

# **The Drilling Industry Certification Authority of South Africa**

## **Update on the QCTO Exploration Driller and Directional Driller Qualifications**

**2<sup>nd</sup> Exploration Drilling Forum  
Thursday 24<sup>th</sup> July 2014  
Glen Hove Conferencing**



## Objective

1. To present developments in the QCTO Driller Qualification initiative.

## Agenda

1. The structure of an occupational qualification.
2. The Exploration Driller and the Directional Driller qualifications.
3. Status of the project.

# The QCTO and the qualification development process

## What is the QCTO?

NQF Act makes provision for an integrated NQF comprising three sub frameworks, each developed and managed by a Quality Council

Sub Framework	Quality Council responsible
General and Further Education and Training Qualifications Sub framework (GFETQSF)	Umalusi
Higher Education Qualifications Sub Framework (HEQSF)	Council on Higher Education (CHE)
Trades and Occupations Qualifications Sub Framework	Quality Council for Trades and Occupations (QCTO)

## Purpose of the QCTO?

The QCTO is responsible for:

- designing and developing occupational standards and qualifications and submitting them to the SAQA for registration on the NQF.
- ensuring the quality of occupational standards and qualifications and learning in and for the workplace.
- establishing and maintaining occupational standards and occupational qualifications.
- the quality assurance of occupational standards and occupational qualifications and learning in and for the workplace.

## Purpose of Occupational Qualifications

The purpose of an occupational qualification is **to qualify a learner to practice an occupation, or an occupational specialization** reflected on the Organising Framework for Occupations (OFO).

## OFO Codes

### 7113 Well Drillers and Borers and Related Workers

#### 711301 Driller

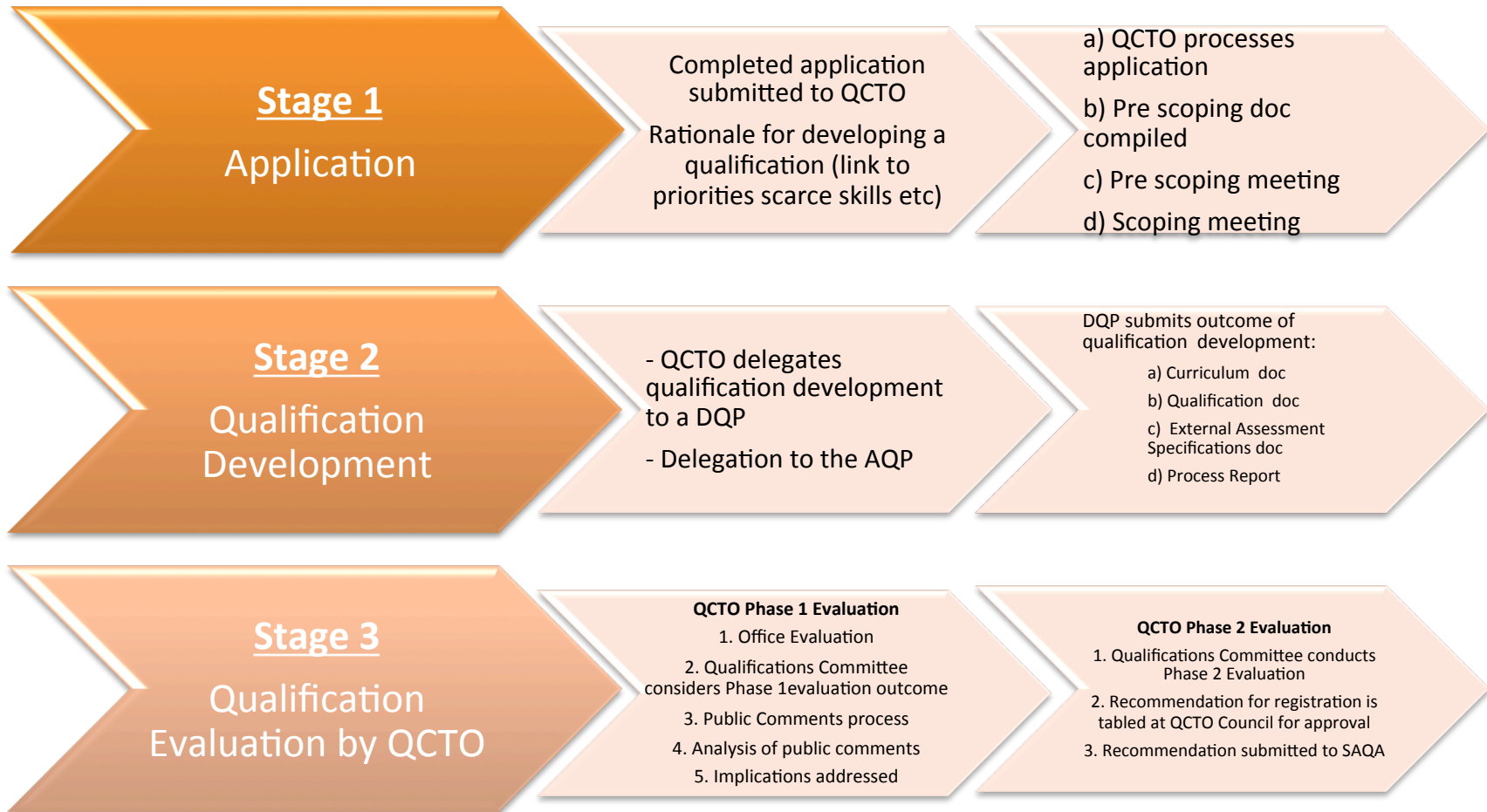
- Blind Hole Borer Operator
- Bore Sinker
- Boring Equipment Operator
- Contract Driller
- Derrick Operator
- Derrickman
- Development Driller
- Directional Driller
- Drill Rig Operator
- Drilling Plant Operator
- Exploration Driller
- Hydraulic Stope Rig Operator
- Jumbo Operator
- Power-tong Operator
- Radial Drill Operator
- Raise Drill Operator
- Scaler Operator
- Tourpusher

#### 711302 Rock Drill Operator

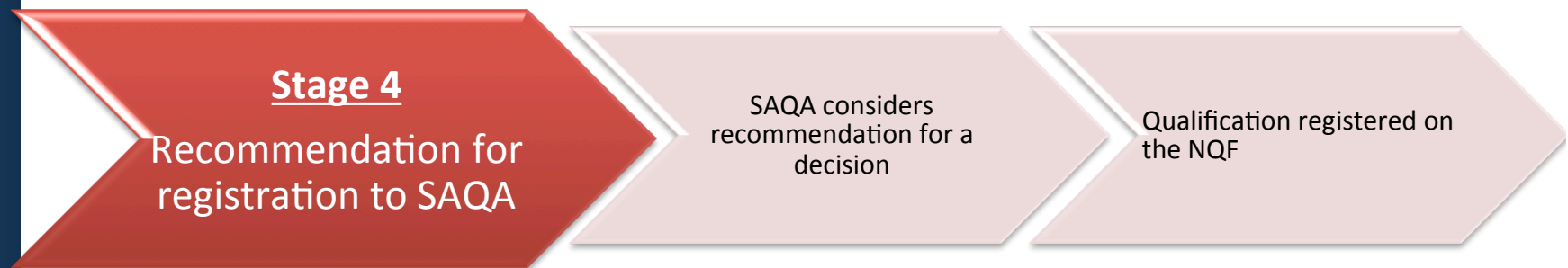




# Qualification development process



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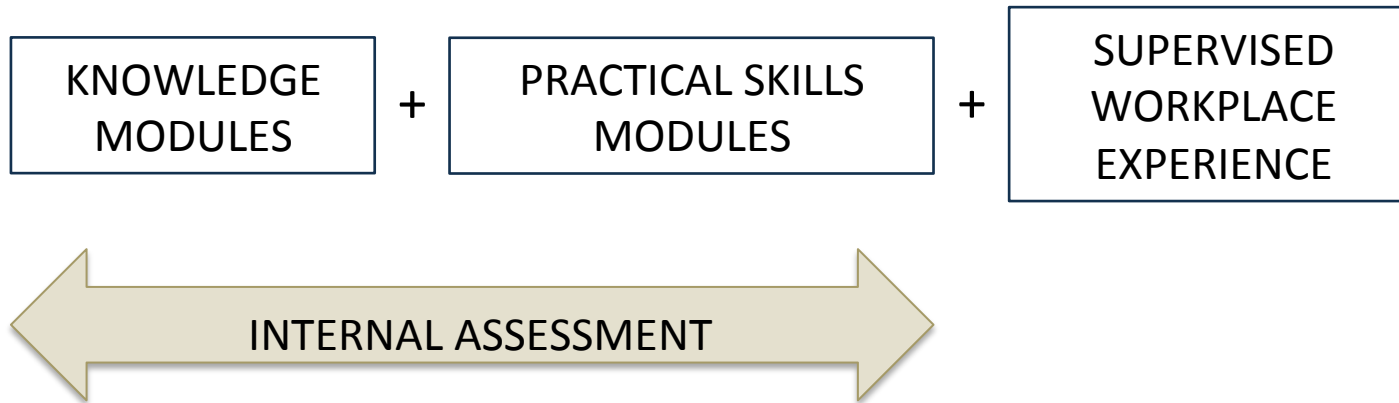


## The structure of an occupational qualification

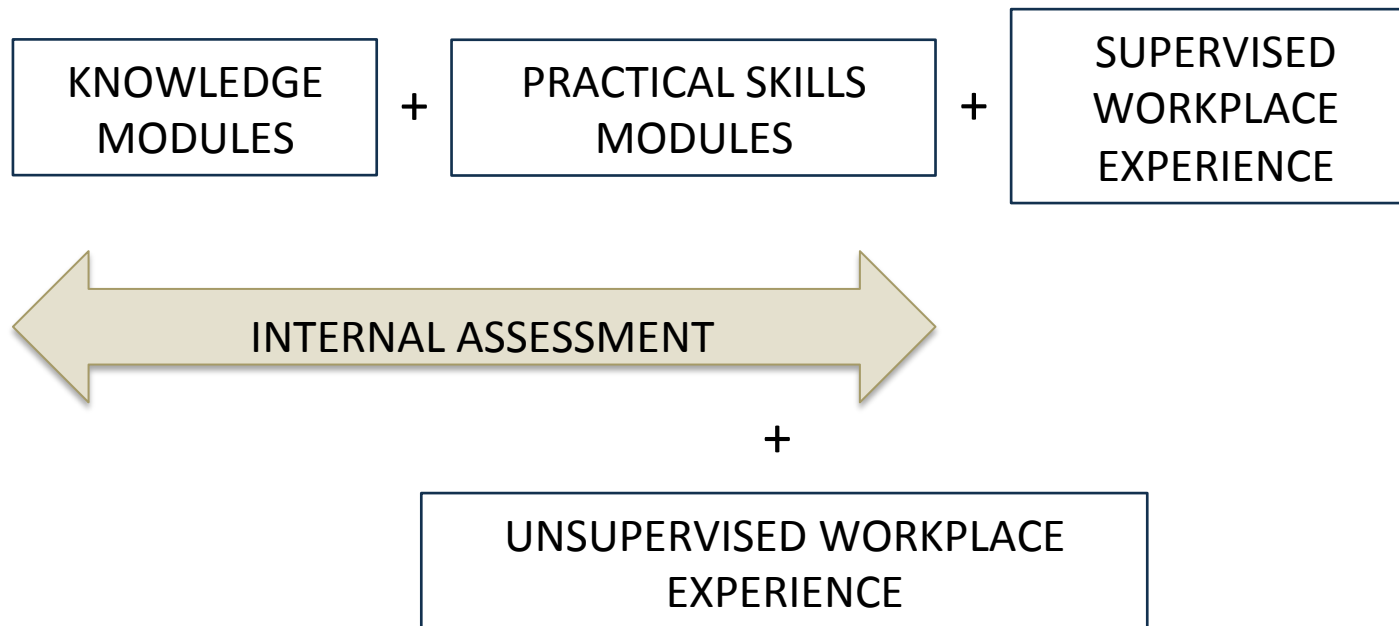
# Structure of Occupational Qualifications



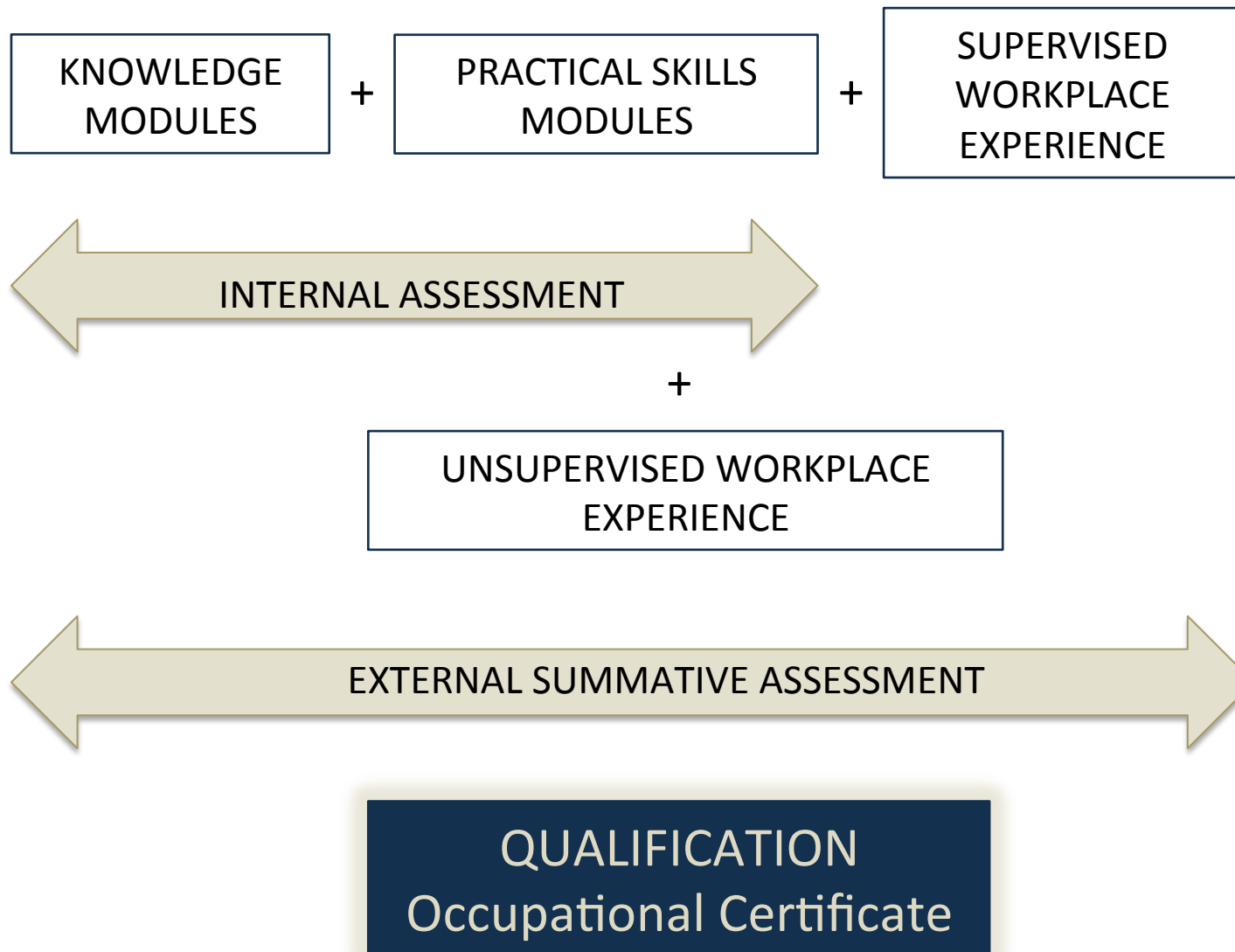
# Structure of Occupational Qualifications



# Structure of Occupational Qualifications



# Structure of Occupational Qualifications



# The QCTO Exploration Driller Qualification



## Drilling specialisations – QCTO rules

1. QCTO wants to minimise the number of qualifications for any OFO Code.
2. Elective modules are not allowed.
3. If the basic operations are the same then the differences will be managed through the training material and work experience modules.
  - Envisaged that the certificate will provide detail on the specialisation – probably based on machine type.

## QCTO Driller Qualifications

- 711302 001 Rock drill operator
- 711301 001 Driller
- 711301 002 Directional driller
- 711301 003 Exploration driller

# The Exploration Driller Qualification - 711301 003

## KNOWLEDGE MODULES

### Knowledge Modules

Workplace fundamentals

Health, safety and the environment

Operations and machines

Components, controls and consumables

## PRACTICAL SKILLS MODULES

### Practical Skills Modules

Work safely and respond to emergencies

Perform pre-operational activities

Operate machine

## WORKPLACE EXPERIENCE

### Work Experience Modules

Supervised

Unsupervised

# The Exploration Driller Qualification - 711301 003

Knowledge Modules	NQF Level	Credits
Workplace fundamentals	1	6
Health, safety and the environment	2	8
Operations and machines	2	4
Components, controls and consumables	2	5
<b>Practical Skills Modules</b>		
Work safely and respond to emergencies	2	1
Perform pre-operational activities	2	5
Operate machine	3	12
<b>Work Experience Modules</b>		
Workplace environment	3	25
<b>Total Credits</b>		<b>66</b>

NQF Level	MHET Determination on Sub-Framework and Qualifications Types (Government Gazette No 36003 – 14 Dec 2012)	
10	Doctoral Degree Doctoral Degree (Professional)	*
9	Master's Degree Master's Degree (Professional)	*
8	Bachelor Honours Degree Post Graduate Diploma Bachelor's Degree	*
7	Bachelor 's Degree Advanced Diploma	*
6	Diploma Advanced Certificate	Occupational Certificate (Level 6)
5	Higher Certificate	Occupational Certificate (Level 5)
4	National Certificate	Occupational Certificate (Level 4)
3	Intermediate Certificate	Occupational Certificate (Level 3)
2	Elementary Certificate	Occupational Certificate (Level 2)
1	General Certificate	Occupational Certificate (Level 1)

# The Directional Driller Qualification - 711301 002

## KNOWLEDGE MODULES

Knowledge Modules
Workplace fundamentals
Health, safety and the environment
Operations and machines
Components, controls and consumables
Directional drilling concepts

## PRACTICAL SKILLS MODULES

Practical Skills Modules
Work safely and respond to emergencies
Perform pre-operational activities
Operate machine (revised)

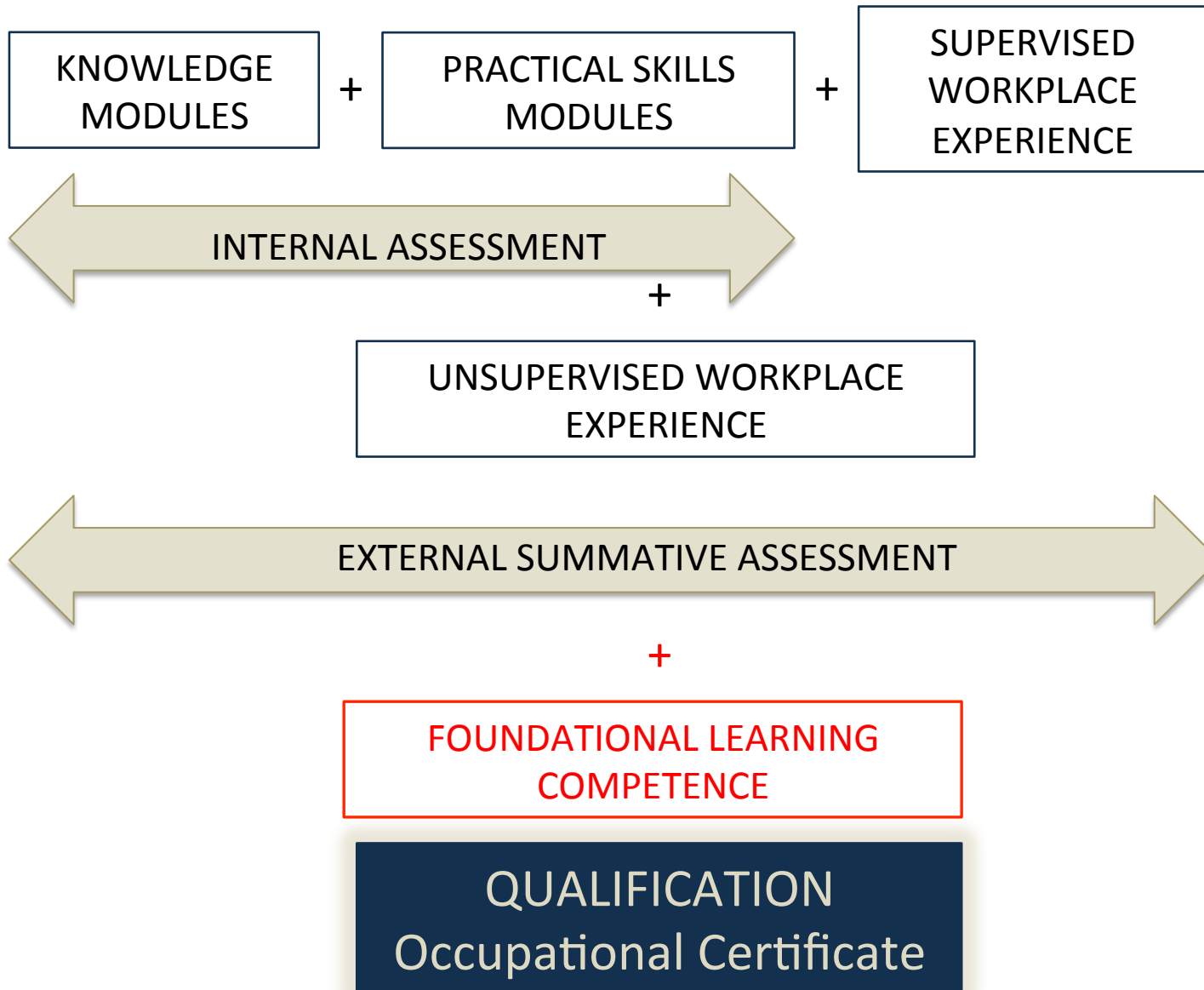
## WORKPLACE EXPERIENCE

Work Experience Modules
Supervised
Unsupervised

# The Directional Driller Qualification - 711301 002

Knowledge Modules	NQF Level	Credits
Workplace fundamentals	1	6
Health, safety and the environment	2	8
Operations and machines	2	4
Components, controls and consumables	2	5
<b>Directional Drilling Concepts</b>	<b>3</b>	<b>12</b>
<b>Practical Skills Modules</b>		
Work safely and respond to emergencies	2	1
Perform pre-operational activities	2	5
Operate machine	<b>3</b>	<b>22</b>
<b>Plan a directional borehole</b>		
<b>Drill a directional borehole</b>		
<b>Work Experience Modules</b>		
Workplace environment	<b>3</b>	<b>37</b>
<b>Total Credits</b>		<b>100</b>

# Directional Driller Qualification





# Foundational Learning Competence

Administered by the Independent Examination Board (IEB)

*Purpose:*

*Foundational Learning refers to the competence needed in the two key areas of Communication and Mathematical Literacy in order to deal successfully with occupational learning at NQF Levels 2-4. Its key purpose is to remove barriers to learning and progress in occupational pathways and skills development.*

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*2 components, 20 credits each*

*Entry level – ABET level 3*



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1. Who does the training and assessing
2. Time to train
3. Cost to train
4. What about existing Drillers – RPL process
5. What about existing drill rig assistants
6. Is the qualification acceptable to mining houses
7. Is the qualification acceptable to the DMR
8. How do we manage the “pre-qualified” candidates

## Time to train

### 1. Exploration Driller Qualification:

66 credits            = 660 hours  
                             = approx 4 months

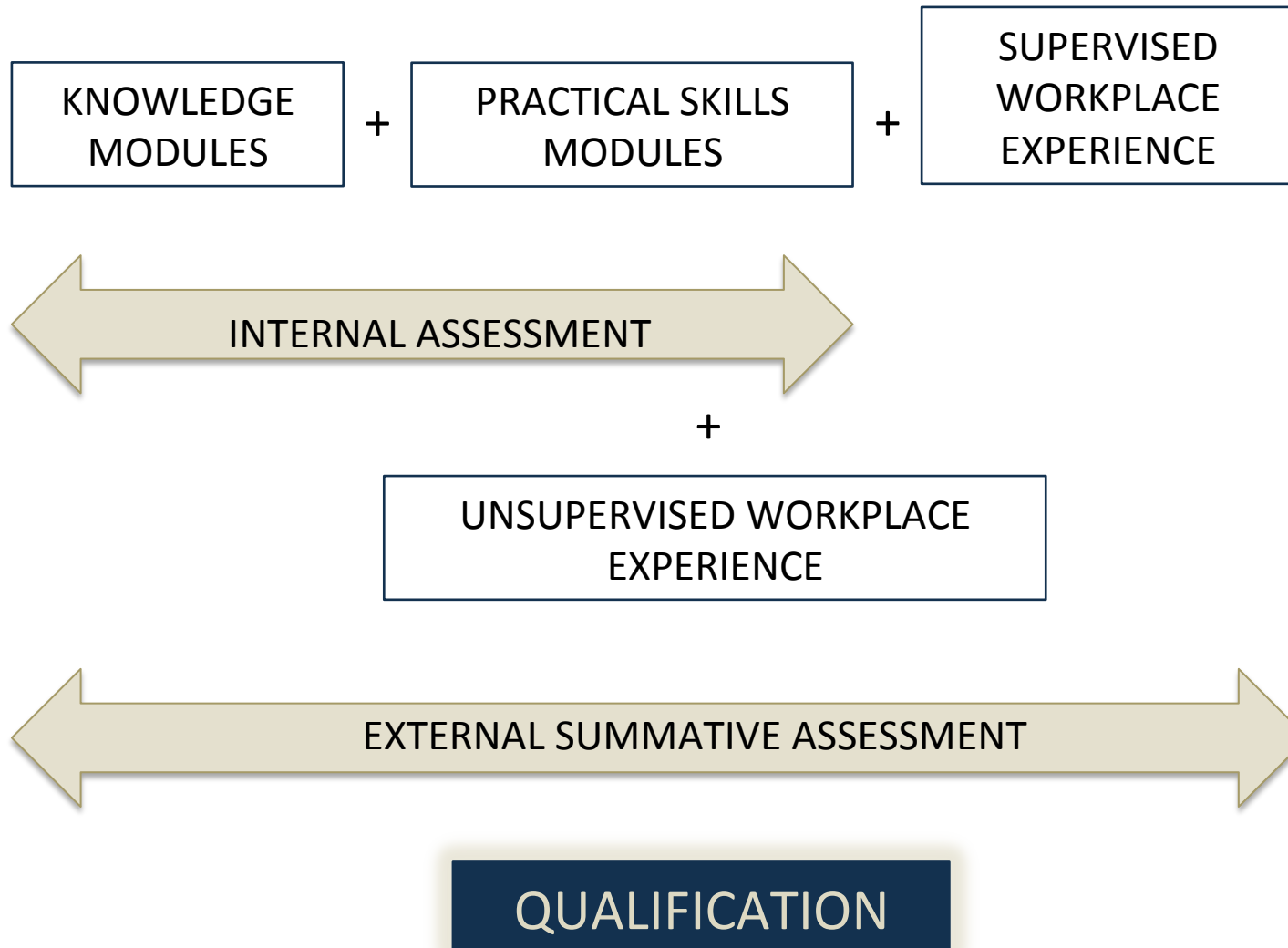
### 2. Directional Driller Qualification:

100 credits           = 1000 hours  
                             = approx 6 months

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# Structure of Occupational Qualifications

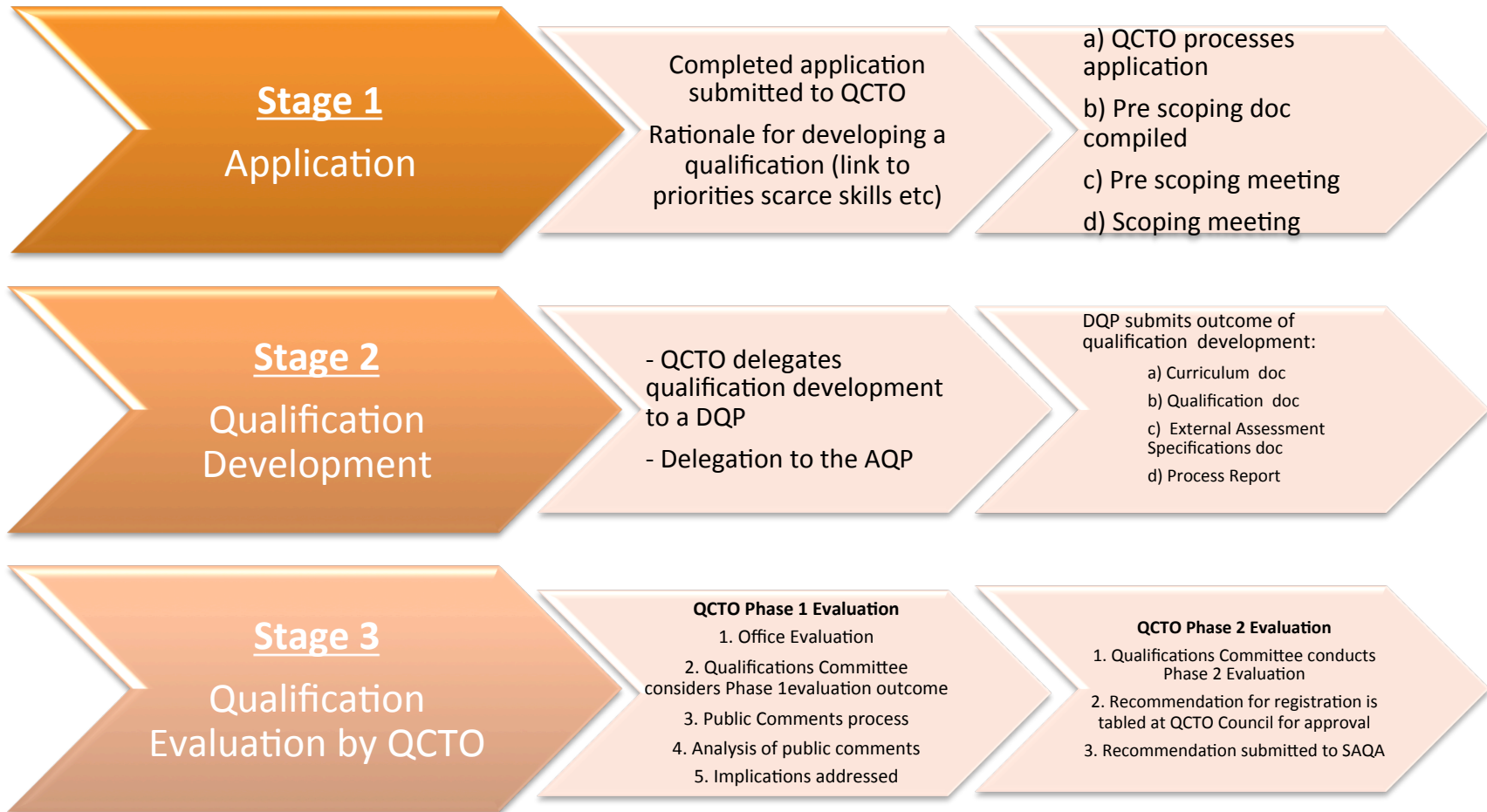




## Conclusions

- All 4 qualifications are being ratified at present
- Once ratified by industry, they enter the approval process – approx. 2 years.

# Qualification development process



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