IUT's Advice and Proposal on some Key Reforms Issues concerning Technical and Vocational Education & Training for OIC Member Countries

Presented By

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  ILO Project on Leadership and Management Development Program for Bangladesh TVET Managers & TVET Teacher Training

Objectives of the Proposal

- Advice and Orient OIC Member Countries on the Importance of TVET Reform Initiatives

- Present the Proposal of National Technical and Vocational Qualification Framework (NTVQF)

- Explain the Procedures of the Implementation of NTVQF

Outline of the Proposal Presentation

- **Background**
- **Quality Assurance for a Country's TVET System**
- **Features of the Quality Assurance of a Country's TVET**
  - ☐ Competency Standards
  - ☐ NTVQF and how it works
  - ☐ Skills Quality Assurance System
- **Components of Skills Quality Assurance System**
  - ☐ Overview on the Process of Registration and Accreditation of Registered Training Institutions/Organization
  - ☐ Overview on the Training, Assessment and Certification of Trainers
  - ☐ Overview on the Competency-Based Training and Assessment System
- **Issues and Concerns**

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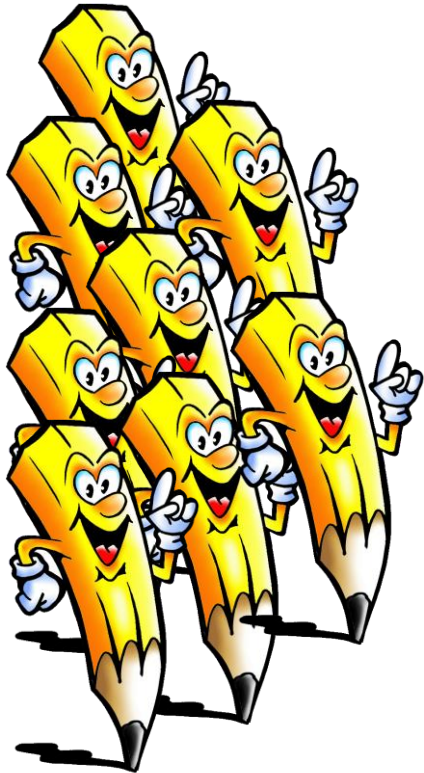
CAUSES

- Not relevant HRD programs
- Inadequate intervention due to the absence of borderless and seamless VE&T
- Inadequate investments on VE&T
- Low quality learning outputs
- Mismatch of skills with job requirements
- Inadequate market intelligence

Structural Unemployment

TVET Reform Project Proposal Initiatives: Let's take an Example of Cameroon TVET System

- Develop/Improvement and Approval of the National Skills Development Policy (NSDP)

- Creation of Cameroon Board for Technical and Vocational Education and Training (CBTVET)

- Creation of a National Skills Development Council

- Establishment of National Technical and Vocational Qualification Framework (NTVQF)

- Development of Competency Standards

- Implementation of Skills Quality Assurance System

- Implementation of Competency Based Training and Assessment (CBT&A)

An Example of TVET Reform Project Proposal for CAMEROON TECHNICAL and VOCATIONAL EDUCATION & TRAINING SYSTEM

Cameroon National Skills Development Policy

LABOR MARKET

EMPLOYMENT and PRODUCTIVITY

Consultation With Stakeholders

Analysis of Labor Market Information

Formulation of the National TVET Plan

Development of Competency Standards

Development of Learning Packages

Development of Assessment Standards

Trainers and Assessors Training, Assessment and Qualification

Accreditation of Qualification Programs

Registration of Training Org

Qualification and Certification

Award of National Certificates
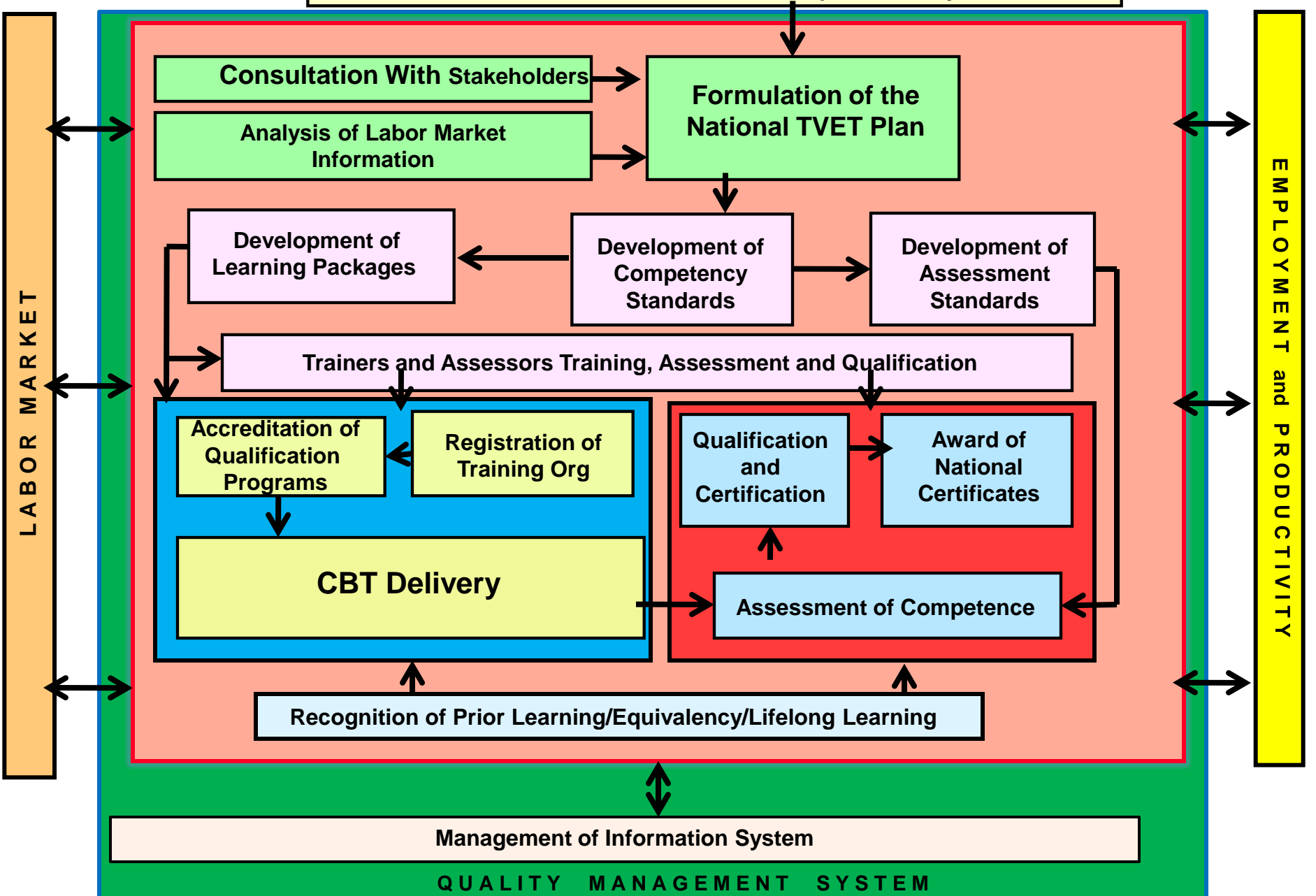
CBT Delivery

Assessment of Competence

Recognition of Prior Learning/Equivalency/Lifelong Learning

Management of Information System

QUALITY MANAGEMENT SYSTEM

The National Technical and Vocational Qualification Framework (NTVQF) is a comprehensive, nationally consistent yet flexible framework for all qualifications in secondary/post-secondary tech/voc education and training.

Level	Description
Level 6	Supervisor / Middle Level Manager Manage a team or teams in workplace activities where there is unpredictable change
Level 5	Highly Skilled Worker Take overall responsibility for completion of tasks in work or study
Level 4	Skilled Worker Take responsibility, within reason, for completion of tasks in work or study
Level 3	Semi-Skilled Worker Work under supervision with some autonomy
Level 2	Medium Skilled Worker Work under indirect supervision in a structured context
Level 1	Basic Skilled Worker Work under direct supervision in a structured context

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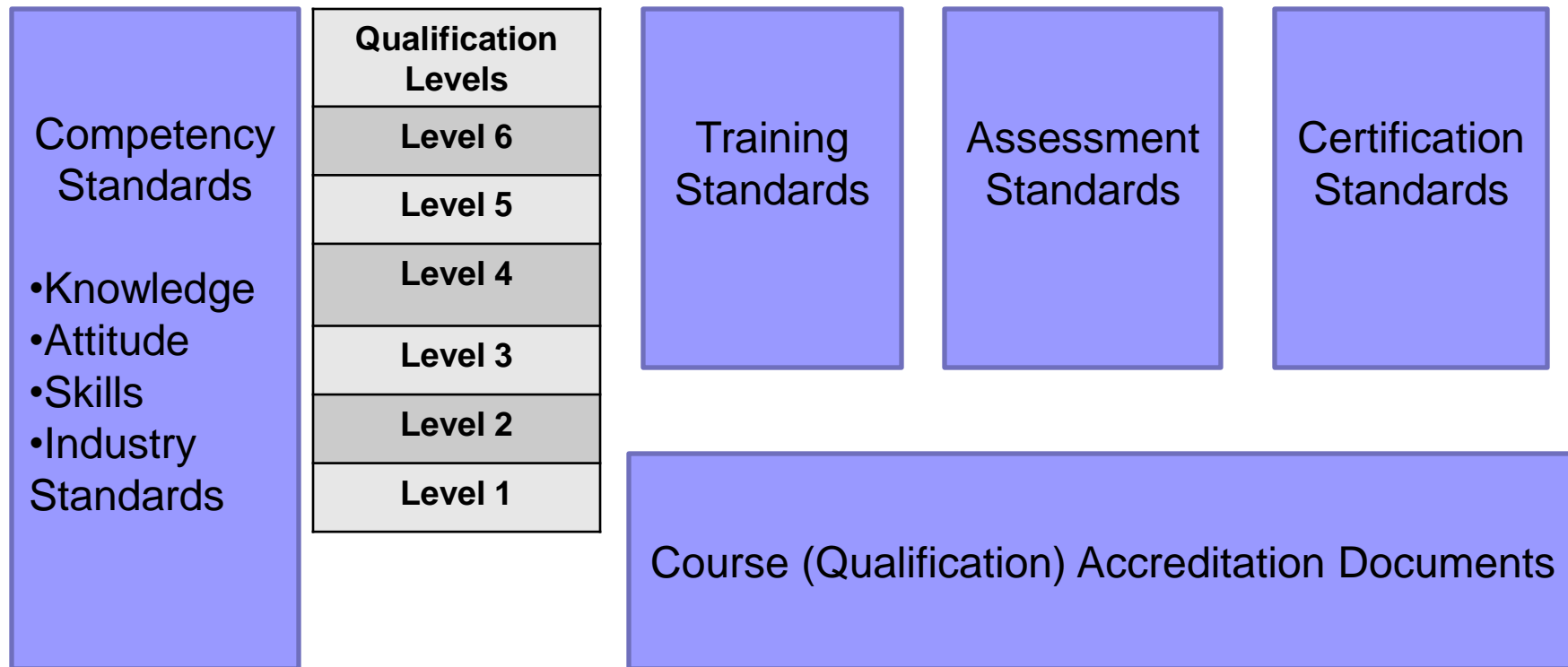
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How do we Implement NTVQF?

TVET Reform Documentation as may be approved by Cameroon Board for Technical and Vocational Education and Training (CBTVET) if Created

Competency Standards

- Knowledge
- Attitude
- Skills
- Industry Standards

Qualification Levels
Level 6
Level 5
Level 4
Level 3
Level 2
Level 1

Training Standards

Assessment Standards

Certification Standards

Course (Qualification) Accreditation Documents

Competency Standards in Different Industry sectors – Transport, Information Technology, Agro food, Tourism, etc and Qualifications may be developed and approved by (CBTVET)

What are Competency Standards ?

- Descriptions of key work outcomes in an industry

- Focus on workplace activities rather than training or personal attributes.

- Developed in partnership with industry

- Are expressed as outcomes.

- Written in language that is understandable to employees, employers, supervisors and trainers.

How are standards developed?

- **Key role of industry**
  - ☐ preparation and planning
  - ☐ consultations and workshops
  - ☐ validation
  - ☐ promotion
- Participation of all industry stakeholders - large/ micro employers / unions

What is the format of competency standards?

Unit Title

Unit Descriptor

Elements | **Performance Criteria**

Range of Variables

Evidence Guide

Unit Code and Title	TRAELE1011A1 - Fix and secure equipment.
Unit Descriptor	This unit covers the knowledge and skills to perform fixing and securing work of equipment for the required work condition.

Element of Competency	Performance Criteria
1. Follow OSH practices	1.1 Personal protective equipment (PPE) used while working. 1.2 OSH standards as set out by the workplace and legislative section followed while working.

2. Identify the methods of fixing and securing
 	
   equipment.
	2.1 Types and kinds of equipment to be fixed and
	
	    secured are identified.

3. Select and list the tools and materials required	3.1 Required tools are listed as per job requirement. 3.2 Required materials are selected as per job requirement.
4. Perform fixing and securing the equipment.	4.1 Fixing and securing operation are performed according to the workplace requirements.
5. Clean and store equipment	5.1 Equipment is cleaned and stored.

Range of Variables	
Variable	**Range**
1. Equipment may include but not limited to	Electric hammer drill Electric hand drill Electric blower Grinding machine

Evidence Guide

1.   Critical Aspects of Evidence
2.   Required Underpinning Knowledge

- Mechanical strength of materials.

- Chemical effects of materials.

- Performance standard as per BSTI.

1.   Required Underpinning Skills

- Selection of fixing materials.

- Use of fixing tools.

- Use of spirit level.

Competency Standards Provide

- benchmarks for the training system to develop and deliver training programs relevant to workplace needs;

- benchmarks for assessment to ensure that the system is delivering what industry has asked for; and

- benchmark for Qualifications

What is a qualification?

- **Recognition of achievement of a group of units of competency that meet:**

  ☐ industry requirements for useful work

  ☐ the NTVQF descriptor for National Certificate 1, 2, 3 4. 5 or 6
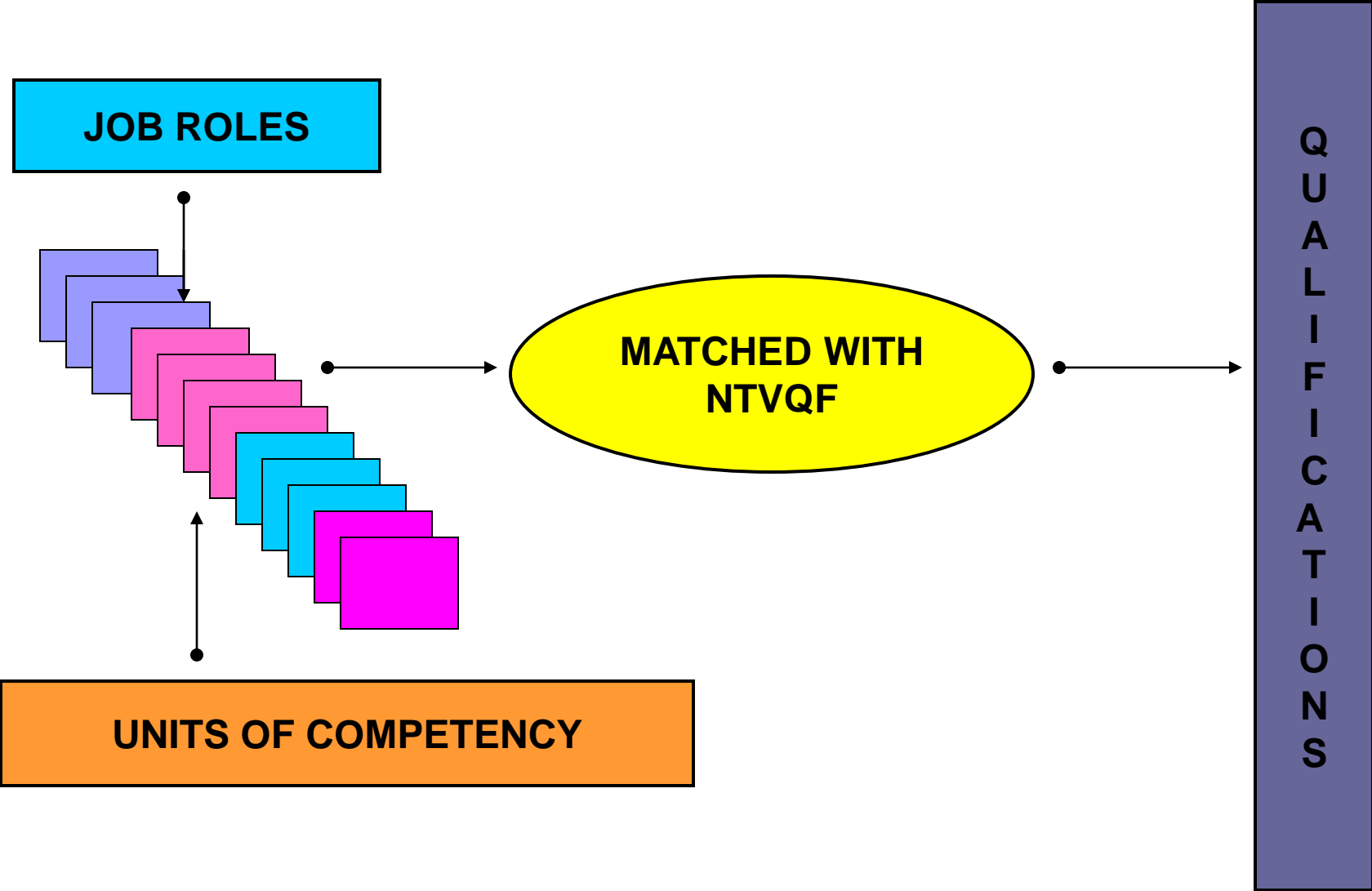
What are the components of a qualification?

- **Qualifications comprise:**
  - ☐ Generic units of competency
  - ☐ Sector Specific units of competency
  - ☐ Occupation specific units of competency
  - ☐ Elective units of competency

Packaging Of Qualification ALIGNED TO THE NTVQF LEVELS
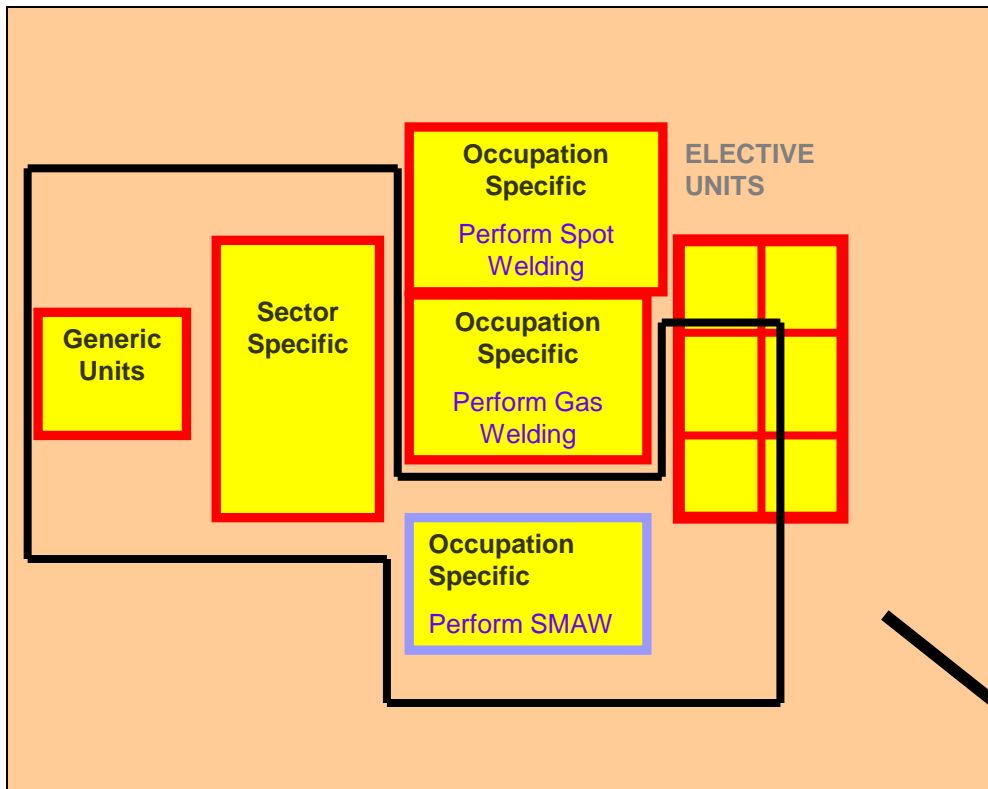
The building blocks of qualification are the units of competency in an industry

What is the purpose of qualifications?

- Recognition of successful completion of training
- Recognition of skills acquired through informal learning and work
- National recognition of skills
- Access to employment
- Pathway to further education and training
- International recognition of skills

Components of Skill Quality Assurance System (How NTVQF will work?)

Competency- Based Training System

- CBT&A Certified Trainers
- Training Equipment and Tools
- Training Workshop and Facilities
- Curriculum and learning Materials
- RTO

Competency Assessment System

- Certified Assessors
- Assessment Facilities
- Equipment and Tools
- Assessment Tools

National Certification System

- Issuance of National skills Certificate
- Registry of Students/ Trainees/ Workers Trained, Assessed and Certified

COMPETENCY STANDARDS
- **Knowledge**
- **Attitudes**
- **Skills**
- **Industry Standards**

Management of NTVQF Information System

Pathways to Qualification

Clients
•Trainees
•Students
•Workers
•And others

Training

Assessment

Certification
(NTVQ Certificates)

•National
Certificate

•Statement of
Achievement

Competency Standard
(Knowledge, Skills Attitude and Industry Standard)
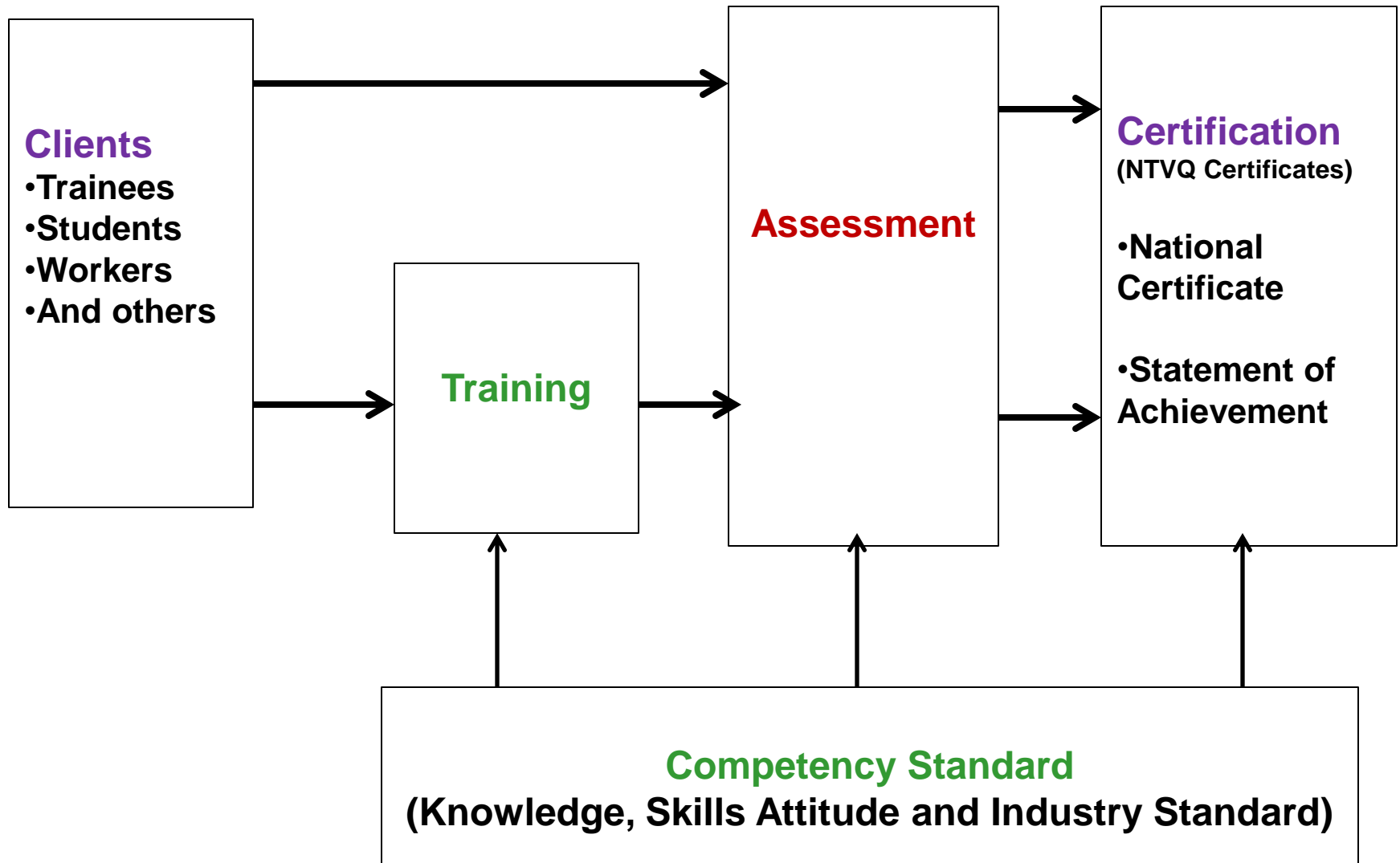
Principles of Competency Based Training (CBT)

Competency-Based Training (CBT)

CBT is a training delivery approach that focuses on the competency development of the learner as a result of the training.

Competency-Based Training . . .

1. **emphasizes most on what the learner can actually do;**

2. **focuses on outcomes rather than the learning process within specified time;**

3. is concerned with the attainment and application of knowledge, skills and attitude to a specific level of competency.

Why the Competency-Based Approach?

Vocational Education and training must keep pace with technology and customer requirements.

The Vocational Education and Training System should begin and end with the customers needs

Commerce, Industry and Government

Commerce, Industry and Government	Communicates need priorities →	Technical and Professional Education and Training
	← Responds w/ system & courses to meet industry needs	

How are these needs identified and coordinated?

Usually through a job analysis process with the development of competency standards

at ...

the industry-wide level or organizational level

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Principles of CBT

Principle One

The training is based on curriculum developed from the competency standards

Learning is based on the Competency-based curriculum

Principle Two

Learning is competency-based or modular in structure
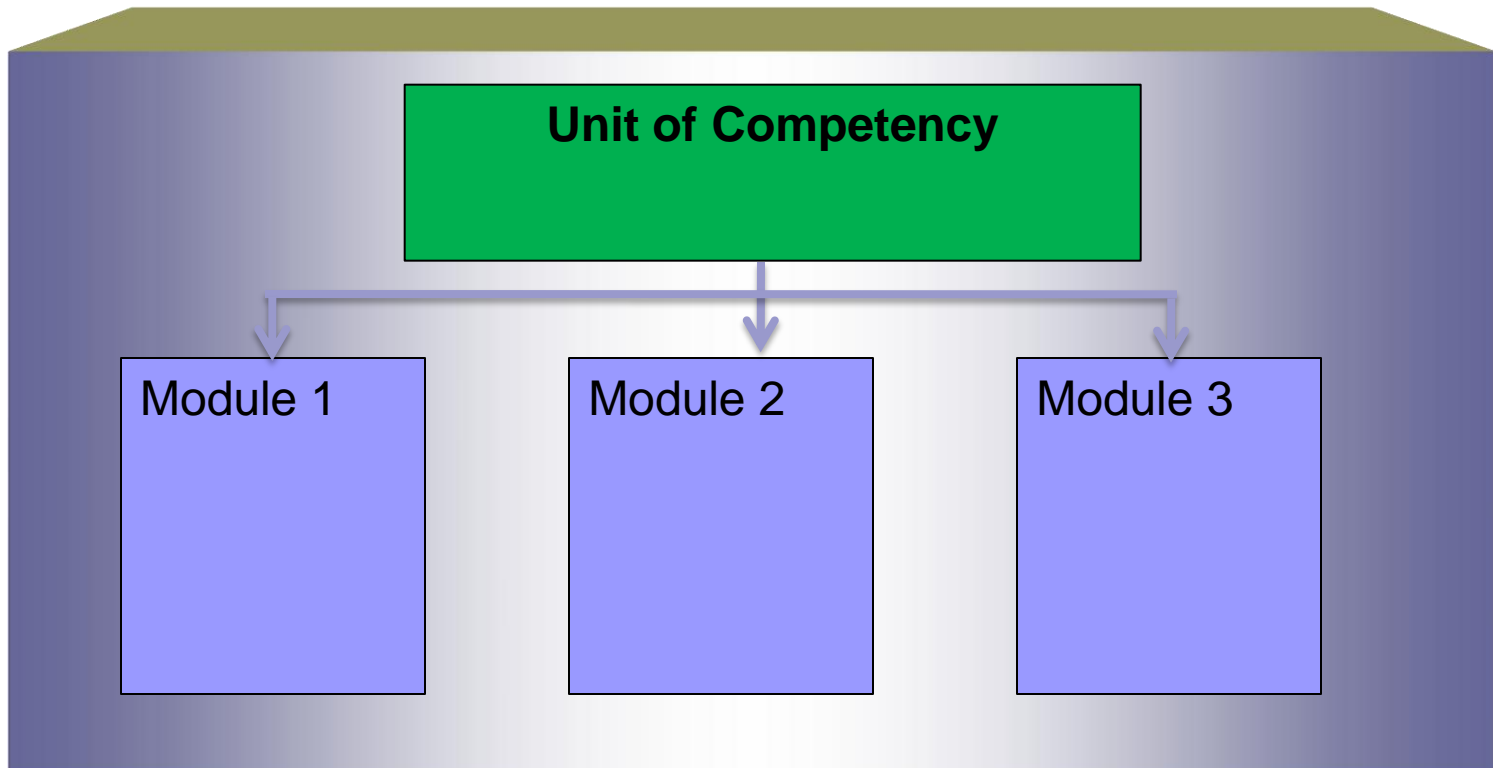
Principle Three

Training delivery is individualized and self-paced

Learning is done by the learner at own pace

Principle Four

Training is based on work that must be performed

Learning is based on the actual industry practice

Principle Five

Training materials are directly related to the competency standards and the curriculum

CS to CAD to LMs

Principle Six

Assessment of learners is based in the collection of evidences of work performance based on industry or organizational required standards

Traditional
Students are judged agaibts each other (norm referenced Assessment)

CBTVET
Each student is assessed against the evidences based on required standard

Students are not judged against each other

Principle Seven

Training is based both on and off the job components

Better learning with industry and school partnership

Principle Eight

The system allows Recognition of Prior Learning (RPL)

Workers and Students can have prior skills recognized

Principle Nine

The system allows for learners to **enter** and **exit** programs at different times and levels and to **receive** an award for competencies attained at any point.

There is flexibility for entry and exit from programs

Principle Ten

Approved training programs are nationally accredited

Training programs will be registered within CBTVET

Comparative Analysis between Traditional and CBT

TRADITIONAL	COMPETENCY BASED
■ INSTRUCTORS FOCUS ON MANAGING INSTRUCTION	■ TRAINERS FOCUS ON MANAGING LEARNING
■ MOST STUDENTS ENTER AT ABOUT THE SAMETIME	■ TRAINEES ENTER AT VARIOUS TIMES THROUGOUT THE YEAR
■ STUDENTS ALL COVER THE SAME MATERIAL	■ DIFFERENT TRAINEES MAYBE TRAINED FOR DIFFERENT UNIT OF COMPETENCY WITHIN THE SAME PROGRAM
■ STUDENTS ALL PROCEED FROM ONE TOPIC TO THE NEXT AT THE SAME TIME	■ EACH TRAINEE MOVES ON THE NEXTTASK ONLY AFTER MASTERING THE TASK HE OR SHE IS CURRENTLY WORKING ON
■ THE INSTRUCTOR CONTROLS THE LEARNING PACE	■ EACH TRAINEE PROGRESS AT HIS OR HER OWN PACE
■ ALL STUDENTS ARE USUALLY TESTED AT ONCE	■ EACH TRAINEE IS TESTED WHEN READY TO DEMONSTRATE MASTERY

TRADITIONAL	COMPETENCY BASED
■ VERY LITTLE CONTINUOUS FEEDBACK IS GIVEN	■ IMMEDIATE FEEDBACK IS GIVEN TO EACH TRAINEES AT CRITICAL POINTS IN THE LEARNING PROCESS
■ THE INSTRUCTOR IS INVOLVED IN TEACHING ONLY ONE TOPIC AT A TIME	■ THE INSTRUCTOR MUST BE ABLE TO ANSWER QUESTIONS ON MANY DIFFERENT TASKS EACH DAY
■ RETESTING IS DISCOURAGED OR NOT ALLOWED AT ALL	■ RETESTING IS ENCOURAGED TO REACH MASTERY
■ MATERIALS, TOOLS AND SUPPLIES FOR ONLY ONE TOPIC ARE NEEDED AT A TIME	■ THE TRAINER MUST SEE THAT ALL MATERIALS NEEDED FOR MANY TASKS ARE READILY AVAILABLE
■ THE NUMBER OF STUDENTS ENROLLED IS MAXIMUM CAPACITY AT THE BEGINNING OF THE YEAR AND DECLINES TO HALF OR LESS TOWARDS THE END	■ AS VACANCIES ARE FILLED, TRAINEES ENROLMENT REMAINS AT CAPACITY ALL YEAR LONG

TRADITIONAL	COMPETENCY BASED
■ MOST INSTRUCTIONS ARE DELIVERED BY OR DEPENDENT UPON THE INSTRUCTOR	■ THE TRAINER MUST MANAGE THE USE OF A WIDE VARIETY OF INSTRUCTIONAL MEDIA AND MATERIALS EACH DAY
■ THE PROGRAM IS USUALLY CLOSED DOWN OR SHORTENED DURING THE HOLIDAY MONTHS	■ THE PROGRAM USUALLY OPERATED YEAR ROUND
■ THE EVENING PROGRAM IS USUALLY SEPARATE AND DISTINCT FROM THE DAY PROGRAM	■ DAY AND EVENING PROGRAMS BOTH HAVE ACCESS TO ALL LEARNING GUIDES AND RESOURCES
■ THE INSTRUCTOR CONTROLS THE SEQUENCE IN WHICH TOPICS WILL BE COVERED	■ IF POSSIBLE, TRAINEE DETERMINE THE SEQUENCE OF TASKS

Contents of the NTVQF Implementation Manual

COMPETENCY STANDARDS

- Knowledge
- Attitude
- Skills
- Industry Standards

Competency- Based Training Delivery System

- CBT&A Certified Trainers
- Training Equipment and Tools
- Training Workshop and Facilities
- Curriculum and learning Materials

Competency Assessment Delivery System

- Certified Assessors
- Assessment Facilities
- Equipment and Tools
- Assessment Tools

Competency Certification system

- Issuance of National skills Certificate
- Registry of Students/ Trainees/ Workers Trained, Assessed and Certified

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Development and updating of Competency Standards

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1) Training, Assessment and Certification of CBT&A Trainers
2) Development of Curricula and Learning materials
3) Registration and Accreditation of Vocational Education and Training Institutions (VTI)
4) Implement Competency Based Training (CBT)
5) Compliance Audit of VETI

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1) Training, Assessment and Certification of Assessors
2) Development of Assessment Tools
3) Accreditation of Assessment Centers
4) Implement Competency-Based Assessment
5) Compliance Audit of Assessment Centers

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1) Issuance of National Skills Certificates
2) Management of Information System

M a n a g e m e n t   o f   N T V Q F   I n f o r m a t i o n   S y s t e m

Quality Assurance of Learning and Assessment Programs

Registration	Accreditation	Audit

Registration
- Management of Quality
- Management of Resources
- Quality and Relevance of Programs
- Capacity of Teaching and Support staff
- Quality of Facilities and Equipment
- Quality of Students services and amenities

Accreditation
- Link with NTVQF
- Learners
- Delivery Strategy
- Assessment Strategy
- Human Resource
- Learning and Physical Resource
- Monitoring and Review

Assessment and Certification under CBT&A

For a Trainer to conduct NTVQ program, he or she must have the following:

- NTVQ level certified on the qualification, and
- CBT&A level 4 certified

Certification must be issued by CBTVET

Assessor Assessment and Certification

For an Assessor to conduct assessment for NTVQ qualification, he or she must have the following:

- NTVQ level certified on the qualification, and

- Certified on the four units of competencies identified for Assessor.

Certification must be issued by CBTVET

Competencies	Assessor	Assessment Designer	CBLM Developer	CB course Developer	CB Trainer
Certificate level 5					
1. Conduct Training Need Analysis				★	
2. Design and Develop Competency-based Learning Programs				★	
3. Validate Competency-based Assessment		★			
4. Coordinate training/assessment for apprenticeship					
5. Evaluate competency-based training and assessment					
6. Facilitate training of TVET trainers and assessors					
Certificate level 4					
1. Work effectively within Cameroon TVET sector	★	★	★	★	★
2. Promote inclusive learning in CBT&A	★	★	★	★	★
3. Apply OSH in CBTA environment	★	★	★	★	★
4. Use information technology to support learning			★		
5. Maintain and enhance professional practice					
6. Maintain training equipment and facilities					★
7. Maintain and enhance technical competence					★
8. Design and modify CBLM			★		
9. Plan and organize Competency-Based training sessions					★
10. Deliver Competency-Based training					★
11. Design competency-based assessment		★			
12. Organize and conduct competency-based assessment	★	★			

Steps in Registration and Accreditation

- Registration of Interest
- Undertake Self Assessment
- Submit formal application
- External Assessment
- Registration/Accreditation

WHY National Skills Development Council ?	**2. Opportunity for industry to identify ways to partner with government in skills development.**	
1.Opportunity for industry to make government aware of its skills need	**3. Feedback to and from separate Industry Skills Councils (ISCs)**	

Highlights of the Skills Quality Assurance System

COMPETENCY STANDARDS	→	Competency- Based Training Delivery System	→	Competency Assessment Delivery System	→	Competency Certification system

COMPETENCY STANDARDS	Competency- Based Training Delivery System	Competency Assessment Delivery System	Competency Certification system
1. Technical Sub-committee will be created to draft the Standards 2. SCDC will also be establish to review the standards 3. These standards will be the basis for developing CAD, learning materials and Assessment tools 4. Standards will be register with CBTVET	1) Mandatory CBTVET Certification of Instructors under CBT&A . Trainer can be also an Assessor. 2) CBLMs must be developed per module 3) Mandatory registration and accreditation of all institutions offering NTVQF 4) Delivery System is Competency Based Training (CBT) 5) Mandatory Compliance Audit of Institutions 6) RPL is implemented	1) Mandatory CBTVET Certification of Assessors. An assessor can also be a Trainer. 2) Everyday is Assessment day 3) Mandatory accreditation of Assessment Centers 4) Assessment is transparent under Competency-Based Assessment 5) Mandatory Compliance Audit of Assessment Centers 6) RPL is implemented	1) National Certificate will be issued to candidates who have achieve d all required competencies defined in a qualification. 2) Statement of Achievement will be issued to candidates who were assessed to be competent in a single or cluster of competencies. 3) NTVQ Certificates will be issued by CBTVET and Institutions can issue training certificates. 4) Validity: 5 years

Next Steps…….

- Mandatory migration of existing programs to NTVQ in all government agencies involved in skills development
- Capability and capacity building of these institutions

Thank You !!