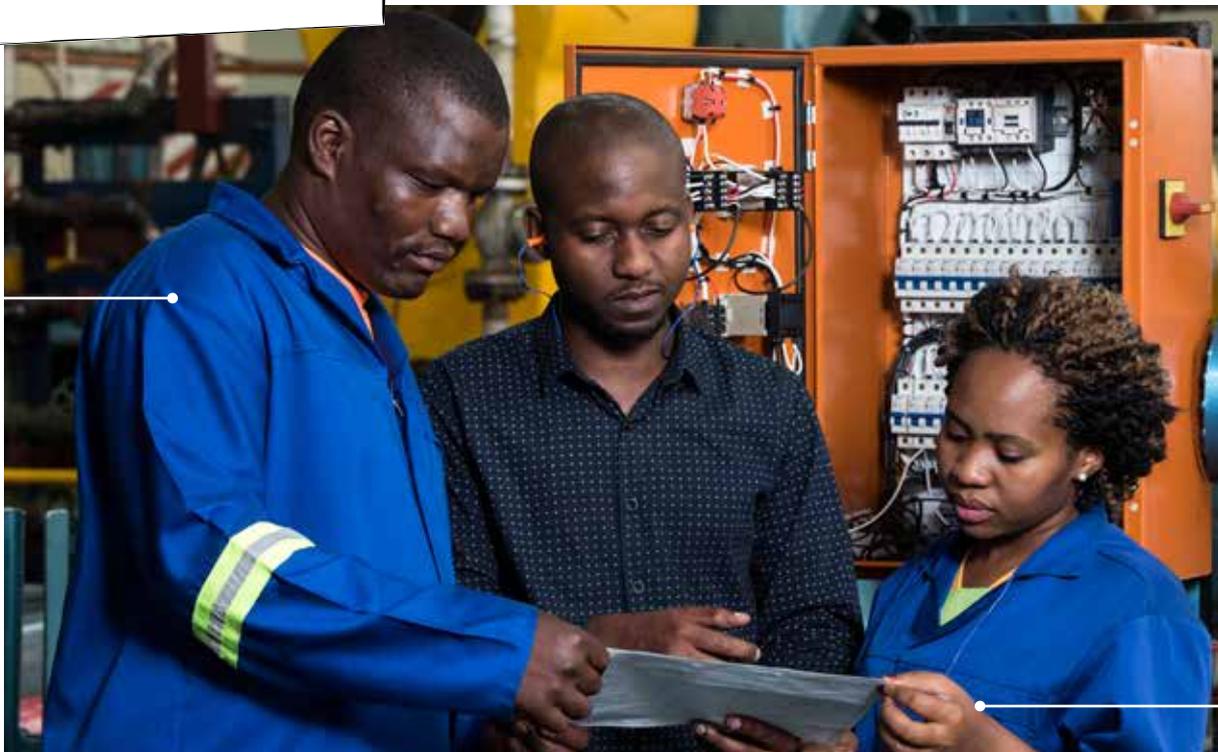


SKILLS DEVELOPMENT FOR  
**GREEN ECONOMY**

**GO DUAL**

Working together towards a common goal



**FIRST LESSONS LEARNT IN THE DUAL SYSTEM PILOT PROJECT  
AUGUST 2016-OCTOBER 2017**

FACTSHEET 1  
**NOCC-A21 DEVELOPMENT**

### This workstream intends to:

- Define a step-by-step process to develop the National Occupational Curriculum Content for Artisans of the 21st century (NOCC-A21) - based on QCTO occupational qualifications as one process.
- Develop the NOCC-A21 for the electrician and plumber trades to promote problem-solving competence of artisans in line with requirements of industry.



## KEY FACTORS FOR SUCCESS & LESSONS LEARNT

### About the NOCC-A21:

- Knowledge modules, practical-skills modules and work-experience modules, as prescribed by the QCTO occupational qualification, are integrated into a single programme in order to achieve problem-solving competences in apprentices.
- Each NOCC-A21 is made up of the following key elements:
  - ◆ Learning Areas (LAs): overarching themes of learning in line with work-related tasks/projects
  - ◆ Learning Projects (LPs): work-related sub-tasks/projects which make up a whole learning area
  - ◆ LAs and LPs are captured in a 'competence package' which details the actual content of learning and the training methodology
  - ◆ The NOCC-A21 further reflects the distribution of LAs and LPs over three distinct phases, defined with an increasing degree of complexity ranging from simple and guided (fundamental) to systemic and rule-guided (advanced phase), and specialised, complex problem-solving (specialised phase).

**NOCC-A21 development** must be driven by the requirements of industry. The key consideration is: What does industry need artisans to know and be able to do competently and confidently? Therefore:

- The participation of employers must be prioritised in NOCC-A21 development.
- Learning must be driven by tasks/projects which are aligned to industry requirements.
- The approval of the NOCC-A21 by industry is paramount.
- Subject matter experts who have a proven track record in the delivery of occupational qualifications from public TVET colleges, private training providers and company-/ industry-linked training centers must be involved.





- Sequencing of Learning Areas and Learning Projects of the NOCC-A21 is critical and should reflect the reality of the workplace and the degree of complexity of work-related tasks/projects.
- Continuous rotation (block release) between companies and TVET colleges over the three-year period of artisan training must take place.
- Companies must provide for structured learning at the workplace.
- The NOCC-A21 must focus on relevant competences and must not prescribe implementation-related details. These are to be catered for by competent artisan lecturers.

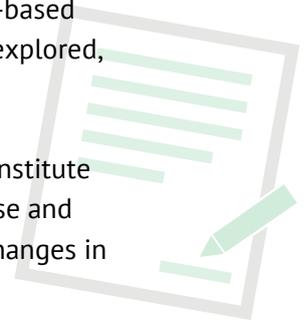
### QCTO occupational qualification, NOCC-A21 and trade test:

- At the moment there are 3 separate processes with 3 different bodies developing QCTO occupational qualifications, NOCC-A21 and the trade test.
- QCTO occupational qualification, NOCC-A21 and trade test need to be revised in one process, with industry playing a leading role.
- The existing QCTO occupational electrician qualification subject content is currently centered around the electrical installer and focuses on traditional technologies and simple manual skills at the expense of modern content (i.e. electronics, digital and control technology). It is thus questionable whether the QCTO occupational qualification reflects an up-to-date description of the work, knowledge, skills and competences of a competent electrician.
- The QCTO occupational qualification, the NOCC-A21 and the trade test need to be revised/aligned with each other, with industry environments and international standards.
- The trade test for the NOCC-A21 Electrician needs to be aligned to NOCC-A21 Electrician requirements as soon as possible.



## MOST RELEVANT STRATEGIC & POLICY ASPECTS TO CONSIDER

- The implementation of the NOCC-A21 must be mandatory for TVET colleges and companies in the DSPP context.
- Employer involvement during NOCC-A21 development and approval has to be mandatory, as training based on the NOCC-A21 should improve the employability of apprentices and facilitate transition into the labour market.
- The QCTO occupational qualification, NOCC-A21 and the trade test must be revised as one process and aligned with industry requirements and international standards.
- The trade test must be designed to become an A21 trade test; it must reflect the QCTO occupational qualification/NOCC-A21 integrated learning approach and actively involve industry.
- Instead of just one occupational qualification per trade, the need for a broad-based foundational training followed by industry-relevant specialisations must be explored, e.g. for the field of electronics and electrics.
- Compare with international standards and processes – e.g. German Federal Institute for Vocational Education and Training (BIBB) whose task it is to develop, revise and customise occupations to keep up with economic, technological and social changes in the context of the German dual TVET system → role of SAIVCET?



## CRITICAL OTHER WORKSTREAMS TO BE LINKED FOR SUCCESS

- Learning Support Material Development – [Factsheet 2](#)
- Training Infrastructure Development – [Factsheet 3](#)
- Lecturer Capacity Development – [Factsheet 4](#)
- Quality Assurance and Assessment – [Factsheet 8](#)



## HOW MUCH TIME IS REQUIRED FOR THIS PROCESS?

Once ready for programme implementation:

- **6 - 9 months** for the development of each NOCC-A21, i.e. per QCTO qualification

