs and the colleges and requires SETAs to set-up offices at the colleges, may address this shortcoming. It is important to note that employer involvement in governance structures has not always had positive results. In highly fragmented labour markets, establishing technical sector committees with active employer involvement has been a challenge. Furthermore, evidence from India supports earlier findings (Oleynikova, 2007 in Dunbar, 2013) that the use of legislative tools to build partnerships is not sufficient.

1.3.2 Funding structures and mechanisms

While many governments have recognised the need for relevant skills and training as a key prerequisite for inclusive economic growth, finding funding for well-designed skills training schools and programmes continues to be a challenge. Many governments have recognised the unsustainability and inefficiency of funding frameworks that depend wholly on public funds and are increasingly introducing various forms of cost-sharing. Private sector funding does not only ensure the active participation of employers in steering and delivering efficient mechanisms for training, but also strengthens a result-oriented, and competitive system.

A number of funding mechanisms have been identified in successful systems. These include: skills training levies, incentive/donation strategies by governments for employers, tax incentives, education vouchers and student loans. We discuss each in turn.

According to Hawley (2007:5), "the most important capacity for government to maintain is the ability to craft an accountability system that will measure how firms spend resources provided through a government human resource development system". In the **US** system, state funding is only provided to local colleges or training stakeholders who have submitted a clear plan detailing how funds will be used, with emphasis on high-impact projects that will serve students from low-income families, while providing the relevant skills for employment.

However, Adams (2008) warns with other scholars (Johanson, 2009) that levy-grant schemes tend to favour larger enterprises and the training of higher-educated and skilled workers. They are not very appropriate in low-income countries where the industrial base is weak and levy-income generating activities low (Johnson, 2009).

Other systems use **tax incentives** and other incentives for private **donations**. Tax rebates motivate employers to bear or share the cost of training by reduction in net cost. For example, in **Singapore**,

funding for the Institute for Technical Education (ITE) is through the ITE Education Fund, which is linked to the Institute of Public Character and governed by a Management Committee (Amornvuthivorn, 2016). It raises funds through a number of tax-incentivised donation strategies. The Fund issues donation receipts to employers for tax deductions up to 2.5 times the value of the donations. Furthermore, donations are recognised on the ITE webpage and Donors Wall located at the ITE Headquarters, while the Prime Minister provides matching grants to the Education Fund for every dollar raised from private donors. These strategies have ensured that the ITE's training becomes more responsive to the needs of the employers who pay for the training, to ensure sustainability of funding.

The funding of the ITEs is similar to the funding of Career Academies in the **US**, established under the Perkins Technical Education Act of 2006. While there are public grants through local school district departments, these grants are only accessed by consortia of local education agencies. This agency is governed by a consortium of post-secondary institutes, employers, employer associations, local organisation or even research universities involved in skills training. Access to public or state funding is based on the development of a competitive plan of how the funds will be used within a two year training programme. Furthermore, each state must raise private resources (which could be cash, equipment, training facilities, start-up capital or technical training assistance) to meet a matching requirement. *The funds are distributed competitively and only allocated to a consortium which demonstrates the ability to implement high career technical education training programmes for high demand occupations and for students from all backgrounds* (Amornvuthivorn, 2016).

Tax-funded education vouchers have also been an effective form of funding PPPs in TVET and skills development. Voucher systems promote consumer voice, as learners are free to choose the institution they prefer, to undertake their training. Once chosen, these institutions then receive public funding based on the number of students they receive. Voucher systems promote effectiveness and competition among training providers and enable private sector provision within the public space (West, 1996). From its experience in some African countries like **Kenya**, the World Bank (2011) report that voucher systems encourage young adults to go to school while also enhancing throughput and success rates. The Jua Kali system, though limited to supporting training for micro and small enterprises rather than to individuals, is an example of the one such successful system. Similar findings have also been documented in **Latin America**, where voucher systems have been found to enhance the development of employability skills (Ziderman, 2016). In its 2013-2018 National Export Strategy the **Malawian** government introduced a market-based voucher system scheme to maximise financial sustainability of its skills training programmes.



Source: Dunbar, (2013)

Figure 1.1: Integrated funding framework for TVETs

Figure 1.1 provides an illustration of an integrated funding model. It is important to further explore the implications of a diverse funding approach to ensure relevance, sustainability and independence, while ensuring the social transformation role of TVET colleges by providing opportunities for those from disadvantaged backgrounds.

1.3.2.1 Challenges for South Africa

As in most countries, **Skills levies** have been a very effective tool in increasing TVET funding. In South Africa, the skills levy system has only recently been steered towards funding programmes in the public TVET colleges (DHET, 2013). Previously, the focus had been on funding short courses by private training providers. SETA accountability for the skills levy remains a challenge, with many arguing that the automatic allocation of funds to SETAs by SARS limits performance (Kraak et al., 2013). As observed in other **African** settings, national training funds need to be carefully monitored and proper controls put in place to ensure that funds are spent on appropriate training activities (Ziderman, 2001). Drawing on lessons from **more successful economies**, South Africa needs to place greater importance on governance or management of TVETs: Instituting an accountable and transparent process at institutional level as well as at provincial and national funding structures such as the SETAs and other allocated resources. Establishing such government structures needs the partnership from business and government stakeholders. A management body consisting of government and industry representatives would be more adept at sourcing and securing alternative funding while also ensuring efficient use of the current available resources and funds. Such models will have to be both sustainable but also competitive to ensure maximum social and economic transformation. One such model that is currently being considered in South Africa is the new

'Ikusasa Student Financial Aid Programme' (ISFAP) proposed for addressing the need for improved funding for 'poor' students and the 'missing middle' (i.e. students who report a household income that is below R600 000 per annum). The model is targeted mainly at university students, but also includes TVET college students. The ISFAP is different from other TVET funding initiatives in that a PPP model is proposed to "Create an efficient and robust model with appropriate internal controls to minimise leakage, fraud and risk in the granting and disbursement of bursaries and loans to deserving students, whilst improving the collection of loan portion granted and convenience to students" (DHET 2016: 14). The NSFAS is expected to partner with the private sector in administering student funding and collecting funds from the private sector. Potential sources of additional funding have been identified such as private sector grants incentivized through B-BBEE skills development contributions. The ISFAP as a PPP model for the governance of funding is still very much an experimental model in South Africa.

1.3.3 Mechanisms for training and skills development

Skills development partnerships within the TVET sector have evolved along a number of mechanisms or strategies. Training provision has largely been situated within the public sector. However, with increasing recognition that the state cannot provide all skills needed, more private providers are entering the arena. Two key issues are pertinent in relation to PPPs for skills training: the relevance and quality of the education and training, and the need for standardized frameworks for assessment.

Based on a review of training programmes in 90 countries, Fares and Puerto (2009) found that programmes that combine on-the-job training and in-class training were more successful in developing a combination of soft-skills and technical skills, and had a stronger impact on employment and earnings of graduates. Furthermore, training programmes offered by the private sector such as on-the-job training, work placements or internships allow both firms and workers to develop a system for effective labour market intelligence gathering, which is important for addressing skills mismatch in South Africa (Kraak et al., 2013).

In Thailand, Intarakumnerd & Chaoroenporn (2013) highlight the importance of private sector intermediaries such as private sector employer organisations, which have been key players in ensuring that training is relevant and of up-to-date quality. This has been largely through their involvement in the development of curriculum, provision of access to specialized equipment, contribution towards supplying learning materials, and offering on-the-job training and work experience to students.

Successful TVET programmes are founded on the principle of integration of course work and workplace based learning. The **German** dual model, which has been highly recognized worldwide, provides a key example of a partnership approach between public training institutions and employers (Fawcett et al., 2014).

In **Singapore**, the programme at the ITE was designed along a number of components, which all involved some form of partnerships with different private partners. At **Centres of Technology**, curriculum is designed based on appropriate job analysis, liaising with industry partners in the

training of learners (See ITE, 2014). Training is largely work-specific and aligned with industry needs and standards. Through **traineeships**, ITE partners in the development of relevant skills along with employers interested in recruiting secondary school graduates. Learners enroll in ITE designed programmes that will lead to nationally recognized ITE certifications. The programme includes both on-the-job training at the company's site and off-the-job training conducted by ITE or an approved training center on released days. These **approved training centers** can be at some employers who have been qualified by ITE as approved training centers. ITE provides advice on facilities, equipment, curriculum, course design, testing procedures, pedagogical and instruction skills as well as in the planning of on-the-job and off-the-job training. ITE also supports its students with career guidance prior to registration and during the course of the programme (Amornvuthivorn, 2016).

Tuition provision at the Career Academies in the **US** is similar to that at the ITE in Singapore. The **Career Academies** offer a multi-year program in which the curriculum integrates academic and career/technical education content organized around one or more broad themes (Stern et al., 2010). A number of key aspects characterize training provision: the interest or demand of the employers; the job opportunities in the community or locality; the interest of the student population. Furthermore, since Career Academies are developed along professional fields (Nursing, Engineering, Technology, Law enforcement and so on) they are attractive to students who want to follow a career into one of these fields. The breadth of the programme is another important aspect. The curricula of Career Academies are not too narrow to limit student choices, but also not too broad to undermine the relevance of the curriculum for interested employers. The challenge is to achieve a balance between the opportunities created for students and the needs of the local industry (Brand, 2009).

Support for these observations is evident from a study of nine middle and high income countries across four continents¹ by the McKinsey Centre of Government (Mourshed et al., 2012). They identify two key features consistently present in the most successful skills development systems: firstly, *there are no clear-cut boundaries between education providers and employers, as they are seen to actively step into one another's space*. Evidently, employers who struggle less in finding the skills they require (33%) are those who provide significant input in the designing of curricula, while students spend half of the training period with employers. These employers also participate in the grading of the students. Secondly, *the training system does not always follow the linear pattern of education and training, followed by skills development and then employment*. Some students are employed a few months after enrolment, and only develop skills while on the job through different forms of **probation** or **training agreements**. Some employers even commit to hire the learners before they enroll (Dunbar, 2013). This has been the case in **China's** largest training institute within the automotive industry which uses internships with a promise to employ (Mourshed et al., 2012).

1.3.3.1 Challenges for South Africa

In the main, successful public or state-led strategies are those that have been able to integrate work-based learning and practical learning opportunities into the theoretical aspects of the training. In South Africa, DHET has struggled to decide on a model that achieves such integration

¹ These include Brazil, Germany, India, Mexico, Morocco, Saudi Arabia, Turkey, UK, and USA.

and at the same time addresses past inequalities in access to education and training and employment. 'The learnership' was proposed as the main mechanism promoted, but was not easily adopted in industries where the apprenticeship model is entrenched. More recently, internships have been promoted widely. There is also confusion around what a learnership is and how it differs from an apprenticeship or internship.

1.3.4 Summary of the literature review

Developing a work force with the relevant skills and competences remains a challenge in most Sub-Saharan countries and low-income countries around the world. While the majority of the successful TVETs systems are largely based in developed or advanced economies, the review also showed evidence of success for some middle-income, emerging countries such as Mauritius, India and China.

These are characterised by a number of key components, albeit to varying degrees:

1. A legislative governance framework that informs the governance of the TVET system, most often in partnership between the public sector, employers and the TVET institutions themselves. While the dual system in Germany has been acclaimed in the literature, the review shows that success largely **depends on the capacity of a system to establish a framework that supports partnerships, networks and collaboration**. Governance of these partnerships is increasingly shifting from the public sector, and placed under various forms of joint management committees at national and provincial levels, with clear lines for accountability and responsiveness.
2. Partnerships across the diverse set of stakeholders demand new and innovative forms of financing. While the government remains the main funder of TVET institutions around the world, **successful systems demand a competitive-based funding model that is both accountable and sustainable**. Such models require that TVETs become active in securing other forms of funding while also being accessible by all student groups. Whether through levies, tax incentives, donations or government vouchers, successful TVET systems demand rigorous competitive, responsive and accountable processes in the financing and execution of funds received.
3. Finally, education and training mechanisms in successful TVET systems are characterised by responsiveness to the needs of students and employers. This could be achieved through an integrated approach between the employers and TVET institutions. **In such an approach employers become active participants in the development of curricula, provision of both on-the-job and off-the-job training, providing access to resources, internships and ultimately employment.**

Critically, as Dunbar (2013) emphasises, skills development partnerships between the public and private sector can take place at a number of levels: ranging from global inter-sectoral partnerships, partnership at national levels, to institutional and sector types of skills development partnership. In Figure 1.2, we summarise the responsibilities of each type of actor in an integrated PPP approach for skills development across the TVET system.

The main responsibility for **national government** is to provide policy direction for:

- involving stakeholders from the private sector in governance structures
- developing a funding framework encouraging the private sector to fund skills development in the public TVET sector, and promoting accountability by the colleges
- integrating coursework and workplace-based learning, and involving the private sector in curriculum development through the application of new innovative approaches to skills training (See Dunbar, 2013; OECD, 2016).

National government can also play a more direct role in funding PPPs by providing grants to consortia consisting of public TVET colleges, firms and other stakeholders. Another direct way is to partner with the private sector in national skills development co-operations, for example, to promote employers involvement in skills development in the TVET sector.

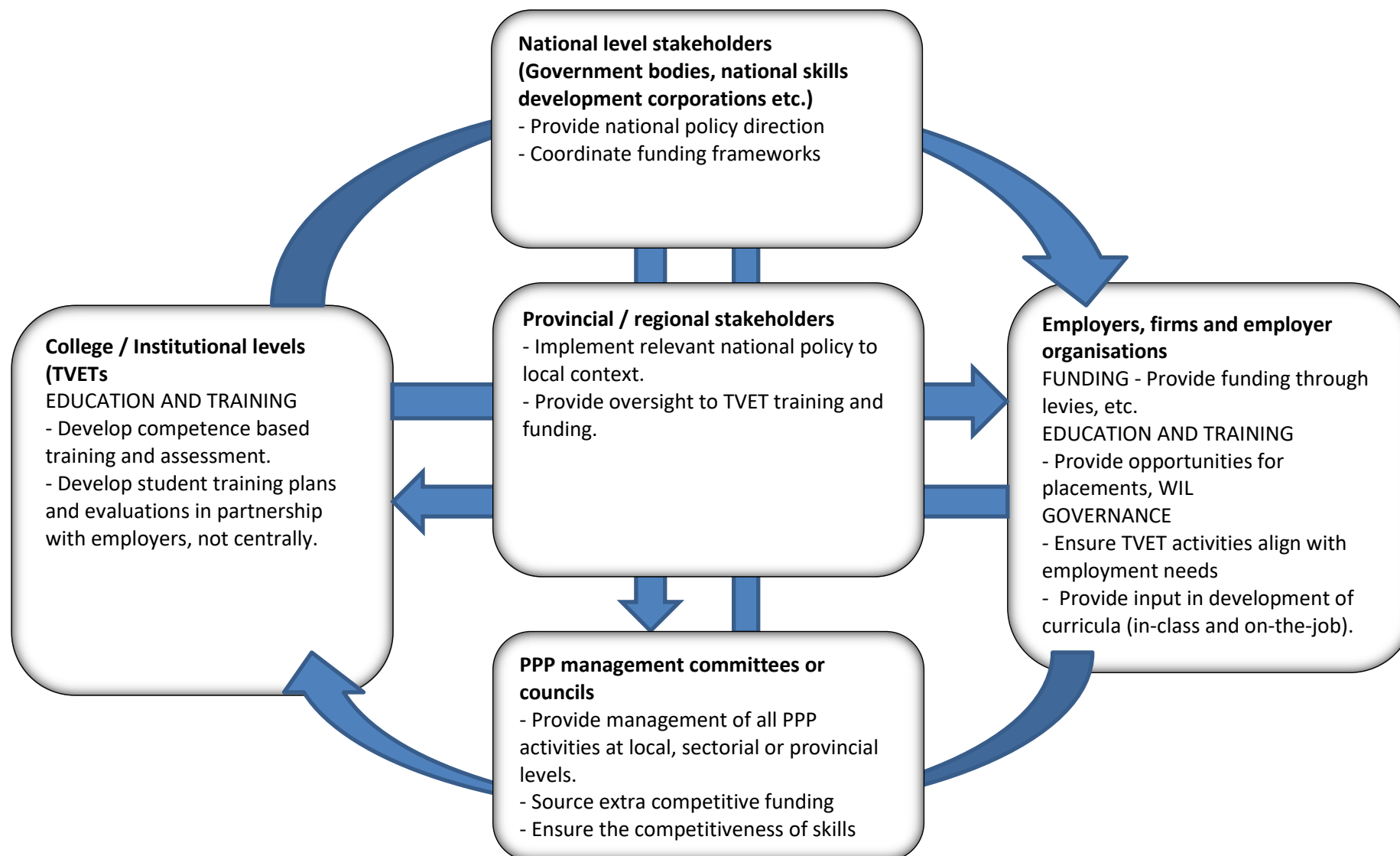
At the meso-level, the literature review points to the need for two sets of actors that are mainly responsible for improving governance. One set includes governance structures, such as sector councils, that are tasked with facilitating the implementation of national policy at the regional level, and providing oversight to TVET training, through PPP management bodies. National skills development co-operations are well-placed to oversee these structures.

A second set includes PPP management committees or councils that report to the meso-level governance structures. The PPP management bodies act as intermediaries tasked with facilitating interaction between TVET colleges and the private sector, managing TVET PPPs and sourcing funding for PPPs.

At the micro-level, employers and colleges are expected to work together to ensure that skills produced through the TVET system are relevant. Employers play a crucial role as funders of skills development in the TVET sector, to supplement public funding.

Bearing this framework in mind, in the next section, we explore how the South African government aims to promote PPPs through national policy and specific incentive mechanisms.

Figure 1.1 TVET tiers of responsibilities in partnerships



2 Creating an enabling environment for PPPs at the macro-level: A review of current PPP policy

In Chapter 1, we identified three core attributes of successful public-private partnerships (PPPs), based on a review of PPPs and challenges of TVET colleges in other country contexts:

- a **governance approach** that brings together all stakeholders in the management and administration of all TVET activities,
- a **sustainable and accountable funding framework**, and
- an **education and training system that integrates both theory-based learning and practice-based learning from the onset of curriculum design**.

We propose that these three core attributes are critical for creating an enabling environment for TVET colleges to engage in PPPs that benefit both the college and private sector actors.

In this chapter, we firstly analyse key national policy intended to promote and support PPPs, to identify the type of governance framework, modalities and mechanisms promoted. The aim is to highlight the features and attributes of PPPs being promoted rather than provide a comprehensive or systematic review of policy, as this has been provided elsewhere (e.g. HRDC, 2014a, 2014b). Secondly, we interrogate how each of the three attributes is evident in key national policy initiatives that are intended to have impact at the **national, provincial, local college and firm levels**. The main emphasis of this section is placed on recent DHET-funded and endorsed initiatives that have been implemented nationally or as pilot projects over the last decade, to promote PPPs, including:

- College Improvement Project (CIP)
- The SETAs and SETA-Lead Offices
- Occupational Teams
- Centres of Specialisation / Centres of Excellence

The question is how current initiatives within the TVET system reflect the three core attributes: where are the programmes, structures and activities that can be extended and deepened, and where are there gaps? We argue that a well-designed PPP framework could address areas of weakness and deepen strengths within the current approaches and mechanisms for skills development in the TVET system.

2.1 Why PPPs are important for TVET?

Partnerships between TVET colleges and employers have been promoted in national policy for the past twenty years, in various ways and with varying priority at different points in time. For instance, in 2008, the National Plan for Further Education and Training Colleges in South Africa proposed that

“(t)he process of turning the FET colleges into effective and responsive institutions requires strategic partnerships. Formally established partnerships with private and public sector partners are essential to maintaining the relevance and responsiveness of programmes offered by colleges, and must therefore be underpinned by a distinct purpose and clear objectives.”

“(p)rovincially and institutionally-driven partnerships are considered essential to addressing provincial and regional economic needs. Colleges, therefore, need to seek strategic partnerships that support and promote their aspirations to become centres of excellence in their respective regions and provinces.”

In his Budget Speech for 2016, the Minister of Higher Education and Training emphasized the importance of PPPs in relation to the training and skilling of students, and especially in relation to matching skills to the labour market (DHET, 2016). The *White Paper for Post-School Education and Training* (DHET, 2013: xii) provides a detailed recommendation on the roles employers should play within the TVET sector:

“... Emphasis will be given to strengthening partnerships with employers ... Such partnerships will assist the colleges to locate opportunities for work-integrated learning... Employers should also be in a position to advise the college system and individual colleges around issues of curriculum, and experts from industry could teach at colleges ... (DHET, 2013: xii)

Employers therefore have three roles: locate opportunities for practical learning, advise the schools and boards on curriculum relevance for labour market needs, and make their expertise available to teach at colleges.

Several purposes of PPPs have been proposed. The output indicators in the *National Skills Development Strategy III* indicate two core aims of PPPs:

- To increase capacity to meet industry needs throughout the country (through skills development programmes offered in partnership with employers, and through partnerships which offer vocational courses and work experience for college learners) (NSDS III: 17 – 20). Thus the aim is to help training providers and SETAs to address cross-sectoral and inter-sectoral needs to match industry training needs with learner qualifications and skill sets (NSDS III:9).
- To provide training and development support to small businesses established in all sectors (expand sectors through partnership funding, and supporting small business with skills development) (NSDS III: 17 – 20).

The *White Paper on Post-school Education and Training* (DHET, 2013) emphasizes three more specific aims: to “assist the colleges to locate opportunities for work-integrated learning, to place

students when they complete their studies, and to obtain regular workplace exposure for staff so as to keep them abreast of developments in industry” (DHET, 2013: xii).

2.2 What type of governance system is promoted?

Analysis of key national policy texts thus highlights a specific set of actors that are mandated to play a role in the governance of PPPs in TVET. Table 3.1 provides a summary of the actors and their potential roles.

While the National FET plan (DoE, 2008) emphasized the central role of TVET colleges as responsible for forming partnerships, the White Paper 2013 placed much more emphasis on the role of SETAs and accorded a central role to the proposed South African Institute for Vocational and Continuing Education and Training (SAIVCET)² in facilitating the development of partnerships and coordination between the different actors. This is an important advancement for promoting long-term, ‘systemic’ partnerships (Waddock, 1991:513-514), and for moving towards an integrated framework for PPPs in the TVET sector. The SETAs could play a key role in driving and coordinating PPPs at the sectoral and regional levels. SAIVCET, together with the Inter-Provincial Committee for TVET Colleges (a HEDCOM sub-committee), could be responsible for managing PPPs across the system, including monitoring of outcomes and evaluation of impact. Currently, DHET is responsible for monitoring and evaluation of PPPs in TVET, and has tended to focus on quantification. This may, however, change as new DHET reporting requirements include a focus on the ‘quality’ of college partnerships.

Table 3.1 highlights how the role of employers within the TVET sector is promoted in policy, specifically, their role in improving the relevance of what is being taught and the quality of teaching. So, policy intent exists. As we show later, while there are examples of firms contributing to governance, more work is required to facilitate this at a systemic level.

² This institute has not yet been established so has not played a significant role in practice.

Table 2.1 Summary of actors and their roles, articulated in key policy promoting, driving and supporting PPPs

Actor	Roles and responsibilities
DHET	Promote partnerships through policy and regulation, provide funding, and monitor partnerships in TVET (thus far the focus has been on the number of partnerships)
TVET colleges	Form effective partnerships with industry, for workplace-based placement, curriculum design and graduate employment
SETAs	Facilitate partnerships with industry
	Coordinate PPPs at the sectoral/regional level
	Promote the involvement of industry in curriculum development
	Articulate skills needs in sectoral systems
	Fund skills development
National Skills Fund NSF	Promote and fund partnerships
NEDLAC (National Economic Development and Labour Council)	Promote and facilitate policy-related social dialogue, and government accountability
Inter-Provincial Committee for TVET Colleges (a HEDCOM sub-committee)	Facilitate partnerships between colleges, occupational/trade organisations and organised business
Employers	Fund skills development
	Articulate skills needs
	Partner with colleges to advise on the curriculum, provide opportunities for practical training / upskilling / career development of lecturers, and provide workplace based exposure opportunities to students

2.3 What forms of funding are promoted?

DHET tends to be the main funder of TVET colleges, but the colleges have been encouraged to engage with the private sector to diversify their funding base. As shown in Table 2.1, the SETAs, the National Skills Fund, and employers are identified as the main sources of funding for PPPs.

The skills levy is the main funding tool for promoting PPPs for skills development. As we caution in Chapter 1, the management of the skills levy system needs to be improved in order to support PPPs more effectively.

2.4 What forms of education and training are promoted?

In order to gain an understanding of the forms of education and training promoted, we draw on three sources of information:

1. The body of evidence in the literature on the role of PPPs in enhancing TVET colleges and skills development to identify the various approaches that have been implemented within training institutions, by employers and employers' organizations and at the interface

between training institutions and employers, to enhance TVET success (Amornvuthivorn, 2016; Mehrotra, 2011; Patrinos et al., 2009).

2. The range of current structures, mechanisms and pilot programmes that DHET has initiated, that may promote and support the growth PPPs across the TVET sector in South Africa.
3. Empirical evidence of TVET partnerships that exist in practice in South Africa, which can aid understanding of dominant approaches and models already in use across the TVET system.

2.4.1 Forms of skills development PPPs in the literature

We return to the literature to identify the most common forms of education and training involving partnerships between TVET colleges and private sector actors. The most common approaches, largely referred to as work-based learning practices, emphasize the role of partnerships between employers and TVET institutions. The different forms and modalities highlighted in the literature include: workplace learning, cooperative education, apprenticeships or the dual-system and work-integrated learning, internships and placements. While these terms have been used interchangeably in the literature, the focus here is to tease out the main responsibilities of the training institutions and employers in successful PPP approaches at the local level.

2.4.2 Work-based learning

Work-based learning takes place at the place of work, a form of learning that seeks to integrate theory and practical experience. Researchers argue that it exceeds learning in formal settings outside the workplace (Collin, 2002). Furthermore, a key shift in work-based learning approaches in most successful systems is the shift from achievement based assessment to competence based assessment. While the former focuses on time spent and an academic curriculum taught, in a competence based training system, the curriculum, delivery and assessment requirements are standardized in close partnership with industry and employer organisations' standards at the place of work, as well as at the tertiary organisations (LaRocque, 2008). This demands a clear regulatory framework that will specify the status of the learners, the remuneration arrangements, duties of learners and obligations of employers. WBL programmes must therefore be well-structured and well-integrated with the school curriculum and the needs of the labour market. The emphasis for such programmes is to develop the reflexive abilities of the learners to develop strong links between what is learned on the job to that which was learnt in the classroom. This connection does not always happen automatically. For this to be achieved a number of approaches are being adopted that are based on partnerships.

2.4.3 Co-operative education

Co-operative education or co-op is a form of internship programme which permits college or TVET students to gain working experience through career training with some form of pay. Students are able to work with professionals in their field of study either in government, business and industry while their experience is documented on their official academic transcripts (Cedercreutz, 2008). Co-op is an alternative option to courses that do not include a work-based component. While the course may not include a compulsory work component, students are required to arrange a work placement with employers through a learning contract with the employer and the academic supervisor. The learning contract guides the assessment process. It outlines the responsibilities and

duties of all actors involved, and the concrete competence-based outcomes expected. The approach also serves to bring together industry, academics and learners in skills development process related to labour market needs. This placement could be once-off, based on a project (project-based learning) or multiple placements over a set period (Hoffman, 2011).

2.4.4 Apprenticeships

Ryan et al. (2010) define apprenticeships as “training programmes that combine vocational education with work-based learning for an intermediate occupational skill (i.e., more than routinised job training), and that are subject to externally imposed training standards, particularly for their workplace component”. Apprenticeships have been widely used in Europe especially within the framework of the ‘dual system’ in place, such as in **Germany** and **Austria**.

This approach is fundamentally based on the integration of firms and industries as training providers along with TVETs. In most cases the trainee and employer are bound by a formal contract, part of which is that the trainee gets some form of stipend or allowance, while the employer must provide training leading to a specific vocation or occupational skills. The partnership is most often governed by an independent board or council, which assesses the quality and responsiveness of the training and skills outcomes. Different governments have used various forms of incentives for employers including tax exemptions or government vouchers to support their partnership in providing places for apprentice learners (Dunbar, 2013).

The apprenticeship system is one of the most commonly applied in informal settings even in the G20 countries. However, in Sub-Saharan Africa and South Asia in particular, there have been issues around formalization, assessment, quality control and regulation. A sector-based approach to sustained PPPs has been identified by the ILO (2012a) as one of the key factors in developing an apprenticeship system.

2.4.5 Internships

Internships have been widely used as opportunities to provide on-the-job training both for learners and graduates within the TVET sector as well as for those already employed. Also known as in-service training, internships have been used to provide students or graduates with the opportunity to apply what they have learnt in the classroom. These can be from shorter periods of weeks to longer periods of months. While these are not linked to particular courses or credit-bearing, they aim to develop key skills in direct demand by employers. The China Vocational Training holdings (CVT) is an example of a successful private training provider based on the central management system in **China**, with its close links to employers (Mourshed et al., 2012). The CVT, which has a 60% market share nationally and up to 80% in strategic provinces, maintains relationships with about 1 800 employers for the purpose of providing internship placements as well as promises to hire, prior to enrolment. This database records employers’ skills needs including the type and number of skills needed, and location of need, as well as size the company. The databased is updated monthly. Prior to completion of theoretical courses, the CVT surveys students’ employment preferences and matches them with the needs on their database. After placement, students are supported for another year, in case they are not happy with the initial placement and wish to change. The CVT

has recorded an 80% employment rate after three months, with the remaining 20% related to those who prefer to further their education or have changed industries.

2.4.6 Industry / work-placements

Industry placements differ from other forms of WBL such as co-operative education in that the work-place or on-the-job component is an integral part of the assessment. Students can either be placed in industry to gain hands on work experience, which can be demonstrated through assessment, or to earn academic credits when the placement is credit bearing for an academic programme (Hodges and Coolbar, 1998). In designing work placements as part of work-based learning initiatives, Alfeld (2015) warns that coordinating work placements should not be centralised as is usually done, but rather through individual classroom teachers in partnership with industry representatives who will be supervising the learner. Further, while encouraging more frequent visits to placements sites, she also recognises that academic coordinators do struggle to regularly visit the large number of students placed, and will need close input from employer supervisors.

2.4.7 National skills programmes (National Youth Service)

The UN resolved in its General Assembly (56/117 Resolution) to ensure a cross-sectional youth policy that integrates a youth perspective into all planning and decision-making processes. To achieve this, the UN “calls upon all states, UN bodies, specialised agencies, regional commissions and intergovernmental and non-governmental organisations concerned” (UN General Assembly, December 2001). African states are developing structured integrated platforms through which to partner with the private sector. These have included platforms such as National Youth Service, Vocational Enterprise Institutions (VEIs) and other technical training institutions. For national youth service programmes, students or graduates are expected to spend an extended period of time with an employer (public or private) whereby key skills and attributes will be developed (Omolo, 2012). Partnerships in the VEIs in Nigeria (Muhammead, 2009:7), have been instrumental in offsetting the training capacity deficiency in universities and higher education institutions by increasing the participation of the private sector in offering out-of-school students with alternative routes to further training and skills development. As part of the educational reform in **Rwanda**, there has been the call for the development of a PPP system that brings together all stakeholders in a coordinated manner aimed at leveraging TVETs on effective and quality training with sustained funding (Musobo and Gaga, 2012).

In the next section, we discuss how PPPs are being promoted in national policy in South Africa, with a focus on more recent policy initiatives introduced over the past five years.

2.5 National skills development initiatives promoting PPPs

Over the past two decades since the introduction of a post-apartheid skills development system, several initiatives have been introduced that influence the forms of partnerships we see in practice. In the early 2000s for example, through the influence of the Danish International Development Agency's (DANIDA's) Support to Education and Skills Development (SESD) programme, there were

significant attempts to promote Linkages and Programme Units within TVET colleges, as a mechanism to be more responsive to local economic development needs, through pursuing links with private sector firms, informal sector actors and local communities (HSRC, 2006). There were attempts to study the scale and nature of partnerships, to determine how they could be strengthened (e.g. HSRC, 2006). With the introduction of the National Curriculum Vocational, the focus turned inward, and colleges were more focused on delivering the new curriculum and enhancing their pedagogy. Since the NSDSIII and White Paper promote a more demand orientation through PPPs, a number of systemic initiatives have been introduced that may shape what is possible. We describe the more recent policy initiatives introduced over the past five years, and highlight some of the successes and challenges. The section does not, however, provide an in-depth or systematic assessment of recent policy initiatives. While an in-depth assessment will be useful for informing policy changes and adjustment needed to facilitate effective PPP, such an assessment goes beyond the scope of this report.

2.5.1 The Colleges Improvement Project (2012-2014)

With high levels of youth unemployment due to lack of skills aligned to the labour market, the DHET, in 2011 initiated the College Improvement Project (CIP) with the aim of improving “the capacity, functionality and performance of TVET colleges” (JET, 2015:1). The CIP was initially designed to cater for eight TVET colleges in the Eastern Cape during the 2011 calendar year and to later, in 2012, include a further seven TVET colleges in Limpopo. JET Education Services was appointed to manage the project. The project aimed at the development of sustainable colleges through enhanced management capacity, resourcing and relevant training with work-based learning across the 52 campuses nationally. These features reflect the core dimensions of a successful public-private partnership identified in Chapter 1 (governance, finance and training). A key feature of the project that was largely absent from previous initiatives is the aim to develop monitoring and evaluation support systems. At national level, JET with the DHET provided direction to the project which was implemented at provincial level by a team of technical advisors appointed by JET.

At national and provincial levels, the CIP highlighted the complex need for engagement between stakeholders at different levels. This was observed by a DHET response person, who noted that, the CIP “highlighted how policy at government level and operations on the ground need to connect, to talk to each other and work together” (JET, 2015b:4). Part of this working together was the need to boost practical learning by aligning the work of TVET colleges, to the SETAs and to local business and industry.

A number of positive features of the CIP enhanced the positive outcome observed. Some of these included (i) lecturer development where JET addressed the poor quality of TVET college lecturers through a number of interventions to strengthen their teaching capacity and support for curriculum managers; (ii) secondly, the focus of the programme on student performance and outcomes was directed at enabling more students to complete their qualifications within a reasonable time-frame and equipping them to compete favourably in the labour market; (iii) thirdly, students’ weak performance in mathematics was addressed by providing revision and extra class in Mathematics on Saturdays and during holidays (staff and university students were brought in to support students); and (iv) lastly, a peer tutoring programme was introduced. Most of the colleges adopted

the peer tutoring programme with significant support from JET in designing and structuring the programme.

Besides the teaching approaches implemented in the CIP to improve student development and outcomes, another major emphasis of the JET coordinated CIP was the emphasis on integrating workplace-based experience and work integrated learning into the curriculum from initiation, throughout the course and after the course. Supporting Work Based Experience (WBE) was one of the core areas of the CIP. Conceived to improve students' academic achievement and enhance their employability, WBE became an integrated part of the CIP. JET developed a WBE manual as a simple, practical reference to enable college staff to better understand and implement WBE as part of the curriculum. The CIP recognised the challenge of students finding access to conventional businesses in the rural areas and encourage staff and students to make use of local car repair shops, spaza shops and other activities to expose themselves to real world experiences while developing their entrepreneurial skills.

In conclusion, the CIP demonstrated through the various interventions that colleges, even in rural areas, can strategically make use of the available resources to improve the quality of teaching and learning as well as exposing TVET students to the real world. However, strong and consistent support from the DHET and other partners was recommended to integrate these initiatives into the broader curriculum.

2.5.2 The SETA-Lead office as a PPP mechanism (2012)

Sector Education and Training Authorities (SETAs) were established under the National Skills Development Act (1998), to take over the responsibilities of industry training boards to address the challenges of skills development in South Africa. Under the Skills Development Levies Act, SETAs were given the responsibility to collect skills levies from employers and make them available to colleges, and employers through discretionary grants and bursaries. One of the roles of SETAs that is increasingly foregrounded is to develop closer links between industry and training colleges aimed at enhancing more opportunities for work-based learning programmes such as learnerships, internships and apprenticeships.

While the NSDS III promotes collaboration at the national level, the link between TVETs and employers at provincial and local levels remains weak and ad hoc. Hence the DHET proposed the concept of a Lead SETA to enhance such collaboration. The Lead SETA-TVET project was initiated in 2012, and aimed to address the lack of alignment and coordination. The project aimed to strengthen the levels of collaborative partnerships between public TVET colleges and employers in both the public and private sector (Spies & Garisch, 2014). Furthermore, workplace learning would become a formal component of institutional learning, rather than an add-on or supplement especially for those on professional, vocational or technical or occupational trajectories.

While the LEAD SETA project provides much promise in its conception, a recent early evaluation of the project (Gamble, 2014), presents a complex picture of its potential impact, which depends on a number of enabling and constraining factors.

- From a governance perspective, there was limited consultation with employers, both at national and regional levels of implementation.
- At college level, school authorities where the LEAD SETAs were established were largely unclear on the permanency and relevance of the newly opened SETA offices. Successful PPPs require long term agreements on the scope and relevance of partnerships and collaborations (Amornvuthivorn, 2016). Such uncertainty limits the institutional buy-in from stakeholders, in this case, at college levels.
- There is a need for strong accountability from the Lead SETA's for the current funding from the Skills Levy fund provided by the private sector employers. Such accountability needs to align current financial spending to main training priorities. Additional income sources are needed to support the Lead SETAs, which currently carry all the financial burdens.
- Training wise, SETAs expressed concern about the current relevance of the TVET curriculum, as well as the competency levels of the lecturers. SETAs remain concerned about the lack of full accreditation of some programmes, low capacity of lecturers as well as weak links with employers that are needed to develop graduates to meet employer's needs.
- The links between TVETs, SETAs and industry remain weak. In most cases, the SETA Liaison Officers do not have adequate expertise to develop the right forms of collaboration and partnerships with industry. These include opportunities for WIL, internships, and other sources of funding.

SETAs have provided an effective means of creating a pool of financial resources towards enhancing skills training and development. However, a number of governance challenges at national and provincial level as well as training challenges at college and firm level are evident. These indicate a lack of synergy between the Lead SETAs and other SETAs, TVET colleges, and employers at local, provincial and national level. These limit the potential of the LEAD SETA as a PPP mechanism, and require interventions to support more effective implementation.

2.5.3 Occupational Teams (2013)

In response to national development priorities, DHET has created a team to prepare the skills required to support the national Strategic Integrated Projects (SIPs) (Bird, 2014). The SIPs team identified the need to develop occupational networks, to align the theoretical work of TVETs with the skills demands of the employers and occupational bodies. They proposed to create networks of practice in the form of Occupational Teams (OTs). OTs aim to address the lack of experts and those with critical skills in various occupations or trade clusters, through the development of networks of people drawn from four broad constituencies: lecturers from university faculties, practical trainers from TVETs, employers and employer associations, and assessors from quality assessment or sector professional bodies.

These OTs propose a learning pathway based on collaboration amongst all stakeholders, to address systemic problems of skills development and work placement at national and regional levels for a specific occupation. The three core aspects of the OT framework are: provision of quality theory to learners, facilitating workplace learning through the identification of key employers, and finally, assessment of final competencies towards expertise development (Bird, 2014).

However, this is a very young initiative. As yet, there has not been sufficient input from the larger stakeholder groups. Communication and engagement between supply side intermediaries at national level (such as the DHET and SETAs), and the demand side intermediaries at local and firm level, remains weak and uncoordinated.

While the proposed OT mechanisms is important, evidence from successful PPPs suggest the need for flexible approaches. Mourshed et al. (2012), in their comparative analysis across nine countries, show that the absence of clear cut boundaries in the partnerships between employers and education providers, along with a non-linear pattern to training, were the two most important success factors. Some partnerships could start with an activity completion before any kind of formal agreement is signed, while others might need agreements in place before engaging. Hawley (2007:8) observes that “the use of legislative tools to build social partnerships is a necessary but not sufficient action for government to increase employer involvement in TVET”. This suggests that while there is need for formal agreements and MOUs between the various stakeholders as to what the partnerships and collaboration entails, successful partnerships need space for organic growth of their activities.

2.5.4 Centres of Specialisation (2014)

Centres of Specialisation are a very recent DHET-led PPP mechanism to strengthen skills development in the TVET sector. Based on the White Paper (DHET, 2013) recommendations that colleges engage more with experts from industry for training, some TVET colleges were identified as resourceful enough to become nodes of training collaboration between industry experts and other TVET colleges. The Centre of Specialisation initiative in many ways shows evidence of the three dimensions of successful PPPs in their governance, funding and training. Regarding governance, the Centres of Specialisation have to work closely with the Occupational Teams who have to visit the colleges aspiring to become CoS. Based on these recommendations, the Department of Higher Education and Training will provide a funding grant known as Priority Occupation Package grants.

Due to the limited resources to equip all colleges with up-to-date machinery, and the limited human resources in teaching staff and expertise from industry, some colleges were identified as Centres of Excellence. These centres benefitted from closer collaboration with employers and from SETA-levy funds. Linked to funding, the SETA-Levy funds provided by the employers enhance their roles in governance and management of the CoSs. The funds support the running of the Centres, hence ensuring their sustainability.

At the training level, the CoSs were designed to expose students to more practical learning, increase the number of locals working on government projects, and increase collaboration between colleges and industry experts, hence developing the capacity of t colleges to address the skills in demand. CoSs will not only address skills needs for particular projects, but more so, equip graduates with adaptable skills to enable them move across sectors or projects due to the diverse nature of the training. Centres of Specialisation were conceived to provide a platform where employers could meet with a larger number of students from local TVETs for practical learning experience, so that employers become an integral part of the management of the TVETS. Employers became active in supporting and advising TVETs.

A key shortcoming of this approach is also at the level of engagement with other potential stakeholders. While the approach recommends criteria by which colleges can be considered as CoSs, such as proximity to skills demand and to workplace learning opportunities, the approach fails to adequately conceptualise the notion of proximity. Geographical proximity does not always translate into partnership, if there are not adequate frameworks of engagement and collaboration. Fawcette et al., (2014:14) observe from successful models of PPP that “successful TVET systems, require consistent policies on a wide range of issues, from governance, delivery, financing and access...placed in the broader policy framework of the country”. Furthermore, proximity could also relate to the specialisation of the college training, relevant to the dominant local industry, to provide more opportunities for practical learning.

The approach is somewhat weak on detail of the nature of partnerships required at local level between colleges and firms. At the national and provincial level, the role of the OT and the proposed funding mechanism does not adequately guide the process of financing to include clear dimensions of the competitiveness, accountability and sustainability shown to be key for any public private partnership venture. For example, in the comparative analysis of PPP models in TVET training in the USA and Singapore, Amornvuthivorn (2016) showed that access to government funds was based on a competitive process whereby each public-private initiative must raise some form of cash or in-kind resources such as equipment, training facilities, start-up capital or technical assistance. One could argue that the Centres of Specialisation offer a form of in-kind resources, but the accountability and sustainability dimensions of the programmes will need further assessment.

2.5.5 National policy mechanisms and intent to promote PPPs

This section shows that PPPs are strongly encouraged by national policy, but the available evidence from evaluation reports suggests that policy intent may not yet have translated into practice. Indeed, the HRDC refers to the lack of sustainable PPPs as a blockage in the TVET system:

“the lack of working partnerships between the colleges and a range of players, private, public, community and industry players is a blockage to attracting students, ensuring graduate employment, and improving the image of colleges (HRDC, 2014c:1).”

In general, the lack of systematic data on PPPs and partnerships on the ground across the TVET system is a major gap. We attempted to address this gap by reviewing articles in the TVET Times over the past 10 years. While the TVET Times is not a comprehensive source of data on college partnerships, it is a useful source of information on common forms of PPPs that are reported as good practice, and held up as models for other colleges to emulate. We attempted to determine: What are the existing practices in TVET colleges? What kinds of partnerships do they pursue, with which kinds of stakeholders and actors, and for what purposes? Such an understanding would help to align new PPP policy mechanisms with existing practice in colleges, to make implementation more effective.

2.6 A review of partnerships in practice across the South African TVET system

To work around the challenge presented by the lack of data on college partnerships, we identified the TVET College Times as a source of data on existing partnerships. We inspected the TVET College

Times³, from 2007 to June 2016, to identify articles in which TVET colleges described their partnership practice. These were analysed using the following questions as a guide:

- What are the types of PPPs - funding, placement, etc.?
- Who are the partners - college, industry, government, etc.?
- Who are the actors they identify?
- What PPP models do they pursue?

The full database for the 45 articles analysed is available on a CD for further analysis and information.

We then categorised the PPPs using the three key dimensions drawn from the literature review: Are TVET colleges more likely to enter into forms of partnership centred around governance, funding and/or training? Table 2.2 summarises the main trends. The horizontal column lists the nature of the actors involved in the PPP: industry, local, provincial and national and international government, SETAs, higher education, other colleges, national or international and other private training providers. The vertical column lists the main focus of the partnership.

None of the PPPs showcased in the TVET Times, during the period covered, involved the private sector in governance of skills development. Considering the limitations of the TVET Times as a source of representative data on college partnerships, the finding has to be interpreted with caution. The PPPs reported were therefore grouped in terms of financial exchange and training, distinguishing between partnerships focusing on curriculum development and those focusing on practical training.

³ The TVET College Times began as a newsletter for the Western Cape Education Department, publishing articles on all 6 public colleges in the Western Cape until December 2012. In 2013, the TVET colleges migrated from a provincial competency to a national competency, and the TVET College Times was also adapted and reconstituted, in order to serve the broader South African public Vocational and Continuing Education and Training (VCET) sector. Most of the articles published still have a Western Cape focus.

Table 2.2 Forms of TVET partnerships reported in the TVET Colleges Times (2007 to June 2016)

Actors	Financial exchange		Curriculum exchange					Practical training exchange						TOT
	Bursaries	Facilities upgrade/donation	Curriculum	Joint prog's	Student/staff exchange	Indus expo	Linkages	Learner-ships	Workplace exposure	Apprentice-ships	Grad placement	Skills training	Training academy	
Industry	4	8				2	1	2	8		2			27
Public sector	2								1			2		5
SETA							1	1						2
Industry & public sector		1				1			3	3	1	1	1	11
Public sector & SETA	1											2		3
Public sector, SETA & industry									1				1	2
Public sector & international TVET					1									1
Industry and SETA								1	2			2	3	8
HE institution (local)			3											3
Local TVET institution				1										1
HE (local), industry and SETA			2											2
Local NPO		1												1
Public sector, private sector (local and international)									2					2
International (TVET)				1	9									10
International HE, local private					1									1
International HE & TVET					1									1
International TVET & SETA												1		1
International public sector					1									1
International NGO												1		1
TOTAL	7	10	5	2	13	3	2	4	17	3	3	9	5	83
Partnership type	17		25					41						

The PPPs reported in the TVET Times were more likely to involve only two actors – a direct link between a college and one other partner, most typically, industry (27 instances) or international TVET institutions (10 instances). This means that these partnerships have a limited reach and potential impact across a sector or the system. There were few PPPs with three partners, more likely to involve a college with industry, and public sector (11) or SETAs (8).

A small percentage, 20%, of all the partnerships reported involved a financial exchange, in the form of industry donations of infrastructure or equipment to colleges, or sponsorships of individual students, in the form of bursary schemes. Donations of equipment also involved learning between colleges and industry. An example of this is the collaborative partnership between Northlink College and EATON, an international power management company with its headquarters in the USA. The college recently received an investment of equipment from EATON, and in turn, EATON uses the Belhar Campus's facilities for lecturing and training on the use of these 'variable speed drives'.

Very few partnerships between two TVET colleges at the local level, or with local HE institutions were showcased. These focused on curriculum articulation, given that progression across the PSET system is a major policy concern. Formal articulation agreements allow students to build an additive degree program by taking courses either at different institutions or at the different campuses of one institution. An example of this is a network in which five TVET colleges in the Western Cape offer the qualification: National Certificate in Wealth Management Level 5. All five participating colleges already carry the required programme approval. The qualification is offered to employees at insurance companies such as Sanlam and Old Mutual. The project is managed by the then Further Education and Training Institute (FETI) (now the New Institute for Post-School Studies-IPSS), which is attached to the UWC (TVET college times, Volume 22:12).

A larger number of partnerships with international TVET colleges, higher education and NGOs were reported. These tend to be used to build college capacity, primarily through student and staff exchange programmes, which share teaching practices and learning experiences, and are typically funded by international funders and governments.

Two joint programmes were reported. This is a space for developing PPPs.

The largest type of partnerships reported (49%) take the form of training exchanges. Most commonly reported are workplace experience programmes, and skills training. Companies may send their employees to the college, or through the provision of tailor made industry training courses, or training may be provided for students in the firm. Very few articles highlighted formal MoUs between industry and colleges, to provide opportunities for student placements during their training and after graduation. Further research is needed to explore the extent of these types of PPPs and ways to facilitate uptake by firms. Formal partnerships with industry could facilitate the placement of students in firms.

Another mechanism for engagement and interaction at the college level that could be used on a wider scale is Industry Expos, typically held in TVET colleges to help colleges keep pace with the latest technology advancements in a sector. Through these expos, industry partners get to

showcase what they have to offer for graduates, while graduates and students also get a chance to interact with prospective employers.

An emerging new local partnership mechanism is a training academy, funded by an industry to promote technological capabilities. We discussed the national PPP mechanism of Centres of specialization or excellence for particular trades, and there is evidence of industry partners and government partnering with colleges, to fund and establish such training academies on the college premises. The National Tooling Initiative (NTI) for instance, is an initiative that has, as a national objective, the rehabilitation of the South African Tool, Die and Mould Making (TDM) industry. The initiative acts as a strategic growth stimulator for manufacturing and technical skills development. The NTI has been developed as a national, multi-stakeholder network, and structured as a Public Private Partnership (PPP), working with the Department of Trade and Industry, and the Tooling Industry. Another example of such a network is the Lekamva Academy, which serves as a Construction Centre of Excellence operated by Northlink College in the Western Cape. In 2008, the partners signed a formal agreement to secure its establishment, accreditation and resourcing in partnership with the Construction Education and Training Authority (CETA) (TVET College Times, volume 18:3). Such networks contribute more strategically and over the medium to long-term, to a wider number of colleges, firms and groups of students.

SETA involvement was highlighted in 18 cases, mainly taking the form of training exchanges. Collaborations with SETAs have been utilised for the funding of learnerships and apprenticeships, and joint programmes to offer tailor made courses for industry.

2.7 The need for a framework to strengthen PPPs

From this review, it can be observed that there are a number of innovative and potentially successful PPP mechanisms to promote skills development that exist in policy and within the TVET system. We have noted that the practice of colleges vary, with some already hosting strong interactive PPPs to mutual benefit, and others with few or very weak linkages to report. Moreover, as Akojee (2016) cautions, it would be short-sighted to assume that the formation of PPPs will automatically lead to more opportunities for the colleges to build their capabilities and improve their responsiveness. A challenge remains: how to integrate and implement these approaches more effectively, such that they are mutually beneficial and engage stakeholders at all levels of implementation.

DHET, in its Strategic Plan 2015-2016, points to the need for a framework on partnerships in TVET that provides guidelines for the colleges. In the next section, we explore how PPPs in TVET can be strengthened by building the interactive capabilities of TVET colleges, so that they are able to forge stronger linkages between all stakeholders involved.

3 The importance of interactive capabilities for mutually beneficial PPPs

DHET's promotion of TVET partnerships and responsiveness to local economic development through college strategic planning is a step towards the paradigm shift needed to better integrate PPPs into college teaching and learning. As the HRD Council (2014a) cautions, DHET needs to weigh up the costs and benefits for TVET colleges before pushing the colleges to engage in partnerships. Engaging in partnerships can be costly and even risky for TVET colleges, considering the low levels of capabilities in the sector, and the multiple demands placed on them. This raises the question, *what needs to be in place at the college level to reduce the risk and cost to colleges and maximize benefit?*

The LMIP research shows that the shift in thinking will only become manifest if the colleges have the capacity to form effective partnerships with industry and other stakeholders and learn through engagement in these partnerships (McGrath, 2015; Petersen, 2015). We thus argue that building college interactive capabilities should be a critical component of an integrated PPP strategy for skills development in the TVET system. *Interactive capabilities* refer to the ability of colleges to build on and exploit their competences, and develop appropriate strategies and mechanisms for external engagement, and motivate staff to actively engage with partners and integrate knowledge gained through engagement into their teaching (Kruss and Petersen, 2014, based on von Tunzelmann, 2010).

This chapter elaborates on what interactive capabilities are and advises on ways to build college interactive capabilities. We focus on two specific areas where PPPs are most useful as mutually beneficial tools: college responsiveness to local economic development and workplace based exposure.

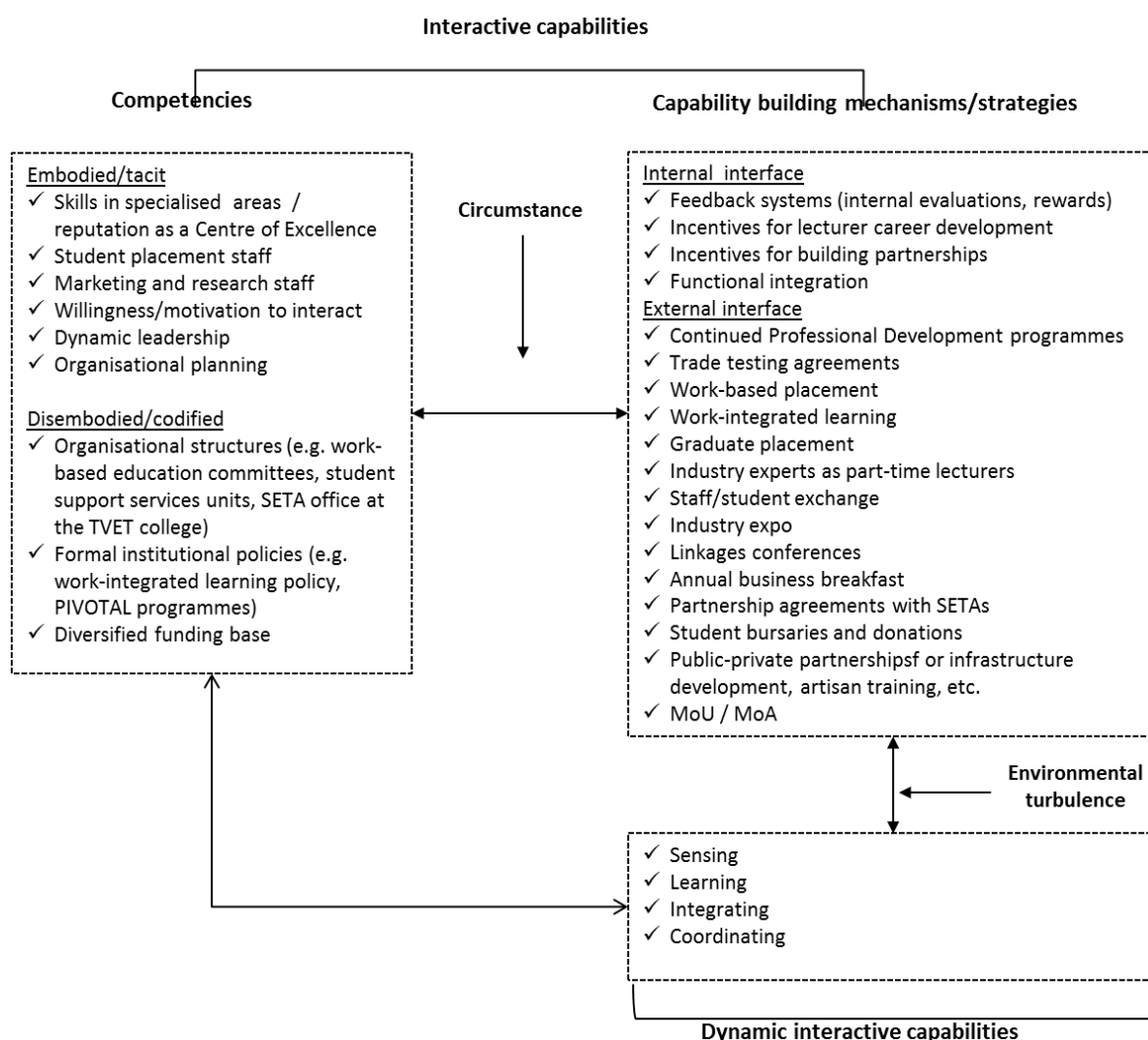
3.1 What are college interactive capabilities?

Figure 3.1 illustrates what we mean by interactive capabilities. It shows key dimensions for building such capabilities – competencies, and internal and external interface structures – with *possible features* of each for illustrative purposes.

Competences refer to knowledge, held at the individual or college level, that facilitates the formation of effective partnerships and learning through interaction. This knowledge may be embodied in the expertise of college lecturers, and in organisational routines such as strategic planning procedures. We distinguish this *tacit* form of competence from the form of competence derived from knowledge codified in organisational structures and policies, technology and other tangible assets – i.e. *codified competences*.

External interface structures refer to the different mechanisms and strategies colleges use to interact and partner with other organisations, whereas, *internal interface structures* refer to the mechanisms and strategies they use for learning and accumulating knowledge gained through their interactions, essentially how they use the knowledge to inform their teaching. The effectiveness of a college's internal and external interface structures depends on the appropriateness and effectiveness of its competencies, and vice versa. Colleges can build and refine their competencies

through their internal and external interface structures. In this way, a college builds its *interactive capabilities*.



The policy, educational and business environments influence opportunities available to a college. One example is the Lead-SETA initiative that promotes and funds SETA-college partnerships. Another example is how rapid change in technology leads to new skills needs in a specific sector, prompting firms to work more closely with colleges and universities to ensure a pipeline of appropriately skilled human resources.

In the next section, we elaborate on each of the dimensions outlined in Figure 4.1 above, drawing largely on the LMIP case study research on interactive capabilities in universities and colleges to respond to skills needs in the automotive components manufacturing, the sugarcane growing and milling sectoral systems, and the Square Kilometre Array (SKA) project (Gastrow, 2015; McGrath, 2015; Petersen, 2015).

3.2 Building college interactive capabilities

What strategies and mechanisms can enable colleges to learn through interaction in PPPs? In this section, we discuss the types of competences and internal and external interface structures that TVET colleges report as contributing to build their interactive capabilities, so that they can provide opportunities for workplace-based exposure and contribute to local economic development.

3.2.1 Positioning the college as a value-adding partner

A major obstacle to the promotion of PPPs in the TEVT sector is that TVET colleges are losing credibility with industry (HRD Council, 2014b). Firms are uncertain of the current purpose of TVET colleges, and the relevance and quality of skills produced in the TVET system (McGrath, 2015; Petersen, 2015). Here we discuss key competences that contribute to building a reputation as a 'value-adding partner'.

3.2.1.1 A reputation for producing quality graduates

In our research on the automotive and sugar sectors, we found that firms tend to seek partnerships with education and training providers that have a reputation as producers of 'good' graduates (see McGrath, 2015; Petersen, 2015). There are specific competences or 'inputs' required for colleges to produce 'good outputs' including: adequate facilities for practical training, quality teaching and relevant curriculum and programmes.

'Good' graduates possess both quality theory and practical training (see Toner, 2011). **Colleges can provide their students with practical training in-house or through opportunities for workplace-based exposure.** In these ways, students can gain exposure to new technologies, to ensure that their knowledge is current. PPPs are useful mechanisms for offering workplace-based exposure opportunities, and for gaining funding and donations from the private sector to develop a college's physical facilities, especially for practical training (e.g. workshop or laboratory facilities).

Colleges could also include workplace-based exposure for lecturers as part of PPPs for work-integrated learning (WIL). Spending a specified amount of time gaining workplace experience is a new DHET requirement aimed at improving lecturer quality, which is currently a key priority. The colleges reported that the success of this type of strategy depends on whether it is officially included in lecturers' timetables (McGrath, 2015; Petersen, 2015). **To successfully implement**

workplace-based exposure for lecturers as a performance target at the colleges, DHET would need to work with the colleges to restructure teaching schedules to include such practical training or refresher opportunities for lecturers.

There is much contention around the concept of ‘relevance’ in skills development. Here, we focus on relevance for meeting the skills needs of firms to contribute to their productivity and innovation, which depend on both fundamental skills, and occupation- and sector-specific skills (see Dalitz et al., 2011; Toner, 2011). As discussed in the literature review in Chapter 1, one way to improve the relevance of a college’s curriculum and programmes is to include firms and other private sector bodies, such as employer associations, in curriculum and programme development, through inviting their participation as members of the college’s academic board, for instance. The advisory boards at universities of technology provide a useful model. Colleges tend to work with industry in designing their occupational/skills programmes, but these units are often kept separate from DHET-subsidised programmes, resulting in PPPs being implemented in silos, rather than at the system level across the college (McGrath, 2015). **DHET would need to include in its framework on PPPs for TVET an indication of how private sector actors can be involved in the design of centrally-developed curricula and programmes.**

Another way for colleges to improve the relevance of their curricula and programmes is to keep up-to-date with the skills needs of key sectors in their local economy. Partnerships with intermediaries such as the SETAs, employer associations and occupational bodies are very useful for keeping abreast of skills needs in the local economy. **DHET should continue to promote college engagement with SETAs, through policy initiatives such as the Lead-SETA initiative and SETA forums such as SETA sub-sector committees/chambers.**

Individual lecturers and management, through their informal networks, also engage with industry and may use their experiences to inform teaching at the college. **DHET’s intention to formalise lecturer engagement with industry to keep up with ‘real world’ developments in the content of what they are teaching is another way for colleges to improve their relevance.**

3.2.1.2 Specialised expertise for contributing to local economic development

Our case study research shows that colleges with relevant specialised expertise have something to offer industry and are thus more attractive partners (McGrath, 2015; Petersen, 2015). Having expertise to produce skilled people in specialised areas important for firms in the local economy (and nationally) is a critical competence for colleges. Colleges with this competence have more bargaining power to ensure that their needs are met, such as including an agreement around workplace-based exposure for their students, and opportunities for teaching staff to keep abreast of new technologies.

Colleges need to be strategic about how they use PPPs to contribute to local economic development. Colleges that have been most successful in contributing to skills development in their local contexts tended to focus on one or two key industries, and boasted long-term formal partnerships with key private sector actors, including firms and industry bodies like employer associations. The colleges selected their mix of programmes according to what was needed by key

industries in their local settings. For example, a college located near an iron- and steel manufacturing hub ran engineering programmes relevant for that industry. Additionally, the college worked with key firms to design skills programmes that address skills needs in the industry. This is the idea behind DHET's Centre of Specialisation initiative (see section 2.5.4). We attach a short booklet including guidelines for how colleges can identify key players in their local setting to inform their strategic planning. **DHET should continue to promote college responsiveness through college strategic planning processes, but would need to offer additional support to guide how colleges can identify and work with key industries or employers. In particular, the DHET would need to address the constraint of having a centrally developed core curriculum.**

A major obstacle to colleges' ability to focus on developing expertise in specialised areas is that many colleges do not have sufficient numbers of staff, at all levels, to perform their tasks. Staff end-up being overburdened and 'additional' activities such as securing work placements for students cannot be prioritised. Furthermore, identifying relevant partners and maintaining relationships, especially for work-integrated learning which involves student mentorship, can be time-consuming. **DHET should thus ensure that the colleges have the support staff necessary for forming and maintaining partnerships to ensure that teaching staff do not become overburdened.**

3.2.2 Providing a point of contact for private sector actors

Private sector actors and college staff report that the lack of a point of contact at the colleges has been a constraint (McGrath, 2015; Petersen, 2015). Who should be the key contact person? Who is responsible for identifying potential private sector partners? Who is responsible for maintaining and evaluating partnerships? Many colleges would find these questions difficult to answer. We have found that establishing dedicated organisational structures and implementing organisational policies are essential for colleges to form effective partnerships. Below, we discuss the types of institutional arrangements at the colleges that facilitate PPPs for workplace-based exposure in particular.

3.2.2.1 An institutional environment that supports college engagement in PPPs

Colleges need to ensure that they put in place the necessary interface structures and organisational policies to achieve their strategic plans and satisfy DHET requirements. For example, to implement a work-integrated learning (WiL) or workplace-based exposure strategy, the colleges need to create an enabling environment within the college. Table 4.1 presents a detailed summary of the college interface structures and staff supporting PPPs for workplace-based exposure and the responsibilities of each, based on lessons learned from the LMIP case study research. In Box 4.1, we list key questions for colleges to consider in developing or assessing their organisational policies.

It is apparent from Table 4.1 that a multi-level approach is required, which points to the need for alignment and coordination across vertical and horizontal levels. For example, staff responsible for marketing and those responsible for work placements should work together as each would have developed partnerships with industry. **The division of labour between college units, at all levels, should be clearly defined in the relevant organisational policies.**

We have found that creating formal interface structures and policies contributes towards creating an organisational culture for work-integrated learning, which needs to be supported by incentives

to encourage staff to engage with the private sector and work with college organisational structures. **Well-networked staff should be encouraged to formalise their partnerships at an organisational level to facilitate a more systemic approach to PPPs. Incentives such as awards may be useful in this regard.**

Box 3.1 Checklist for developing effective college organisational policies

We provide a set of general considerations for developing effective college organisational policies, drawing on lessons from the LMIP case studies:

- Is the policy aligned with DHET policies?
- Is the policy aligned with other relevant college policies? For example, policy around workplace-based exposure needs to clarify the difference between workplace-based exposure and work placement for students and work-integrated learning, and needs to be aligned with teaching and learning policy to ensure that lecturer responsibilities related to workplace-based exposure is scheduled as part of lecturers' weekly teaching schedules.
- Are the necessary organisational structures and policies in place to support the policy?
- Does the policy clarify the functions of the organisational structures created?
- Does the policy include incentives to promote uptake? For example, arranging stipends for students to engage in workplace-based exposure opportunities, offering incentives for lecturers to engage in workplace-based opportunities to support their students or for their own career development, and firms could be offered mentorship support when offering workplace-based exposure opportunities.
- Does the policy consider the risks to the college and its stakeholders? For example, the college should ensure that students and staff participating in workplace-based exposure opportunities are covered by liability insurance.

Table 3.1 College organisational arrangements for supporting PPPs for workplace-based exposure

Unit	Key persons responsible	Responsibilities in facilitating successful PPPs
College management	CEO; Vice-Principal Academic	Follow-up on initial contacts
		Advocacy around workplace-based exposure
		Advocacy around TVET college programmes, including the NCV programme
		Network with stakeholders, including hosting events such as a high-tea for alumni, breakfast with industry
		Support college engagement in government initiatives promoting PPPs, such as the 'Adopt a College' initiative
Linkages and partnerships unit	Placement officer	Act as a key contact person for firms, support continuity in partnerships
		Identify and facilitate partnerships with stakeholders
		Identify graduate placement opportunities
		Identify workplace-based exposure opportunities for students and lecturers
		Facilitate induction process for students engaging in workplace-based exposure
		Facilitate relationship between lecturers, students and firm contacts for workplace-based exposure
		Monitor and evaluate workplace-based exposure activities
		Manage a database including students CVs to facilitate placement
		Manage a database including information on firms in the local economy and current PPPs to facilitate placement, including information on partnerships around learnerships and apprenticeships
		Coordinate with other college units such as those responsible for marketing, skills programmes and student services
Skills unit	Skills unit manager	Facilitate contract training
		Contract in staff from industry to teach on college programmes
		Work with the SETAs to source funding for skills programmes and quality assurance
		Coordinate with other college units such as those responsible for marketing, linkages and partnerships, and student services
Workplace-based exposure committees (campus-based)	Relevant college staff supported by ETDP SETA interns	Advise on workplace-based exposure activities
		Report to the college's Academic Board to drive PPPs centrally and address challenges as they arise

Note: This table is based on the LMIP case study research (see MacGrath, 2015; Petersen, 2015)

3.2.2.2 Dynamic leadership

Section 3.2.2.1 provides examples of mechanisms college leaders use to manage the interface between the college and external stakeholders, and create an enabling environment within the college to support engagement and learning.

Our research shows that strong leadership and an entrepreneurial organisational culture, supported by effective organisational structures and policies, are key factors facilitating partnerships with private sector actors. High-level management - including the Principals and Vice-Principals - dedicated time and resources to networking with employers in the local economy on a regular basis. They also referred to the national body for college principals (SACPO) as a useful platform for sharing ideas, learning from others' experiences and keeping up with changes in the policy and education environments. Colleges have, however, reported being preoccupied with trying to keep up with student preferences and turbulence in the policy environment, with limited capacity for sensing and responding to changes in the local economic context. **College management should be encouraged to organise and participate in national and local networking platforms involving private sector, government, university and colleges actors. College management should value networking. In the way, college leaders can build social capital to support their partnerships.**

College management can promote an entrepreneurial organisational culture through introducing effective interface structures and policies, incentivising lecturer engagement in PPPs, encouraging independent thinking and participation in decision-making, and teamwork. **To prevent the situation of 'partnering for the sake of it', college leaders should work with DHET to develop performance management frameworks for incentivising PPPs, and reporting frameworks for monitoring and evaluating PPPs.**

Performance management and reporting frameworks could also facilitate functional integration, i.e. the extent to which knowledge gained through interaction informs teaching and learning.

3.2.3 Diversified funding base

Insufficient funding remains a constraint on the extent to which colleges are able to execute their strategic plans. For example, although work-integrated learning is promoted in policy, and is included in the colleges' strategic plans, it is often referred to as an 'unfunded mandate' (McGrath, 2015; Petersen, 2015). Ultimately, as McGrath (2015) points out, colleges will do what is incentivised *and* subsidised. **DHET has to ensure that it provides adequate funding for colleges to build their capabilities to meet DHET requirements, at least.**

PPPs can be a source for additional funding. Successful colleges have reported that having a diversified funding base has allowed them to fund additional activities and fund positions currently not supported by DHET. **In this way, the colleges have used PPPs to fund their activities and build their capabilities.**

However, colleges that have kept their funding bases separate have inadvertently created divisions within the college structure, such as 'Schools of Occupational Training' that serve to meet the needs

of industry more directly. Engagement with industry would thus be strong within these schools, but may keep other schools insulated from an industry focus (McGrath, 2015). **This points to the importance of coherence and co-ordination across college structures and policies, and functional integration to ensure that PPPs have broad-based benefit.**

While PPPs can be beneficial as sources of funding, our SKA case study revealed that PPPs aimed at simply funding student bursaries has limited benefit to the college and is not guaranteed to yield 'good graduates' if the college has limited interactive capabilities (Gastrow, 2015). **Skills development initiatives aimed at meeting big science projects and other national projects need to consider the level of interactive capabilities of the colleges that are expected to address skills needs.**

3.3 Conclusion

Although PPPs have been promoted in South African education and skills development policy for almost a decade, the potential contribution of PPPs for building capacity and improving relevance and responsiveness in the TVET sector is yet to be unlocked. In this chapter, we argued that building colleges' interactive capabilities is crucial for promoting PPPs that are beneficial for the colleges and contribute to building the TVET system. In this way, DHET can move beyond the assumption that college engagement in PPPs will automatically have benefit for the TVET system, and that more engagement equals more benefit.

Three strategies are important for building interactive capabilities. The first strategy is to position the college as a value-adding partner by building a reputation for producing quality graduates and developing specialised expertise for contributing to local economic development. A second strategy is to provide a point of contact for private sector actors through creating an institutional environment that supports college engagement in PPPs, which depends to a large extent on dynamic leadership. A third strategy is to diversify the college's funding base to reduce dependency on limited public funding, which has adversely impacted on how the colleges fulfil their mandate.

In the next chapter, we provide specific recommendations for developing an integrated framework promoting PPPs in the South African TVET system.

4 Towards an integrated PPP strategy for skills development in TVET

We propose an integrated, multi-level approach for promoting PPPs in the TVET sector, as illustrated in Figure 4.1. Here, we outline the responsibilities of actors at each level in terms of governance, funding and curriculum, in a more contextually informed manner than the generic framework based on the literature in Figure 1.4 above:

- the micro-level, which involves the colleges, firms/employers and employer associations
- the meso-level, which involves intermediary bodies at the provincial, regional, sectoral, or industry levels such as the SETAs, SAIVCET, PRAID and SACPO
- the macro-level, which includes DHET

Table A 1 in the Appendix provides a detailed summary of actors and their roles as articulated in key policy texts. Rather than repeat the text in Figure 4.1 and Table A 1, in this section, we highlight important concerns at each level of the system.

4.1 Integrated governance at the college level

The lack of industry involvement in governance at the colleges is an area that requires attention, from the colleges and DHET. Including firms, industry bodies and SETAs in strategic planning and organisational structures, such as a college's academic board, can be beneficial for developing long-term relationships with industry and improving responsiveness. **The main legislation governing TVET colleges in South Africa, the Continuing Education and Training Act 2006, allows for the inclusion of these stakeholders in college governance structures, but does not make it a requirement. Addressing this weakness in the policy framework is important if DHET is to make a serious attempt to promote PPPs in the TVET sector.**

4.2 Coordination at the provincial/regional/sectoral/industry level

One way to achieve integrated governance at the system level is to organise committees or councils at the college, regional and national levels to coordinate PPPs in the sector and take responsibility for monitoring and evaluation to inform DHET's processes. These bodies could consist of representatives from the colleges, SETAs, key firms, industry associations and other industry bodies. Examples of intermediaries that could adopt this role include the SACPO, the SAIVCET, and the Inter-Provincial Committee for TVET Colleges (a HEDCOM sub-committee). Another example is the group including the vice-principals for Planning, Research and Institutional Development (PRAID), a post introduced when the colleges were under the responsibility of the provinces to strengthen linkages with industry. Colleges in the Eastern Cape reported that senior management staff who were initially involved in PRAID drew on their experience and networks to build partnerships with industry. Under provincial administration, PRAID staff met regularly to share experiences.

DHET would need to provide clear guidelines as to the roles that these intermediaries would be expected to play in coordinating and monitoring PPPs. For example, according to the Continuing Education and Training Act, 2006, the SAIVCET is required to facilitate college-college, employer-SETA and professional council-Education and training institutions-DHET linkages, but is not expected to facilitate college-employer or college-SETA or college-SETA-employer partnerships.

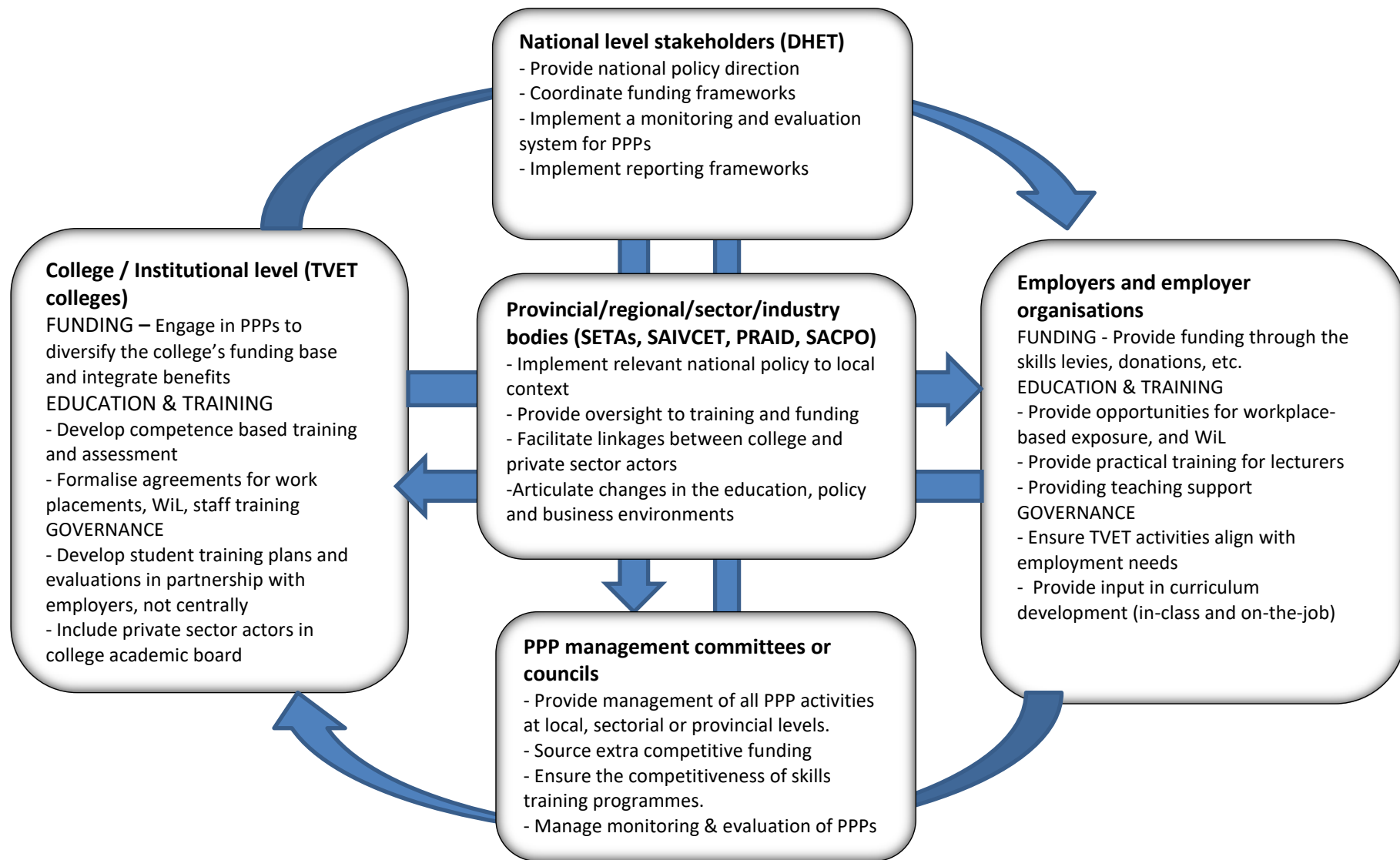


Figure 4.1 Tiers of responsibilities in an integrated PPP strategy for skills development in the South African TVET system

4.3 Creating an enabling environment at the macro-level

DHET has created a centralised system for managing the public TVET colleges. A challenge for DHET is thus delegating ‘authority and responsibility to TVET colleges to pursue partnerships’ (HRDC, 2014b, p. 16). **DHET should empower the colleges by building their interactive capabilities and handing over the responsibility to pursue and manage PPPs to mutual benefit.**

Clear guidelines for pursuing and managing PPPs are an important part of an enabling environment. **DHET should work with the colleges and intermediaries such as the SACPO and SAIVCET to develop and implement reporting and performance frameworks (HRDC, 2014b), but should be careful to not over-regulate, which may actually discourage partnerships.**

Furthermore, it is important to acknowledge that engagement with colleges would not necessarily be a priority for firms. **Therefore, in addition to promoting financial incentives for firms, the DHET should ensure that processes for forming partnerships and the structures supporting partnerships are easily accessible and minimalist⁴. Financial incentives may include encouraging firms to provide student bursaries on a regular basis, through amending the Skills Development Levies Act and the Broad-Based Black Economic Empowerment Act to recognise bursaries donated to colleges as BBEE skills development expenditure.**

We also caution against the emphasis on the number of PPPs as a measure of success, as this may encourage colleges to form partnerships ‘for the sake of it’. **It is more important that DHET encourages the colleges to ensure that their partnerships contribute to improving teaching and learning, graduate employment, and management (e.g. financial management).** We attach a checklist for colleges in the Appendix (List A1).

Specific recommendations for building college interactive capabilities include:

1) Positioning the college as a value-adding partner

- To improve the relevance of the curriculum, the curriculum should integrate theoretical training with practical training in-house or through opportunities for workplace-based exposure.
- To successfully implement workplace-based exposure for lecturers as a performance target at the colleges, DHET would need to work with the colleges to restructure teaching schedules to include such practical training or refresher opportunities for lecturers.
- DHET should include in its framework on PPPs for TVET an indication of how private sector actors can be involved in the design of centrally-developed curricula and programmes.
- DHET should continue to promote college engagement with SETAs, through policy initiatives such as the Lead-SETA initiative and SETA forums such as SETA sub-sector committees/chambers.

2) Specialised expertise for contributing to local economic development

⁴ This recommendation was provided by an external reviewer, Professor Joy Papier.

- DHET should continue to promote college responsiveness through college strategic planning processes, but would need to offer additional support to guide how colleges can identify and work with key industries or employers.
- DHET should ensure that the colleges have the support staff necessary for forming and maintaining partnerships to ensure that teaching staff do not become overburdened.

3) *An institutional environment that supports college engagement in PPPs*

- The division of labour between college units, at all levels, should be clearly defined in the relevant college policies.
- Well-networked staff should be encouraged to formalise their partnerships at an organisational level to facilitate a more systemic approach to PPPs. Incentives such as awards may be useful in this regard.

4) *Dynamic leadership*

- College management should be encouraged to organise and participate in national and local networking platforms involving private sector, government, university and colleges actors. In the way, college leaders can build social capital to support their partnerships.
- To prevent the situation of 'partnering for the sake of it', college leaders should work with DHET to develop performance management frameworks for incentivising PPPs, and reporting frameworks for monitoring and evaluating PPPs.
- DHET and the colleges should ensure that the performance management and reporting frameworks facilitate functional integration, i.e. the extent to which knowledge gained through interaction informs teaching and learning.

5) *Diversified funding base*

- DHET should ensure that it provides adequate funding for colleges to build their capabilities to meet DHET requirements, at least.
- The colleges should ensure that their PPPs contribute to funding their activities and building their capabilities.
- To ensure that PPPs have broad-based benefit, DHET and the colleges should improve coherence and co-ordination across college structures and policies.
- Skills development initiatives aimed at meeting big science projects and other national projects should consider the level of interactive capabilities of the colleges that are expected to address skills needs.

References

- Adams, A. 2008. Skills Development in the Informal Sector of Sub-Saharan Africa (draft). World Bank African Economic Outlook. 2012. Promoting Youth Employment. Retrieved from www.africaneconomicoutlook.org
- Agence Française de Développement (AFD). 2014. Public Private Partnerships in Vocational Training: Taking Stock Of Afd's Experience And Strategic Recommendations.
- Agrawal, T. 2013. Vocational education and training programs (VET): An Asian perspective. *Asian-Pacific Journal of Cooperative Education*, 14(1)15-26
- Akoojee, S. 2016. Developmental TVET Rhetoric In-Action: The White Paper for Post-School Education and Training in South Africa. *International Journal for Research in Vocational Education and Training (IJRVET)* 3 (1): 1-15. DOI: 10.13152/IJRVET.3.1.1
- Alfeld, C. 2015. Building high-quality work-based learning programs for high schools students. *Techniques*, 25-29.
- Al-Wedyan, H., Lane, T.S., Lowther, D., & El Sawi, G. 2009. Public-Private Partnerships: Lessons Learned from a Partnership. Consolidated Contractors Company and the Morganti Group Inc. (Ccc/Morganti), Al-Balqa' Applied University (Bau)/Al-Huson University College (Ahuc) and the Usaid Jordan Economic Development Program. *Center for Social Policy Publications, Paper 35*. Retrieved from http://scholarworks.umb.edu/csp_pubs/35
- Amornvuthivorn, K. 2016. Public-Private Partnerships (PPPs) in Technical Vocational Education and Training (TVET): Lessons Learned from Singapore and USA and Implications for Public Management in Thailand. *Journal of Public and Private Management*, 23(1):91.
- Arellano, A., Felgueroso, F., Vazquez, P., Gonzalez, E. 2008. Public-private partnerships in labour markets. IESE IRCO Working Paper.
- Asian Development Bank (ADB). 2009. Good practice in technical and vocational education and training.
- Asian Development Bank (ADB). 2010. Public–Private Partnerships in ADB Education Lending 2000–2009.
- Biavaschi, C., Eichhorst, W., Giulietti, C., Kendzia, M.J., Muravyev, A., Pieters, J., Rodríguez-Planas, N., Schmidl, R. & Zimmermann, K.F. 2012. Youth Unemployment and Vocational Training.
- Badawi, A. A. 2013. TVET and Entrepreneurship Skills. *Revisiting global trends in TVET: Reflections on theory and practice*, 275-308.
- Bird, A. 2014. How Occupational Teams Facilitate Interactions between Education and Training Organisations and Employers. Special Projects Unit. Presentation. 21 August. Pretoria: DHET.
- Bjarnason, M., Sykes, M. & Burgio, C. 2013. Developing skills in Central Asia through better vocational education and training systems. Organisation of Economic Cooperation and Development (OECD), Private Sector Development Policy Handbook.
- Brand, B. 2009. High School Career Academies: A 40-year Proven Model for Improving College and Career Readiness (Policy Paper). Retrieved from <http://www.aypf.org/documents/092409CareerAcademiesPolicyPaper.pdf>.
- Bridgman, R. 2003. Bridging public-private partnerships in a case study of housing and employment training for homeless youth. *Canadian Journal of Urban Research*, 12(2):205.
- Bult-Spiering, M. & Dewulf, G. 2008. *Strategic Issues in Public-private Partnerships: An International Perspective*. John Wiley & Sons.

- Cedercreutz, C. C. 2008. Leveraging Cooperative Education to Guide Curricular Innovation: The Development of a Corporate Feedback System for Continuous Improvement. Cincinnati, Ohio: Centre for Cooperative Education Research and Innovation.
- Chung, D.K. and Meissner, M. 2011. Public Private Partnerships in Social Protection. Background and discussion paper for ASEM Forum on Social Safety Nets: Enhanced Co-operation to Address Post-Crisis Challenges, Hanoi, Vietnam, 18–19 April. Retrieved from http://www.aseminfoboard.org/sites/default/files/documents/ASEM_Discussion_Paper_Public_Private_Partnerships_in_Social_Protection.pdf.
- City & Guilds. 2012. Learner First: International Approaches in Policy and Practice. Retrieved from <http://www.skillsdevelopment.org/pdf/Learner-First-conference-paper.pdf>
- Cloete, N., and Mouton, J. 2015. *Doctoral Education in South Africa*. African Minds.
- Collin, K. 2002. Development engineers' conceptions of learning at work. *Studies in Continuing Education*, 24(2), 133–152.
- Corrigan, M.B. 2005. *Ten Principles for Successful Public, Private Partnerships*. Urban Land Institute.
- Dalitz, R., Toner, P. & Turpin, T. 2011. *VET and the Diffusion and Implementation of Innovation in the Mining, Solar Energy and Computer Games Sectors*. NCVER Monograph Series 06/2011. National Centre for Vocational Education Research Ltd. PO Box 8288, Stational Arcade, Adelaide, SA 5000, Australia.
- Dar, A., Canagarajah, S., & Murphy, P. 2003. Training Levies: Rational and Evidence from evaluations. World Bank, Washington, DC.
- Davos-Klosters. 2014. Matching Skills and Labour Market Needs Building Social Partnerships for Better Skills and Better Jobs, January 2014. Global Agenda Council on Employment. World Economic Forum.
- Debrah-Karikari, N., Loubeau, C., Malone, S., Olivry, V., Pang, L., Shimizu, H. & Virviescas-Mendoza, T. School to Work—Effective Components of a Technical and Vocational Education Program: The Nigerian Case.
- Department of Education (DoE). 2008. National Plan for Further Education and Training Colleges in South Africa. Pretoria: DoE.
- Department of Higher Education and Training (DHET). 2011. National Skills Development Strategy 3. Pretoria: DHET.
- Department of Higher Education and Training (DHET). 2013. White Paper For Post-School Education And Training. Pretoria: DHET.
- Department of Higher Education and Training (DHET). 2014. Skills for and Through SIPS What has been done and still needs to be done to Skill South Africans for SIPs and through SIPs. Pretoria: DHET.
- Department of Higher Education and Training (DHET). 2015. DHET technical indicator description grid 2014/2015. Pretoria: DHET.
- Department of Higher Education and Training (DHET). 2016a. Minister of Higher Education And Training Budget Speech, National Assembly, April 21st
- Department of Higher Education and Training (DHET). 2016b. Report of the Ministerial Task Team to develop a Support and Funding Model for Poor and "Missing Middle" students (Executive Summary). Government Gazette No. 40504, December.
- Department of Higher Education and Training (DHET). 2017a. DHET technical indicator description grid 2016/2017. Pretoria: DHET.
- Department of Higher Education and Training (DHET). 2017b. Annual Report. Pretoria: DHET.

- Department of Higher Education and Training (DHET). Undated. TVET College Programme Planning. "Start with the end in mind". Presentation.
- Department of Labour (DoL). 1998. Skills Development Act. No. 97 of 1998. Pretoria: DOL.
- Dingwall, R., Hoffman, L. M., & Staniland, K. 2013. Introduction: Why a sociology of pandemics? *Sociology of Health and Illness*, 35(2), 167-173.
- Downes, A. S. 2006. Best Practices of Public Private Partnerships on Education and Skills Training in the Caribbean. *Sir Arthur Lewis Institute of Social and Economic Studies University of the West Indies, Cave Hill Campus, BARBADOS*.
- Dunbar, M. 2013. Engaging the private sector in skills development. *Health & Education Advice and Resource Team. Oxford Policy Management, Oxford, England*.
- European Commission. 2003. Guidelines for Successful Public-Private Partnerships. Brussels: Retrieved from http://ec.europa.eu/regional_policy/sources/docgener/guides/ppp_en.pdf.
- European Commission. 2013. Work-based learning in Europe: practices and policy pointers.
- Fares, J. & Puerto, O.S. 2009. Towards Comprehensive Training. World Bank.
- Fawcett, C., El Sawi, G., & Allison, C. 2014. TVET models, structures and policy reform: Evidence from the Europe and Eurasia Region. USAID.
- Gamble, J., 2014. An investigation into collaboration between TVET colleges and SETAs within the context of the DHET's LEAD-SETA-Supporting SETAs Model. Report Commissioned by the South African Colleges Principals Organisation (SACPO).
- Gastrow, M., 2015. Understanding interactive capabilities for skills development in sectoral systems of innovation: A case study of astronomy and the Square Kilometre Array telescope. LMIP Report 6. Retrieved from www.lmip.org.za.
- Glick, P.J., Huang, C. and Mejia, N. 2015. *The Private Sector and Youth Skills and Employment Programs in Low and Middle-Income Countries* (No. 23260). The World Bank.
- Gospel, H. 2012. Understanding Training Levies: Final Report. UK Commission for Employment and Skills. July 2012.
- Hawley, J. 2007. Public Private Partnerships in Vocational Education and Training: International Examples and Models. *Washington, DC, World Bank*.
- Hodge, G. A. & Greve, C. 2007. Public-Private Partnerships: An International Performance Review. *Public Administration Review*, 67: 545-558.
- Hodge, G. A., Greve, C., & Boardman, A. E. (Eds.). 2010. *International Handbook on Public-Private Partnerships*. Northampton, MA: Edward Elgar.
- Hoffman, N. 2011. *Schooling in the workplace": How six of the worlds best vocational education systems prepare young people for jobs and life*. Cambridge, MA: Harvard Education Press.
- Human Resource Development Council (HRDC). 2010. Human Resource Development Strategy 2010 – 2030. Retrieved from <http://www.hrdcsa.org.za>.
- Human Resource Development Council of South Africa (HRDC). 2014a. TVET Colleges' purpose in a Developmental State: Imperatives for South Africa. Report compiled by TVET Colleges Task Team. Retrieved from <http://www.hrdcsa.org.za>.
- Human Resource Development Council (HRDC). 2014b. Forging TVET College Partnerships Implications for the Post School Education and Training System. Retrieved from <http://www.hrdcsa.org.za>.
- Human Sciences Research Council (HSRC). 2006. Building FET College Responsiveness: The Role of Linkages and Programmes Units. HSRC Research Report. Pretoria: HSRC

- International Labour Organisation (ILO). 2012a. Overview of Apprenticeship Systems and Issues. ILO contribution to the G20 Task Force on Employment. November 2012.
- International Labour Organisation (ILO). 2012b. Follow-up on the implementation of the ILO-G20 Training Strategy.
- Innes, J.E and Booher, D.E. 2004. Reframing public participation strategies for the 21st century. *Planning Theory and Practice*. 5(4).
- Institute of Technical Education (ITE). 2014. Annual Report for the year ended 31 March 2014. Singapore. Retrieved from <https://www.ite.edu.sg>
- Intarakumnerd, P & Chaoroenporn, P. 2013. The roles of intermediaries in sectoral innovation system in developing countries: Public organizations versus private organizations. *Asian Journal of Technology Innovation*. 21(1), 108–119.
- International Youth Foundation. 2012. Opportunity for Action: Preparing youth for 21st Century Livelihoods. Retrieved from http://www.iyfnet.org/sites/default/files/Opportunity_for_Action.pdf
- Japan International Cooperation Agency (JICA). 2006. Lessons from TVET Projects Supported by the Japanese Government And Recommendations for the TVET Policies of BMENA Countries From the Public-Private Partnership (PPP) Perspective. Paper for the TVET Working Group of the G8-BMENA Partnership Initiative.
- JET Education Services. 2015. Private sector investment in South Africa's education sector: nature, extent and incentives. Research Brief, December 2015.
- JET Education Services. 2015. The Colleges Improvement Project in brief. August edition; *Jet Education Services*.
- Johanson, R. 2009. A Review of National Training Funds, World Bank.
- Kasipar, C., Mac Van Tien, S.Y.L., Le Phuong, P., Huy, P.Q., Schnarr, A., Quanquan, W., Ying, X. & Bünning, F. 2009. *Linking Vocational Training with the Enterprises: Asian Perspectives*. InWEnt.
- Kim, D. G. 2001. *Qualification system in Korea*. Seoul, Korea: Korea Research Institute for Vocational Education and Training.
- Kraak, A., Jewison, R., Pillay, P., Chidi, M., Bhagwan, N. & Makgolane, M. 2013. Review of the Current Skills Development System and Recommendations Towards the Best Model for Delivering Skills in the Country. Skills System Review Task Team. Report for Human Resource Development Council South Africa.
- Kruss, G., and Petersen, I. 2014. Understanding interactive capabilities for skills development in sectoral systems of innovation: A tentative framework. LMIP Working Paper 2, Labour Market Intelligence Partnership. Retrieved from www.lmip.org.za
- LaRocque, N. 2008. Public-Private Partnerships in Basic Education: An International Review. CfBT Education Trust, Berkshire.
- Lucci, P. 2012. Post 2015 MDGs: What role for business? Overseas Development Institute.
- Maclean, R. & Wilson, D. eds. 2009. *International Handbook Of Education For The Changing World Of Work: Bridging Academic And Vocational Learning* (Vol. 1). Springer Science & Business Media.
- Maigida, J.F. 2014. Building and Sustaining Partnerships through Public Private Partnership For Effective Technical Vocational Education and Training Programme in Nigeria. A presentation at the International Vocational Education Association (IVETA) conference. Nashville, Tennessee, USA.

- Marti, K. 2010. College vs. University: 3 myths debunked. Study Magazine. 26 November. Retrieved from <http://studymagazine.com/2010/11/26/college-vs-university/>
- McGrath, S. 2015. Understanding interactive capabilities for skills development in sectoral systems of innovation: A case study of the Tier 1 automotive component sector in the Eastern Cape. LMIP Report 7. Retrieved from www.lmip.org.za.
- McKinsey Global Institute. 2012. Africa at Work: Job Creation and Inclusive Growth.
- Mehrotra, S. 2011. Skill Development Initiatives: Private-Public Partnership and Private Initiatives in India. Norrag News Online.
- Mital, K.M. and Mital, V. 2006. Public Private Partnership and Social Infrastructure. In Foundations of E-Government, edited by Ashok Agarwal and Venkata Ramana. Computer Society of India.
- Moore, D.T. 2010. Forms and Issues in Experiential Learning. *New Directions for Teaching and Learning*, 2010(124):3-13.
- Mourshed, M., Farrell, D., & Barton, D. 2012. Education to Employment: Designing a system that works. *Dominic Barton*.
- Muhammad, A.D.K. 2009. New Initiatives for Private Sector Involvement in Skills Development in Nigeria: Vocational Enterprise Institutions (VEIs) and Innovation Enterprise Institutions (IEIs), National Board for Technical Education, Kaduna, Nigeria.
- Musobo, I.C. & Gaga, J. 2012. Restructuring TVET as part of the Educational Reforms in Rwanda: A Case on Public Private Partnerships in Rwandan TVET.
- Nsasira, R., Basheka, B.C. & Oluka, P.N. 2013. Public Private Partnerships (PPPs) and Enhanced Service Delivery in Uganda: Implications from the Energy Sector. *International Journal of Business Administration*, 4(3):48.
- Nuwagaba, A. 2012. Toward addressing skills development and employment crisis in Uganda: The role of public private partnerships. *Eastern Africa Social Science Research Review*, 28(1):91-116.
- Omolo, J. 2012. Youth Employment in Kenya: Analysis of Labour Market and Policy Interventions. FES Kenya Occasional Paper, No. 1. *Friedrich Ebert Stiftung*.
- Organisation for European Cooperation and Development (OECD). 2008. *Public-private Partnerships; in Pursuit of Risk Sharing and Value for Money*. Paris: OECD.
- Organisation for European Cooperation and Development (OECD) 2016. Bridging the gap: the private sector's role on skills development and employment. 8th Annual expert meeting on the Employment and Skills Strategy in Southeast Asia (ESSSA), Cebu City, Philippines Retrieved on 31th July 2017 from <https://www.oecd.org/employment/leed/Summary-Report-2016-SouthEast-Asia-%20FINAL.pdf>
- Patrinos, H.A., Osorio, F.B. & Guáqueta, J. 2009. *The Role and Impact of Public-private Partnerships in Education*. World Bank Publications.
- Perold, H., Cloete, N., & Papier, J. (2012) *Shaping the Future of South Africa's Youth Rethinking post-school education and skills training*. Somerset West: African Minds.
- Petersen, I.H. 2015. Understanding interactive capabilities for skills development in sectoral systems of innovation: a case study of the sugarcane growing and milling sector in KwaZulu-Natal. LMIP Report 8. Retrieved from www.lmip.org.za.
- Public Private Infrastructure Advisory Facility (PPIAF). 2012. Developing a Public-Private Partnership Framework: Policies and PPP Units. Policy note.

- Reddy, V., Bhorat, H., Powell, M., Visser, M. and Arends, A. 2016. Skills Supply and Demand in South Africa, LMIP Publication, Human Sciences Research Council, Pretoria.
- Republic of South Africa (RSA). 1996. National Education Policy Act.
- Republic of South Africa (RSA). 1998. The Further Education and Training Act.
- Republic of South Africa (RSA). 1999. Skills Development Levies Act.
- Republic of South Africa (RSA). 2006. Continuing Education and Training Act.
- Republic of South Africa (RSA). 2011. National Skills Development Strategy III.
- Republic of South Africa (RSA). 2014. Skills for and through SIPs: What Has Been Done and Still Needs to be Done to Skill South Africans for SIPs and through SIPs.
- Roehrich, J.K, Lewis, M.A. & George, G., 2014. Are Public–Private Partnerships a Healthy Option? A Systematic Literature Review. *Social Science & Medicine*, 113:110-119.
- Rose, P. 2013. Internships: Tapping into China’s Next Generation of Talent. *Asia-Pacific Journal of Cooperative Education*, 14(2):89-98.
- Russell, T. 2015. TVET Governance. Regional TVET Conference Supporting AEC Integration through Inclusive and Labour Market Oriented TVET. Background paper. 14-15 December 2015.
- Ryan, P., Wagner, K., Teuber, S., U. Backes-Gellner, U., 2010. Trainee Pay in Britain, Germany and Switzerland: Markets and Institutions SKOPE Research Paper No. 96 July.
- Sharma, S. 2015. Public-Private Partnerships and Skills Development. Presented at an online workshop hosted by Oxford Human Rights Hub and Open Society Foundations, July 29, 2015.
- Simiyu, J.W. 2009. Revitalizing a Technical Training Institute in Kenya: A Case Study of Kaiboi Technical Training Institute, Eldoret, Kenya. UNESCO.
- Singizi. 2011. Review of FET College Partnerships and Linkages. Swiss-South African Cooperation Initiative: Pretoria.
- Smith-Comyn, B. 2011. A Framework for Sustainable TVET Public Private Partnerships in Cambodia. Prepared for the International Labour Organisation (ILO).
- Spies, M., Garisch, C. 2014. An investigation into collaboration between TVET colleges and SETAs within the context of the DHET’s Lead-SETA–Supporting SETAs Model. Draft Report. Commissioned by: The South African College Principals Organisation (SACPO).
- Stern, D., Dayton, C., & Raby, M. 2010. *Career Academies: A Proven Strategy to Prepare High-School Students for College and Study*. Berkeley, CA: Career Academy Support Network. Retrieved from <http://casn.berkeley.edu>.
- Tansen, M. H. Undated. Public Private Partnership (PPP) in the Technical Vocational Education and Training (TVET) Sector in Bangladesh: Challenges and Prospects.
- Toner, P. 2011. Tradespeople and technicians in innovation. In *Fostering enterprise: the innovation and skills nexus – research readings*, edited by Penelope Curtin, John Stanwick and Francesca Beddie, pp. 127-143. Australia, National Centre for Vocational Education Research (NCVER). Retrieved from <http://www.ncver.edu.au/publications/2367.html>.
- Toner, P. 2014. Contracting out Publicly Funded Vocational Education: A Transaction Cost Critique. *The Economic and Labour Relations Review*, 25(2), 222-239.
- United Nations Educational, Scientific and Cultural Organization (UNESCO). 2009. In-Country Seminar-Workshop on Public-Private Partnership in Technical Vocational Education and Training: An Emerging Need. A joint collaboration between the WVCST Graduate School, Colombo Plan Staff College and the UNESCO-UNEVOC Philippines, Visayas Center WVCST Ed Tech Center. May 21-22, 2009.

- United Nations Educational Social and Cultural Organisation (UNESCO). 2013. *Revisiting global trends in TVET: Reflections on theory and practice*. Bonn, Germany: UNESCO-UNEVOC.
- Von Tunzelmann, N. 2010. Alignment, misalignment and dynamic network-based capabilities. In *Network dynamics in emerging regions of Europe*, edited by DA Dyker. London: Imperial College Press
- Waddock, S. A. 1991. A Typology of Social Partnership Organisations. *Administration and Society* 22(4), 480-516.
- West, E.G. 1997. Education Vouchers in Principle and Practice: a Survey. *The World Bank Research Observer*, 12(1)83-103.
- World Bank. 2011. Do Vouchers for Job Training Programs Help?
- World Bank. 2012. *Leading with Ideas: Skills for Growth and Equity in Thailand*. Washington D.C. The World Bank. Retrieved from <https://openknowledge.worldbank.org>
- Ziderman, A. 2002. *Financing Vocational Training to Meet Policy Objectives: Sub-Saharan Africa*, The World Bank.
- Ziderman, A. 2016. Funding Mechanisms for Financing Vocational Training: An Analytical Framework. *Institute for the Study of Labour IZA Policy Paper* No. 110.

Appendices

Table A 1 Detailed summary of actors and their roles, articulated in key policy promoting, driving and supporting PPPs

Actor	Roles and responsibilities	
DHET	Promote partnerships through policy and regulation, provide funding, and monitor partnerships in TVET (thus far the focus has been on the number of partnerships)	<p>DHET Strategic objective indicators related to interface development include:</p> <p>Indicator 39: The number of artisan learners registered nationally. Responsible: sub-programme manager INDLELA</p> <p>Indicator 40: Number of artisan candidates found competent nationally. Responsible: sub-programme manager INDLELA</p> <p>Indicator 41: Number of graduates receiving Structured Work Place Learning. Responsible: Sub programme Manager: WIL</p> <p>Indicator 44: Number of FET colleges with partnership agreements with SETAs. Responsible: Sub-programme manager: SETA Coordination. (DHET,2015)</p> <p>Sub-outcome 4: Increased access to occupationally directed programmes in required areas and expansion of the availability of intermediate level skills, with a specific focus on artisan skills</p> <p>Indicator: Number of Work-based learning opportunities Responsible: Sub-programme manager: WIL and SETA Coordination (DHET, 2017a)</p>
TVET colleges	Form effective partnerships with industry, for workplace-based placement, curriculum design and graduate employment	<p>Form partnerships with industry (find out which partners will deliver work-based placements). Each TEVT college has at least one functional industry partnership for placements (HRDC, 2010)</p> <p>Work with local industry to determine what skills programmes they can offer and place students</p> <p>Work to secure placements for students including both for the courses and on exit from education (linked to student support programme) (DoE, 2008:58).</p> <p>Form partnerships to encourage industry input into curriculum improvement (DoE, 2008:64-65)</p> <p>Place lecturers to ensure real workplace exposure (DoE, 2008:64-65)</p> <p>Have a strategic plan in place to build capacity and engage in skills development programmes, including programmes offered in partnership with employers (HRDC, 2010::17) [NSDS outcome indicator]</p> <p>Facilitate student access to employment (DoE, 2008:44)</p> <p>The <i>National Professional Lecturer Development Framework</i> includes “general prerequisites for all college lecturers to practise in the FET College sector” (DHET,54).</p>
SETAs		Promote and facilitate partnerships (DHET, 2013:.xii, 16). Improve the facilitation of learning (DoL,1998:32)

	<ul style="list-style-type: none"> - Facilitate partnerships with industry - Coordinate PPPs at the sectoral/regional level - Promote the involvement of industry in curriculum development - Articulate skills needs in sectoral systems - Fund skills development 	Core functions include stakeholder engagement, needs assessment and responses, supporting work-place learning (DHET, 2013:58).
		Research and identify mid-level skills needs and put in place strategies to address them through TVET colleges in partnership with employers providing workplace-based training (RSA, 2011:14).
		Establish projects and partnerships to train artisans in their sector (RSA, 2011:14). Sector projects are developed that are piloted by SETAs and expanded through partnership funding. (RSA, 2011:20) [NSDS outcome indicator]. SETAs must establish learning programmes with work-based learning options (DoL, 1998).
		SETAs identify TVET colleges with relevant programmes and put in place partnerships to offer vocational courses and work experience for college learners (RSA, 2011:17) [NSDS outcome indicator]
		SETAs must liaise with provincial offices and labour centres of the Department, as well as skills development forums, to improve information about placement opportunities. They must also liaise between education and skills development providers and the labour market (DoL, 1998:33).
		SETAs, through their skills planning research, identify the skills needs of small and emerging businesses in their sector, and promote relevant programmes. (RSA, 2011:20) [NSDS outcome indicator]
		Support the development of learning materials (DoL, 1998:32)
		A national database of small businesses supported with skills development is established and the impact of training reported on (National Skills Dev Strategy 3, p.20) [NSDS outcome indicator]. SETAs must register agreements for learning programmes (DoL, 1998:)
		SETAs allocate grants to employers, education and training providers and workers (DoL, 1998:32).
National Skills Fund NSF	Promote and fund partnerships	Align skills development to national development strategies, building linkages Promote partnerships and drive change toward partnership-based programmes (RSA, 2011:24).
SAIVCET (South African Institute for Vocational and Continuing Education and Training)	Promote partnerships between colleges, SETAs, employers, and professional councils	Promote dialogue, coordination and linkages between TVET and community colleges, and between these institutions and universities, SETAs, employers and workers
		Support the development of a skills system (RSA, 2006:70).
		Promote dialogue between colleges and between employers and SETAs (RSA, 2006:71).
		Interact with professional councils and promote dialogue between those councils and education and training institutions and the Department (RSA, 2006: 71).
NEDLAC (National Economic Development and Labour Council)	Promotes and facilitates policy-related social dialogue, and government accountability	Promote access to training opportunities (as stipulated in the National Skills Accord)
Inter-Provincial Committee for TVET Colleges (a	Facilitate partnerships between colleges, occupational/trade	Consult with organised business and “ensure close interaction with various industry sectors, occupational/trade organisations to enhance college efficiency” (p. 25). This includes learnerships as a skills development route.

HEDCOM sub-committee)	organisations and organised business	
Employers	<ul style="list-style-type: none"> - Fund skills development - Articulate skills needs - Partner with colleges to advise on the curriculum, provide opportunities for practical training / upskilling / career development of lecturers, and provide workplace based exposure opportunities to students 	Employers should also be in a position to advise the college system and individual colleges around issues of curriculum, and experts from industry could teach at colleges on a part-time or occasional basis (DHET, 2013:xii).
		TVET lecturers undergoing specified hours of work in their industry for specified periods every two years from 2019 (%) (DHET,2017b:58)
		A skills development levy must be paid by every employer (RSA, 1999:4). Employers that undertake skills development can apply to the related SETA for a skills development grant. The employer must submit a workplace skills plan which details the strategy with which the employer will undertake training in the workplace.

Box A 1 Checklist for the implementation of PPPs for skills development

We provide a checklist to guide the implementation of PPPs for skills development in TVET:

PHASE I: CHOOSE THE PARTNERS

- Identify an economic sector in the local economy with substantial labour force demands and interest in developing new training options.
- Identify key players in the sector and propose collaboration with a training partner;
- Approach prospective training partner(s).
- Review the match between labour force demands of the private sector partner and the existing labour supply produced by the training partner(s).
- Identify assets and limitations of programs provided by the training partner.
- Agree on desirability of forming a PPP to meet the objectives of all partners.

PHASE II: FORM THE PARTNERSHIP

- Review options and select the most feasible and productive ones.
- Develop curriculum plan and responsibilities for implementation.
- Identify staffing needs and sources of instructors.
- Secure space and equipment.
- Set enrolment and graduation targets and develop a recruitment plan.
- Prepare a budget that identifies start-up costs and ongoing operating costs. Identify sources of revenue.
- Develop a plan for program monitoring and an evaluation strategy.
- Develop a public relations plan.
- Establish roles and responsibilities of the partners.
- Create and sign a Memorandum of Understanding amongst the partners.

PHASE III: MAINTAIN THE PARTNERSHIP

- Respect the common and different short-term and long-term objectives of partners.
- Identify champions from all partners who will maintain commitment and flexibility needed to help the program flourish.
- Be prepared for staff turnover and transitions at the partner organizations so that new participants can join easily and productively.

PHASE IV: MONITOR AND MODIFY THE PARTNERSHIP

- Hold regular review sessions to review changes in environmental/external factors and progress of program components.
- Modify the program as needed. Flexibility to meet changing demands in the labor market is critical for sustainability.

PHASE V: REPLICATION

- Explore additional training programs for the existing partners.
- Explore options in other business sectors.
- Explore public policy implementation of principles of public-private partnerships.

Source: Adapted from Al-Wedyan et al (2009).