

Educational Policy



VDMA initiative

# Skilled Workers for Africa



## Create perspectives with vocational training



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President and HAWE  
Hydraulik SE\*  
Management Board  
Member

There is much potential in Africa – at VDMA we are convinced of that. Many countries, especially those in the sub-Saharan region, show a stable development characterised by growing economic power, improved institutions, and a growing middle class. Many countries would like to increase the value creation in their own country. In fact, they must do this to generate prosperity. Germany's mechanical engineering sector is perfectly suitable for helping them to accomplish this. The excellent reputation of German technology in this continent provides us, as machinery and plant engineering companies, with a good starting position to actively shape the economic advancement of this continent.

Yet the African market is and remains a demanding territory. Poor infrastructure, unstable power supply, and inefficient administration often thwarts economic growth. Moreover there is a lack of qualified personnel who can operate and maintain modern machines and plants. These causes ultimately lead to the German mechanical and plant engineering's Africa export quote of 5 per cent, which clearly can be improved.

Against this backdrop we are committed to developing skilled workers on the ground. That is why professional training centres in Nigeria, Kenya and Botswana are supported. In these training centres we will bundle the strengths of mechanical engineering in the area of vocational training. Our aim is to firmly establish these strengths in these countries just as the quality of technology and global service of German mechanical engineering is recognised. In this way we contribute to institutionalising relations over the long term. At the same time, with the help of German technology and training African companies can operate more efficiently and more sustainably – this strengthens local industry and also improves their competitiveness.

Our initiative also contributes significantly to efforts to manage current social-political challenges. We consider our Africa engagement not only as a market development – it is also closely tied to the topic of migration and supports a more sustainable mind-set. These training projects, we are able to offer local people a real perspective. This perspective exists because of the realization of business opportunities and the realisation of an already existing industry. Participation in social life and being part of the region's growing prosperity becomes realistic when you have a practical qualification in an industrial environment. In total 12 million Euros will be invested in the training centres. This is made up from contributions from our local partners, our member companies and business partners as well as from the Federal Ministry for Economic Cooperation and Development (BMZ). The VDMA, VDMA Services GmbH and the Nachwuchsstiftung Maschinenbau take care of the project management. We thank these sponsors for their support, without whom the start of such an initiative would not be possible. Many companies support this engagement through donations, e.g. in the form of machines, tools, learning materials and workshop supplies, as well as their expertise. This encourages us to continue to develop these vocational training projects with energy and drive, and thus to create perspectives in Africa for now and in the long term.

See the great possibilities in this approach and support this unique initiative! Enable workers to become more skilled and qualified, get actively involved, send trainers, develop own training modules in the available premises, send your apprentices – talk with us and let's work together to realise the opportunities!

**\*The training project of HAWE Hydraulik SE "Pump up the chance for Africa" received the "Entrepreneur Prize for Development" in 2019. This prize is awarded by the Carl Duisberg Society (CDG e.V.) – a non-profit organisation for promoting international vocational training and personal development – and on behalf of the BMZ.**



## VDMA initiative “Skilled Workers for Africa” The future through training

Africa offers many growing markets that are becoming increasingly important for the global economy. Sub-Saharan African states are working hard to further diversify their economies. The technologies, products and engineering services of the German mechanical and plant engineering sector can make a significant contribution to this development. Nevertheless, the sector’s African export ratio is still very low at five per cent. With our „Skilled Workers for Africa“ initiative we would like to encourage German companies to become active in this region and to grow their businesses there. By supporting our efforts to train local workers in Africa you will be better positioned to tap the wide range of opportunities in these countries and thus improve your international competitiveness.

### Qualification opens up markets

Together with local partners training centres are established that provide local workers with vocational skills and qualifications. Following

the example of dual-track vocational training, these centres offer a training curriculum with a practical focus, tailored to the needs of industry. Botswana, Kenya and Nigeria were selected as project countries on the basis of strategic considerations, including the economic strength of the countries, the geographical location, and the commitment of German companies. As there is a particularly high shortage of skilled workers in the areas of infrastructure, energy and raw materials as well as in the food and packaging industry, these are among the focal points of our initiative.

We are convinced that by raising the qualification level of local staff it will become easier to communicate the advantages of German technologies, such as higher quality, longer product life or greater productivity compared to foreign competitors. This knowledge is an important door opener for German products and technologies.





## Many partners – one goal

For all three projects, we have succeeded in gaining the support of the German Federal Ministry for Economic Cooperation and Development (BMZ). Local partners also make an important contribution through their know-how, infrastructure, and financial contribution.

The active participation of VDMA member companies – meaning you – is a key success factor for the initiative. Your support could take the form of offering train-the-trainer sessions on site or in Germany, providing equipment, or holding study and factory tours for trainees and trainers. Ensuring the centres have modern equipment and machines from the fields of electrical systems, hydraulics and pneumatics as well as cooling, air-conditioning, and workshop equipment is particularly important in order to strengthen the practical relevance and the

dual aspect of the training. In addition, you could contribute your knowledge of vocational training to the development of the training centres.

Interested companies are cordially invited to take advantage of the training program at the local training centres. The VDMA is happy to provide organisational support with this, for example, with overnight accommodation. Our local partners, who are nationally recognised educational institutions in all three countries, conduct the training and education courses. You can count on the support of German experts who are integrated into the projects via a service provider commissioned according project executing agency.





## Africa Initiative in detail: Training programme 2020

### Kenya

In Kenya, education and training activities focus on the food industry. Since January 2018, VDMA Services GmbH has been offering a training programme in Nairobi with its local partner, Don Bosco. The project is supported by the DEG – Deutsche Investitions- und Entwicklungsgesellschaft mbH. The training programme „Skilled Workers for the Food Industry“ comprises two technical courses and a trainer course for trainers, with each course lasting two weeks. „Exchange of Experience“-Workshops on the topic “Food Safety along the value chain” will also

be offered in 2020. The German Chamber of Commerce Abroad (AHK) supports this project. The technical courses are aimed at machine operators and maintenance personnel at food manufacturers or machine suppliers. In the course „Safety in Food Processing“, participants gain theoretical and practical knowledge of the most important aspects of food safety in food processing. The course „Organisation and Planning of Maintenance and Repair“ focuses on the question of how efficient maintenance and repair can reduce machine downtimes and extend their service life.

### Dates and Costs

Course	Period	Dates*
Food Safety in Food Processing	2 Weeks Week 1: Theory Week 2: Application and Practice	Due to the restrictions imposed by Covid19, we are revising the course plan and adapting the courses to the resulting hygiene rules.
Organization of Maintenance	2 Weeks Week 1: Theory Week 2: Application and Practice	The updated course plans will be announced as soon as further planning reliability is given.
Train the Trainer Didactic	2 weeks	Updates will also be published on our website: <a href="http://bildung.vdma.org/afrika">http://bildung.vdma.org/afrika</a> .
Exchange of Experience „Food Safety“	1 day	Many thanks for your understanding. Please feel free to contact us for further information.

The cost of each course is 85.000 Kenia-Schilling (approximately 730 Euro) plus VAT. The courses are refundable at the NITA (National Industry Training Authority).

\*Course dates are subject to change

If you are interested in participating in our courses or for further information, please contact us: [norbert.voelker@vdma.org](mailto:norbert.voelker@vdma.org)



## Botswana

In this project, the VDMA cooperates with the Botswana Ministry of Employment, Labour Productivity and Skills Development (MELSD) and the Botswana Chamber of Mines (BCM). The project is co-financed as a vocational training partnership by Sequa gGmbH.

The training takes place at the premises of the Construction Industry Trust Fund (CITF) – a facility of the MELSD – in Gaborone. These premises were equipped with modern machinery and training material as part of the project. The training programme includes advanced training courses in control engineering and hydraulics, train-the-trainer courses (planned) and a dual mechatronics training course. In the Control Engineering course, participants

acquire knowledge in the design and programming of control electronics, which they can practically apply to modern training equipment. The course lasts four weeks. In the three-week-long hydraulics training course, participants become familiar with the basics of fluid mechanics and the operating principles of hydraulic systems. Practical exercises enable the participants to plan and operate hydraulic systems and to find faults. In addition to the courses in Control Engineering and Hydraulics, Advanced courses will be offered. A Maintenance course will also be taking place in 2020.

The dual mechatronics course lasts 36 months. The syllabus contains mathematical and scientific basics and all disciplines relevant to mechatronics – from mechanical engineering, electrical engineering and process engineering to Industry 4.0.

## Dates and Costs

Course	Period	Dates*
Basic PLC	4 weeks	Due to the restrictions imposed by Covid19, we are revising the course plan and adapting the courses to the resulting hygiene rules.  The updated course plans will be announced as soon as further planning reliability is given.
Advanced PLC	4 weeks	
Basic Hydraulic	3 weeks	
Mechatronics Vocational Training	36 months	Updates will also be published on our website: <a href="http://bildung.vdma.org/afrika">http://bildung.vdma.org/afrika</a> .  Many thanks for your understanding. Please feel free to contact us for further information.

The cost for the PLC-courses is 5.110 Pula with and 4.450 Pula without meals (Approx. 420/375 Euros).

The cost for the Hydraulic-Courses is 4.600 Pula with und 4.000 Pula without meals (Approx. 380/330 Euros). \*Course dates are subject to change. If you are interested in participating in our courses or for further information, please contact us : [norbert.voelker@vdma.org](mailto:norbert.voelker@vdma.org).



## Nigeria

The Nachwuchsstiftung Maschinenbau gGmbH is implementing this project. Our local partner is the Dangote Foundation. The training takes place at the Dangote Academy in Obajana. The training programme comprises seven courses for the further training of skilled workers as well as a dual training course for industrial mechanics. The financial support of the project by the BMZ is handled by the Gesellschaft für Internationale Zusammenarbeit GIZ GmbH.

The further training includes specialisation courses for mechanics in the fields of welding and soldering, vulcanisation as well as control tech-

nology and maintenance of machines. Industrial mechanics can continue their education in the field of mechanics and assembly. For electricians, specialisation courses are offered in the areas of electrical installations, electrical machines and measurement technology. In addition, a train-the-trainer didactics course has already been held.

The dual industrial mechanic course consists of the parts „Basics and Basic Engineering“, „Mechanics“ and „Electrics“ and lasts 30 months.

## Dates and Costs

Course	Period	Dates*
Control Technology and Maintenance of Machines	3 Weeks	Due to the restrictions imposed by Covid19, we are revising the course plan and adapting the courses to the resulting hygiene rules.  The updated course plans will be announced as soon as further planning reliability is given.  Updates will also be published on our website: <a href="http://bildung.vdma.org/afrika">http://bildung.vdma.org/afrika</a> .
Electrical Installations	4 Weeks	
Basics of Mechanics and Assembly	2 Weeks	
Vulkanization	2 Weeks	
Measuring Technology	3 Weeks	
Electrical Machines	4 Weeks	
Welding and brazing	3 Weeks	Many thanks for your understanding. Please feel free to contact us for further information.
<b>Vocational Training Industry Mechanic</b>		
Devided into the following sections:	Period	Dates*
Basics Technology	6 months	see above
Basic Mechanic	12 months	
Industry Mechanic	12 months	

The prices for our courses will be announced shortly.

\*Course dates are subject to change

If you are interested in participating in our courses or for further information, please contact us:

[norbert.voelker@vdma.org](mailto:norbert.voelker@vdma.org)



The following companies already support our „Skilled workers for Africa“ initiative



HAYER & BOECKER



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