



Successful Partnerships

Indonesian Technical and Vocational Education Institutes
Working Hand In Hand With Enterprises

giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH





A Word Of Welcome

Kerstin Nagels

Principal Advisor “Sustainable Economic Development through Technical and Vocational Education and Training (SED-TVET)”

The joint Indonesian-German programme SED-TVET provides a range of advisory services from one source aiming to make it easier for young people to find good jobs. For example, the programme fosters improvement of the legal framework and quality control systems in TVET, the provision and utilisation of better labour market information to facilitate education planning and employment services, and the development of innovative ways for the advancement of youth employment. Additionally, 23 schools and training centres are being modernised and receive support to improve the quality of their teaching and learning.

Enhanced cooperation between schools and companies lies at the core of the German approach to TVET. Hence, it is my great pleasure to be able to present, together with our partner, the Directorate for Technical and Vocational Education, these examples of good practice in developing partnerships between schools and industry. These models demonstrate win-win situations, which benefit all partners alike: students and trainees, companies and communities. We hope that they will encourage schools, education policy makers and companies to embark on new ways of mutual cooperation and enrichment.





Anang Tjahjono

*Director, Directorate for Technical and Vocational Education,
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The Ministry of Education and Culture and German Development can look back on many years of successful cooperation in the field of vocational schools in Indonesia. On the basis of the successes of the Indonesian German Institute (IGI) a new program was established in January 2010. The SED-TVET program structural expanded the already existing cooperation. The common goal is to decrease (youth) unemployment by improving education while at the same time matching the demand of the industry for qualified labour. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ)

therefore now cooperates not only with the Ministry of Education and Culture but also with the Ministry of Industry and the Ministry of Manpower and Transmigration. For this endeavor Germany and Indonesia can contribute important experiences from the vocational training sector. The results of this cooperation should be able to be replicated. On behalf of the Ministry of Education and Culture, I wish us a continued successful cooperation within the SED-TVET program.

Jakarta, September 2012

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Industrial Reality

German Standards for Indonesian Products

Searing white light arcs from welding machines, white-hot molten metal from furnaces pours into prepared moulds, precision CNC mills cut and contour metal blocks, producing tools and specialist parts for all sorts of precision products - welcome to the production area of Polman Technical College in Bandung. "We try to introduce our trainees as quickly as possible to the reality of industrial production", explains Mohammad Nurdin, Vice Director, in response to a question on the rationale underpinning the College's approach. "Our graduates know and appreciate the real conditions they will encounter in factories and workshops; hence companies offer them well-paid jobs because they find them quick to adapt as well as demonstrating good work attitudes. At our school, each of them finds a job soon after graduation", a visibly pleased Nurdin confirms. 'Real production conditions' are the magic words.

In the workshops, students work on products for the Indonesian market, generating additional income for the institute. Together with Harald Füchsel, the co-owner of the German Lufapak GmbH, Polman has set the goals even higher - there are now plans for the production of lift gates based on German standards.

A joint project between Lufapak and GIZ has paved the way. Describing the school's motivation, Professor Isa Setiasyah Toha, Director of Polman, says "we wanted to show that we could produce a high technology product to German quality standards". Starting with cost calculation, supply of materials, work preparation, production and marketing, lecturers and students were involved throughout the entire process. The experiences gained from this work were incorporated into the curriculum of the college.





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"We try to introduce our trainees as quickly as possible to the reality of industrial production."

Mohammad Nurdin
 Vice Director of Polman

More than a product

After the first successful cooperation, Füchsel decided to launch a further product with Polman for the Indonesian market - a water treatment plant. For this purpose the company Lufapak Asia was founded. Apart from his feelings of social responsibility, Füchsel is motivated by the nature of the Indonesian market and its customers. "We have firms in Europe and America, but we had nothing in Asia. The cooperation with Polman is the door opener for Asia".

Polman produces the irrigation plants with support from Füchsel. The students are involved right from the start, they get to know the new technology and participate in construction. However, after delivery of the first plants it became evident that the employees of the water providers did



Professor Isa Setiasyah Toha
 Director of Polman





“We have firms in Europe and America, but we had nothing in Asia. The cooperation with Polman is the door opener for Asia.”

Harald Füchsel
co-owner of Lufapak GmbH

not have the ability to operate and maintain the plant. With the support of the German enterprise Sequa GmbH, Lufapak and Polman subsequently developed a training concept and established a training centre. The first twelve employees from water providers who underwent training have just finished their course; and the second course has already begun. The advanced training is also open to students of vocational colleges who can thus acquire further qualifications. Demand is considerable and, in the near future, training colleges from three further provinces wish to offer this kind of training with help from Polman. Seven irrigation plants have already been installed by the partners, and this is only the beginning. Professor Toha's goals are clear. “At Polman we not only want to copy but also to develop further. We are currently constructing a smaller mobile plant for rural areas so we can react to the specific

demands of that market. Many communities do not have the money for a large plant and are not connected to the public water supply. This is a potentially large clientele.”

At Polman, the skills and experiences being learned and acquired by lecturers and students alike is taking place in an ‘industrial reality’. The goods they produce have to prove themselves in the market. Innovating and problem solving are an everyday part of students’ lives now – they are certainly not skills only to be acquired at some later stage in their working lives.





At Home In The Company

Training – the Pulse of the Industry

Tool and mould construction, plastics processing, metal furniture production, special-purpose engine construction: at PT ATMI, 600 employees in four divisions produce high quality products for both Indonesian and international markets.

The business premises are located in the centre of the campus of the polytechnic institute ATMI Surakarta, the owner of the successful firm. Students of the institute mingle with the employees and contribute to the work under the supervision of experienced colleagues. Andre Sugijopranoto, the director of the school, clarifies: “The components produced by the students at the training workshop are normally inputs for a final product of our firm.”

Walking through the training workshop one sees modern machines operated by one student per

machine. This equipment, among others, was provided by the German Development Corporation.

Right from the first training year the instructors integrate their students into the daily work routine. Teams from various grades have to attend to enquiries made by the industry to the school-owned firm. Detailed know-how is needed: production planning, stock-keeping, expense budgeting, production and packaging. Students rarely have problems with the theory because only those with excellent school results have the chance to get training positions at ATMI. However, according to Mr Sugijopranoto, their practical skills present a different story: “The difficulties lie in the manual work. Not every person has the dexterity for this. For example, this year, while 160 students will graduate, 20 have had to break off their studies.”



“At ATMI I had acquired the ability to do practical work and to integrate into the production process.”

Danny Priyanto

Manager at PT. King Mouldmaker



Escha Pangarso Adi



Training with a job guarantee

The ultimate benefits from this challenging training nevertheless attract 600 applicants to the Institute each year, of which only 180 can be accepted.

For Escha Pangarso Adi, mechatronics student, it was very clear why he wanted to go to ATMI: “I want to have a well-paid job later, and I am guaranteed to find one after I finish here. My sister studied at the university and had to look for work for a whole year. My brother, on the other hand, was a student here and found a job immediately, and he is even better paid than my sister!”

Adi's experience is no exception. ATMI's graduates have positions as foremen, production or factory managers. Mr Danny May Rendra Priyanto, manager of mouldmaker and die cutter PT. King

Manufacture, can attest to this. In 2001 this young man finished his studies at ATMI and started a rapid career: “One year ago I became a factory manager. My boss was satisfied with my work because I found my way in the production process at once. At ATMI I had acquired the ability to do practical work and to integrate into the production process.”

Seventy-five employees work under Priyanto's management. If ordinary machine operators are needed, vocational training does not play such a big role. However if he needs candidates for middle management he makes an enquiry to ATMI. “We pay ATMI graduates 30% more than other university graduates because they are used to stressful work and immediately integrate into their job.”

There is a strong reason for these words of praise from the factory manager. The school-owned plant





cooperates with 100 companies and, with regard to training, the school works together with 50 companies. All ATMI graduates go on to work in the industry and keep in close contact with their former school.

For Sugijopranoto these cooperative relationships are invaluable. “We continually receive feedback from our former students and the companies about recent developments in the industry. If a new technology comes to the market we know this immediately and incorporate it into our training.”

Apart from technical requirements the polytechnic also attaches great importance to good work habits. Without punctuality, application, honesty, patience and a team spirit, a student has little chance of success. “For every minute of being late, a student has to work an additional 30 minutes. The lazy ones have no chance here”, smiles Sugijopranoto.



Andre Sugijopranoto
Director of ATMI





Nothing Moves Without The Industry

Vocational Schools and Companies Complement Each Other

In 2004, everything changed at the vocational school for food processing at Cibadak. The stimulus for the transformation at the school came from the KfW Entwicklungsbank and the GIZ. New equipment for bakery and pastry production, a complete new laboratory for microbiological research and quality control of food processing and, comprehensive support training for the teachers in the use of all this new equipment, not only changed the approach to training the students but also introduced the means for close cooperation with industry. The Principal, Mr Yudi Karyudi, remembers this well - “It used to be a frustrating experience to find training positions or jobs for our students in the industry because our training was too theoretical. Today we cooperate closely with large and medium-sized businesses in many and varied ways!”

Walking through the school it quickly becomes clear what Mr Karyudi means. The aroma of freshly

baked bread and delicious cakes wafts through the buildings. Students in white coats, with gloves and hairnets, professionally produce all kinds of pastry products. The ingredients are supplied by the food company Bogasari. In return, the company uses the school bakery as a training centre both for its own employees, and for outside bakers and pastry cooks who are prepared to pay. Training covers the development of new recipes, formulating business and management plans, and the operation of modern equipment. Three afternoons a week Ms Ahisa Puspita, Principal of the training centre and a former student, acquaints participants with the latest developments – “the students support me, but they also benefit from the courses. As well Bogasari gives 20% its income to the school, so this is a profitable arrangement for both sides”.

In Cibadak, challenging conventional theories and approaches is encouraged. In their projects, students





"They immediately found their way around without a lengthy orientation."

Santi Mutia
Head of Carrefour Bakery



have to develop their own product ideas, pull together a business and marketing plan, actually make their products, and then sell them at a profit. "This develops self-confidence and helps students to lose their shyness when meeting customers", Mr Karyudi explains. In fact, he no longer has to worry about finding training positions for his students. The companies come to him and frequently offer a 3-month work placement with subsequent hiring.

Ms Santi Mutia, head of a bakery business in the supermarket chain Carrefour in Jakarta, is enthusiastic. "We employed 10 students from Cibadak as trainees and hired all of them. They immediately found their way around without a lengthy orientation; they know the hygiene standard; they work well, and they're reliable and punctual. I haven't had this experience with students from other schools!"



Yudi Karyudi
Principal of SMKN 2 Cibadak





“The school gives us innovative impulses and ideas.”

Sugih Prakoso

Manager of Alam Aneka Aroma



“The students support me, but they also benefit from the courses.”

Ahisa Puspita

Principal of
Bogasari Training Centre



A school with “innovative impulses”

Mr Sugih Prakoso has little doubt that the cooperative arrangements he has in place with Cibadak have stimulated innovation. Mr Prakoso is manager of Alam Aneka Aroma, a firm manufacturing soy sauce, tempeh and orange syrup. Almost 20 years ago, when he took over the soy sauce production business it had 20 employees. Today, he employs 40 persons producing his classic soy sauce as well as orange syrup and tempeh which is made from fermented soy beans. The quality control laboratory is managed by a Cibadak graduate. Complex microbiological research is done in the school’s laboratory, on a fee-for service basis. Prakoso strongly appreciates the value of his relationship connection with Cibadak. “The school gives us innovative impulses and ideas”, he says. “We develop new products together, produce them at the school in laboratory quantity, and students and teachers contribute their

ideas and know-how. This is profitable for me.”

Prakoso knows the orange syrup is the direct result of this cooperation. On his initiative the school developed the manufacturing process, with him taking over marketing and sales. The first products were produced in small numbers at the school. Now, the company sells 5000 bottles a year and has taken over the production completely.

Principal Karyudi’s conclusion is clear: “Without industry nothing moves. Technology advances. As soon as we get to know about these developments through our contacts with businesses, we integrate them rapidly into our practical and theoretical training. The result is highly qualified graduates who are quickly snapped the moment they enter the labour market!” Furthermore, through its cooperation with industry, the school also generates sufficient funds to not only keep its equipment in good condition but also to fund new investment.





From Zero to One Hundred

Success through Innovation

In 2003, when the new principal Akib Ibrahim first set foot in the premises of the vocational training school for hospitality, food processing and agriculture in Pacet, he found nothing but an old building and fields. But being the highly motivated man he is, he was not deterred by these circumstances: “I was determined to make this school the best in our province. For this purpose I needed a modern curriculum and cooperation from businesses.”

Ibrahim and his team, with the curriculum in hand, wasted little time in visiting relevant companies. Gradually they convinced more and more firms to cooperate with the school. Managers and firm owners critically examined the curriculum, suggesting modifications to increase its relevance. Moreover, many of them expressed their readiness to accommodate part of the school’s training activities as industrial placements within their enterprises. These offers were gratefully accepted by Ibrahim: “While we can provide considerable practical experience

at the school now, it’s only through exposure to an actual enterprise that young people will get to know the real work environment.”

In 2005 Mr Ibrahim received money for new buildings from the government. Today visitors feel they are entering a hotel. This is not a mirage. There are ten rooms situated within a lovely garden available for paying guests. Management, cleaning services, laundry, food and beverage, and front-office and guest reception are all in the hands of the students.

Environmental protection is also part of the curriculum. This is consistent with Ibrahim’s concept: “In 2006 we made a policy decision to become a green school.” Use of ecologically safe detergents, water-saving irrigation, and a planting program to create a more pleasant learning environment, are all part of this policy.

Indeed, not far from the hotel, several boys and girls look critically at their plants. With an expert eye





▲
“The students know hydroponics and how to cultivate peppers like we do.”

Rusman
 Manager of Sakinah Prima



they check whether the supply of plant nutrient in their hydroponic growing system is correct, whether the number and size of the fruit are in order. After all, after the harvest the young people have to sell their products profitably. Market analyses, pricing, and crop yield estimates precede the sowing. In Ibrahim's opinion this is a key for success: “The students produce goods to be sold on the free market – this motivates them considerably. From the profits we support 20% of the students who are unable to afford the school fees. The remaining amount is used for the maintenance of the school.” The same applies to food processing. Creativity is in demand here so that new products can be developed which appeal to customers. Whether fermented carrot leaves or dried bananas, the school has had some real success in the market already.

Satisfied business people

Daniel Darmawan, hotel manager of the hotel Cianjur in Pacet, is wholeheartedly convinced. He recruits all new employees from the school; each year he hires five trainees. “For us the school is a blessing”, he says. “The young people from SMKN 1 Pacet are well educated. They know how to deal with the customers – they're friendly and helpful. As we have learned from our experiences with graduates from other schools, this just doesn't happen as a matter of course.”

The waitress Mimi Septiani has worked at Hotel Cianjur for a year, directly following on from her industrial placement there. Right from the start she felt good in her job: “I knew already from my training how one serves dishes, how I have to deal with customers”. Later, once she has acquired sufficient professional experience, Septiani wants to become a cook.





"The young people from SMKN 1 Pacet are well educated. They know how to deal with the customers."

Daniel Darmawan
Manager of Hotel Cianjur



"I knew already from my training how one serves dishes, how I have to deal with customers."

Mimi Septiani
Student of SMKN 1 Pacet



Mr Rusman from Sakinah Prima is the manager of one of the first agricultural businesses which has worked with the school. As a farmer of peppers he is in close contact with the school and provides information on new methods for irrigation, fertilisation and pest management. Every year he likes to give permanent employment to several trainees from the school who have worked on his farm. "I profit considerably from the school because the students know hydroponics and how to cultivate peppers like we do. They work productively right from the outset."

Principal Ibrahim's efforts have paid off. Soon he will receive further equipment for his school from the KfW Entwicklungsbank. GIZ training prepares his teachers for the expansion of the school, provides guidance for them, and conveys the necessary know-how for the use of the new equipment. He is unwavering in his drive: "In five years this school must make a difference. By then we want to reach standards higher than other public vocational schools and become an agricultural training centre."



Akib Ibrahim
Principal of SMKN 1 Pacet





Direct Contact

Job Search at Job Fairs

Once a year, thousands of young people come together in ten cities across the country. They all have the same destination - job fairs. The fairs are organised by the Ministry of Education and Culture for graduates of vocational secondary schools to provide information about potential employers and their job offers. All industry sectors are represented at these fairs and the personnel managers from the various firms in attendance welcome these young people and their questions - willingly providing background to their companies and details of potential careers and current vacancies. In 2012, 120 firms in Jakarta availed themselves of the opportunities afforded by job fairs.

In smaller cities such as Solo between 40 and 60 firms usually attend. About 1000 young people roam through the halls in which the various firms are set up in individual stalls. On large information boards at the front of each stall the range of posi-

tions available are identified and described. The graduates read the offers and if interested to discover more, they approach the company personnel in the stalls. The great advantage of this direct contact between job seekers and employers is obvious - they can get to know each other in an informal environment and in a casual way.

On the one hand, students can request details about the company and what to expect if they were offered a position there, while on the other, the personnel managers quickly get a first impression of the candidate. Frequently students hand over their application files then and there. Indeed, students often have already submitted their application documents to the firm, and are quite happy, with the agreement of the company personnel, to use the opportunity to conduct an official job interview or even to conduct an application test.





In order to further improve the chances of students, GIZ offers professional application coaching during the fair. Young people in their first and second training year receive advice and preparation for job interviews. The students learn how they can optimise their impact through both the professional presentation of their application documents and the manner in which they conduct themselves in a job interview, such as reacting and responding to questions.

At a special stall, GIZ offers guidance for graduates. Here they can have their documents checked by personnel experts and receive hints on how to improve them.

For the staff of vocational schools, GIZ offers a seminar on the management of job data bases. The schools frequently receive information on vacancies through business contacts. It is planned to coordi-

nate this information in a central data bank with the support of GIZ so that all students have access to it.



GIZ Profile

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Facts and Figures

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Imprint

Published by

Sustainable Economic Development through Technical and Vocational Education and Training (SED-TVET)

Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH
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Design:

EKONID German Chamber of Industry and Commerce

Place and Year of Publication:

Jakarta, October 2012



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