

Local Economic Responsiveness and TVET Colleges

A Guide to Mapping TVET Partnerships and Linkages

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This research guide is intended as a resource for college managers and strategic planners to inform college strategic planning around responsiveness to local economic development. It provides tools to gather and analyse information on: 1) economic and skills drivers of the college's local economy, 2) key role-players and industries in the college's local economy, 3) the state of existing TVET college partnerships, and 4) identify types of partnerships missing from the college's existing stakeholder networks. This information can be used to monitor existing college partnerships. The guide is an accompaniment to the LMIP report, *'Synthetic Analysis on 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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ACRONYMS

AET	Adult Education and Training
DHET	Department of Higher Education and Training
HSRC	Human Sciences Research Council
LMIP	Labour Market Intelligence Partnership
PSET	Post-school Education and Training
SETA	Sector Education and Training Authority
SKA	Square Kilometre Array
SMME	Small, Medium and Micro Enterprise
SSP	Sector Skills Plan
SSI	Sectoral System of Innovation
TVET	Technical and Vocational Education and Training
WSP	Workplace Skills Plan

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Introduction

In 2012, the Department of Higher Education and Training (DHET) commissioned the Human Sciences Research Council (HSRC) to lead a national research consortium, *the Labour Market Intelligence Partnership (LMIP)*, to support it in creating a strategic labour market intelligence system.

This research guide is based on an LMIP project: *A study of labour market interactive capabilities, structures and mechanisms in diverse post-school education and training institutional settings*. The study investigated ways in which alignment between public and private education and training providers, and firms and labour markets, can be improved. The researchers designed a framework and a set of instruments for collecting and analysing data on organisational capabilities and interaction in skills development networks. It used these to analyse practices within three sectoral systems: sugarcane growing and milling in Kwa-Zulu Natal, automotive components manufacturing in the Eastern Cape, and astronomy, specifically the Square Kilometre Array big-science project.

In a changing policy landscape, universities and TVET colleges are challenged to improve their responsiveness to skills needs, and Sector Education and Training Authorities (SETAs) are expected to improve their performance as intermediaries (see DHET 2013). New regulatory instruments require that these post-school education and training organisations work more closely with key stakeholders in their local settings, such as firms and local government. To improve responsiveness, universities, TVET colleges and SETAs are required to improve their understanding of skills needs in their local settings, and gather information on their partnerships and linkages with other education and training organisations, employers, and so on.

The LMIP research team thus offer this research guide, as one resource that TVET college managers and strategic planners can use to inform their strategic planning processes. We offer a conceptual framework, practical guidelines and templates for research on TVET college partnerships and networks, and the capabilities of TVET colleges to form effective partnerships towards improving alignment between skills demand and supply.

Who this research guide is for

The guide is intended to inform college strategic planning. The guide provides tools for **college managers and strategic planners** to gather and analyse information on:

- economic and skills drivers of the college's local economy
- key role-players and industries in the college's local economy
- the state of existing partnerships with SETAs, employers, other education and training providers and other stakeholders
- identify types of partnerships missing from the college's existing stakeholder networks
- monitor existing college partnerships

How to use this research guide

This research guide has two overall purposes:

- To introduce a systemic approach to skills planning and development, one that captures the dynamics and complexities of 'skills development realities'
- To equip college managers and strategic planners (and research staff) with an analytical framework, practical guidelines and instruments for analysing and monitoring college partnerships and stakeholder networks

Structure of this research guide

Each section of this research guide has been designed to build on the previous one, moving from high-level ideas to very practical steps to gather and analyse data.

Section 1 discusses why it is useful to understand TVET colleges' partnerships and linkages.

Section 2 proposes *a bottom-up approach to skills planning and development* based on an innovation systems framework to understanding skills development.

Section 3 describes *how* a college could conduct an analysis of the local economic context of the college, focussing on *identifying the main industries and employers and drivers of changing skills needs*.

Section 4 provides guidelines and a template for creating *a visual map of the main actors in their local economic context*.

Section 5 describes *how* a college could *analyse college partnerships and linkages* to identify key partnerships and missing partnerships, and to monitor existing partnerships.

Section 6 provides additional supporting information and resources.

Key terms and concepts

Table 1 provides a summary of the key terms and concepts used in this document. It is a useful glossary that can be referred to repeatedly, in each section of the guide.

Table 1 A summary of key terms and concepts

Sectoral system of innovation	“(S)ets of actors organised around specific types of productive activities and technologies” (e.g. sugarcane milling), within distinct geographical (e.g. in KwaZulu-Natal) and institutional settings (e.g. policy) ¹ .
Competencies	The pre-set attributes of firms (and individuals), including expertise, human resources, organisational routines and structures, technologies, formal policies or other physical resources ² .
Interactive capabilities	The capacity to form effective linkages with other organisations and use existing competencies to learn through interaction ³ .
Dynamic interactive capabilities	The capacity to sense changes in the environment relevant to the organisation, and take an effective and timeous response through strategic management.
Institutions	Rules or guides for behaviour, distinguished between: formal (e.g. national policy) and informal (e.g. organisational culture), binding (specific regulations) and created by interaction (e.g. contracts), national (e.g. patent system) and sectoral (e.g. sectoral labour markets) institutions.
Social skill	The ability to form linkages, work in a team and “induce cooperation among actors in an organisation or any other field” ⁴ .
Post-school education and training (PSET) organisations	Diverse set of private and public education and training organisations – that is, universities, universities of technology, vocational education and training organisations (TVET), private colleges, private higher education institutions, and other training providers (e.g. AET public and private institutions, training centres operated by employer / industry associations, etc.).
Sectoral intermediaries	Organisations in sectoral systems of innovation that facilitate interaction, and translate and facilitate information flows ⁵ as well as offer services (e.g. training) that are not easily available in the system but are essential.
Private intermediaries	Sectoral intermediaries that tend to focus more on industry or firm-specific issues.
Public intermediaries	Sectoral intermediaries that tend to focus on public good objectives, especially those related to policy.
Actors	Participants or stakeholders in skills development systems, which could include individuals, organisations or units within organisations.

¹ Malerba (2005)

² von Tunzelmann and Wang (2003)

³ von Tunzelmann and Wang (2003, 2007 in Iammarino, 2009)

⁴ Fligstein and McAdam (2012: 46)

⁵ van Lente et al (2003: 248)

Section 1. The importance of mapping college partnerships and linkages

“ In addition, emphasis will be given to strengthening partnerships with employers, both at the system level and that of individual colleges. Such partnerships will 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. 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. SETAs have an important role to play in promoting and facilitating links between colleges and employers. A curriculum that responds to local labour market needs or that responds to particular requests from SETAs, employers or government to meet specific development goals will result in a differentiated college system with various niche areas of specialisation. ” (White Paper for Post-School Education and Training, 2013: xii)

Strengthening and expanding the public TVET college system has been described as the DHET’s ‘highest priority’ (White Paper for Post-School Education and Training, 2013: xii). As part of the process of strengthening and expanding the system, the DHET is keenly promoting partnerships and linkages between TVET colleges and its stakeholders as essential for its core purpose: preparing ‘students for the workplace and/or self-employment’.

Hence, partnerships and linkages are seen as mechanisms providing opportunities to enhance teaching and learning and improve graduate employment. Collaborating with industry, SETAs and other stakeholders is thus crucial for effective strategic planning. The DHET recognises the importance of **collaborative strategic planning** and has emphasised stakeholder consultation in compiling TVET college strategic plans for the next period, 2014-2019, to meet strategic goals. For strategic planners at the colleges, knowing with whom staff interact to enhance teaching and learning at the college as well as the nature of their partnerships and linkages is useful for:

- identifying strong partnerships that need to be sustained;
- weak linkages that could be of greater benefit to the college and students if they are strengthened; and
- missing linkages with key role-players.

An analysis of college interaction with employers, SETAs and other stakeholders is thus useful for identifying strengths and gaps to inform targeted interventions. Such an analysis is a first step to understanding the role of a college in its local economy, which can inform strategic planning at the system level, but can also be useful for improving responsiveness at the college level.

To achieve this purpose, we suggest a framework for mapping college interaction and understanding a college’s role in skills development systems in the local economy, in relation to the range of key employers and SETAs as well as other post-school education and training organisations and other key role-players (such as employer / industry associations and government agencies). This framework is based on a ‘bottom-up’ approach to skills development, which we describe next.

Section 2. A bottom-up approach to analysing dynamic skills demand and supply

The research tools provided in this guide are based on a framework that captures the dynamics and complexities of skills development systems. It recognises the need to go beyond numbers to develop targeted interventions for skills planning and development. Different types of employers – whether small, medium or large or non-profits, and whether in resource-based, manufacturing or services sectors – respond in different ways to global and local shifts, new technologies and new knowledge. Similarly, TVET colleges, universities and other post-school education and training (PSET) organisations, in producing skills, respond in diverse ways to government policy and skills demand. An understanding of skills demand and supply has to take these factors into account if it is to reflect ‘skills development realities’.

Explaining the framework

In order for TVET colleges to better prepare students to enter the labour market and be more responsive to the needs of the ‘market place’, college managers and strategic planners need an improved understanding of routine skills needs and drivers of changing skills needs in their local economic contexts. Such an understanding requires interaction with employers, SETAs and other key intermediary organisations in the local economy. We thus propose a **bottom-up approach to skills planning and development based on an innovation systems** framework that emphasises **interaction and alignment** between the **needs and capabilities** of the different types of stakeholders in skills development systems – firms, government departments and agencies, post-school education and training providers, trade unions, research organisations, employer / industry associations, and so on. The approach is dynamic and emphasises change over time, but also how history shapes what is possible. In this research guide, the focus is on developing public TVET colleges’ **‘interactive capabilities’** – i.e. the capacity to form effective partnerships and learn through interaction⁶. A good example of interactive capabilities is an advisory body on which local industry and universities serve, which is a potentially useful mechanism for facilitating interaction between the college and key stakeholders in the local economic context.

A sectoral systems of innovation (SSI) approach provides useful analytical tools for analysing skills development systems as it emphasises employers’ knowledge bases, skills needs, interaction and networks, and institutional conditions. It should be noted that **we are not suggesting that colleges start analysing and building sectoral systems of innovation**. Rather, we propose that colleges and college strategic planners begin to apply a more systemic, bottom-up approach in their planning and interventions aimed at improving college responsiveness to the ‘market place’. The focus of the colleges, as set-out in the new TVET College Strategic Plan template, should be on analysing economic and skills drivers and stakeholders in their local economic contexts.

Within the SSI framework, a sector is defined as ‘a set of activities which are unified by some related *product groups* for a given or emerging demand and which *share some basic knowledge*’.⁷ So, for example, the actors within the sub/sectors governed by MerSETA share a focus on metals and engineering related product groups, and they share a knowledge base of engineering and other

⁶ See von Tunzelmann and Wang (2003, 2007 in Iammarino, 2009).

⁷ Malerba (2005: 65).

technological processes that all those who work in the sector will need to acquire. While the framework emphasises activities at the sector level, it considers the influence of stakeholders at the national and regional levels (e.g. national and provincial government).

Figure 1 provides a generic representation of the actors and interactive capabilities in a sectoral system of innovation in the South African context. It highlights the need to **outline or map the existing structure, the key role-players, and mechanisms/strategies used in skills development networks**. This research guide provides **step-by-step guidelines and instruments** for conducting this kind of mapping.

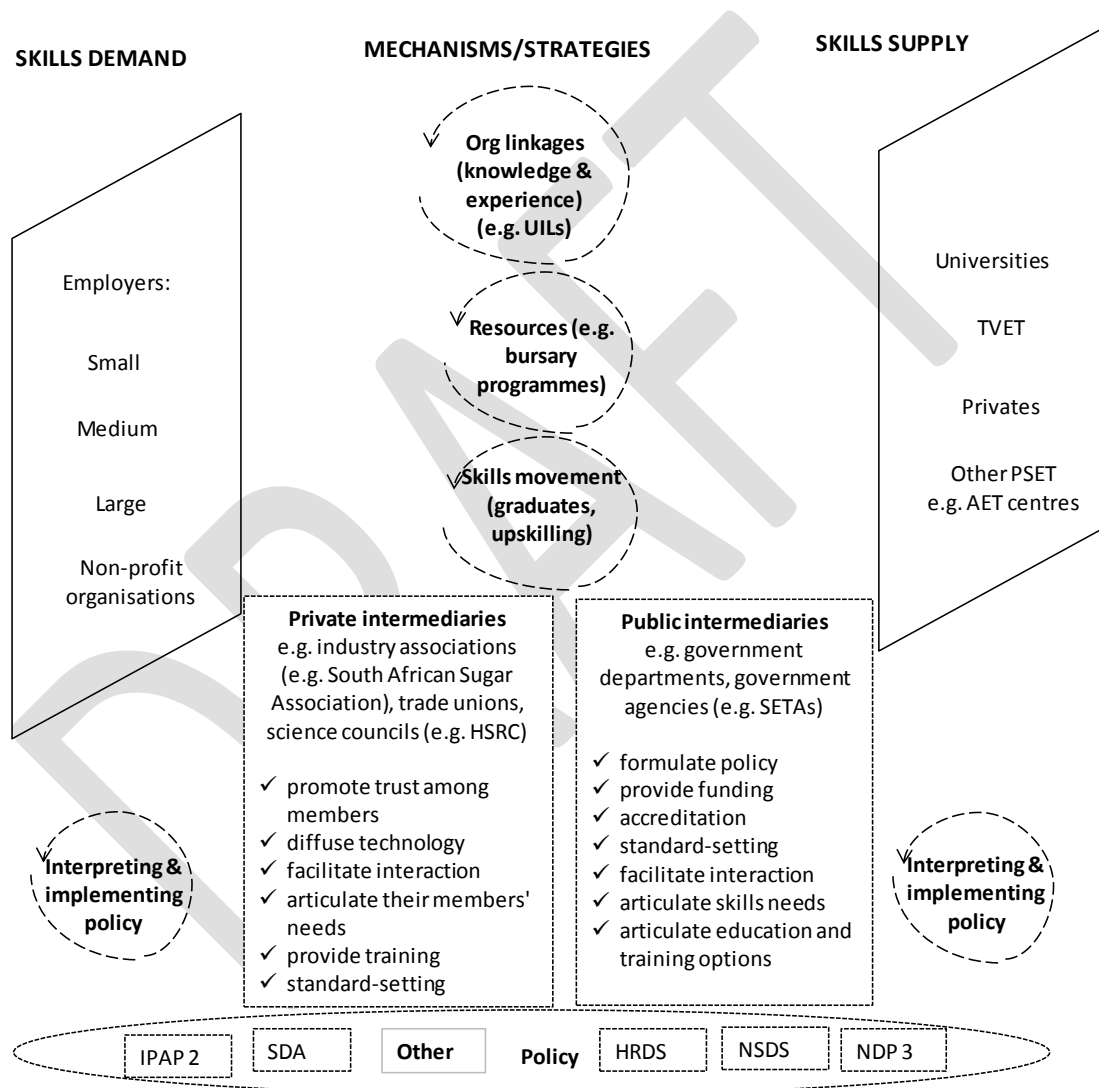


Figure 1 Innovation systems framework for analysing skills development systems

On the left hand side, we describe the relative size of groups of employers operating on the demand side: whether small, medium or large or not-for-profit, including formal and informal entities such as smallholders. Each group is likely to have distinctive skills needs. The framework highlights the need to investigate the **strategies and mechanisms** that employers use for meeting their **routine and**

changing skills needs to improve skills planning strategies and skills development interventions. Such an analysis may provide signals as to how PSET organisations, in their role as supply-side actors, can and do play a role in addressing skills needs.

On the right-hand side, we analyse the different types of PSET organisations that could be addressing skills demand in a sector – whether public TVET colleges, universities or universities of technology, private TVET colleges, private HET providers, AET providers, or other skills development programmes such as those involving apprenticeships, learnerships, work-integrated learning (WiL) or workplace-based experience (WBE). According to this framework, apprenticeship, learnership, WiL and WBE programmes are identified as mechanisms for interaction.

The circles in the middle of the diagram represent examples of the typical mechanisms and strategies used to link supply and demand. For example, there may be flows of financial resources, whereby firms provide scholarships and bursary programmes to meet their future skills requirements. Varying degrees of direct involvement are possible, that could include knowledge flows as well. For instance, a firm may host artisans or college students for workplace training, or university or college lecturers work in the firm to update their experience. Hence, different types of partnerships such as ‘firm-university’ partnerships for work-integrated learning and ‘SETA-TVET college’ partnerships are identified as mechanisms for interaction in this framework.

Between the left and the right-hand sides, we identify the intermediary organisations that serve to connect employers and PSET organisations, and align their goals. In the public sector, intermediary organisations include government departments, agencies like SAQA or QCTO, and critically, the facilitative and coordinating roles played by SETAs. In the private sector, intermediary organisations include industry associations (e.g. SA Canegrowers Association), research institutes, and so on.

Each of the actors is embedded in wider institutional environments, which shape and are shaped by their activities. Hence, at the very bottom of the diagram, we include examples of the main global, national or regional policy mechanisms that could be shaping demand in a sector, or influencing education and training supply. Firms, PSET organisations and intermediary organisations interpret policy and, depending on their interactive capabilities and strategic goals, respond in different ways and to varying degrees.

Drawing on this framework, we have developed a set of guidelines and research instruments to inform college strategic planning around how it responds to local economic development imperatives and how it monitors its partnerships to better achieve its strategic goals. The remainder of this research guide focuses on describing these guidelines and instruments.

Section 3. Describing the economic and skills drivers in the local economy

How can public TVET colleges develop an understanding of key economic and skills drivers in their local economic context?

The main industries found in the local setting of a college may include key potential employers of its students. Therefore, a description of the main industries and their changing skills needs is useful for planning programmes and developing relevant courses. A College Strategic Plan that includes the following would thus be a useful resource for developing targets to meet the college's strategic goals:

- a **detailed description of the main industries** in the local economy
- a **detailed description of changing skills needs** of the main employers
- a **systemic map of the key-role players** in the skills development systems serving skills needs

In Table 2 below, we suggest specific tasks and questions to guide the process of gathering information on key local industries/sectors, to inform a college's strategic planning processes. The idea is that the college focuses on one or two key industries/sectors. The college may then also select their mix of programmes according to what is needed by these key industries/sectors. For example, a college located near an iron- and steel manufacturing hub may decide to offer engineering programmes relevant for that industry. The college may decide to work with key employers in the industry to design skills programmes that address skills needs in the industry. The college may also decide to engage in a public-private partnership with firms and other stakeholders in the industry around funding for developing college facilities such as a laboratory or testing centre or developing teaching expertise.

Questions 1, 4 and 5 in Table 2 can be used to inform the creation of a visual map of the key role-players in the local economic setting. In the next section, we provide guidelines as to how to create this type of map.

Table 2 Guidelines for describing the key role-players and the economic and skills drivers in the local economy

TASK	QUESTION	SUGGESTED SOURCE	SUGGESTED METHODS
1. Describe the main industries in the local setting of the college campuses	Which are the main industries/sectors in the local setting of the college, taking into account the locations of each of the college campuses?	<ul style="list-style-type: none"> • College units for linkages, marketing, WBE • Relevant SETAs • Government departments • Employer / industry associations • Other secondary sources 	<ul style="list-style-type: none"> • Desktop research • Consultation within the college • Consultation with the relevant SETA, or employer associations
	How important are these industries/sectors to the local economy? (How much does each industry/sector contribute to GDP? How many people are employed in each industry/sector?).		
	Who are the main local employers? Who are the main employers of students graduating from the college?		
2. Identify the main skills needed in the local setting of the college, to which the college can respond	What are the scarce and critical skills needed in these industries/sectors at all occupational levels? (Indicate which skills your college currently provides.)	<ul style="list-style-type: none"> • Scarce and critical skills lists can be obtained from the relevant SETAs 	<ul style="list-style-type: none"> • Desktop research
3. Describe the main challenges of the local economy and the implications of these for skills development	What are the main drivers of changing skills needs, including change in technology and other national and global drivers of change (e.g. change in policy)?	<ul style="list-style-type: none"> • College units for linkages, marketing, WBE • Relevant SETAs • Government departments • Employer / industry associations • Other secondary sources 	<ul style="list-style-type: none"> • Desktop research • Consultation within the college • Consultation with the relevant SETA, or employer associations
	What are the challenges / threats / constraints to growth in these industries/sectors? What are the implications of these for skills development?		
4. Describe how the main industries are organised to identify key role-players with whom your college can partner to improve responsiveness to skills needs in the local economy	How is skills development in the main industries co-ordinated (e.g. co-ordinated by a key employer / industry association that also provides training)		
5. Describe the policy environment of the main industries to identify areas where your college can respond to address national and local priorities	Which are the main government departments (DTI, DAFF, DHET, DST, etc.), and incentive schemes, strategies, funding interventions, etc. relevant for the main industries/sectors?		

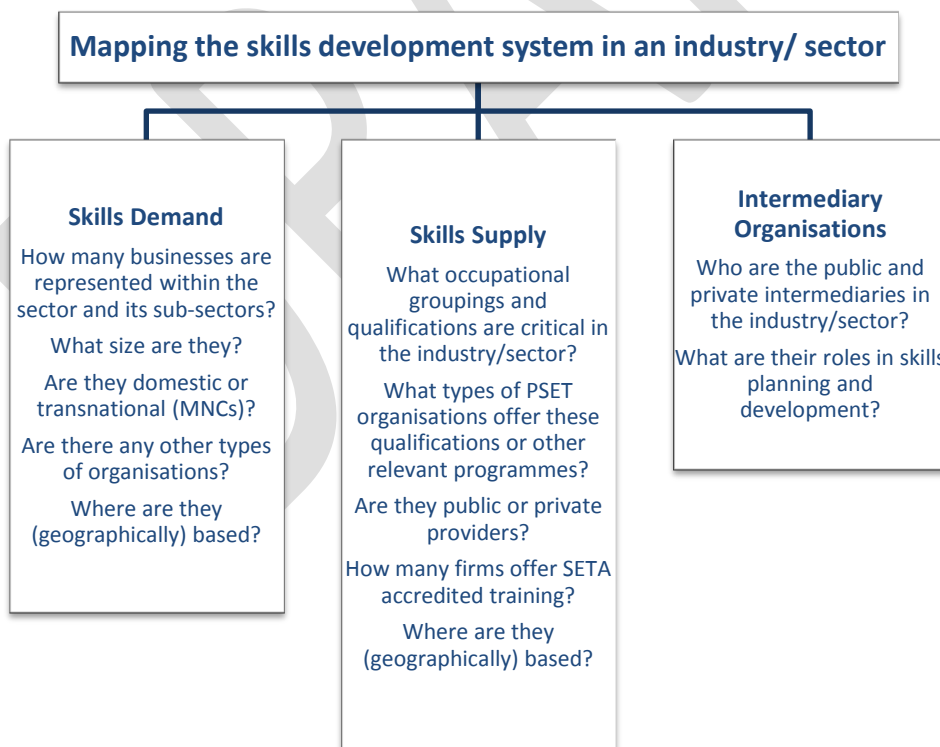
Section 4. Developing a visual map of the actors in the local economic context and local skills development systems

How can public TVET colleges identify key stakeholders and develop visual maps of the main actors in their local economic context?

Once the main industries/sectors in the local economy are identified, an informed decision can be made as to the main industries/sectors with whom the college will work more closely. College management may decide to strengthen *current engagement* with local industries/sectors. College management may also decide to develop the capabilities and linkages *to start engaging with different industries/sectors* that are prominent in the local setting.

A map of the main actors involved in skills development in each of these industries/sectors can then be developed. These types of maps illustrate the main employers in the industry/sector as well as the main public and private education and training organisations supplying skills needed, and other key role-players. These maps are useful planning tools because they identify potential partners for the college to improve its responsiveness to changing skills needs in the specific industry/sector. The lead SETA or other relevant SETAs may have already developed similar maps that may be used by the college.

Figure 2 suggests key research questions for identifying the main actors in a skills development system. A step-by-step guide and template for the mapping is provided below.



Source: Adapted from DHET (2014: 25)

Figure 2 Outline for mapping the skills development system in a sector

Step-by-step guide 1 Developing a visual map of the key role-players in the local economic setting

STEP	ACTION	SUGGESTED SOURCE	SUGGESTED METHODS	TEMPLATE / GUIDE
1	Develop profiles for skills demand, skills supply and the main sectoral intermediaries in the industry/ sector	<ul style="list-style-type: none"> College units (linkages, marketing, skills programmes) SETA documents SETA sub-sector committees/ constituencies Employer / industry associations Government departments and agencies Information gathered for Table 2 (Questions 1, 4 and 5) 	<ul style="list-style-type: none"> Desktop research Consultation with relevant college units, SETAs, employer associations, government 	Figure 2: Research questions on Skills Demand, Skills Supply and Intermediary Organisations
2	Develop a list of the main firms/employers, intermediary bodies, government departments and agencies, and PSET organisations involved in the industry/sector	<ul style="list-style-type: none"> Information gathered at STEP 1 		
2	Draw a visual map of actors in the industry/ sector	<ul style="list-style-type: none"> List of main actors from STEP 2 		<ul style="list-style-type: none"> Map of actors template (Figure 3; Figure 4)

Notes:

- As a systemic mapping exercise the focus should be on defining and describing actors and their relationships.
- This must also be quantified where possible (e.g. 700 SMMEs, 55 merSETA-accredited private providers, etc.).

Figure 3 presents a template that can be used for developing the visual map of actors, based on the guidelines provided in **Step-by-Step Guide 1** above. An example of a populated map is included in **Figure 4**.

In the next section, we provide useful resources for monitoring the partnerships and linkages of college managers, unit heads and lecturers.

MAP OF ACTORS IN THE COLLEGE'S LOCAL ECONOMIC CONTEXT

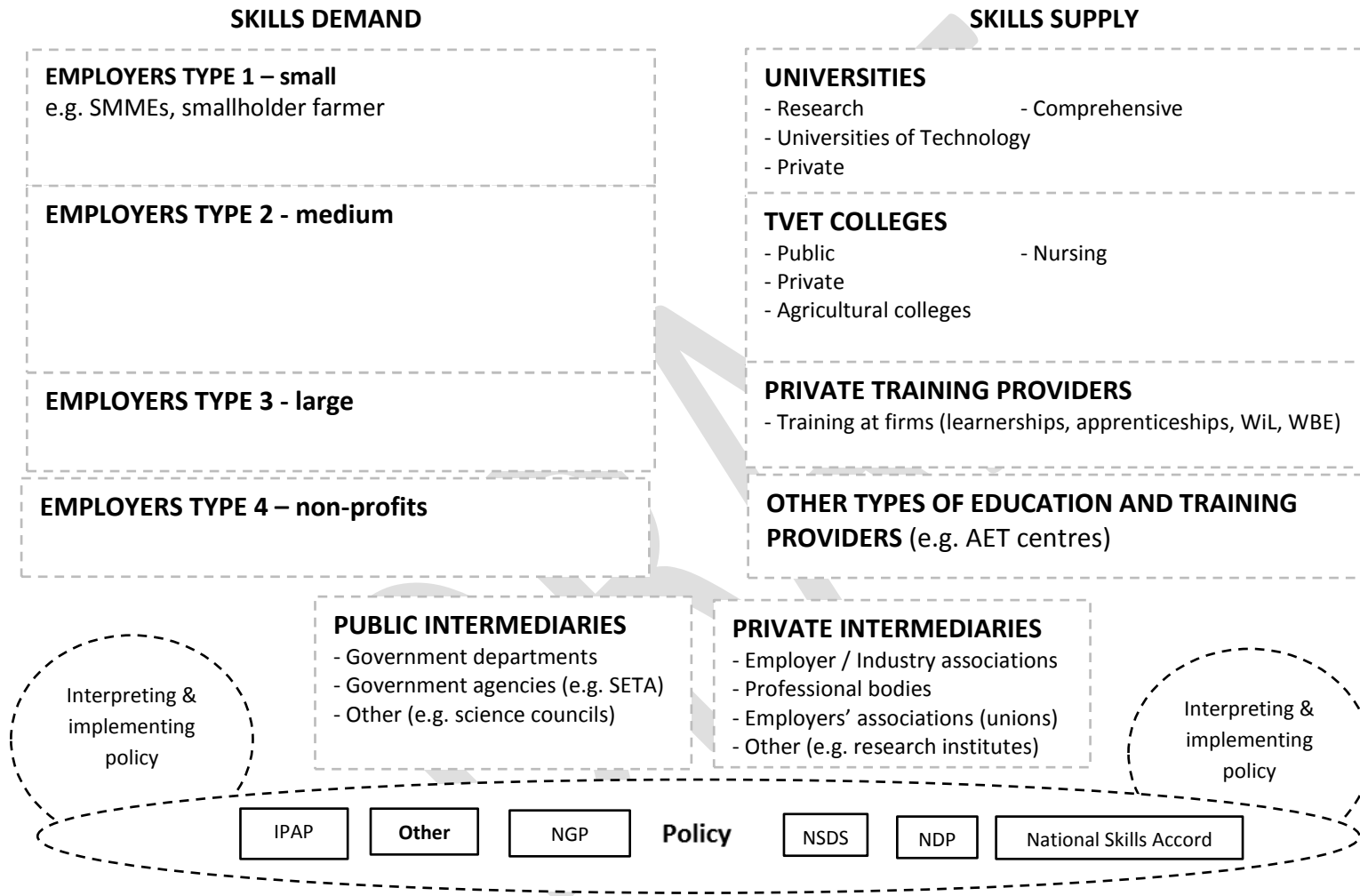
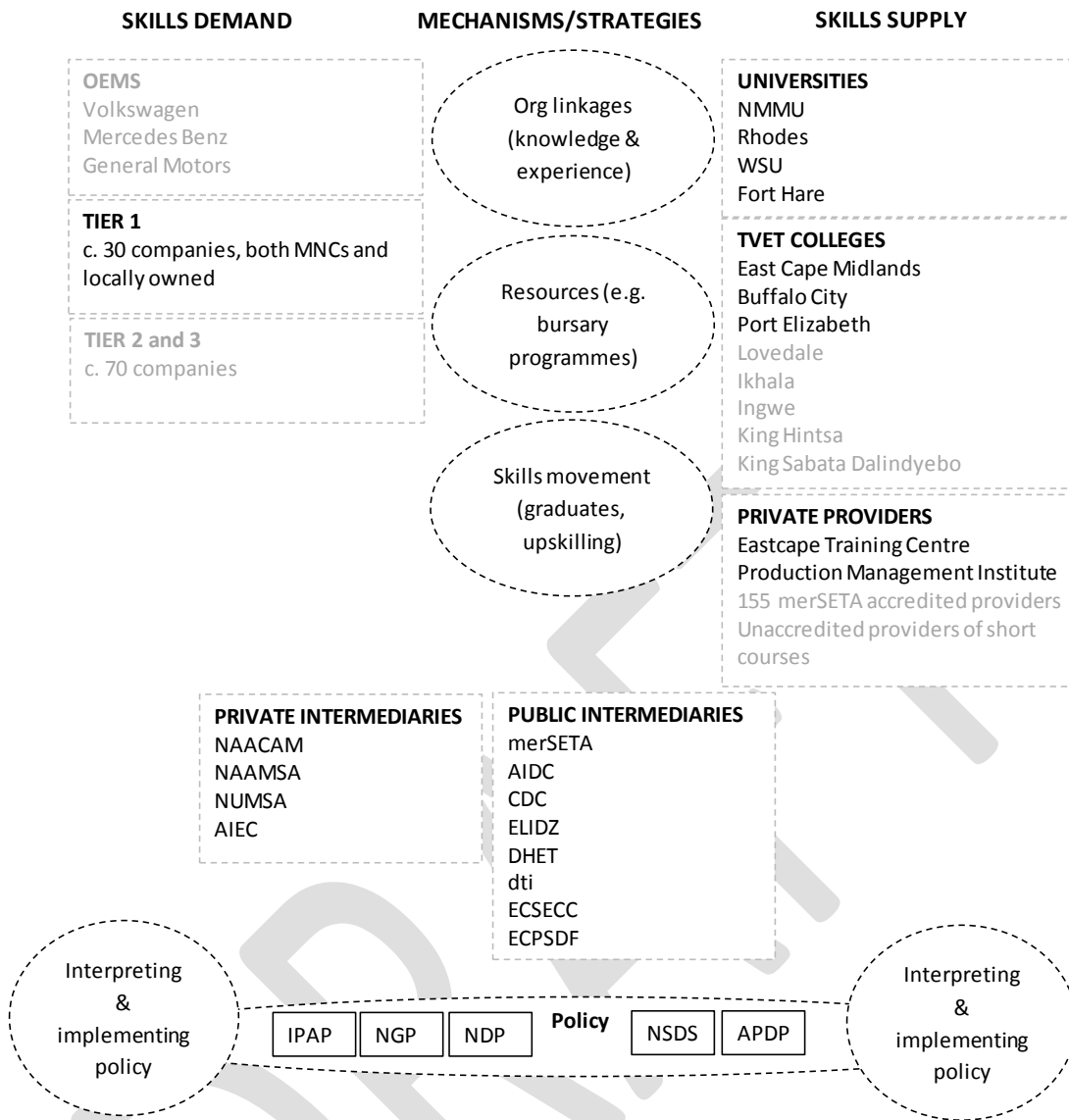


Figure 3 Map of actors (generic) template



Note: The organisations in grey are not a core part of this study but are actors in the SSI.

Source: McGrath (2015)

Figure 4 Map of the automotive components manufacturing sectoral system of innovation in the Eastern Cape

Section 5. Mapping college partnerships and linkages

How can public TVET colleges collect and analyse data on their partnerships with stakeholders in their local economic context and monitor their key partnerships?

In this section, we provide a set of ‘tried and tested’ instruments for collecting and analysing information on college partnerships and linkages. The objective is to provide college managers with research templates that can be used to monitor the effectiveness of the partnerships of college staff in achieving the intended goals and deliverables. The tools provide guidelines for identifying the partnerships and linkages of the college that can be strengthened, and areas where linkages are non-existent, based on DHET guidelines. This could inform more effective target-setting to achieve the strategic goals set out by the DHET.

The set of research templates include:

1. **Template 1** provides guidelines for identifying the main deliverables of the college’s partnerships, the strongest partnerships, the weakest partnerships, and partnerships that the college needs to initiate.
2. **Template 2** provides guidelines for identifying effective strategies and mechanisms to promote, for future partnerships.
3. **Template 3** provides a way to develop a visual ‘snapshot’ of existing college partnerships to facilitate monitoring to ensure that partnerships contribute towards achieving the college’s strategic objectives.

Template 1: State of college partnerships

College managers – such as the Vice-Principal Academic, campus managers and unit heads – are best placed to provide the information required to complete the set of tables included in this section.

1. What are the main deliverables from the college's partnerships with the actors listed below?

Actor	Main kinds of deliverables
e.g. Small employer: Name of organisation	
e.g. SETA: Name of SETA	
e.g. other TVET college: Name of college	

2. Which are the strongest partnerships, based on the frequency of interaction?

Actor	Frequency of interaction	Goal of partnership	Has the partnership been successful in delivering on partnership goals?	Should this kind of partnership be replicated? If yes, why? If no, why not? Who will be the person responsible for ensuring replication?
e.g. Employer: Shatterprufe				
e.g. SETA: merSETA				

Note: Frequency of interaction may be measured on a scale, 1='Not at all', 2='Isolated instances', 3='Moderate scale' and 4='On a wide scale'.

3. Which are the weakest partnerships, based on the frequency of interaction?

Actor	Frequency of interaction	Goal of partnership	Has the partnership been successful in delivering on partnership goals?	Should this partnership be strengthened? If yes, why? If no, why not? Who will be the person responsible for pursuing the partnership?
e.g. Employer: Shatterprufe				
e.g. SETA: merSETA				

Note: Frequency of interaction may be measured on a scale, 1='Not at all', 2='Isolated instances', 3='Moderate scale' and 4='On a wide scale'.

4. Which actors or partnerships are important for college strategic planning, but missing from the college's partnership networks?

Actor / partnership	Why would this actor / partnership be useful for college strategic planning?	Should this the partnership be pursued? Why? Who will be the person responsible for pursuing the partnership?
e.g. Actor: TVET college		
e.g. Partnership: University-TVET college		

Template 2: Strategies and mechanisms for interaction

The information gathered through this template will be useful for identifying effective strategies and mechanisms to promote, for future partnerships. A list of possible strategies and mechanisms is included in **Figure 5**. The discussion on the analytical framework in **Section 2** may also be useful for understanding what we mean by internal and external interface mechanisms and interactive capabilities.

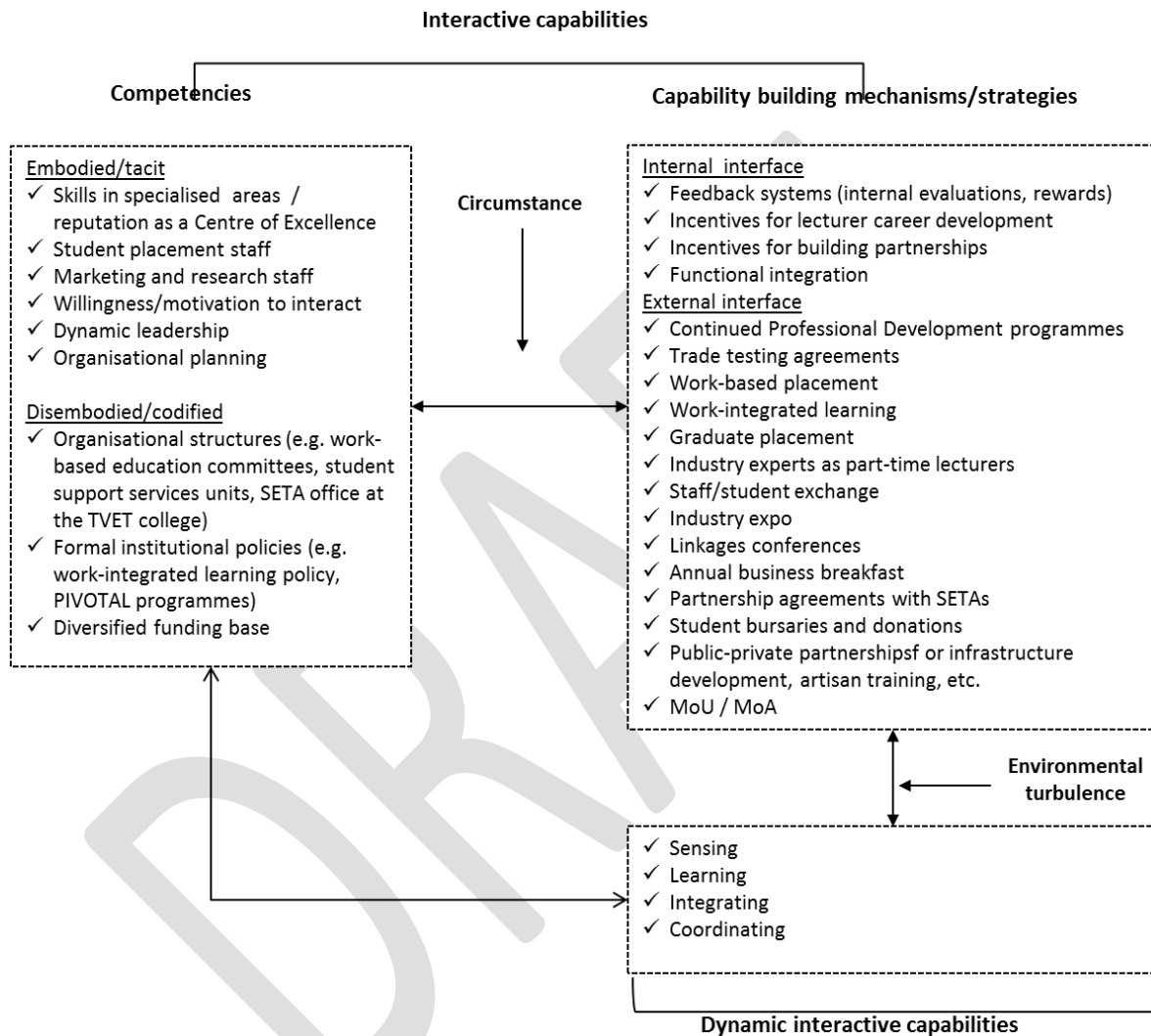


Figure 5 Framework for analysing college interactive capabilities

Notes:

1. This diagram is based on the framework described in Section 2. For a more detailed discussion, see the LMIP report, *'Synthetic Analysis on 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'*.
2. The diagram illustrates some generic competencies, and internal and external mechanisms required for building interactive capabilities, based on the LMIP case study research. The lists of examples are thus not exhaustive.
3. 'Environmental turbulence' refers to changes in the policy, educational and business environments that affect college activities.

College managers – such as the Vice-Principal Academic, campus managers and unit heads – are best placed to provide the information required to complete the set of tables below.

1. What *internal interface mechanisms/strategies* does the college use in interacting with key role-players and stakeholders in their local economic context?

Strategy / Mechanism	Describe the nature and reach of the mechanism
List of the strategies / mechanisms (e.g. staff training, work placements)	

2. What *external interface mechanisms/strategies* does the college use in interacting with key role-players and stakeholders in their local economic context?

Strategy / Mechanism	Describe the nature and reach of the mechanism
List the strategies/mechanisms used (e.g. funding, learnership programmes, etc.)	

Template 3: Partnership matrix for monitoring partnerships

The information obtained from Templates 1 and 2 can be used to complete the ‘partnership matrix’ below. The matrix can be used to facilitate monitoring of partnerships. It may also be useful as a tool to facilitate discussion around college partnerships and responsiveness, in relevant staff meetings, committee meetings and meetings of the Academic Board and Council. The matrix may also be included in the college’s Strategic Plan, along with the visual maps of actors (Figure 3).

	Partner type A (e.g. Firms)	Partner type B (e.g. SETAs)	Partner type C (e.g. universities)	Partner type D (e.g. TVET colleges)	Etc.
College sub-unit 1	INSERT Number of partnerships INSERT Partnership goals	INSERT Number of partnerships INSERT Partnership goals	INSERT Number of partnerships INSERT Partnership goals	INSERT Number of partnerships INSERT Partnership goals	
College sub-unit 2	INSERT Number of partnerships INSERT Partnership goals	INSERT Number of partnerships INSERT Partnership goals	INSERT Number of partnerships INSERT Partnership goals	INSERT Number of partnerships INSERT Partnership goals	
College sub-unit 3	INSERT Number of partnerships INSERT Partnership goals	INSERT Number of partnerships INSERT Partnership goals	INSERT Number of partnerships INSERT Partnership goals	INSERT Number of partnerships INSERT Partnership goals	
Etc.					

Note: Frequency of interaction may be measured on a scale, 1=‘Not at all’, 2=‘Isolated instances’, 3=‘Moderate scale’ and 4=‘On a wide scale’.

Section 6. Additional resources

Additional research instruments

For those who wish to conduct more detailed and systematic research, the LMIP research team offers an additional set of research guides, as one set of tools skills and strategic planners and researchers in the DHET, universities, TVET colleges and SETAs can use to inform their skills planning processes. Specifically, we offer a conceptual framework, practical guidelines and templates for research on skills development partnerships and networks, and the capabilities of universities, TVET colleges and SETAs to form effective partnerships towards improving alignment between skills demand and supply.

The set of research guides and templates is listed in **Table 3** below. **Research Instrument 1** describes the framework and methodology underpinning the research. **Research Instrument 2** provides a template for conducting a sectoral overview, which is a useful resource to guide the fieldwork. **Research Instruments 3 to 6** provide detailed practical guidelines and templates for gathering information on partnerships and interactive capabilities. Each focuses on a key type of organisation in skills development systems: universities, TVET colleges, firms, and intermediaries. We also include a separate document, **Research Instrument 7**, which provides a guide to analysing the information gathered. The most relevant documents for research in the TVET college sector are in bold font.

Table 3 Description of the research guides

Document number	Description of document
1	A framework and methodology to guide research
2	Guide and template for conducting a sectoral overview
3	Fieldwork guide and template for research in universities
4	Fieldwork guide and template for research in TVET colleges
5	Fieldwork guide and template for research in firms
6	Fieldwork guide and template for research in SETAs and other intermediaries
7	Data management and analysis strategy and instruments

Further reading

- Borgatti, Stephen P, Candace Jones, and Martin G. Everett. 1998. Network measures of social capital. *Connections* 21(2): 27-36.
- De Nooy, Wouter, Andrej Mrvar, and Vladimir Batagelj. 2011. *Exploratory social network analysis with Pajek. Revised and Expanded*. New York: Cambridge University Press.
- DHET. 2013. Report by Ministerial Task Team on Performance Sector Education and Training Authorities (SETAs) 2013. Notice 848 of 2013. Government Gazette, 16 August 2013. www.gpwonline.co.za
- Iammarino, S., Piva, M., Vivarelli, M., and von Tunzelmann, N. 2009. Technological capabilities and patterns of cooperation of UK firms: a regional investigation. IZA Discussion Paper, No. 4129.
- Lewis, F. 2014. Automotive sector: Narrative report – Universities. Report prepared as part of the Labour Market Intelligence partnership (LMIP) for the Department of Higher Education and Training (DHET), South Africa.
- Malerba, F. 2005. Sectoral systems of innovation: a framework for linking innovation to the knowledge base, structure and dynamics of sectors. *Economics of Innovation and New Technology*, 14(1-2): 63-82.
- McBride, T., and Papier, J. 2014. FET colleges and the automotive sectoral system of innovation. Report prepared as part of the Labour Market Intelligence partnership (LMIP) for the Department of Higher Education and Training (DHET), South Africa.
- McGrath, S. 2014. 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. Report prepared as part of the Labour Market Intelligence partnership (LMIP) for the Department of Higher Education and Training (DHET), South Africa.
- Mncwango, B. 2014. Public and private intermediaries in the automotive sector: The narrative report. Report prepared as part of the Labour Market Intelligence partnership (LMIP) for the Department of Higher Education and Training (DHET), South Africa.
- Von Tunzelmann, N. 2010. Alignment, misalignment and dynamic network-based capabilities. In D.A. Dyker (ed), *Network Dynamics in Emerging Regions of Europe*, pp. 3-22. London: Imperial College Press.
- Von Tunzelmann, N. 2007. Capabilities and production theory. *Structural Change and Economic Dynamics*, 18: 192-211.