

# Developing Skills for Employability with German Partners

8 Success Stories from Southeast Asia



TRAINING – MADE IN GERMANY

AN INITIATIVE OF THE



Federal Ministry  
of Education  
and Research

Federal Institute for  
Vocational Education  
and Training

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## *Preface*

Foreign investors have rediscovered South-East Asia as a sphere of activity. Many countries in that region, which in the 1980 were regarded as tiger economies, feature reasonable labour costs, a growing middle class that is keen on consuming and a young population. The most ambitious project of the ASEAN organisation is the ASEAN Economic Community (AEC), which will come into effect at the end of 2015. Similar to the EU, this aims at establishing a common market incorporating 600 million inhabitants.

However, the differences between the individual countries remain huge. In addition to economically developed countries with medium levels of income, such as Indonesia, Thailand, Malaysia, the Philippines, and countries with very high levels of income, such as Singapore and the Nation of Brunei, there are also those that are only in the early stages of their growth development. These threshold economies include Cambodia, Vietnam, Laos and Myanmar. The Democratic Republic of Timor-Leste, which became independent only as late as in 2002, is one of the poorest countries in the world.

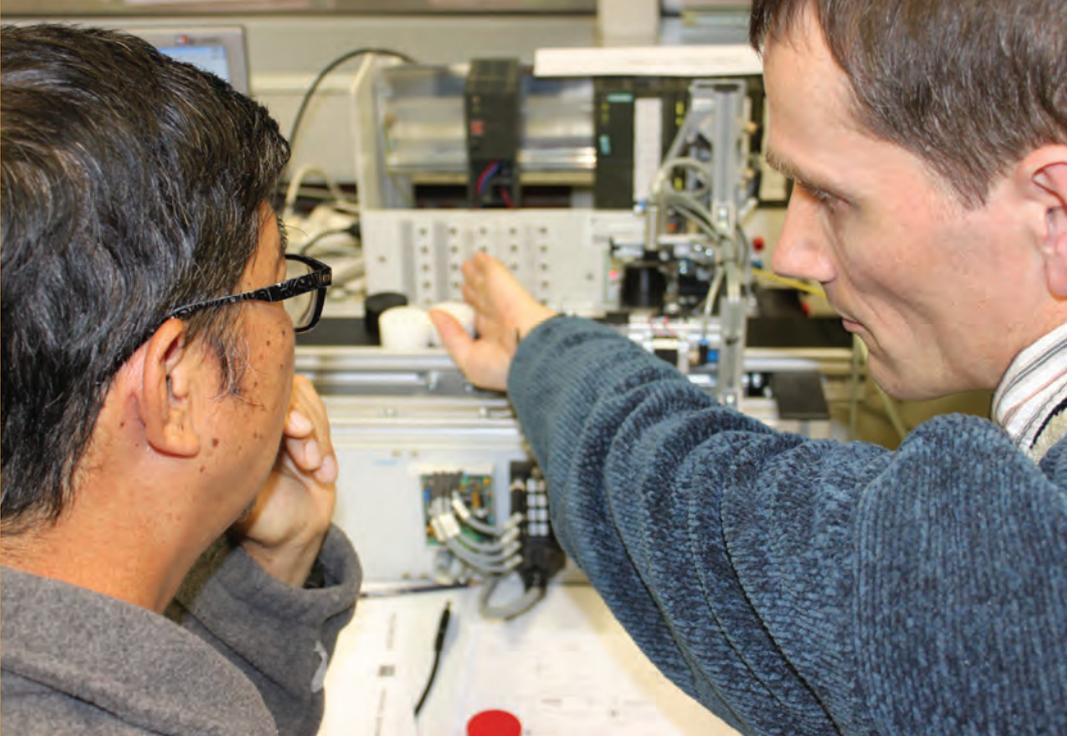
Correspondingly, the educational markets in these countries vary greatly with regard to their development. Yet they all have in common the great demand for vocational training and qualification programmes for the local population in order to increase their respective international competitiveness and to translate the existing opportunities for growth into tangible advantages for international enterprises.

“Training – Made in Germany” offers the necessary know-how to meet the challenge in the field of vocational education and training. Germany has a long-standing tradition in this field and enjoys a high reputation for the demand-driven and practical orientation of its qualification programmes. The integration of professional, social and methodical competencies characterises the kind of knowledge German partners can provide.

The initiative iMOVE was established by the Federal Ministry of Education and Research in 2001, in order to promote international business relations of German training providers with international public and private organisations. iMOVE services include a multilingual database which contains information about German training providers, seminars, trainings, and trade visits abroad.

This brochure presents eight success stories of skill development realised in a joint effort by partners from Germany and Southeast Asia. With its wide range of training offers and its strong emphasis on employability, “Training – Made in Germany“ has the potential to successfully contribute to the design process of the training systems in Southeast Asia via cooperation projects between partners from Southeast Asia and Germany.

Markus Milwa  
Head of Division iMOVE at the BIBB



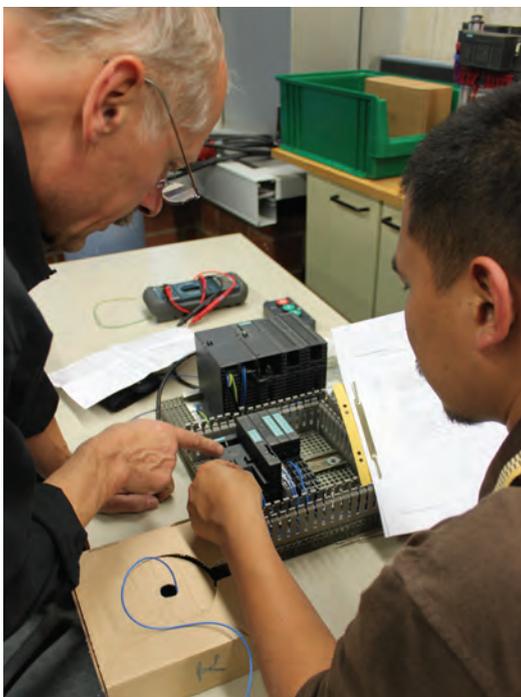
## **ICON-INSTITUT Gesellschaft für berufliche Bildung und Training mbH** **Master craftsman training for "Malaysian Meisters"** **in mechatronics**

Established in 1975, the ICON consulting group and its approximately 90 employees and up to 200 project staff supervise domestic and international vocational training and continuing education projects, amongst other activities. The scope of ICON's bespoke services and training concepts ranges from occupational training courses, over train-the-trainer courses, to the establishment of entire training centres. The important networking partners of ICON in Germany include universities, chambers and prominent industrial enterprises with comprehensive capacities for providing vocational education and training.

About 90 per cent of turnover are generated on an international level. Most commissions are development assistance projects, which ICON carries out on behalf of contracting authorities such as the European Union, the World Bank and other international development banks, regional relief organisations and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

Malaysia has been interested in technical vocational education and training made in Germany already for a long time. As early as over ten years ago, ICON was active in Malaysia in the technical training provision for skilled personnel and executives and in the introduction of dual system university courses. In November 2012, iMOVE facilitated the visit of a delegation from the Federation of Malaysian Skills Development Centers to ICON in Germany. The semi-governmental organisation maintains 12 training centres as well as close connections with the industry and it had been actively searching for German partners for implementing a continuing education programme.

The talks led to the development of a sliding scale "Malaysian Meister Training Programme" running over a period of 7 months. To begin with, 18 trainers between 30 and 35 years of age from various training centres of the Federation and specialising in the field of mechatronics took part in the pilot programme. They



Internet: [www.icon-institut.de](http://www.icon-institut.de)

# Learning modules in Germany and Malaysia



were qualified for in turn providing training for other course instructors and had the chance to collect information about industry-related requirements regarding learning content such as electropneumatics, hydraulics and programmable logic controller (PLC) systems.

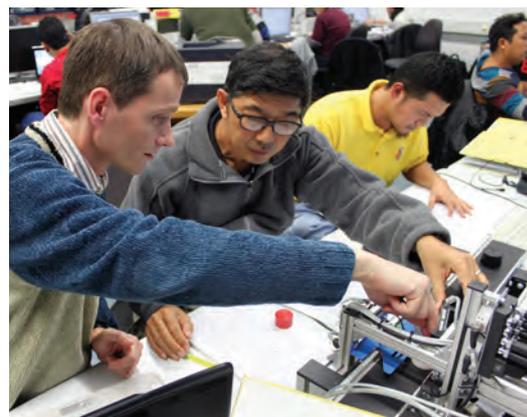
During a preparatory phase, the German education experts first gathered information regarding the participants' knowledge and performance level by way of written and oral examinations in the context of a fact-finding mission. This was followed by training course modules in Malaysia including immediate participation of the German trainers via Skype. Subsequently, German trainers travelled to Malaysia for teaching training units. They nominated four of the 18 participants to act as so-called "counterparts". These took over the additional roles of assistants and mentors in the context of this project in order to facilitate the exchange between German providers of education and Malaysian course participants. Further training units conveyed by Malaysian teaching staff followed and ultimately a four-day final training took place to prepare the course participants for Germany.

Subsequently, the Malaysian trainers-to-be attended one month of intensive training provided by German trainers at the vocational education and training centre of the Chamber of Crafts Aachen. When not attending training sessions, all participants were lodged at guest houses, where they were able to provide and cook for themselves. Of course, the sojourn provided also opportunities for regular visits to a mosque. The guests used the weekends for short trips to European neighbouring countries.

ICON has been maintaining a close partnership with the Chamber of Crafts Aachen for many decades. The chamber made important contributions to the project on a technical level and

for this it was accordingly held in high esteem by the Malaysian partners. The continuing education programme concluded with a final examination and the awarding of two certificates: one issued by ICON and one by the chamber of crafts.

The participants were particularly enthusiastic about the conveyance of theoretical and practical learning content in a "one-stop shop" approach. In its capacity as the contracting authority, the Federation has applied with the Malaysian government for accreditation of the Malaysian Meister, which they plan to adopt as a fixed item into the Malaysian education system. After the successful completion of the pilot programme, further training courses for other fields of application are being planned.





## **BFW Bau Sachsen**

# **Support for the "Green Growth Strategy" in Vietnam**

The combination of education know-how with product and systems solutions in the construction sector is the speciality of the Berufsförderungswerk (BFW – Vocational Promotion Centre) Bau Sachsen. Since 1991, the BFW has been responsible for the vocational education and training provision for personnel in the construction industry and in this capacity it has advanced to become the market leader in the Federal State of Saxony. At the Bauakademie Sachsen (Saxony Building Academy), a 100 per cent-owned subsidiary of the BFW, executive staff for construction management positions is being trained in the fields of legal affairs, technology and business administration.

Already since the early 1990s, the BFW Bau Sachsen has been working together with international partners and since that time has been able to continuously increase the share of its foreign sales in the total turnover. This development has led to the fact that in the process of hiring new staff increasing importance is being placed on competences that qualify employees for international activities, for example, language skills.

The BFW Bau Sachsen established its first contacts to Vietnam during a delegation trip organised by iMOVE. Subsequently, business relationships were established with two Vietnamese enterprises active in the building industry sector and in the field of personnel development for skilled trade occupations in the construction industry. Already, several

skilled tradesmen have visited Germany for the purpose of attending continuing education programmes. In addition, as of summer 2014, 30 young people are to come to Germany for a 3-year vocational education and training course including a final chamber of industry and commerce (IHK) examination; the youths will have previously intensively studied the German language in Vietnam for half a year.

By now, the BFW embarks on entirely new ways in establishing co-operations and alliances. In the context of its internationalisation strategy, it increasingly focuses on partnerships with its German customers in the construction industry. Such an approach very much lends itself due to the industry-specific structure of the vocational education and training provision: not only does the content of the vocational education and training provision immediately derive from business practice, but also the resulting standards are often connected with concrete products and brands.

In order to permanently enshrine German quality standards also in the Vietnamese construction industry, a co-operation platform for products, systems and services from the German and European construction industry is currently being established at the College of Urban Works Construction (CUWC) in Hanoi: the Vietnamesisch-Deutsches Zentrum (VDZ – Vietnamese-German Centre) for occupations in the construction industry. The goal is to gradually implement first-time vocational training and occupational continuing education programmes according to German standards for the Vietnamese construction industry for the purpose of sustained qualification of skilled personnel and their employment in theoretical and practical fields of application.

With 1,200 graduates each year in the construction industry occupations alone, the college is one of the most modern and leading institutions in Vietnam. Here, the aim is

# German quality standards for Vietnamese construction industry



the harmonisation and standardisation of generally recognised vocational education and training content in the field of building with the collaboration of the German and Vietnamese construction industry.

The intention is to implement in the long term German technologies, products and learning content in the areas of energy efficiency, new materials and modern working methods in the industry-specific practical vocational training provision at the college. High-quality demonstration materials and well-operating training facilities, prototypes, examples regarding materials and technology underline the performance capability of the German construction industry. Through the training of Vietnamese teachers, students and experts, the project provides German businesses in the construction industry with the opportunity of establishing contacts with Vietnamese planners and construction firms.

At first, the BFW concentrated on train-the-trainer courses for Vietnamese vocational college teachers, who completed their continuing education programmes in Hanoi and in Germany. During their sojourn in Germany, the Vietnamese guests were visited by their country's deputy minister for building and his delegation, who came to see for themselves what the service portfolio of the BFW Bau Sachsen comprises. The training courses were funded by the German Federal Ministry of

Education and Research (BMBF) in the context of the project "Markteintrittsstrategie Vietnam" (Market Entry Strategy Vietnam).

At the end of October 2013, representatives of the CUWC and a syndicate consisting of the German enterprises BFW Bau Sachsen, Xella and iproplan signed a memorandum of understanding. The aim of the agreement is to establish a public-private partnership focusing on vocational education and training in the field of energy-efficient building. The agreement is in keeping with Vietnam's "Green Growth Strategy" for sustainable development. After signing the memorandum, a foundation stone was laid for a show house for practical training in handling autoclaved aerated concrete, which building material producer Xella had provided for the college. In building physics terms, the single-leaf masonry has excellent characteristics regarding heat and sound insulation as well as damp proofing. Moreover, an energy system supplied by the German company bau msr will be installed in the house, which uses energy sources such as geothermal energy, solar energy, photovoltaics, heat pumps and wind energy to provide the show house with energy.

On completion, this will be a high-tech beacon in Vietnam, where education plays a key role in accessing and utilising new technologies.



## **fischertechnik GmbH**

### **Hands-on technical instruction lessons**

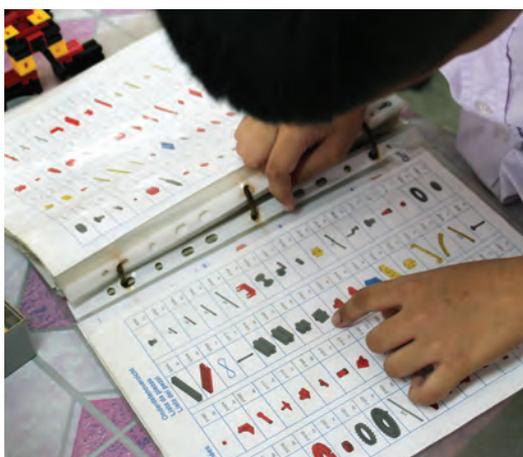
The “Made in Germany” learning toy system fischertechnik has been on the market since 1965 and today has become also a much sought-after learning material in the field of technical instruction lessons. The high degree of acceptance amongst children and youths, yet also amongst parents, teachers and engineers makes fischertechnik a successful teaching aid at general education and technical vocational colleges as well as at universities of applied sciences and universities worldwide. In addition, the industry uses fischertechnik construction sets for simulations and the modelling of work processes and process sequences. These days, fischertechnik generates more than half of its turnover abroad, of which about a third in the USA, a third in Europe and another third in the Far East.

An important market in Asia is Thailand. In 2013, in the context of a market study commissioned by iMOVE, the German Chamber of Commerce Abroad in Thailand has

carried out an online survey amongst its member enterprises to assess the status quo of and the potential for vocational training and continuing education programmes. The evaluation reveals that there is a high demand for skilled labour, which currently cannot be adequately satisfied. Many businesses state that their growth opportunities and performance potential are limited because of the skilled labour shortage.

Continuing education programmes play an important role for businesses in Thailand, since – according to the companies – the existing educational attainments do not optimally prepare people for career entry and working life. Moreover, the companies stated that the degree of specialisation of the external education programmes is not yet sufficient in all fields of occupation. This is particularly true of technical occupations.

In Thailand, where fischertechnik hosted a joint exhibitor’s stand at the Worldidac Asia trade fair together with iMOVE and other German education providers, fischertechnik has been active on the market for about ten years. Together with an exclusive distribution partner on site, fischertechnik is very involved with the approximately 500 general education schools in the Bangkok Municipal Area (BMA) from primary level onwards.



**fischertechnik** 

Internet: [www.fischertechnik.de](http://www.fischertechnik.de)

# Thai school authority puts bet on learning toy “Made in Germany”



The Thai school authority expressly desired additional training for the teaching staff. For this purpose, company training models were developed for training and continuing education in the technical field. The tutorials are tailored for the Thai school curriculum and are carried out by the Thai partner on site.

To personally assess the quality of the products, a delegation from the BMA had previously visited fischertechnik in Germany. Since that time, the business relationship is based on good personal contacts and the high quality of the German products, which is much appreciated in Thailand.

In particular, those responsible in Thailand hold the belief that young people – similar to the system in Germany – need a practical, hands-on vocational education and training basis in order to sustainably comprehend the technical contexts and to be able to implement these themselves. Here, the fischertechnik construction sets for school lessons can make an

important contribution. Yet in addition to this, Thailand has also voiced the express desire for introducing dual system vocational education and training courses. The country is in the process of increasingly establishing itself as an industrialised nation and to this end it urgently needs technically well-trained young talent.

After the successful establishment of the business relationship, it is planned to expand this co-operation to include other school districts across the country. First steps in this direction have already been implemented.





## Dr. Robert Eckert Schulen AG Malaysians to become "Deutsche Industriemeister International"

The Eckert Schools are one of the largest private educational institutions in Germany with 30 branches in the South German region. The company carries out international adult education projects in partnership with China, India, several Arab countries, Russia and Turkey, to name a few.

Since the middle of February 2013, Eckert Schools have been providing continuing education for 28 Malaysian metal industry professionals on their campus in Regenstauf in Bavaria for the final qualification of "Deutscher Industriemeister International" (DIMI – German Industry Foreman International). The qualification follows the model of the German occupation of industrial foreman (master craftsman) and was developed by Eckert Schools for international markets.

Industrial foremen work at the interface between planning and production, providing a link between the skilled labour force and the management. They hold three forms of qualification: as a specialist in their given field, as an executive and as a trainer. Their core tasks are in the technical and organisational areas as well as in the areas of management and training of employees.

The training course for "Deutscher Industriemeister International" conveys knowledge in the fields of operational management, legal affairs, technology, organisation and personnel. The continuing education programme comprises 360 hours of interdisciplinary basic qualifications and 600 hours of action-specific qualifications. At the end of the course, the successful participants are awarded a certificate issued by the IHK-Akademie in Ostbayern GmbH (Chamber of Industry and Commerce Academy Eastern Bavaria).

This continuing education programme has been commissioned by the University of Kuala Lumpur. By way of an entry in the digital iMOVE co-operation exchange, it had searched for a German education provider as a partner and found it in the Eckert Schools.



# Opportunity for early contact with potential employers



The first training programme in co-operation with the Malaysian contracting authority was a 3-month continuing education course for 14 Malaysian vocational college teachers, which took place in 2011. During their stay in Germany, they gathered information regarding the dual system of vocational education and training, business management and marketing for schools. An important part of this continuing education course were numerous visits to companies in the region.

By now, the University of Kuala Lumpur and Eckert Schools have concluded a co-operation agreement for a term of five years. In addition to the continuing education provision in Regenstauf, the 9-month training course for the "Deutscher Industriemeister International" includes also 2-month internships in German enterprises with branch offices in Malaysia. This aims at bringing the participants into early contact with potential German employers in their country of origin, i.e. Malaysia, who have an urgent demand for skilled personnel. For instance, the companies Infineon, Bosch Rexroth and Maschinenfabrik Reinhausen collaborate in this training programme.

Moreover, by end of August 2013, continuing education courses had taken place in the context of a train-the-trainer programme for three more groups in the fields of automotive engineering, motorbike and wood processing.





## **ISL – Institute of Shipping Economics and Logistics**

### **Logistics training for the biggest port operator in Vietnam**

The ISL – Institute of Shipping Economics and Logistics is an independent, private non-profit foundation and a member of the iMOVE network. It was founded in Bremen over fifty years ago and has since positioned itself as one of Europe’s leading institutes in the field of maritime research, logistics, consulting and knowledge transfer. Today, around 70 in-house staff conduct projects with partners from all over the world. Among the most important target regions and countries are South-East Asia and China, Saudi Arabia, Dubai, Russia and the Ukraine. The interdisciplinary ISL teams work on topics concerning logistics systems, maritime economics and transport or information logistics, either in the ISL offices in Bremen and Bremerhaven or in locations of clients. National and international project partners come from both the public and private sector.



In addition to numerous regular courses on maritime logistics and supply chain management at universities and colleges in Germany and other European countries, the ISL also offers customized training programmes in various logistical fields. In terms of its contents and length, these educational and qualification seminars are specifically tailored to the needs of the partners. Common elements of the logistics training are lectures of professors and scientists from the ISL, excursions, team workshops and presentations of leading logistics experts followed by panel discussions.

Vietnam has become an important hub between China and the ASEAN countries, where transport volumes increase above the average amount. This country has a great potential for logistics value-added services. In recent years, all leading logistics players have already set up a base in Vietnam as they see great business opportunities here.

The ISL’s business relations with Vietnam started after fruitful discussions between the Vietnam University of Commerce and the ISL during scientific conferences in Vietnam and China. This led to mutual delegation visits and a joint project on “Research-based innovation in energy and environmental efficiency through sustainable cluster management in production and logistics” in

# **ISL**

Internet: [www.isl.org](http://www.isl.org)

# Knowledge transfer from practice to science and vice versa



2010. The project was funded by the German Federal Ministry of Education and Research through its International Office in the framework "Deutschlandjahr 2010 in Vietnam". Seven project partners set a base for a growing network of transport and logistics scientists and experts from Germany, Vietnam and China. The activities of the network are supported by the online platform (Link: [www.agkn.de](http://www.agkn.de)).

The ISL then organized numerous workshops and round tables with important stakeholders in Vietnam. One core principle of ISL is to discuss logistics challenges not only with universities, but also with representatives from the business world and administrations. This strategy facilitates the transfer of knowledge and experiences from practice to science. Contacts to important stakeholders in the transport and logistics sector were enhanced, among them VINAMARINE, the Saigon Newport Corporation Group and the government of the Bà Rịa-Vũng Tàu province.

Since the start of the joint project activities between the ILS and the Ho Chi Minh University of Transport, the Saigon Newport Corporation Group, the biggest port operator in Vietnam, has participated in all discussions on local transport and logistics research questions. One of the results of the academic workshops was the decision to generate training seminars for Saigon Newport Corporation Group managers in Bremen, Germany.

The ISL offered a training concept on port management, logistics and administration that was especially adapted to their needs. 14 participants successfully attended the training measures in August and September 2013. The training programme consisted of theoretical lectures and projects expertise from ISL experts as well as thematic excursions to different enterprises in and around Bremen. These excursions provided extensive opportunities for the practical application of what had been taught and learned. Further seminars of this kind are planned for the future.





## Chamber of Crafts Koblenz

### Continuing education and exchange of experience for welders in Vietnam

The Chamber of Crafts Koblenz is responsible for vocational education and training in the crafts. For its approximately 19,500 member businesses, it maintains 14 vocational training centres in the north of the Federal State of Rhineland-Palatinate. Key areas of the vocational training and continuing education provision are the construction and metal-working occupations as well as the food industry.

The Chamber of Crafts Koblenz began its international activities towards the end of the 1980s, first in Bulgaria and the Balkans and starting with projects that were funded by the German Federal Ministry of the Interior and

the German Federal Ministry for Economic Cooperation and Development (BMZ). Later, other regions such as in Africa and South-East Asia were added. The basic goal was to support the German federal government in its international projects and to advertise German solutions and concepts abroad. In most cases, current international partnerships derive from contacts made in the context of this project-related work.

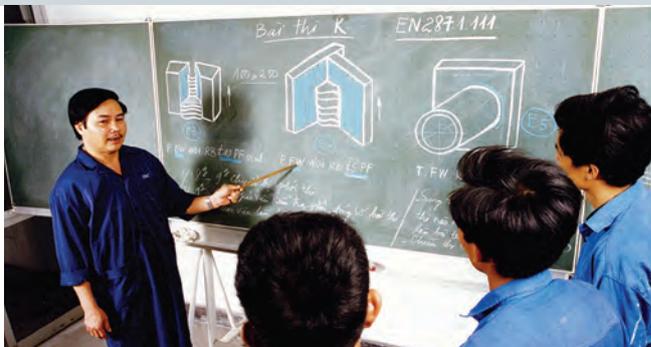
An important indicator of the success of this international co-operation activity is the number of employees with international experience. Their number has steadily increased due to the activities abroad and by now ranges at about 40 in a total of approximately 300 employees.

The co-operation with the Directorate for Standards and Quality, a main department of the Vietnamese Ministry of Science, began in 1994. In the period between 1995 and 2004, the Chamber of Crafts Koblenz collaborated with its partners in establishing an industrial college for welding technology in Hanoi. This included also comprehensive training programmes for welding technicians and qualified welders at the Chamber of Crafts Koblenz as well as for welding teachers and welding engineers at various industrial colleges and research institutes for welding technology in Germany. Regarding the latter institutions, contacts were facilitated by the Chamber of Crafts Koblenz. The training programmes were funded by different sponsors, first and foremost by the BMZ and the European Union (EU). Subsequently, some continuing education courses were carried out by way of follow-up training, which were likewise funded by the BMZ.

Today, the Chamber of Crafts Koblenz regularly supervises the continuing education courses and experience exchange events



# Industrial college for welding technology officially recognised in Germany



for the welding personnel on site. In doing so, it directly cooperates with the “Vietnam-German Technology Transfer and Training Center” (HwC), which was established in the context of the project. The HwC was created as a service institution for small and medium-sized enterprises. The expenses for the deployment of the German chamber of crafts personnel are fully borne by the Vietnamese side.

The HwC is a member in the Deutscher Verband für Schweißen und verwandte Verfahren (DVS – German association for welding and associated procedures) and has been recognised by the DVS as an industrial college for welding – the first of its kind outside Germany. This gives the HwC the authority to train welders according to international guidelines and to issue internationally recognised welder certificates. In this context, foreign industry standards were in part translated into national Vietnamese industry standards. The scope of the HwC’s vocational training provision is largely dependent on the country’s economic performance. Currently, training courses for welding supervisors are particularly popular. In addition, the HwC advises metal-working businesses and training facilities in Vietnam.

In order to maintain its status, the implementation of quality assurance and continuing education programmes is required;

the Chamber of Crafts Koblenz regularly informs the HwC with regards to these issues and provides advice where necessary. The HwC covers the expenses for the required activities in Vietnam and pays the agreed fees to the DVS.

The Chamber of Crafts Koblenz established the first personal contacts to iMOVE many years ago during an event abroad and since that time it has attended several iMOVE seminars and workshops in Germany. Currently, the Chamber of Crafts Koblenz is in the process of developing first concepts for further activities in the vocational education and training provision in Vietnam. In doing so, the income differentials between Germany and Vietnam play a major role, as well as the high price and cost differentials in providing vocational education and training with the necessary practical equipment.



Handwerkskammer  
Koblenz

Internet: [www.hwk-koblenz.de](http://www.hwk-koblenz.de)



## Phoenix Contact

### Training facilities for future engineers and technicians

For over 90 years, Phoenix Contact has been active as a medium-sized business in the electronics industry including also an alignment on international activities. The most important products of the company include programmable control systems, automation technology, surge protective devices, interface technology and a comprehensive programme of electrical connection technology. With Profinet (Process Field Network), a further development of the bus data transfer system, Phoenix Contact has developed a successful protocol for the communication of automation systems in co-operation with Siemens and other leading manufacturers, thereby establishing an internationally unified standard. The company's customers are for the most part businesses in the mechanical engineering, infrastructure systems, water and waste water management technology, renewable energy sources, automotive, energy

supply and telecommunication industries. Worldwide, 12,900 employees work for Phoenix Contact at 50 subsidiary companies and 30 branch offices.

As is usual practice in many industries, Phoenix Contact offers its customers training courses in the area of those technologies that the company develops and sells. A separate department designs training programme concepts for the individual products and provides training in Germany for employees of the foreign subsidiaries, which in turn provide continuing education for the employees of their customers on site.

Moreover, Phoenix Contact advises and supports technical and vocational colleges as well as universities across the globe. The good co-operation with local providers of education constitutes an important task for all subsidiaries, which has been centrally co-ordinated by the Didactics Department in Germany since 1995.

Following the slogan "He who shares and distributes knowledge increases it", Phoenix Contact established the EduNet international university network in 2007. Today, this network comprises 70 universities from 30 countries as active members, all of which provide education and training in the field of automation technology. These include also universities in Indonesia, Vietnam, Thailand and Singapore. The network's goals



Internet: [www.phoenixcontact.de](http://www.phoenixcontact.de)

# *Providing qualification means safeguarding the future.*



are dialogue and knowledge transfer between the participating universities and Phoenix Contact, the promotion of exchange between students and professors and the establishment of modern training systems at the universities for optimising the vocational training and continuing education provision. To this end, Phoenix Contact provides needs-oriented and state-of-the-art training equipment in the form of both hardware and software. All facilities are adapted to the local conditions and requirements in order to achieve the greatest possible acceptance on part of students as well as on part of future employers.

Moreover, the company has been involved in the development of teaching and learning materials, in the introduction of internationally recognised standards for qualification modules in the field of automation engineering and in the initiation of national and international research projects. The universities receive also invitations to two-week train-the-trainer programmes hosted in Bad Pyrmont in Germany. Each year, Phoenix Contact organises and hosts a conference for the network members – alternating the venue between Europe and Asia. This conference serves as a platform for professional exchange regarding technological innovations and trends. In their respective countries, the universities can also draw on advice provided by domestic contact persons acting on behalf of Phoenix Contact. Per year, some 7,000 students benefit from the EduNet provision; a total of about 25,000 students have received training so far.

Yet the training programmes and manufacturer knowledge provided by Phoenix Contact is available not only for future engineers, but also for skilled trade workers, technicians and master craftspeople. This underscores the company's conviction that a qualified skilled labour force must be well trained at all levels. In co-operation with national educational institutions, so-called Technology Skill Centres are being created and furnished

to provide intensive and practice-oriented basic and specialised vocational education and training. In Singapore, Phoenix Contact co-operates with the Institute of Technical Education (ITE), which was established in 1992 by the national education ministry as an educational institution of post-secondary education. On the new and highly modern campus, Phoenix Contact has set up a facility for providing basic qualification in the field of installation engineering. So far, some 400 training course participants have benefited from this training facility.

For the future Phoenix Contact plans to convert its present international activities in the field of vocational training and continuing education into a standardised model. The activities and training programme formats will be offered at all branch offices of the company in a uniform manner.





## **Dr.-Ing. Paul Christiani GmbH & Co. KG**

### **Technical universities in Malaysia with German equipment**

The Christiani Technical Institute for Vocational Training is one of the pioneers in the field of vocational training and continuing education. The company was founded in 1931 as Germany's first distance learning school for employees in technical occupations. Today, Christiani is one of the most important providers of documentation, materials and vocational education and training aids for vocational colleges and businesses providing vocational training.

Since the early 1970s, within the scope of their Examination Service business unit, the firm has been providing examination papers and practical examination materials for by now more than 150 trade and technical occupations. In addition, Christiani has become a household name on the merit of its consultancy services for workshop furnishing and curricula development as well as their train-the-trainer seminars. Moreover, in the past few years, the company branch Christiani Academy has provided the platform for the development of a comprehensive scope of continuing education programmes in the areas of technology and occupational education.

As a specialist for technical vocational training aids, the company attends industrial trade fairs both at home and abroad; this is where many co-operation projects have started. Many industry partners from Germany maintain

international activities and expect Christiani to be likewise active well beyond national borders. This is why Christiani decided on the targeted opening-up of new markets abroad. The fact that in many places "Made in Germany" is a label for quality and technological innovation has significantly facilitated the market entry for the enterprise.

Today, Christiani supplies teaching materials to customers in more than 60 countries and steadily continues to expand its network of retailers. One of the milestones of this international business activity is the joint venture of establishing a training centre in Mumbai in India, which was officially inaugurated in summer 2008. The entry into the Indian market was facilitated by participation in a delegation trip organised by iMOVE.



# Bespoke mechatronics training facilities



The company's programme and products are increasingly designed for an international market and are available in various languages. The international business turnover increases each year and by now accounts for about ten per cent of the company's total turnover. Today, Christiani employs more than 140 members of staff and provides also vocational training for its own apprentices (training rate of ten per cent).

In Malaysia, Christiani co-operated with a Malaysian partner in the context of a public call for applications; this partner is likewise active in the provision of training and industry equipment for technical occupations. Together, they furnished five universities of applied sciences (polytechnics) in Malaysia. Specifically for this project, Christiani created a mechatronics training system that is based on Christiani's own well-proven mMS (modular mechatronics system) vocational training concept. The system comprises seven individual training stations, which all can be operated both separately and in combination. This includes also a robotic station with a professional industrial robot.

Working on these systems, today's young trainees get to learn about industrial automation processes. They make first experiences in the fields of functionality, operation, safe handling, maintenance as well as trouble-shooting and they learn how to

program mechatronics systems and how these are integrated into larger process contexts. The combination of general consideration of the overall system coupled with the analysis of individual system components – starting with the overall system – opens up for students a view of the practice-related application possibilities and thereby supports understanding and learning success.

The teachers at these schools were locally trained by Christiani in the context of train-the-trainer seminars providing instruction regarding how to use the facilities. The Malaysian partner on site guarantees on-going technical support and trains the teachers in other topics such as SPS programming. The co-operation was launched in 2010 and is scheduled to be continued at other universities.



**Christiani**

Technical Institute for  
Vocational Training

Internet: [www.christiani.eu](http://www.christiani.eu), [www.christiani-tvet.com](http://www.christiani-tvet.com)



## iMOVE

iMOVE is an initiative of the Federal Ministry of Education and Research. Our mission is to promote international cooperation and business relations among German training providers and international public and private organisations.

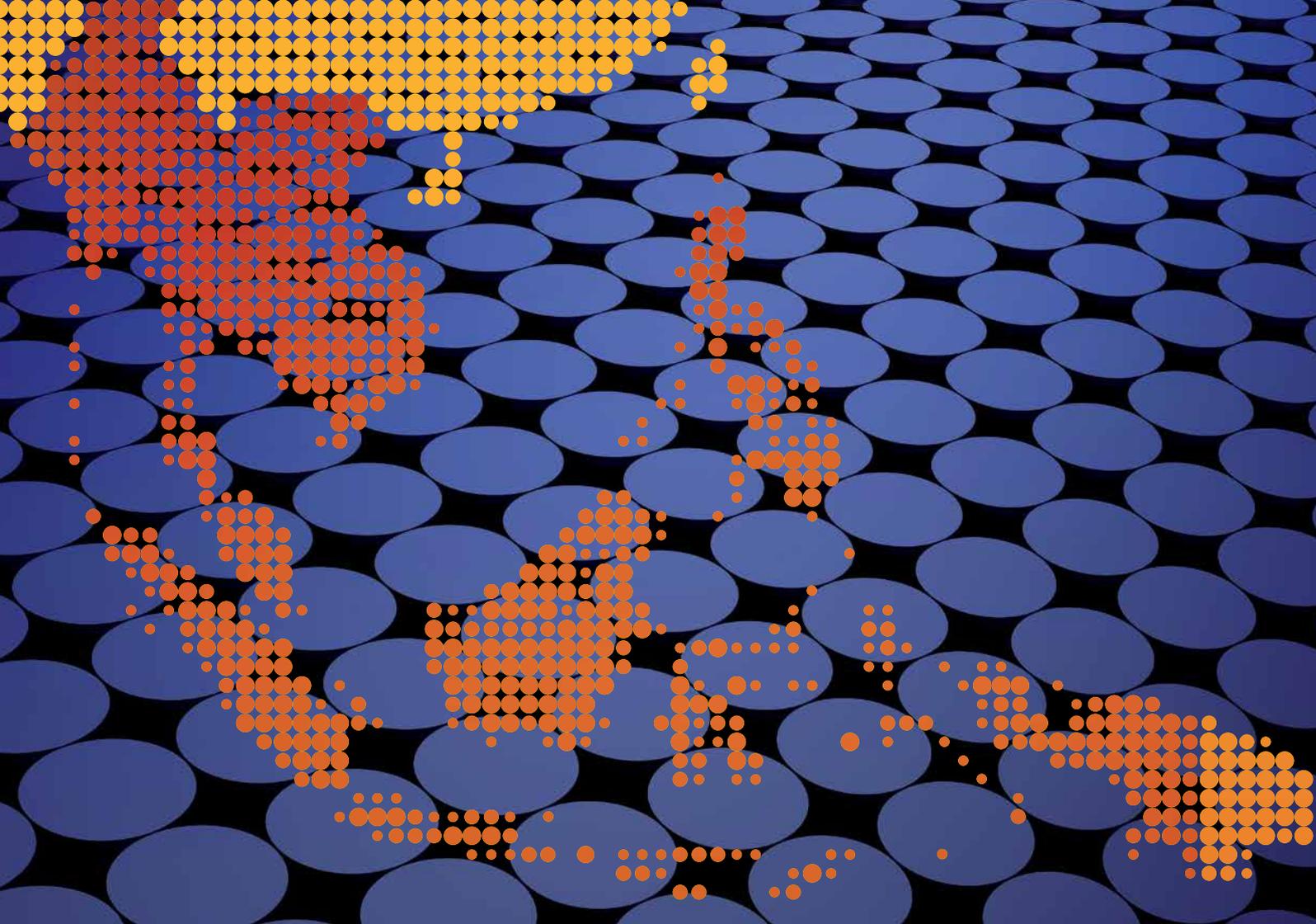
### Our services:

- Trade Missions
- Trade Fair Presentations, Vocational Education and Training Workshops and Business to Business Meetings
- Networking Events and Seminars Pertaining to Select Target Markets
- Workshops on Internationalisation and Education Marketing
- Conferences and Conventions
- 25 Country Market Studies
- A Study on the Economic Significance of German Education Exports
- Trendbarometer of the German Continuing Education Sector
- Handbooks, Best-Practice Brochures
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