Modernisation Of Vocational Education And Training – The International Consultancy Adopted By BIBB
Modernisation Of Vocational Education And Training – The International Consultancy Adopted By BIBB
Contents

Preface ............................................................................................................................... 4

1. BIBB as centre of competence for VET in Germany ............................................. 6

2. International consultancy provided by BIBB .................................................... 7
   2.1 Cooperation partners ..................................................................................... 7
   2.2 VET – a comprehensive and holistic approach ........................................... 11
   2.3 The five core elements of dual VET – also delivering added value for the (vocational) education and training systems of other countries ............. 12

3. Concept of international consultancy ............................................................ 15
   3.1 Aims and effects .......................................................................................... 16
   3.2 Advisory process ......................................................................................... 18
   3.3 International consultancy portfolio ............................................................ 18
   3.4 Instruments .................................................................................................. 20

4. Country examples ............................................................................................ 22
   4.1 Colombia – Consultancy on the establishment of a research centre for VET .................................................. 22
   4.2 Mexico – Consultancy on the creation of an institutional and legal framework for (dual) Mexican VET .................................................. 24
   4.3 Vietnam – Consultancy for the setting up of a monitoring system for VET reporting ............................................................... 25
   4.4 Thailand – Consultancy on the development of training regulations .......... 27
   4.5 Philippines – Consultancy on cost-benefit analyses for VET ..................... 29

Annex ........................................................................................................................... 31
Preface

The ongoing globalisation of markets, technological innovation and demographic development all require adaptation to the economic, social and educational systems in industrialised, emerging and developing countries. Many countries face the challenge of modernising their (vocational) education and training systems in such a way as to make qualified skilled workers available to the labour market.

Dual vocational education and training as common in Germany is widely unknown except for in Austria, Switzerland, Denmark and the Netherlands. Rather than providing practically related training, which is aligned to company work processes and aims to impart “employability skills”, vocational education and training (VET) in many countries is primarily organised in a school-based manner. This means that economy is only marginally integrated into the training process if at all and that vocational training frequently suffers from a poor image compared to higher education. Qualification structures for initial and continuing training are also often absent.

Against such a background, many countries are keenly debating the modernisation of VET with a view to enhancing vocational orientation and practical professional training. Within this process there is a need to align VET provision closely with the requirements of the labour market and the companies.

In Germany, initial and continuing VET is considered to be an investment in the future. Dual VET and company-based continuing training are the main pillars in terms of securing a supply of skilled workers. At the same time, training in the dual system forms the basis for lifelong learning.

In international VET cooperation, the Federal Institute for Vocational Education and Training (BIBB) takes account of the core elements of the
German dual system in advising partner countries on the reform of their (vocational) education and training systems. It is clear that extensive VET cooperation does not constitute an instant measure to combat youth unemployment and that the dual training system in Germany is not readily transferable to other countries. The focus is much more on the joint development of tailored solutions which meet the requirements of the respective (vocational) education and training system.

Prof. Dr. Friedrich Hubert Esser
President of the Federal Institute for Vocational Education and Training (BIBB)
1. **BIBB as centre of competence for VET in Germany**

BIBB uses research, development and consultancy to support the provision of sustainable qualifications in Germany. For more than forty years, it has helped secure people’s economic and professional future whilst also contributing to maintaining the competitiveness of Germany as a location.

The transformation of society and the world of work, the increasing internationalisation of social and labour relations, demographic change and developments in the economic structure and in technology are all placing high demands with regard to training skilled workers in a labour market-oriented manner.

In its capacity as national and international centre of competence for VET in Germany, BIBB meets such challenges by

- identifying future VET tasks,
- promoting innovations in national and international VET and
- developing practically oriented solutions for initial and continuing VET.

---

**Foundations of BIBB’s international work**

BIBB was established in 1970. The institute has its legal basis in the Vocational Training Act (BBiG) of 23 March 2005. Involvement in international VET cooperation is one of BIBB’s core tasks and is stipulated in the BBiG (cf. § 90 Paragraph 3 Clause 1e BBiG). The provision of consulting to international VET institutions on the modernisation of their (vocational) education and training systems forms a main focus of the work undertaken by BIBB. This also takes place on the basis of third party funded projects (cf. § 90 Paragraph 4 BBiG).
2. International consultancy provided by BIBB

Government institutions and organisations from Germany and abroad have been approaching BIBB with questions relating to all aspects of VET for many years, and this is very much an increasing trend. As Germany’s national and international centre of competence for VET, BIBB has been offering advice and support on the reform of the (vocational) education and training systems of other countries since the 1990s. In this process, consultancy is viewed as an external impetus for systemic processes of change and also constitutes a unique selling point on the part of BIBB in this context (cf. p. 14).

BIBB provides advice to other countries at all levels of the (vocational) education and training systems.

- At **macro level** (system level), BIBB offers advice to political decision-makers, mostly ministries of labour and education, both in Germany and abroad. The primary focus here is on the integration of all relevant stakeholders in society into the processes.

- At **meso level**, BIBB gives advice and support for the establishment and transformation of the structures of government institutions involved in academic VET research and occupational VET practice.

- BIBB also offers advice to the various VET stakeholders at **micro level**. It assists, for example, with the training of multipliers in other countries and advises on issues connected with the practical implementation of dual VET.

This consultancy is updated by current findings emerging from VET research and by the many years of varied experience in the field, BIBB has gained in company-based training practice in Germany.

2.1 Cooperation partners

**Partner institutions**

As of 2016, 30 cooperation agreements are in place between BIBB and partner institutions in 26 countries. These include 14 agreements with partners outside Europe, the main focuses in this regard being on Latin America (Brazil, Chile, Colombia, Mexico) and on Asia (China, South Korea, Philippines, Singapore, Thailand, Vietnam).
The consultancy BIBB provides acts as a trigger for relevant system development processes in the (vocational) education and training systems of the countries. The shaping of general conditions and procedures is aligned to the educational policy aims and strategies of the respective states. Country-specific social, cultural, economic, educational and political structures form the starting point.

BIBB supports the countries in the development of systemic elements, such as training standards and VET reporting, and in the establishment of VET institutions. It also conducts joint research projects with some partners.
BIBB partner meetings

In 2006, BIBB instigated a forum of European VET institutions. This forum led to the emergence of regular partner meetings. Since this time, BIBB has created a platform for dialogue by staging regional and international partner meetings which foster regional integration, international exchange of experience and the effective use of synergies. This facilitates the strengthening of existing cooperation agreements and enables new such agreements to be instigated. Since 2010, meetings have been held in various regions in conjunction with the partner institutions based there. Main thematic focuses are selected so as to be of relevance to the region in question.

The first BIBB Global Partner Meeting took place in 2013 during the WorldSkills Fair in Leipzig. This partner meeting was documented in the brochure “Improving and Promoting VET. BIBB and its Global Network of Partners”, which can be downloaded free of charge at: www.bibb.de/veroeffentlichungen/de/publication/show/id/7091

Partner countries (third party funded projects)

In third party funded projects, BIBB works in conjunction with other institutions and VET stakeholders to offer advice to partner countries. The former include, for example, the German Agency for International Cooperation (GIZ), the development organisation SEQUA, chambers and industrial associations in Germany and abroad, foreign government bodies, multilateral organisations and VET institutions run by the social partners. The focus here is also on shaping frameworks within the (vocational) education and training systems, on the development of systemic elements and on research projects.

Multilateral networks

Within the scope of networks with multilateral institutions, BIBB cooperates with bodies such as the International Centre for Technical and Vocational Education and Training of the United Nations Educational, Scientific and Cultural Organization (UNESCO-UNEVOC), the International Labour Organization (ILO), the European Training Foundation (ETF) and the European Centre for the Development of Vocational Training (CEDEFOP). The objects of this cooperation are research and development projects, the or-
ganisation of and participation in conferences, presentations and workshops and third-party funded projects.

**The foundations of cooperation with partner institutions**

International consultancy is either based on a Memorandum of Understanding (MoU) between the Ministry of Education and Research (BMBF) and the foreign partner government or an international cooperation agreement is concluded between BIBB and one or more international partner institutions. In the cooperation agreements, areas, topics and financing of the cooperation are usually specified for a period of two years.
2.2 VET – a comprehensive and holistic approach

BIBB’s advisory service has its basis in a comprehensive understanding of VET and adopts a holistic approach.

- VET provides a preparation for working life as well as aiding personal development. Initial and continuing training promote employability and also foster the willingness and ability to participate actively in societal processes.
- The objective of initial and continuing training is the development of employability skills.
- VET that takes place in accordance with the principle of self-contained activity encourages autonomous and independent work.
- Vocational training encompasses initial and continuing training and thus comprises parts of lifelong learning. The development of learning competence ("learning how to learn") is an important aspect.
- Vocational qualifications are recognised on the labour market whilst also providing an entitlement to participate in further education and training courses. Permeability between general, vocational and academic education is of particular significance to the attractiveness and sustainability of vocational training.
- The recognition of informal and non-formal learning opens up considerable areas of potential for qualified skilled workers. This improves opportunities on the labour market and facilitates access to formal educational provision.

### Employability skills – a holistic understanding of education and training

Employability skills incorporate professional, personal and social competence. VET provides a preparation for working life whilst also fostering the willingness and ability to participate actively in societal processes.

### Self-contained activities within training – independence and autonomy on the part of the skilled worker

According to the principle of the self-contained activity, an action comprises the stages of obtaining information, planning, deciding, executing, monitoring and evaluating. The aim during training is for trainees to act in accordance with this principle wherever possible in fulfilling tasks in an independent and autonomous manner.
2.3 The five core elements of dual VET – also delivering added value for the (vocational) education and training systems of other countries

The success of German VET has its basis in the five core elements of dual VET. These are reflected in BIBB’s international consultancy portfolio.

First element – cooperation between government and economy
In Germany, government and economy act together to secure the framework for VET by
- sharing the funding burden,
- developing and implementing initial and advanced training occupations and
- examing and certifying competences acquired.

The Government’s role and participation of the social partners form a key pillar of the German system of dual VET. This element therefore plays a major role in international consultancy.

Second element – learning in the work process
BIBB advises and supports other countries in the development and implementation of action-oriented teaching and learning concepts geared to ac-
tual work processes. The aim of dual VET is to impart employability skills. A combination of learning in the work process and school-based learning enables trainees to develop the ability to work autonomously and to acquire occupational competence.

Third element – acceptance of national standards
BIBB advises and supports other countries in the development and modernisation of national standards in VET. Attractiveness and efficiency of VET in Germany have their basis in the fact that the qualifications provision within the (vocational) education and training system is aligned to the skills requirements of the labour market. Germany has defined national occupational training and examination standards for this purpose. These standards guarantee nationwide uniform quality. In addition to this, comparable training qualifications and certificates form the basis for employability, mobility and social acceptance.

Figure 2: Training standards – extract from the ordinance on VET in the occupation of mechatronics fitter

<table>
<thead>
<tr>
<th>No.</th>
<th>Part of the training occupation profile</th>
<th>Skills, knowledge and competences to be imparted</th>
<th>Guidance times in weeks in the training year</th>
</tr>
</thead>
</table>
| 5   | Company and technical communication (§ 3 Paragraph 2 Number 5) | a) Procure and evaluate information  
b) Conduct discussions with line managers, colleagues and within the team in a manner appropriate to the situation, present facts and circumstances, use technical terminology in German and English  
c) Use opportunities to resolve conflicts  
d) Handle IT systems, in particular deploy software and connect and use peripheral devices  
e) Protect and secure data  
f) Prepare protocols and reports, use standard software | 4*) |
| 1   | 2 | 3 | |
| 3*) |
| 4) |

Source: Own representation (based on Federal Law Gazette Part I No. 39 published in Bonn on 29 July 2011)
Fourth element – qualified VET staff
BIBB advises countries on the systematic training of VET staff. It provides support in areas such as the development of training concepts and offers advice on the definition of the role of VET staff.

Professional VET staff is a prerequisite for the training of skilled workers and plays a key role with regard to the quality of training processes. An integrated VET concept requires teachers and trainers to combine the qualities of pedagogue and skilled worker within the same person.

Fifth element – institutionalised research and advisory service
BIBB advises other countries on the establishment and development of VET institutions, on the preparation of a national VET reporting system and on VET cost-benefit models.

Educational and labour market research enable ongoing adaptation of VET to meet technical, economic and social development. Research results relating to areas such as early identification of skills requirements, quality assurance of VET, educational economics and learning research help the further development of VET in Germany. Such results serve as basis for planning education policies and for instigating innovations. Career information and guidance in the fields of initial and continuing training foster mobility and employability.

The unique selling point of BIBB in international VET consultancy
The linking of VET research and company practice, a pool of experts who work in an interdisciplinary manner and a system of process support all mean that BIBB enjoys a unique selling point within the field of international VET consultancy. Process support encompasses the organisational, content-related and methodological dimension of consultancy with regard to the preparation, planning, execution and follow-up of the advisory process and is an essential component of successful consultancy.
3. Concept of international consultancy

Each country is in a specific initial situation determined by an individual (vocational) education and training system that has grown historically and is characterised by country-specific educational, social, cultural, economic and political structures. Every advisory process follows a unique framework with specific stakeholder constellations, interests and expectations. Such diversity is a challenge for any institution providing advisory service on international level. For this reason, consultancy is seen as an external impetus for systemic development processes.

Successful consultancy ...

- ... is embedded in the reform process of the countries;
- ... is precisely tailored;
- ... has been agreed on in conjunction with national and international stakeholders in the countries and
- ... brings about long-term positive changes in the (vocational) education and training systems of the countries.

There are five principles which have proven their worth in terms of delivering successful advisory service.

First principle – cooperation on an equal basis
Concepts, instruments and measures are developed together with the partner.

Second principle – participation
All relevant stakeholders are integrated into the process from the outset of the advisory procedure. This is the only way of achieving optimum cooperation between government, economy and civil society and of strengthening the sense of “ownership” of development processes on the part of the stakeholders within the countries.

Third principle – demand-oriented alignment
Advisory Service is aligned to the demands (“relevance”) within the countries and takes the country-specific general conditions into account. Advisory needs are jointly defined
with the relevant stakeholders and harmonised with the structures of the (vocational) education and training system. The reform process for the VET system is then supported in accordance with the country's national, economic and social interests.

**Fourth principle – sustainability**
The principle of sustainability, which embraces the three dimensions of “ecological”, “economic” and “social”, means that consultancy results are established in the partner country on a permanent basis and in a way which is compatible with the country’s system. This means, for example, that VET reports and training regulations developed within the scope of the advisory process are successfully adapted and established in the national (vocational) education and training system on a long-term basis.

**Fifth principle – gender equality**
Gender equality in VET is an important aspect of consultancy. This particularly includes raising the gender expertise of the various stakeholders and equipping them to take account of gender aspects in their daily work. VET may be categorised as displaying gender equality if consideration is accorded to the needs of both sexes with regard to the design of learning contents, structures and methods. Against this background, BIBB provides advice and support for the design of information material and measures and also offers advice on training standards with regard to the structuring of learning units and training.

### 3.1 Aims and effects

The overarching objective of the consultancy is to support reforms to the (vocational) education and training systems in partner countries in a way, which is in line with their requirements and aligned to the core elements of dual VET. The aim is to give partners the long-term ability to integrate and permanently establish the various intervention measures in their national system (recontextualisation and internalisation). Impact orientation in the stipulation of specific goals with the cooperation partner plays an important role from the very outset of the advisory process. There is a particular focus in this regard on how objectives are to be achieved (effect logic).
Figure 3: Chain of effect of BIBB consultancy on the modernisation of a national (vocational) education and training system

**Resources**
- BIBB staff, time, funding and resources from the partner.

**Activities**
- Workshops, investigation of the general legal and financial conditions, analysis of the skills requirements in the partner country, market studies on vocational education and training in the partner country, training of multipliers.

**Outputs**
- Consultancy on the quality assurance of training contents, on VET reporting and on the legal framework. Development of training regulations in line with requirements. Development of cost-benefit surveys. Drawing up of handbooks and guidelines. Consultancy on strategy development in the creation of VET institutions. Training of multipliers.

**Use of outputs**
- The newly created training contents are used in the companies and are harmonised with school curricula. A legal framework for dual VET at a local level is included in the law. New or adapted financing models are piloted and implemented across the board. Results from the research projects inform about the further development of VET. Multipliers train other multipliers.

**Outcome - direct effects**
- The use of training contents which are in line with requirements improves the quality of training. Persons completing training are in possession of the employability skills which are in demand on the labour market. The handbooks/guidelines elaborated enable the partner to act autonomously in implementing new procedures. Annual data reports on VET raise societal recognition of VET in the partner country.

**Indirect effects**
- Youth unemployment falls. The economy grows. Those completing training find a job which is appropriate to their competences. Quality of the VET system improves.

**Source:** Own representation
3.2 Advisory process

Requests for consulting directed to BIBB from abroad are handled by the “International Cooperation and Advisory Services / German Office for International Cooperation in VET (GOVET)” Division. On the basis of shared clarification, close coordination takes place with the specialist departments at BIBB. This enables the advisory concept to be informed by current results from VET research and company practice. The consultancy service is subsequently delivered in a cross-divisional manner.

Figure 4: Sequence of an advisory process provided by the BIBB Advisory Service

3.3 International consultancy portfolio

International advisory service provided by BIBB has its foundation in many years of experience. BIBB advises on the following areas of VET:

Governance of VET
The legal framework and the financing of VET are key factors of a (vocational) education and training system. In Germany, BIBB was significantly involved in the revision of the Vocational Training Act (BBiG) in 2005. The analysis of VET funding models is a primary research focus at BIBB.
Learning in the work process
The development of contents, methods and processes for initial and continuing training, which are directly aligned to practical work processes, is one of BIBB’s core areas of expertise. Within this context, BIBB cooperates closely with inter-company vocational training centres. These are of particular relevance to small and medium-sized enterprises (SMEs), which are frequently not in a position to impart all training contents themselves.

Development of standards
The development and modernisation of initial and advanced training occupations, i.e. regulatory work, is a core activity for BIBB. This takes place in close conjunction with the social partners. Regulatory work at BIBB is informed by current findings which emerge from research and development projects conducted by BIBB. Occupational, training and examination standards ensure the quality of VET and thus also secure the demand for skilled staff at the companies and the mobility of skilled workers in Germany.

Training of VET staff
BIBB undertakes a wide range of activities to support the training of VET staff. In 2009, BIBB joined forces with the social partners to develop a new requirement profile for the qualification of company-based trainers (Ordinance on Trainer Aptitude, AEVO, 2009). The platform www.foraus.de offers materials, guidelines and communication channels for in-company trainers. BIBB works on an ongoing basis to develop implementation guidelines and online occupational information for practical training.

VET research
The aim of the VET research carried out by BIBB is to improve structures, processes and concepts in VET. The close contact, which BIBB enjoys with company practice, facilitates the direct transfer of research results. At the same time, the requirements of company practice and VET policy also feed into VET research and into the development and modernisation of initial and advanced training occupations. BIBB’s specialists’ expertise is set out in its international consultancy portfolio (cf. p. 20). In this case, experiences in the various thematic areas merely serve as a reference.
However, in order for the advisory process to be successful, implementation needs to involve recontextualisation and subsequent internalisation within the respective national structures. This is the only way in which the sustainability of the transfer can be achieved.

Figure 5: The international consultancy portfolio – areas and topics

<table>
<thead>
<tr>
<th>Governance of VET</th>
<th>Governance and participation by the social partners</th>
<th>Funding models</th>
<th>Legal framework</th>
<th>Establishment and development of VET institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning in the work process</td>
<td>Employability skills</td>
<td>Organisation of company-based learning</td>
<td>Cooperation between learning venues: company – vocational school – inter-company vocational training centres</td>
<td>Quality of training</td>
</tr>
<tr>
<td>Standards in VET</td>
<td>Development of national standards</td>
<td>Design of the examination system</td>
<td>Development and modernisation of occupations</td>
<td>Development of national qualifications frameworks</td>
</tr>
<tr>
<td>Training of VET staff</td>
<td>Concepts for professionalisation</td>
<td>Definition of the role</td>
<td>Establishment of institutions</td>
<td>Methods, innovative forms of teaching and learning</td>
</tr>
<tr>
<td>Institutionalised VET research</td>
<td>Qualifications development research</td>
<td>VET reporting</td>
<td>Quality monitoring and development</td>
<td>Cost-benefit analyses</td>
</tr>
</tbody>
</table>

Source: Own representation

3.4 Instruments

BIBB has been successfully supporting other countries in the reform of their (vocational) education and training systems for many years. For this purpose, various instruments are deployed in close collaboration with the stakeholders.
International specialists and managers (groups and delegations) visit BIBB. These visitors are provided with demand-oriented information on the German dual VET system via presentations, expert meetings and discussions.

Foreign experts and management staff undertake study visits to Germany to learn about practice in the dual VET system. Alongside BIBB, the institutions and stakeholders visited include companies, vocational schools, inter-company vocational training centres, chambers and associations. The development and implementation of dual training structures and the examination system are topics that are in frequent demand.

Guest academic researchers from partner countries spend time at BIBB in order to familiarise themselves with the instruments and procedures of VET research. Popular topics are the early recognition of skills requirements, VET reporting, costs and benefits of VET and the identification of companies’ willingness to provide training.

BIBB uses “baseline studies” in the form of field and desktop analyses to investigate the status of reform in the (vocational) education and training systems of the countries and gives recommendations for the future structuring of the advisory process.

In the partner countries, BIBB carries out workshops for specialists and managers on various aspects of the German dual VET system. Alongside the imparting of knowledge, joint work takes place to develop products such as VETreports, training regulations and implementation guidelines for company-based training. Case studies and surveys are also prepared. Relevant VET stakeholders in the countries are integrated into these processes. These also include German stakeholders domiciled in the countries concerned, such as the chambers of commerce and industry abroad and the German Agency for International Cooperation (GIZ).

Courses and seminars are held to train multipliers in the country. These multipliers then support the reform processes in their national (vocational) education and training systems. Topics, which are in particular demand, are the role of social partners in the governance of national occupational, training and examination standards and inter-company vocational training centres.
4. Country examples

The main regions on which BIBB’s international advisory service is focused are Asia and Latin America. These cooperations have their basis in bilateral agreements concluded with partner institutions. In Latin America, BIBB advises Brazil, Chile, Colombia and Mexico on issues relating to VET and supports reforms in the educational systems of these countries.

4.1 Colombia – Consultancy on the establishment of a research centre for VET

**Partner**
National Vocational Training Service (Servicio Nacional de Aprendizaje, SENA) ([www.sena.edu.co](http://www.sena.edu.co))

**Basis**
Cooperation agreement with BIBB of 13 April 2011

**Further partners**
Since 3 October 2012, as part of the cooperation agreement between BIBB and SENA: Ministry of Education (Ministerio de Educación Nacional, MEN) and Ministry of Labour (Ministerio del Trabajo, MINTRABAJO)

**Target group(s)**
SENA staff, persons involved in regulatory procedures, responsible ministries, the academic research community, VET practice and the general public

**Main focus**
Establishment of research skills

In Colombia, BIBB has been advising the National Vocational Training Service SENA (Servicio Nacional de Aprendizaje) on institutionalised VET research on the topics of VET reporting and cost-benefit analyses since 2011. This cooperation has its basis in a bilateral agreement.
The main focus of the consultancy provided has been on the establishment of a national VET research centre within SENA inspired by the role and function of BIBB. The research centre was set up by decree in 2012. In addition, joint work took place to develop a strategy and to identify phases of implementation for the research activity. BIBB has staged workshops and conferences, which have made a significant contribution to the further development of research competences at SENA as well as to structural changes. These workshops and conferences provided the foundation for the initiation of new research projects. Cooperation is currently particularly focused on the drawing up of national VET reports and on the preparation of surveys on the costs and benefits of VET. In addition to this, BIBB is supporting SENA in the pilot implementation of dual VET in the automobile, textile and food industries. The aim for the next phase of cooperation is for the dual training model to be placed on a firm legal and institutional footing in Colombia.
4.2 Mexico – Consultancy on the creation of an institutional and legal framework for (dual) Mexican VET

**Partner**
National College of Technical Professional Education (Colegio Nacional de Educación Profesional Técnica, CONALEP) ([www.conalep.edu.mx](http://www.conalep.edu.mx))

**Basis**
Cooperation agreement with BIBB of 24 February 2009

**Target group(s)**
Executive decision makers at CONALEP, policy makers and economy

**Main focus**
Establishment of basic legal principles for dual VET

In Mexico, BIBB has been advising its partner institute, the Colegio Nacional de Educación Profesional Técnica (CONALEP), on the governance of VET in respect of establishing a legal framework and standards for the development and modernisation of occupations. This cooperation has its basis in a bilateral agreement.

BIBB’s advisory service was concentrated on the further development and dissemination of the dual training model. CONALEP has used the cooperation as a basis for developing dual training courses aligned to the German training system. These are now being offered in five Mexican federal states (Estado de México, Tlaxcala, Nuevo León, Chiapas and Morelos) in the industrial mechatronics, information technology and tourism sectors and in the hotel and restaurant trade. Seminars, workshops and training courses for multipliers created the foundations to facilitate the development of a legal framework for dual training in Mexico. One important aspect in this regard was to bring Mexican economy and the government to the same table. As a result of many years of consultation provided by BIBB, a decree, issued by the Ministry of Education (Secretaría de Educación Pública (SEP)) in cooperation with CONALEP in June 2015, recognises dual training as part of educational provision in Mexico. BIBB thus provided essential support for the establishment of a “Mexican model of dual vocational
education and training”, which has been implemented in 14 federal states since 2015.

This legal consultancy was backed up by organisation of and support for study trips to BIBB in Germany for Mexican representatives in order to enable the Mexican partners to familiarise themselves directly with German structures and approaches. The major focuses were on social partner dialogue between employers and employees, training collaboration between vocational schools and companies, training of VET staff and the examination system. Future advisory topics will be VET research, the development of standards and providing educational institutions with the ability to implement dual training.

In Asia, BIBB has bilateral cooperation agreements in place with China, Thailand, Vietnam and the Philippines to advise partner institutions on issues relating to VET. It also supports reform processes within these countries’ educational systems.

4.3 Vietnam – Consultancy for the setting up of a monitoring system for VET reporting

**Partners**
National Institute of Vocational Training (NIVT) ([www.nivt.org.vn](http://www.nivt.org.vn))
General Department of Vocational Training (GDVT) ([tcdn.gov.vn](http://tcdn.gov.vn))
at the Ministry of Labour, Invalids and Social Affairs (MoLISA),
German Agency for International Cooperation (GIZ)

**Basis**
Trilateral cooperation agreement between BIBB–NIVT/GDVT/MoLISA–GIZ of 5 January 2010

**Target group(s)**
Decision makers from the fields of policy and economy, NIVT staff

**Main focus**
Establishment of a monitoring system for VET
BIBB and GIZ have been providing joint advice to the National Institute of Vocational Training (NIVT) in Vietnam since 2010. The aim is to support NIVT in the sustainable establishment of a Vietnamese VET reporting system. In 2010, MoLISA assigned NIVT the task of elaborating an annual report on VET. The Cooperation is based on a trilateral agreement.

Within the scope of this agreement, BIBB and GIZ advise NIVT on the preparation of annual reports on VET in respect of the design and organisation of such reports. Initially, the main fields of advisory service were qualification requirements, project management and the development of indicators. Consultancy was provided in close collaboration with the respective divisions at BIBB responsible for “Vocational Training Supply and Demand/Training Participation” and “Costs, Benefits and Financing of Vocational Education and Training”.

As part of the advisory process, BIBB has conducted a series of workshops both in Vietnam and Germany since 2010. There have also been several academic research and study visits to BIBB by staff of NIVT. Experts from specialist departments at BIBB have also been involved in these visits. BIBB commented on the draft versions of the Vietnamese reports on VET and offered recommendations for revision. In addition to this and with the support of GIZ, a “Guide on the sustainable development of a VET reporting system in Vietnam” was drawn up to assist with the training of academic research staff at the NIVT (open access at: www.bibb.de/veroeffentlichungen/de/publication/show/id/7797).

The advisory process led to the production of reports on VET in English and Vietnamese for the years 2011, 2012 and 2013/14. The 2015 report on VET focuses on the topic of inter-company vocational training centres. BIBB and GIZ are also advising on this matter (www.tvet-vietnam.org/en/).
4.4 Thailand – Consultancy on the development of training regulations

**Partners**
Office of the Vocational Education Commission (OVEC) at the Ministry of Education (MoE) (www.moe.go.th/moe.html)
Thailand Professional Qualification Institute (TPQI) (www.tpqi.go.th/home.php)

**Basis**
Cooperation agreement with BIBB of 1 July 2014

**Target group(s)**
Decision makers from the fields of policy and economy, TPQI staff

**Main focus**
Consultancy on the development of training regulations

In Thailand, BIBB has been advising its partner institutes Office of the Vocational Education Commission (OVEC) and Thailand Professional Qualification Institute (TPQI) in the development of training occupations (training regulations) since 2014. The cooperation is based on a trilateral agreement. The aim is to support the development of training standards for the mechatronics sector.

As part of the advisory process, BIBB has conducted a series of workshops since 2014 and has developed training regulations within this framework. Consultancy has taken place in close collaboration with the respective division at BIBB responsible for “Electrical, IT and Scientific Occupations”.

The advisory process has led to a Thai standard for mechatronics fitters, a draft standard for trainers in the mechatronics sector and an evaluation with regard to the involvement of all relevant stakeholders in the process of developing training regulations.

Representatives of German economy also participated in the development of the mechatronics fitter standards. Further synergies were achieved via the German-Thai Dual Excellence Education (GTDEE) Initiative of the German-Thai Chamber of Commerce and Industry.
Beyond the trilateral cooperation agreement, BIBB works with GIZ on a project instigated by the Federal Ministry for Economic Cooperation and Development (BMZ) on the topic of “Promotion of company-based initial and continuing training in the Mekong Region”. The partner institutes OVEC and TPQI are also participating in this project. The objective is the development of a regional minimum standard for trainers in the Mekong Region.
4.5 Philippines – Consultancy on cost-benefit analyses for VET

**Partners**
Technical Education and Skills Development Authority (TESDA) (www.tesda.gov.ph)
Philippine Chamber of Commerce and Industry (PCCI)
PCCI Human Resources Development Foundation (PCCI HRDF) K to 12 Plus Project
School of Statistics University of the Philippines Diliman
German Business Foundation for Economic Development and Professional and Vocational Training (SEQUA)

**Basis**
Cooperation agreement with BIBB of 19 September 2014

**Target group(s)**
Decision makers from the fields of policy and economy, staff of TESDA, PCCI and PCCI HRDF

**Main focus**
Implementation of a cost-benefit survey on the Philippines

On the Philippines, BIBB has been advising the Technical Education and Skills Development Authority (TESDA) and the PCCI Human Resources Development Foundation (PCCI HRDF) on the topic of cost-benefit analyses since 2014. The cooperation is based on a bilateral agreement and takes place within the scope of the third party funded “K to 12 Plus Pilot Project on Dual Vocational Education and Training” (www.k-12plus.org/).

The K to 12 reform process seeks to enhance vocational orientation and practical professional training for young people within the formal educational sector and to integrate companies more closely into the training process.

The aim of the consultancy is to deliver support for the preparation and execution of a cost-benefit analysis of VET on the Philippines and for the processing of the results. The analysis is supposed to serve as a vehicle for convincing companies that commitment to vocational training is economically viable and to increase their willingness to provide such training.
During the advisory process, BIBB has conducted a series of workshops since 2014 to clarify methodological issues, develop a questionnaire and train interviewers. Consultancy has taken place in close collaboration with the respective division at BIBB responsible for “Costs, Benefits and Financing of Vocational Education and Training”. Following the collection of data, BIBB provided advice and support for the evaluation of data quality, the development of a cost model, the interpretation of results and the formulation of recommendations. The final phase of the project is still ongoing. Once this phase has been concluded, the intention is that BIBB will provide support for finalisation, presentation and publication of the results as well as for a joint publication.
## Annex

### BIBB partner institutes/cooperation agreements

<table>
<thead>
<tr>
<th>Country</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>The National Centre for Vocational Education Research (NCVER)</td>
</tr>
<tr>
<td>Austria</td>
<td>Institute for Research on Qualifications and Training of the Austrian Economy (ibw)</td>
</tr>
<tr>
<td>Austria</td>
<td>Austrian Institute for Research on Vocational Training (öibf)</td>
</tr>
<tr>
<td>Brazil</td>
<td>National Service for Industrial Training (SENAI)</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>National Agency for Vocational Education and Training (NAVET)</td>
</tr>
<tr>
<td>CEDEFOP</td>
<td>European Centre for the Development of Vocational Training (CEDEFOP)</td>
</tr>
<tr>
<td>Chile</td>
<td>National Ministry of Education (MINEDUC)</td>
</tr>
<tr>
<td>China</td>
<td>Central Institute for Vocational Training and Education (CIVTE)</td>
</tr>
<tr>
<td>Colombia</td>
<td>National Service for Vocational Education (SENA)</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>National Institute of Technical and Vocational Education (NUOV)</td>
</tr>
<tr>
<td>France</td>
<td>Centre for Studies and Research on Qualifications (CÉREQ)</td>
</tr>
<tr>
<td>Hungary</td>
<td>National Labour Office/Vocational and Adult Education Directorate National Reference and Coordination Point (NSZFI)</td>
</tr>
<tr>
<td>India</td>
<td>Federation of Indian Chambers of Commerce and Industry (FICCI)</td>
</tr>
<tr>
<td>Italy</td>
<td>Institute for the Development of Vocational Training for Workers (ISFOL)</td>
</tr>
<tr>
<td>Korea</td>
<td>Korean Research Institute for Vocational Education and Training (KRIVET)</td>
</tr>
<tr>
<td>Country</td>
<td>Institution</td>
</tr>
<tr>
<td>------------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Latvia</td>
<td>Ministry of Education and Science: National Centre for Education (NCE)</td>
</tr>
<tr>
<td>Mexico</td>
<td>National College of Technical Professional Education (CONALEP)</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Centre for Innovation in Education (CINOP)</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Research Centre for Education and the Labour Market (ROA)</td>
</tr>
<tr>
<td>Philippines</td>
<td>Technical Education and Skills Development Authority (TESDA)</td>
</tr>
<tr>
<td>Romania</td>
<td>National Centre for Vocational Education and Training Development (NCTVETD)</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>Federal Institute for the Development of Education (FIRO)</td>
</tr>
<tr>
<td>Singapore</td>
<td>Institute for Adult Learning (IAL)</td>
</tr>
<tr>
<td>Slovakia</td>
<td>State Institute for Technical Education (SIOT)</td>
</tr>
<tr>
<td>Slovenia</td>
<td>Institute of the Republic of Slovenia for Vocational Education and Training (CP)</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Swiss Federal Institute for Vocational Education and Training (EHB)</td>
</tr>
<tr>
<td>Thailand</td>
<td>Office of the Vocational Education Commission (OVEC)</td>
</tr>
<tr>
<td></td>
<td>Ministry of Education (MoE)</td>
</tr>
<tr>
<td></td>
<td>Thailand Professional Qualification Institute (TPQI)</td>
</tr>
<tr>
<td>UNESCO–UNEVOC</td>
<td>International Centre for Technical and Vocational Education and Training (UNESCO–UNEVOC)</td>
</tr>
<tr>
<td>USA</td>
<td>American Association of Community Colleges (AACC)</td>
</tr>
<tr>
<td>Vietnam</td>
<td>National Institute of Vocational Training (NIVT)</td>
</tr>
<tr>
<td></td>
<td>General Department of Vocational Training (GDVT)</td>
</tr>
<tr>
<td></td>
<td>Ministry of Labour, Invalids and Social Affairs (MoLISA)</td>
</tr>
<tr>
<td></td>
<td>German Agency for International Cooperation (GIZ)</td>
</tr>
</tbody>
</table>