



# QCTO apprenticeships and the dual system

SAIW, through the SAIW Foundation, will commit R1.5-million over two years to subsidise 20 welding apprentices on a QCTO pilot training programme. It is now seeking industrial partners willing to recruit apprentices and partner with SAIW on this groundbreaking scheme. *African Fusion* talks to Etienne Nell.

The SAIW Foundation has decided to fund the new QCTO-based (Quality Council for Trades and Occupations) apprenticeship programme for 20 students and is looking for industry partners to co-invest in the scheme. This pilot programme will be run at the SAIW Welding School in City West, Johannesburg, starting in April or May this year.

“This is no ordinary exercise,” says SAIW’s Etienne Nell. “It is neither a Unit Standards-based Learnership nor a traditional welding school programme. It is a full-blown apprenticeship based on the new dual system QCTO apprenticeship programme, which will combine technical education and simulated practical training at the SAIW with authentic work experience in a fabricator’s workshop.”

The key thing, according to Nell, is that industry needs to take charge by appointing its own apprentices. “Then the company signs a Memorandum of Understanding MOUs with an accredited training body such as the SAIW, which will then provide the theoretical as well as the practical components of the new registered QCTO Welder Qualification,” Nell adds.

Describing how the system works, he says that at the starting point, industry needs to recruit apprentices. They then commission SAIW to do the theoretical and practical training involved, which

needs to be 100% aligned with the new curriculum. “Industries involvement from the start is the key here,” Nell notes.

The new National Occupational Qualification is based on the Bratislava Agreement, which means it is aligned with International best practices and the International Institute of Welding’s (IIW) training curriculum. So industry and apprentices can be assured of the quality of the programme.

The programme aims to produce:

- A skilled and capable welding workforce to support economic growth.
- Increased availability of intermediate welding skills.
- Increased delivery of properly qualified artisans welders.

“Because of the integrated modular approach, the school-based training can be tailored to suit a company’s direct skills needs, and these ‘intermediate skills’ can be directly used by the company following short school-based modules,” Nell says. “Industry participation is essential in this process, because learning a trade is like learning to ride a bicycle, you only learn once you start doing it for real,” he explains.

Putting hours onto the programme components, he says that 1 310 hours are allocated to technical knowledge modules (KMs), along with 1 960 hours of for practical modules (PMs), which will be done at the SAIW and its Welding

can ask us to schedule 4F Fillet Welder training in an early module. Under a PM module, we will then qualify the apprentice according to the company’s procedure so that, when he goes back to the workplace after completing a four-week module at the SAIW, he or she can be productive on the shop floor as a qualified 4F welder while being paid as an apprentice. That is what government wants today,” Nell tells *African Fusion*.

“The programme therefore becomes a single, integrated learning programme, presented through an iterative process, with employers in the driver’s seat!” Nell exclaims, adding, “The training can be stacked and packed in any way employers choose.”

Describing the current situation, he says that public providers and TVET colleges offer welder training without any workplace or occupational competence components. Many of the curricula used are outdated and trade theory front-loaded, with long intervals between theory and practice. “Even students on N Courses do not get practical training or work experience and most are selected by colleges without any reference from employers. There are very few links between public colleges and industry,” Nell says.

What is new? “QCTO artisan training is now an occupational competence and a national qualification with new and modern industry-designed curricula that tightly interweave trade theory, simulated practice and work experience. All students will now get practical training and work experience, with employers selecting and managing their own apprentices. And we promise close interaction between the SAIW and employers,” he notes.

## Making a profit by training apprentices

What is in it for companies? Right from the start, according to Nell, companies that employ apprentices benefit via very cost-effective labour rates with additional benefits including: SETA training

grants; SARS Tax incentives; B-BBEE score cards and social responsibility credentials.

After the apprenticeship, however, the company will have skilled employees, trained to industry standards and acculturated to the employing company, which enhances employee retention. “The system also offers low-risk and low-cost recruitment. A labour broker will typically charge one twelfth of a recruited welders wages per year of work,” he adds.

“I am often asked by CEOs what happens if they invest money for training and all the welders leave? My response is to ask them to imagine what would happen if they don’t invest in training of their welders and all of them stay!” Nell relates.

Describing what industry needs to do to benefit from the programme, he says that the process starts with recruitment of apprentices and the signing of apprenticeship contracts, along with a commitment to the QCTO curriculum with its the dual system approach. It then becomes possible to register the apprentice contracts with the relevant SETA and to apply for training grants.

“And working with the SAIW to sign MOUs for each apprentice will ensure the best possible outcome by helping to identify the workplace learning most relevant to the company’s offering. This process will help to build a much more relevantly skilled workforce,” he suggests.

Why trust the SAIW? “SAIW already offers widely recognised and sought after international qualifications and the QCTO, through the International Comparability Bratislava Agreement, is aligned to the IIW International Welder Qualifications, for which the SAIW has long been an Authorised National Body (ANB),” Nell responds.

“Once an apprentice has completed a trade test following the new qualification route, he/she is eligible to apply to the IIW for his International Welder Qualification,” he adds.

Signalling that the Institute is fully committed to the QCTO curriculum and dual system learning for apprenticeship programmes, SAIW Foundation has committed R1 500 000 to subsidise the training of the first 20 apprentices. “We will also assist in maintaining the required

statements of results, a prerequisite for the external assessments required by NAMB,” Nell informs *African Fusion*.

Further, SAIW is eager to engage the TVET Sector, to remain an active member of the National Artisan Moderation Body (NAMB) in developing the new trade test, and to remain active with the QCTO to provide quality assurance when TVET Colleges starts to deliver these programmes.

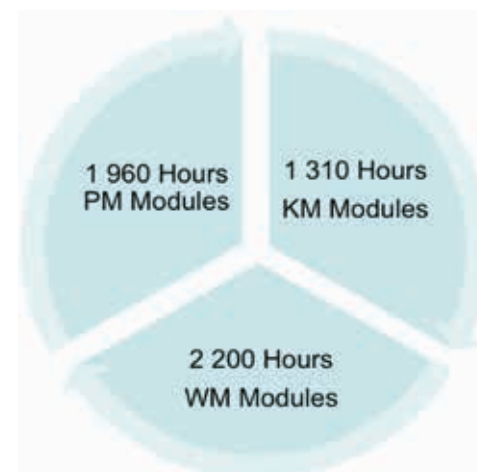
Pointing to a table from Germany outlining the estimated cost benefits to companies, Nell says that, in the first year of training, an apprentice’s wage is typically 28% of the full artisan’s salary, but he/she will only be 35% productive. This represents a loss to the company, but in the second year, apprentices are paid 32% of the full salary but their productivity increases to 65%, so companies can start seeing a real financial benefit. In the third year, this increases dramatically with the company getting 85% productivity from an apprentice earning only 41% of his full salary. This is a significant incentive.

“Over three years, it will cost around R510 000 to train an apprentice to artisan level – and these are realistic costs. This is the financial commitment we are asking from companies,” Nell notes. But if the income that accrues because of this decision is taken into account, then the real cost disappears and is replaced by a net profit.

Demonstrating how, Nell says that, for the first 20 contracts, the SAIW will contribute R75 000 per student. Then, over the three years, SETAs will contribute R165 000 and the SARS allowance for profitable companies amounts to R40 000 per apprentice, which takes away R280 000 off the real costs. This leaves a real cost to the company of only R230 000.

But there is even more on the gain side!

A further R1 800 is available from



The biggest number of hours of a QCTO Welder Apprenticeship are reserved for workplace modules (WMs) done at the employers site. The apprentice is, therefore, working for a significant percentage of this QCTO training programme.

SARS under the Employee Training Initiative (ETI), R1 000 per month for the first year of employment and R500/month thereafter – this because of the increasing productivity available as an employee’s skill level rises.

And it is productivity that can change the ‘loss’ incurred through training into a real and tangible profit. Based on the productivity incentives from apprentices, Nell explains that: “If, for the last 18 months of the programme, we assume that an apprentice is 65% productive but is being paid 32% of his full salary, the employer will be saving the equivalent of R327 000 compared to an artisan that is 100% productive.

This means that companies that adopt this high-quality dual system apprenticeship training programme will be R105 000 better off than they would be if they employed trained artisans instead.

The SAIW is currently seeking commitment from industry to recruit trainees on formal apprentice contracts and to partner with the SAIW in this endeavour. “I am 100% sure this will be worthwhile, with respect to costs and future growth in the short- and the long-term,” Nell concludes. ■



The new QCTO-based apprenticeship programme for 20 students will be piloted at the SAIW’s state-of-the-art welding school in City West, Johannesburg, starting in April or May this year.



Item	Cost	Note
Recruitment, medicals and HR	R15 000	Once off cost
Tools and PPE	R 15 000	Three sets of PPE
Apprenticeship wage	R165 000	Over three years
SAIW training	R265 000	408 days of knowledge (KM) and practical (PM) modules
SAIW quality audits	R20 000	Workplace audits
Material and consumables	R30 000	245 days of practical (PM) training
<b>Total estimated cost to train</b>	<b>R510 000</b>	<b>Over three years</b>

An estimate of the total cost of training an artisan welder on a three-year dual system QCTO programme.