



higher education
& training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

“Centres of Specialisation in the TVET College sector” is a programme which aims to inform college differentiation, promote quality teaching and learning, facilitate responsiveness and provide a model for the implementation of QCTO’s trade qualifications at the same time as it develops artisanal skills in demand for economic growth, starting with the Strategic Integrated Projects (SIPs).

Centres of Specialisation

In the TVET College sector

Version 2, October 2016

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Acronyms

Department of Higher Education and Training (DHET)

Dual System Pilot Project (DSPP)

Government's Technical Assistance Centre (GTAC)

National Artisan Moderation Body (NAMB)

National Oversight Structure (NOS)

National Qualification Framework (NQF)

National Skills Fund (NSF)

Organising Framework for Occupations (OFO)

Programme Management Unit (PMU)

Quality Council for Trades and Occupations (QCTO)

Sector Education and Training Authority (SETA)

Special Projects Unit (SPU)

Strategic Integrated Projects (SIPs)

Technical and Vocational Education and Training (TVET)

'White Paper for Post-School Education and Training: Building an Expanded, Effective and Integrated Post-School System' (WP)

1. Introduction: the Centres of Specialisation Programme

The Centres of Specialisation Programme is a Department of Higher Education and Training (DHET) initiative designed to meet two objectives simultaneously: firstly to address the demand for priority trades needed for the implementation of government's National Development Plan in general and its National Infrastructure Plan more particularly; and secondly to contribute towards the building of the capacity of its public Technical and Vocational Education and Training (TVET) College system to deliver trade qualifications with employer partners. The latter is in line with the Minister of Higher Education and Training's 'White Paper for Post-School Education and Training: Building an Expanded, Effective and Integrated Post-School System' (hereafter WP) which states:

'Since the main purpose of the TVET colleges is to prepare students for the workplace and/or self-employment, it is essential that they develop and maintain close working relationships with employers in their areas of study. Close partnerships between colleges and employers will assist the colleges to locate opportunities for work-integrated learning and help them to place students when they complete their qualifications.' (WP: 16)

The Programme aims to do this by focusing on the development of thirteen priority trades that have been identified as being in strong demand for the infrastructure programmes as well as for other strategic programmes such as the War on Leaks and the new ocean economy programme, Phakisa. If government agrees to invest in nuclear energy, then many of the same trades will be needed for that investment too.

The development of the thirteen priority trades will be through the implementation of the new Quality Council for Trades and Occupation's (QCTO) trade qualifications. It is envisaged that this will be a quantum step up from the past in so far as they are national qualifications – no longer sector-specific as in the past¹ – and will be delivered using the dual system approach whereby learners will move between a college and a workplace over the duration of their period of study and prior to taking their trade test.

The Programme will involve a wide range of stakeholders, ranging from a selected number of TVET colleges chosen to be Centres of Specialisation for one or more of the thirteen priority trades, to employer associations and 'occupational teams' with special expertise in one or other of the priority trades. These principal actors will be supported by the DHET which has set up seven dedicated policy-focused teams whose function is to develop national guidelines for the roll-out of these qualifications. The QCTO itself will also play a central role in setting the standard for the accreditation of the Centres and for moderating the trade test assessments undertaken. A strong drive on quality will thread through the Programme from day one.

The Programme is planned to unfold over four distinct phases: firstly, the Centres of Specialisation will be selected and the measures required to lift their performance in line with the policy prescripts set and the targets required by government; secondly, key partners will be contracted to work at college level to implement the measures needed as determined in the first phase; in the third phase the measures will be implemented and in

¹ Prior to the establishment of the QCTO, trade qualifications were developed by the Sector Education and Training Authorities (SETAs) resulting in many qualifications for a single trade – there were 17 different qualifications for Electrician for example.

the fourth and final phase learners will be recruited and the programmes executed. The final output will be an expanded number of successful graduates in the thirteen priority trade areas.

The work of the programme is overseen by a National Oversight Structure (NOS) which consists of representatives drawn from each of the affected branches in the DHET, namely the TVET College Branch, the Skills Branch (which oversees the work of the Sector Education and Training Authorities (SETAs), the National Artisan Moderation Body (NAMB) and Indlela), and the Planning Branch. Representatives from the QCTO and the Department of Women also sit on this structure. The Special Projects Unit, established by the Minister of Higher Education and Training, performs the function of the Programme Management Unit (PMU), supported by the Government’s Technical Assistance Centre (GTAC). The Programme is being funded by the National Skills Fund (NSF), which is also represented on the NOS. The NOS has an Executive Committee consisting primarily of the two Deputy Directors General from the TVET College and Skills Branches. The Director-General is the Accounting Authority for the NSF and has final authority over the Programme. Beyond the DHET the input of key players from the labour market will be managed through structures known as Occupational Teams, headed by conveners drawn from industry and consisting of college and QCTO representatives with expertise in the different trades.

2. Why the focus on 13 trades?

On 9th February 2012 the President announced government’s plan to initiate a massive infrastructure investment programme. The programme consisted of at first 17, then later 18 Strategic Integrated Projects (SIPs). Each SIP is an amalgam of projects which sets out to address a particular socio-economic opportunity or challenge – as summarised below.

SIP 1: Unlocking the Northern Mineral Belt with Waterberg as the Catalyst	SIP 10: Electricity transmission and distribution for all
SIP 2: Durban- Free State– Gauteng Logistics and Industrial Corridor	SIP 11: Agri-logistics and rural infrastructure
SIP 3: South Eastern node & corridor development	SIP 12: Revitalisation of public hospitals and other health facilities
SIP 4: Unlocking economic opportunities in the North West Province	SIP 13: National school build programme
SIP 5: Saldanha-Northern Cape Development Corridor	SIP 14: Higher Education infrastructure
SIP 6: Integrated Municipal Infrastructure Project	SIP 15: Expanding access to communication technology
SIP 7: Integrated Urban Space and Public Transport Programme	SIP 16: Square Kilometer Array and Meerkat
SIP 8: Green energy in support of the South African economy	SIP 17: Regional integration for African cooperation and development
SIP 9: Electricity generation in support of socio-economic development	SIP 18: Bulk water supply and distribution

In April of the same year Dr. Nzimande, Minister of Higher Education and Training, established a Special Projects Unit (SPU) in the Department of Higher Education and Training (DHET). Its mandate was to promote the development of the skills required for the construction and maintenance of the SIPs.

The SPU developed a methodology to undertake this task. The methodology is known as the 21 STEP PROCESS². This process can be summarised under five key headings:



Steps 1 – 9: Identify occupation in demand

Arising out of the application of Steps 1 - 9 of this methodology, the SPU determined a list of some 94 occupations as being in high demand³ across all of the eighteen SIPs nationally. This list was felt to be too long for targeted intervention. A shortened list was therefore agreed for attention in 2016. This shortened list included Managers, Professionals, Associate Professionals, Service and Clerical Workers, Tradespersons, Plant and Machine Operators as well as Elementary occupations. A differentiated approach was adopted for the different groups. What is of relevance to this discussion is the list of priority trades that were identified for 2016. They are listed below:

2016 priority trades (with OFO codes):

641201 Bricklayer
671101 Electrician
671202 Millwright
651302 Boilermaker
642601 Plumber
653101 Mechanic including automotive mechanic
653306 Diesel mechanic
641501 Carpenter and Joiner
651202 Welder
651501 Rigger
652302 Fitter and turner
653303 Mechanical fitter
642607 Pipe fitter

² Elaboration of this methodology can be found on <https://sip-skills.onlinecf.net>

³ A full list of the occupations in demand for the SIPs can be found on pages 45 and 46 of the 'Skills for and through SIPs' Report which can be accessed under 'Reports' on <https://sip-skills.onlinecf.net>

Further consultation and research revealed that these same trades are not only in short supply for the SIPs, they are also needed for other national strategic projects such as **Phakisa** and **War on Leaks** and are needed by municipalities to meet service delivery challenges. They are, in other words, truly needed for economic growth and social development in our country.

Steps 11 – 16: Develop occupations in demand

The later steps of the 21 STEP PROCESS set out a systematic process whereby the number of persons qualified to perform these trades can be increased.

- Step 11 addresses career guidance in respect of the priority occupations
- Step 12 is the identification of colleges or universities that can deliver the theoretical programmes needed for these occupations – to be known as Centres of Specialisation.
- Step 13 focuses on the measures required to develop the capacity of these Centres to achieve the targets set (both qualitatively as well as quantitatively)
- Step 14 focuses on securing workplace learning opportunities to augment the institutional learning required to attain occupational competence
- Step 15 addresses the funding requirements for this learning, and
- Step 16 focuses on monitoring and evaluation.

So what are Centres of Specialisation in the context of this programme?

3. Centres of Specialisation

3.1 What is a Centre of Specialisation?

For the purposes of this Programme a Centre of Specialisation is a department within a public Technical and Vocational Education and Training (TVET) college campus dedicated to training, in partnership with employers, successful, quality artisans in one or more of the priority trades listed above⁴ in sufficient numbers to meet the needs of the SIP projects and other strategic projects.

This goal is to be attained through the provisioning of the Quality Council for Trades and Occupations' (QCTO) trade qualifications ('apprenticeships') using a South African adaptation of the dual system approach. Both quality standards and quantity targets are to be set for each trade which are to be attained over the lifespan of the Programme.

The idea of a Centre of Specialisation can be applied more generally to non-trade qualifications and to institutions other than TVET colleges, but this is not further explored here.

3.2 Why develop Centres of Specialisation?

There are a number of reasons why this approach has been adopted to address the demand for the priority trades identified:

⁴ The possibility of a formal partnership with a private training centre for practical skill acquisition is also embraced.

Firstly, by focusing on trades in high demand, it is hoped that the strategic projects of government will be constructed and maintained using high quality South African skilled artisans – which will simultaneously contribute to job creation and poverty alleviation goals.

Secondly, we have a public TVET college system that is ideally placed to play its role in support of the call from employers and the state for more artisans. Currently these colleges are not all well positioned to perform this function due to a wide range of challenges. The notion of ‘Centres of Specialisation’ provides the DHET and its partners with the opportunity to develop sites of good practice which others can follow in due course.

Thirdly, by motivating employers across both the public and private sectors to partner with these TVET colleges to build a quality apprenticeship system it is hoped that society’s confidence in these institutions will grow and they will become both institutions of choice for learners and partners of choice in training for employers.

Fourthly, by selecting certain colleges to focus on particular trades, we are laying the foundation for differentiation in the college system. And whilst some other colleges may later specialise in the same trades, it is desirable that others develop expertise in other trades and occupations so there is reduced duplication and increased quality specialisation.

And finally, this approach has been adopted for pragmatic reasons: the resources (both human and financial) required to lift the performance of the TVET college system, from where it currently is to where it needs to be, are considerable. We simply do not have the people or funds to do this work across a very wide range of colleges all at once⁵.

3.3 How colleges will benefit

There are a number of reasons why becoming a Centre of Specialisation for one or more occupations should benefit a college:

- The learners who graduate from the relevant programmes will have an improved prospect of employment as the training will be of high quality, relevant and up-to-date;
- By taking on this opportunity, the college will be helping the country to ensure that the skills required for its growth and development are available;
- They will help to ensure that those that work on the big, strategic projects are South Africans. Without this focused effort there is a strong possibility that employers will recruit abroad;
- This will bring the college into contact with a wide range of employers all of whom have an interest in the employment of graduates from these specific programmes – both those in the local vicinity as well as those further afield who nevertheless will look to recruit from a specialised college with increasing capacity to meet required quality standards.
- They will in the process have a unique opportunity to build the capacity of their college in this occupational area with expert assistance, funding and support.

⁵ However this does not mean that other colleges will not become Centres of Specialisation over time for the same or new qualifications, nor does it mean that colleges that are not selected at this time will cease to deliver Sector Education and Training Authority (SETA) registered trade qualifications – they will continue to do so.

- The colleges, with this specialised offering, will motivate student to take on vocational training as a viable career path.

4. Quality and quantity objectives

4.1 Quality objectives

The Programme aims to significantly increase the quality of artisans trained. To achieve this objective the DHET has adopted what it is calling the Artisan of the 21st Century or A21 approach based on the Germanic dual system model. The dual system is one where the learning takes place both at a college and in the workplace in an integrated manner.

Formal elements of this system – or ‘value chain’ – are outlined in the box below:

THE A21 APPRENTICESHIP VALUE CHAIN:

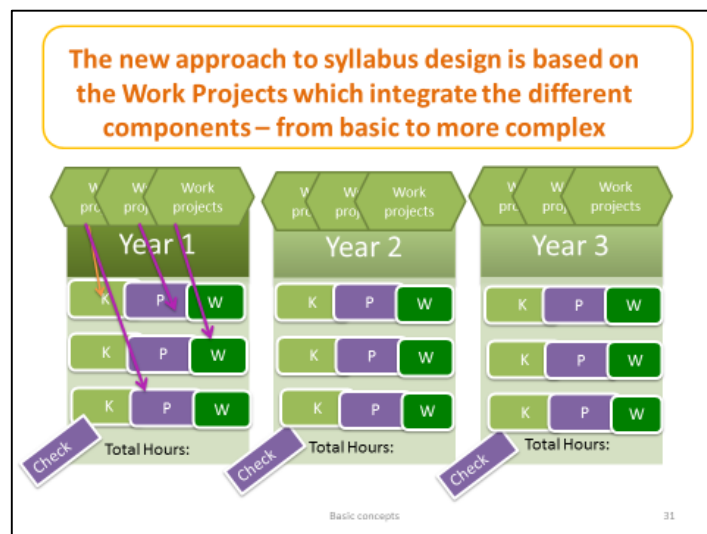
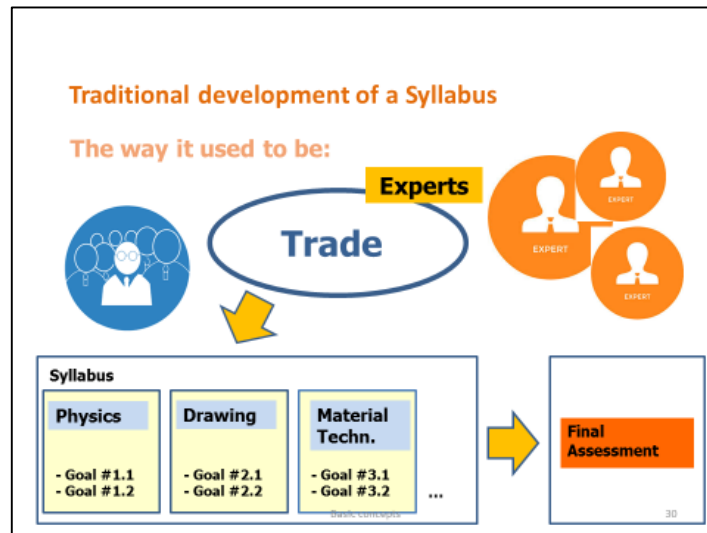
The following are key elements of the A21 apprenticeship value chain:

- a. The programme is supported through a **strong artisan learner mentorship programme** guiding learners throughout each phase of the value chain. Artisan learner mentors will be registered with the DHET as is contemplated in section 26C of the Skills Development Act.
- b. Learner contracting between the learner, provider (college), lead employer or employer (workplace), artisan learner mentor and funder should be **signed before enrolment** of the learner for A21 training at the Centre of Specialisation. The contract may also include an agreement with an existing practical training centre in the vicinity (e.g. where practical training are not provided by the public TVET college);
- c. The learner should undergo training on the A21 **dual apprenticeship system**: Theory and practical training at the Centre of Specialisation, combined with learning at the workplace should be rolled out as one integrated programme. The practical training may also be provided in partnership with a practical training centre in the vicinity;
- d. The learner must undergo **trade testing** at an accredited trade test centre after completion of required theory, practical and workplace training requirements as per requirements of the national Trade Regulations. The Centres of Specialisation may also be accredited trade test centres;
- e. Strong links and participation is required between all parties involved, namely the college, the workplace, the artisan learner mentor and the funder. This may also include links to practical training centres for the learner’s practical training component, where applicable. Links to the workplace specifically are vital in the implementation of the A21 value chain and requires dedicated attention by the artisan learner mentor in close collaboration with the artisan workplace mentor⁶; and
- f. Active mentorship from artisan learner mentors throughout all phases is key to the success of the A21 apprenticeship value chain.
- g. Efficient and effective management at a Centre of Specialisation level (TVET college campus level) is key to the success of the Centre of Specialisation; and

⁶ The “**Artisan Workplace Mentor**” means a person who has passed a trade test in a listed trade and is employed at, or contracted by, an approved workplace to mentor artisan learning during the workplace learning component of the trade in which he/she is certificated whereas the “**Artisan Learner Mentor**” means a person who has a knowledge of artisan development and is appointed by the DHET as having predetermined criteria to mentor artisan learners across the entire artisan learning pipeline.

- h. Efficient education and administrative processes are key to creating a successful Centre of Specialisation, with the A21 apprenticeship value chain linked to it.

These more formal prescripts are not the only means whereby quality improvements are being sought. A new curriculum model is being developed (already completed for electricians and plumbers) based on project work, as illustrated in the following diagrams:



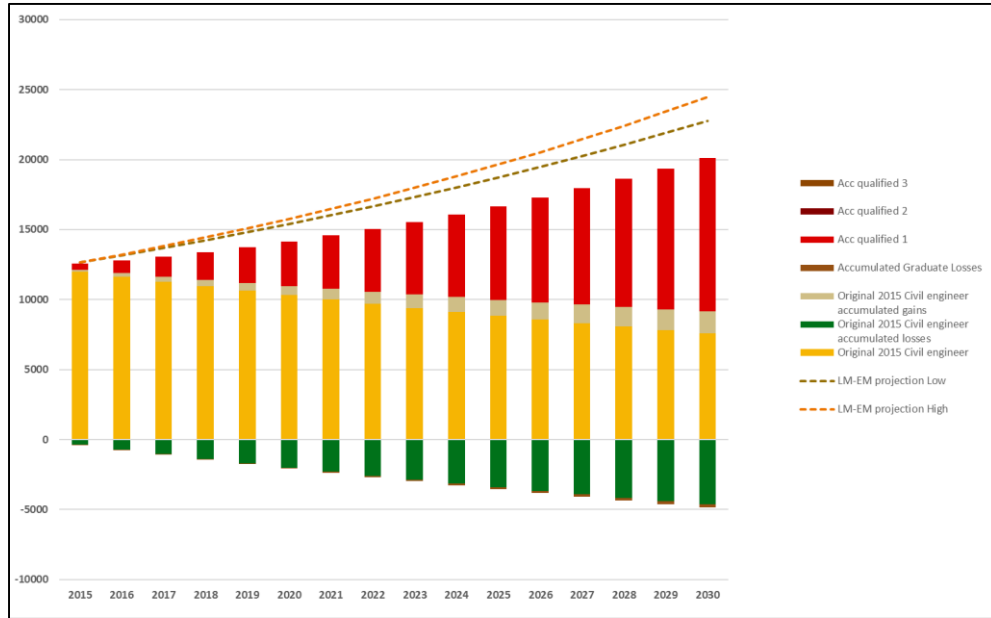
Pioneering work has already begun in the piloting of the implementation of these new qualifications and curriculum approaches in what is being called the Dual System Pilot Project (DSPP). The project has focused on two trades - electricians and plumbers – at four TVET colleges in Gauteng and Eastern Cape. Important lessons have been learnt in the process and these will be integrated into the Programme as it unfolds.

4.2 Quantity objectives

A detailed analysis of each trade in demand has been undertaken. This analysis included a determination of the scale of national expansion that would be required for each trade

(expansion demand), together with an assessment of the number required to replace those leaving active service in this country (replacement demand). National ‘gap’ analyses were then drawn for each trade resulting in an estimation of the annual percentage growth rates required for each trade until 2030.

The outcome of this analysis has been captured graphically for each trade, as illustrated below, and numerical indicative targets are captured in the table that follows:



Derived from this analysis, for each priority trade, a set of incremental targets will be set indicating the annual increase in the number of new tradespersons should be achieved. A table such as the following will be completed once the work is done.

	Baseline (2015)	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Bricklayer																
Electrician																
Millwright																
Boilermaker																
Plumber																
Mechanic including automotive mechanic																
Diesel mechanic																
Carpenter and Joiner																
Welder																
Rigger																
Fitter and turner																
Mechanical fitter																
Pipe fitter																

Central to meeting these quality and quantity objectives is the department’s commitment to support the implementation of the Quality Council for Trades and Occupation’s (QCTO) occupational qualifications for these trades – as these are believed to be the best vehicle for achieving the quality and quantity goals that have been set.

5. QCTO Trade Qualifications

Centres of Specialisation in the context of this Programme are centres that will implement the new trade qualifications registered on the National Qualification Framework (NQF) by the Quality Council for Trades and Occupations (QCTO). These qualifications have been developed to overcome the historical spread of uneven Sector Education and Training Authority (SETA) trade qualifications and to provide a single national standard, per trade, which can be easily understood in the labour market.

Much work has been done in this space. The table below provides a summary of progress to date:

Table 1: Priority QCTO trade qualification registration on the NQF (as at August 2016)

	Welder	Boilermaker	Pipe fitter	Fitter & Turner	Rigger	Automotive Motor Mechanic	Diesel Mechanic	Millwright	Electrician	Mechanical Fitter	Plumber	Bricklayer	Carpenter
SAQA Registration number	94100	93626	**	94020	Qualification in development process.	97990	97592	97585	91761	94021	91782	93627	94022
Curriculum Code:	651202000	651302000	642607000	652302000		653101000	653306000	671202000	671101000	653303000	642601000	641201000	602502000
National Trade Curriculum Content (syllabus) in place?	Begun								Yes		Yes		

** Pipe fitter: QCTO submitted this qualification to SAQA on 30 June 2016. QCTO and SAQA met on 11 August 2016 to jointly prepare this qualification for tabling at the next SAQA’s Qualifications and Standards Committee, if approved, by the committee the qualification will then be tabled at the next SAQA Board for approval for registration.

These qualifications each have three distinct components:

- Theory (conceptual principles underpinning the trade)
- Practical (simulated learning in a dedicated training facility)
- Work experience (where value-adding productive work is undertaken, whilst learning)

All three components must be learnt before the final integrated assessment can be undertaken, which in the case of the trades is a trade test.

The theory component can be taught at a TVET college – and this programme aims to build the capacity of a selected number of colleges to do this well. The practical component might

be delivered at the selected college or at a private training centre – if the latter then a formal partnership between the college and the training centres needs to be secured. The final component – work experience – MUST, in the case of the trades, be delivered at a productive workplace. For this a partnership with employers (either public or private) is required.

6. The Centres of Specialisation Programme

6.1 Centres of Specialisation Programme

A log frame has been developed for improving the planning, implementation, management, monitoring and evaluation of Centres of Specialisation programme. The main elements of the log frame are listed below.

6.1.1 Three High Level Outcomes

- i. The Long Term Outcome is to increase the number of intermediate skills required for economic growth.
- ii. The Intermediate outcome is to increase delivery of skills in 13 identified trade areas. This will be achieved through the number of artisans produced in the 13 identified trade areas from the Centres of Specialisation.
- iii. The Immediate Outcome is to increase capacity of TVET colleges to produce the intermediate skills in 13 identified trade areas. This outcome will be achieved through a number of TVET colleges using improved curricula and training facilities, adequate industry partnership to support teaching/ learning and number of TVET colleges that have lecturers that are qualified to provide teaching for the identified 13 trades.

6.1.2 Four Phases - Four primary result areas

The Programme is envisaged to take place over four phases, each of which is associated with a key output or deliverable:

Phase 1 is for Implementation Planning.

Deliverables for Phase 1: (i) a number of TVET colleges selected as Centres of Specialisation, and (ii) a detailed implementation plan per selected college selected developed.

Phase 2 is the contracting phase.

Deliverable for Phase 2: Contractual agreements between implementing parties in place for each selected college.

Phase 3 is the phase where the approved implementation plans per college will be rolled out.

Deliverable for Phase 3: the selected Centres of Specialisation will be ready for learner intake using the A21 value chain methodology.

Phase 4 is the phase when learners will be enrolled & contracted and then proceed through a dual system apprenticeship training programme to successfully undertake their trade test.

Deliverable for Phase 4: (i) the number of successfully completed apprenticeship programmes in each of the priority trades identified, and (ii) close-out reports which will evaluate the sustainability of the Centres of Specialisation model for TVET colleges going forward.

Each phase will naturally involve a large number of activities required to achieve the deliverable indicated. The activities for Phase one are discussed below.

6.2 Phase one activities and outputs

The first phase of the Programme itself has two elements. The first is the determination of the primary policy prescripts required for the rollout of the Programme and the second is the selection of the TVET colleges to perform the role of Centres of Specialisation and the determination of the interventions required for them to meet both the quality and quantity objectives set. These are outlined below.

6.2.1 Policy prescripts for the Programme

There are seven policy areas that need to be resolved for the implementation of occupational qualifications to be implemented at Centres of Specialisation. Working groups – called ‘Workstreams’ have been established in each of these areas and the work that needs to be done in the first phase has been plotted. This is summarised below.

Title of Workstream	Description of work	Key outputs
Workstream 1: Selection of Centres of Specialisation	This workstream will effectively act as the Programme Management Unit. It will oversee the three step process for the selection of colleges as Centres of Specialisation in the first Phase.	i. Desktop evaluation is conducted ii. Project managers are appointed iii. Occupational Team Conveners are appointed iv. Onsite evaluations are conducted v. Implementation plans prepared
Workstream 2: Learning and Teaching	This Workstream aims to develop Curriculum Content for all thirteen priority trades. Secondly, it aims to produce guidelines and implementation strategies for the training of lecturers in the delivery of programmes in the dual system model as well as support in relation to learning and teaching materials.	i. A qualification for the one outstanding occupation (rigger) is developed ii. Curriculum content for all 13 trades is developed iii. A lecturer development programme is developed and implemented iv. Teaching and Learning material appropriate to the Trades are available and selected. v. A guideline for project managers to use when developing implementation plan is developed.

<p>Workstream 3: Occupational Programme Funding</p>	<p>The aim of this Workstream is to develop norms and standards for the funding of the 13 priority trades. It will consider all three components of the programmes i.e. theory, practical and workplace. It will look at what should be DHET (fiscus) funded (via the Ministerial list of approved programmes) and what should be levy funded. Streamlining of SETA processes will be considered in the context of the work of this Workstream.</p>	<ul style="list-style-type: none"> i. Terms of reference for service provider to develop a costing model and cost the 13 trades programme are approved. ii. Service Providers are appointed. iii. Costing model developed iv. Funding sources are identified. v. New framework integrated into DHET norms and standards.
<p>Workstream 4: Employer partnerships for workplace based learning</p>	<p>This Workstream aims to mobilise employer support for this Programme in both public and private sector. It envisages campaigns and agreements with key employer associations and SETAs in support of this goal. These will occur once the particular Centres of Specialisation are selected. It will also address the nature of contracts to be signed between learners, employers and colleges for these trade qualifications.</p>	<ul style="list-style-type: none"> i. Employer partnership is developed and implemented. ii. SETA partnerships are developed and implemented. (SETA with skills branch) iii. A learner contract is developed. iv. A guideline for project managers to use when developing implementation plan is developed.
<p>Workstream 5: Equipment and Infrastructure</p>	<p>This workstream focuses on the physical environment required to optimise learning outcomes i.e. equipment required for each trade and the infrastructure in the form of workshops as well as support facilities (e.g. computer centres, broadband and others such as ablution etc.) The outputs of this Workstream will be informed by the work of Workstream 2 and input into the work of Workstream 3.</p>	<ul style="list-style-type: none"> i. Trade programme requirements are developed. ii. Status quo at colleges on infrastructure, systems and equipment are determined. iii. Recommendations per college per trade are made and implemented. iv. A guideline for project managers to use when developing implementation plans is developed.
<p>Workstream 6: NSF Contracting</p>	<p>This is a broad contracting workstream being managed by NSF. The Workstream addresses the formal procedures to be followed when colleges procure services and enter partnerships with financial implications.</p>	<ul style="list-style-type: none"> i. GTAC project charter signed off.(contracting with project managers) ii. Contracting with Occupational Teams. iii. Contracting with TVET colleges. iv. Develop procurement strategies and guidelines for colleges and project managers.
<p>Workstream 7: Monitoring and Evaluation</p>	<p>This Workstream is putting in place measures to monitor the progress of the Programme at both national and at college level. It will also commission studies to determine the impact</p>	<ul style="list-style-type: none"> i. A framework for M + E is developed and implemented (roles, time, responsibility, details of improved plans etc.). ii. A monitoring plan is developed and implemented.

	of the Programme at mid-term and conclusion. It is planned to formalise this process through the use of an electronic Portal that has been developed for the purpose.	iii. Evaluation plan is developed and implemented. iv. An M + E guideline to project managers is developed and implemented.
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6.2.2 Phase One implementation steps

Step 1: Desktop evaluation for college shortlist

The first challenge is to select Colleges of Specialisation per trade. This needs to be a transparent and fair process as the advantages of being selected will hopefully be considerable for the college as well as their learners and associated employers.

The process was kicked off in 2015 with a request to all colleges to signal if they would like to be considered as possible Centres of Specialisation for one or more of the priority trades. This request was put to all colleges during their annual strategic planning session with the DHET. Thirty-odd colleges responded positively to this call.

The question arose whether ONLY those colleges that had expressed an interest should be considered. It was decided that whilst this was a critical consideration, it was not the only one. It was therefore resolved to undertake a comprehensive desktop evaluation of all colleges using available administrative and, in some instances, research-generated data. The criteria used for this evaluation are listed on the next page.

Each college will be evaluated against these criteria and a **short list** of colleges will be prepared to determine which colleges should be visited for further evaluation.

The desktop evaluation exercise is premised on a weighting of the different criteria against one another as determined by the National Oversight Structure (see above and below) and an aggregate score is allocated per college. The colleges will then be ranked in terms of their scores and the top scorers will be selected for Step 2.

Concurrently, during the execution of this Step, evaluation criteria for Step 2 will be formulated. The criteria will be based on the Accreditation Criteria of the QCTO but will also be informed by input from the above policy workstreams.

**Criteria, supported by specified data sources, used for Desktop evaluation
PER TRADE of all colleges**

	Title	Data source
1	Financial Management Capacity	<ul style="list-style-type: none"> Does the college have financial management capacity to manage a Centre of Specialisation Programme (DHET evaluation of financial reports from colleges)
2	Willingness to play this role (Volunteered?)	<ul style="list-style-type: none"> Is becoming a Centre of Specialisation part of the college's Strategic Plan by referring to in the 2015 <i>College Operational Plan</i>? Did the college volunteer to become a Centre of Specialisation for this trade?
3	Learner enrolment and success rates (NCV, NATED & Learnerships)	<p>For NCV and NATED programmes (relevant to trade from 2015 Operational Plans):</p> <ul style="list-style-type: none"> No. of students enrolled in 2015 No. of students planned to be enrolled in 2016 No. of students who sat the relevant exam No. of students who passed the exam (Exam data) <p>For Learnerships</p> <ul style="list-style-type: none"> No. of learnership programmes funded by SETAs reported on college 2015 Operational plans
4	Proximity to SIP demand (location vis-à-vis SIP projects)	<ul style="list-style-type: none"> Is the college campus (GIS) close to demand 'hot spots' for the trade? The college must be within a specified radius close according to CSIR/IDC estimation. (CSIR research using SIP GIS coordinates and SIP project prototypes)
5	Proximity to workplace learning opportunities	<ul style="list-style-type: none"> What were this college's "employability and experiential targets" for this trade? (2015 Operational Plans) Are there workplace-based learning opportunities for apprenticeships for this trade in the vicinity of the college? (Analysis of employers in the area by GIS code of college) Historical grant allocations to employers (per trade) in the area by those SETAs that offer artisan grants (SETA data)
6	Facilities (Equipment and Infrastructure)	<ul style="list-style-type: none"> Does the college campus have specialised practical facilities for this trade? What is the area of the specialised practical facility? Do the college / campus have computer facilities? Do the college/ campus have student accommodation? <i>Number of hostels the College/ campus has.</i>
7	PARTNERSHIPS (With Employers, SETAs or professional bodies)	<ul style="list-style-type: none"> List of funding partners the college has for this occupation. The College has SETA/s partnership for this occupation? State owned company/companies have partnership with this college for this occupation? The college has Donor/s partnership for this occupation?
(8)	Trade test centre? (This is not a criterion, but will be an added factor in favour)	<ul style="list-style-type: none"> Is this college registered by NAMB as a trade test centre for this trade? Is this college located near to a registered trade test centre? Name the trade test centre. What is the distance from the college to the trade test centre?

Step 2: Visit to short-listed TVET colleges (visit 1)

The short-listed colleges will be visited and evaluated against first generation QCTO accreditation criteria plus criteria added by the seven policy streams of the Programme.

These evaluation visits will be undertaken by small teams of two or three people appointed by the relevant Occupational Teams (including QCTO) and Project Managers, using a standardised methodology approved by the National Oversight Structure.

Step 3: Visit to selected Centres of Specialisation (Visit 2)

Step 3 will intimately involve the selected colleges themselves as well as the OTs and Project Managers. Together they will develop a plan to achieve the quality and quantity targets set for the college in respect to the trade for which they have been selected to specialise. This will include active measures to partner with employers and, where necessary, private training providers for the practical learning component of the qualification.

These visits will again be undertaken by people drawn from the Occupational Teams and Project Managers, but this time they will partner with staff from the college and together they will put together an implementation plan for the college.

<p>The implementation plan per Centre of Specialisation should, <i>inter alia</i>:</p> <ol style="list-style-type: none">i. Describe the status quo of the college on which the plan should build.ii. Clarify the qualification, curriculum, syllabus, facility and equipment requirements needed for the trade in question – and put in place measures to implement them;iii. Outline the procedure to be followed to secure workplace learning, and where relevant training centre, partners for the implementation of the A21 model;iv. Include all the measures required to enable the college to meet quality standards set nationally and quantity targets set in consultation with the college concerned;v. Include budgets, based on nationally set norms and standards for costing, as well as timeframes and deliverables;vi. Outline the roles and functions to be performed by the college itself, the dedicated project manager and other stakeholders for implementation of the plan;vii. Include a communication and change management strategy;viii. Include an option for developing each of the Centres of Specialisation into an accredited trade test centre, but this should be costed separately. The final decision to develop a Centre of Specialisation into an accredited trade test centre will be within the discretion of the Director-General of the DHET or his delegated official and specific approval will be provided therefore.

- ix. Outline the approach and management of procurement to ensure compliance with applicable legislation, transparency, value for money and efficiency. The procurement strategy must be informed by the onsite evaluations performed.
- x. Be approved by the Director-General of the Department of Higher Education and Training or his delegated official. Procurement may be centralised at the DHET or NSF or decentralised at TVET college level, whichever is deemed appropriate.

7. Occupational Teams, Project Managers and other role-players

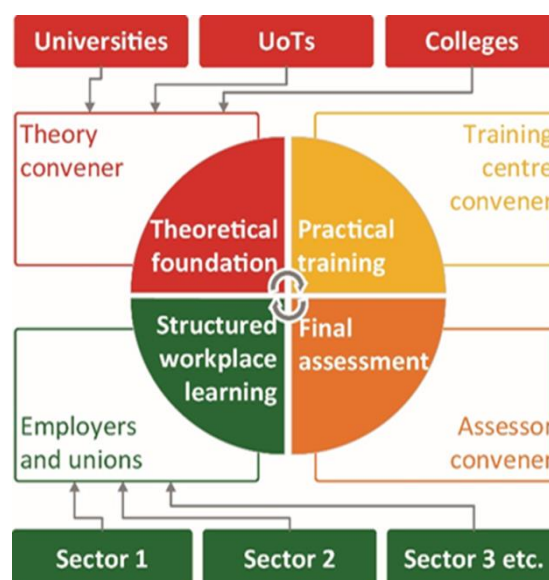
7.1 Occupational Teams and their Conveners

Occupational Teams are teams of experts of a particular trade or cluster of closely related trades. They consist of people who **CARE** about the trade for which they are responsible.

They are made up of representative experts drawn from four constituencies:

1. Those who teach the theoretical foundation of the trade at a college (and this could be augmented by a representative of those who teach such lecturers);
2. Those who provide the practical training of the skills required for the trade (e.g. at the college or at a state-owned company or private training centre);
3. Employers and unionists drawn from across the sectors where the trade is principally employed (trades are seldom restricted to a single economic sector). And finally
4. Trade assessors drawn from accredited trade test centres who conduct the trade tests for the particular trade.

The proposed composition of Occupational Teams is illustrated below. Note that there will be one Occupational Team for each trade (or in exceptional circumstances for a small cluster of closely related trades)



The principle role of Occupational Teams will be to guide, to advise and support the work of those responsible for executing the four phases of the Centres of Specialisation programme outlined above. However, given the diverse nature of these teams, it is deemed necessary to have a 'convener' who takes final responsibility for the work of the team and ensures that the roles and functions required are adequately performed. The roles and functions of the Occupational Team are therefore 'embodied' in the roles and functions of the Occupational Team convener – which are outlined below.

Occupational Team Convener

An OT CONVENER is a person nominated by a professional employer association or other agency who takes responsibility for the convening of representatives from the four constituencies listed above and for driving the work of the Team for one or more trades on the priority list. The association that is appointed to perform this function for a trade takes responsibility for ensuring that the individual nominated to perform the role of Convener on their behalf is supported to perform their functions and if they do not perform, then is replaced.

Note: a tender to secure the OT Conveners will be issued by the DHET.

ROLES AND FUNCTIONS OF AN OT CONVENER FOR THE CENTRES OF SPECIALISATION PROGRAMME

These roles and functions have been specified in relation to the phases of the programme:

Phase One preparatory work: the OT Convener must (Steps One and Two)

- i. Nominate members of the OT for each trade to DHET/QCTO for formal endorsement within agreed timeframes (with assistance from DHET where required);
- ii. Set in motion a process for the establishment of networks of people in each of the four constituencies that can be called on to comment on proposals where required and to support initiatives where planned;
- iii. Establish formal partnerships with each of the *Workstream Conveners* (see above) and together with them establish the precise requirements of the trade e.g. inputs into and review of policy proposals, participation in specific areas of work such as syllabi development, specification of equipment and workshop requirements for the trade etc.
- iv. Familiarise themselves with the Desktop Evaluation outputs;
- v. Quality assure the final list of colleges proposed to the DHET for visiting in Phase One Step Three.

Phase One, visit 1 to short-listed TVET colleges (Step Three)

Once the DHET has considered and finalised the recommendations submitted following the Desktop evaluation, Step Three can commence. Step Three involves conducting site visits of those colleges which have been identified as potential Centres of Specialisation for each priority trade. In this phase the OT Convener (and Team) will:

- i. Help finalise the evaluation template to be used to evaluate the colleges when visited (a draft will have been prepared jointly between DHET and the QCTO for this purpose based on the accreditation criteria of the QCTO, using legacy lists of equipment requirements);
- ii. Ensure all members who undertake the site visits understand and agree to the final evaluation template and the protocols for engagement with the different colleges;
- iii. Nominate two or three members of the OT (or approved individuals in the network) to join the Project Manager to visit all the agreed colleges identified in Phase One, Steps One and Two.
- iv. Oversee the visits and quality assure the reports prepared by those who visit the colleges.

In parallel to the above process OT Conveners will have to work with Workstream Conveners to finalise the policy prescripts required for the commencement of Phase One Step Four. This may require extensive work (e.g. oversight of qualification or syllabus development, advice on proposed lecturer development programmes, learning and teaching materials development, equipment and workshop requirements etc. OT Conveners will need to coordinate this work for their trade or trades across all Workstreams.

Phase One, visit 2 of finally selected Centres of Specialisation (Step Four)

Once the DHET has considered and finalised the recommendations submitted in Phase One Step Three AND once a final policy prescript has been prepared for the second visit with inputs from all workstreams, Step Four can commence.

In Phase One Step Four an Implementation or Improvement Plan for each of the selected college campuses must be produced. This plan may include ANY intervention required to enhance the capacity of the college and its partners (including employers providing workplace learning) to increase the number of successful, quality artisans for each priority trade.

- i. The first step in this phase will be for OT members to fully understand the policy prescripts of each of Workstreams 2 – 7;
- ii. OT members will partner with the appointed Project Managers and college based team, make visits to the relevant Centres of Specialisation and oversee and guide the work done on the preparation of a costed Implementation Plan.
- iii. The OT members need to quality assure the Implementation Plan to ensure that it meets specifications set in the policy prescripts for the trade.
- iv. Proposed Implementation Plans will have to be approved by the DHET and the NSF. Engagement with SETAs may be required at this stage, to secure complementary funding.

Phases Two to Four

Phases Two to Four can only commence once Phase One is complete and the Director-General has reviewed and if agreed, approved the Plans and Budgets per college, as recommended to him from the National Oversight Structure. Once approved:

- i. The OT's will have to oversee the work of the Project Managers as they implement the approved plans
- ii. The OT's will advise the DHET of problems or challenges as they arise and recommend proposed solutions to these.

- iii. The OT's should assist the Centres of Specialisation to secure workplace learning opportunities both using their own networks and those of the SETAs for this purpose.
- iv. The OT's will continue to help to maintain the partnership between colleges and industry on an ongoing basis to ensure quality and responsiveness. However, for the purposes of this Programme, this will not be costed beyond Phase Four.

7.2 Project Managers

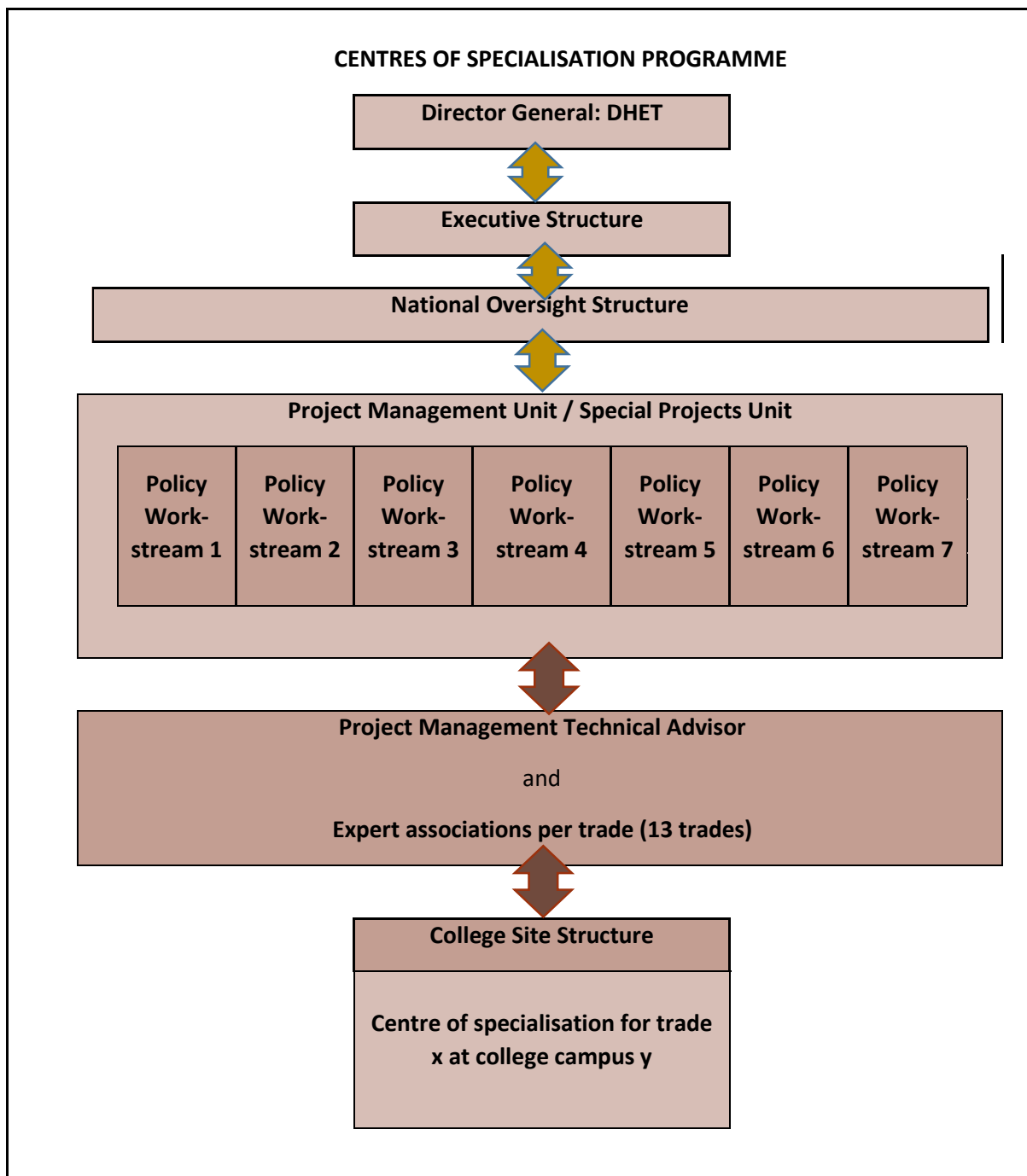
The National Skills Fund has agreed to fund dedicated project managers to assist the Special Projects Unit with the management of this Programme. It will also support the Occupational Teams and Workstream leaders with their respective tasks, including site visits and report preparation. Their principal responsibility will however be to work with the selected colleges to implement the plans that are approved by the Director General after Phase One, Step Four as outlined above. They will be paid on a performance basis.

The Project Managers will be appointed by Government's Technical Assistance Centre (GTAC). GTAC has signed a Charter with the Director-General of DHET for this purpose.

8. Programme governance

- The **Director-General: DHET** is the Accounting Authority for the National Skills Fund and hence is the final decision maker on all key matters in the Programme.
- The DHET has established an **Executive Structure** consisting of the responsible Deputy Directors General in DHET
- A **National Oversight Structure (NOS)** with representatives drawn from different branches within the DHET (including the TVET Branch, the Planning Branch, the Skills Branch and the National Skills Fund) as well as from the QCTO. This structure provides strategic direction to the project and oversees the work of the Special Projects . It considers all recommendations prior to their submission to the Director-General.
- The DHET has established seven **Workstreams**, each headed by a senior, responsible official from one or other of the DHET Branches or the NSF.
- At **college level there will be dedicated staff** with whom those visiting the colleges and preparing the implementation plans will work. These staff members will be responsible for ensuring ownership at college level. DHET regional staff members will be involved in the oversight of these structures.

This information is shown as a table below.



SETAs and other partners will also be asked to play a key role.

9. Tools of the Programme: dedicated Portal

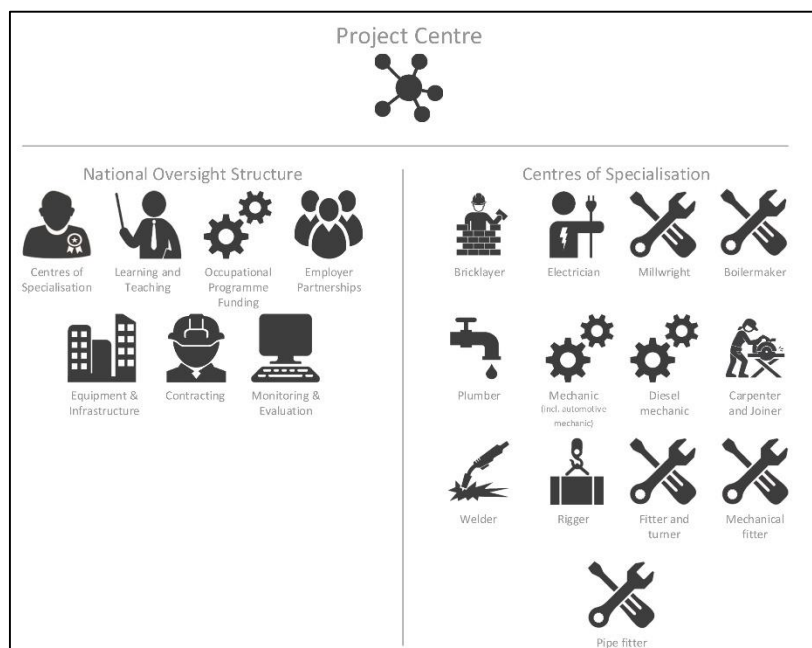
A module within the current SIP portal has been created to address the coordination and management of the workstreams (the module is based on a PWA (Project Web App) site, this PWA site is a sub site of the main sip-skills portal (<https://sip-skills.onlinecf.net>)). This module gives the management of the Centres of Specialisation the capability to drive each workstream in an effective and efficient way. Each workstream has its own site with the following functions:

- **Tasks management:**
Via a task list, task can be created for resources to completed work as and when required to successfully complete the work that needs to be done in each workstream. The programme log frame indicated in 4.3 is the main input for these task.
- **Deliverable management:**
Via a deliverable library the tasks can be linked to a deliverable.
- **Time management:**
Via a calendar all meetings can be scheduled as and when required
- **Document management:**
Via a document library all relevant documents can be upload and managed.
- **Communication management:**
Via a blog questions can be asked and answers can be given.
- **Risk management:**
Via an issues and risks library issues and risks can be identified with the required mitigation for each risk.

The functions within each work stream are integrated in one site called “The project centre”. Within this project centre the overall status of all the projects and relevant documents, risks and issues can be viewed.

This enables the management of the Centres of Specialisation programme to manage project proactively and mitigate identified risks. The outcome of using this module is the effective and efficient management of human resources, cost and deliverables in a well-organised manner. The first two images below demonstrated the look and feel of the project centre and its functionality. Image three demonstrates the look and feel of the sub site for each workstream with its functionality.

Project Management Module



Project Centre

Project Name	Start	Finish	% Complete
Project Group: Centre of Specialisation (CoS)	10/10/2016	10/10/2016	0%
Boilermaker	10/10/2016	10/10/2016	0%
Bricklayer	10/10/2016	10/10/2016	0%
Carpenter and Joiner	10/10/2016	10/10/2016	0%
Diesel mechanic	10/10/2016	10/10/2016	0%
Electrician	10/10/2016	10/10/2016	0%
Fitter and turner	10/10/2016	10/10/2016	0%
Mechanic including automotive mechanic	10/10/2016	10/10/2016	0%
Mechanical fitter	10/10/2016	10/10/2016	0%
Millwright	10/10/2016	10/10/2016	0%
Pipe fitter	10/10/2016	10/10/2016	0%
Plumber	10/10/2016	10/10/2016	0%
Rigger	10/10/2016	10/10/2016	0%
Welder	10/10/2016	10/10/2016	0%
Project Group: National Oversight Structure (NOS)	10/10/2016	10/10/2016	0%
Centres of Specialisation	10/10/2016	10/10/2016	0%
Contracting	10/10/2016	10/10/2016	0%
Employer partnerships	10/10/2016	10/10/2016	0%
Equipment and Infrastructure	10/10/2016	10/10/2016	0%
Learning and Teaching	10/10/2016	10/10/2016	0%
Monitoring and Evaluation	10/10/2016	10/10/2016	0%
Occupational Programme Funding	10/10/2016	10/10/2016	0%

CoS - Boilermaker

Project Summary

Get organized. Edit the task list.

Get started with your site REMOVE THIS

- Share your site.
- Working on a deadline?
- Add lists, libraries, and other apps.
- What's your style?
- Your site. Your brand.

Relevant people will be inducted into the use of the Portal and it will be used as a principal vehicle for Programme management.

10. Conclusion

There is no doubt this is an ambitious Programme. It seeks to bring together a very wide range of actors behind a common set of goals as outlined in the Introduction. Its success will depend on the benefit that colleges and employers see for themselves, and the energy and focus they bring to making it work. Learners will also benefit once the systems are in place to provide them with quality learning pathways, as too will the state which will, if all goes well, have the priority trade skills needed to construct and maintain its strategic projects. What is not in question however is the commitment of the Minister and Department of Higher Education and Training – they see this as a major initiative to which they are committing significant resources, time and effort. DHET therefore calls on its partners to join with it to make this Programme a significant and meaningful contribution to the building the kind of Technical and Vocational Education and Training system this country so badly needs and so well deserves.