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*Series on Youth and Entrepreneurship*

## **Facilitating Labour Market Entry for Youth through Enterprise-Based Schemes in Vocational Education and Training and Skills Development**

by

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## Foreword

“More than 1 billion people today are between 15 and 25 years of age and nearly 40 per cent of the world’s population is below the age of 20. Eighty-five per cent of these young people live in developing countries where many are especially vulnerable to extreme poverty. The ILO estimates that around 74 million young women and men are unemployed throughout the world, accounting for 41 per cent of all 180 million unemployed<sup>1</sup> persons globally. These figures do not take in consideration underemployed that are estimated to 310 millions worldwide, and many more young people are working long hours for low pay, struggling for eke out a living in the informal economy. There are an estimated 59 million young people between 15 and 17 years old who are engaged in hazardous forms of work. Young people actively seeking to participate in the world of work are two to three times more likely than older generations to find themselves unemployed.”<sup>2</sup>

Fight against youth unemployment is part of the Millennium Goals set by the Heads of State and Governments who met at the Millennium Summit. A Youth Employment Network (YEN) was initiated by the Secretary General of the United Nations in association of the World Bank and the International Labour Organization. The ILO acts as the Secretariat for YEN. A panel of 12 civil society and industrial leaders is responsible for formulation of recommendations on ways to reduce youth unemployment. These focus on four key areas: Employment creation, Entrepreneurship, Employability and Equal Opportunities – the four “E”s. As a contribution to and a follow-up of the work of the panel, SEED established a research series entitled “Youth and Entrepreneurship”, led by Klaus Haftendorn of SEED.

The present Working Paper addresses the role of skills training provided by enterprises to facilitate the first labour market entry for young school leavers. Enterprises as providers of skills are often not recognized by national education systems, in particular from informal sector enterprises.

The research was carried out by the consultant Mr. Axmann who analysed Enterprise Based Schemes in Vocational Education and Training from a number of countries and developed eight criteria for successful programmes.

The study constitutes a rich source of information for the usage by planners and decision makers on vocational training and education policies. It is a starting point for further research and the development of a practical guide for enterprises to enable them to provide vocational training.

A particular thanks is given to the author of this study, Mr. Michael Axmann, for his analytical work and the stringent recommendations he developed.

Gerry Finnegan  
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<sup>1</sup> According to the definition that ILO uses, “an unemployed is a person without work that makes him/herself available for employment and worked less than one hour in a reference week”.

<sup>2</sup> ILO Governing Body document GB.286/ESP/5 Context of Youth Employment.



## **Introduction**

### ***Background***

To reduce youth unemployment will be the major challenge of most of the governments in the world for the next decades. The General Assembly of the UN has addressed this problem in its Millennium Declaration adopted in September 2000 by introducing under Goal 8 the target No. 16 with the aim “to develop and implement strategies for decent and productive work for youth”.

Following the Millennium Summit, a Youth Employment Network was initiated by the Secretary-General of the UN, composed of the UN Secretariat, the World Bank and the ILO. The ILO was invited and the Organization accepted to become the secretariat of YEN. This gives a predominant role to the ILO with high expectations of its partners to contribute substantially to the solution of the problem by developing tools and programmes to be used in particular in the developing world.

A high level panel of 12 eminent persons was created by the Secretary-General, the heads of the World Bank and the ILO in order to develop recommendations on how to create employment opportunities for young people (range from 15 to 25 years) when they enter the labour market.

The two working groups set-up from the panel that covered “Employability” and “Entrepreneurship” underlined both the crucial role that enterprises play in skills training and employment creation.

### ***Rationale***

Youth unemployment is directly related to the overall unemployment rate that depends on the prevailing economic situation of the country. However, statistics show that the youth unemployment rate in most of the countries (as well as in industrialized, in transition and developing countries) is two to three times higher than the general unemployment with the exception of a few countries where the youth unemployment rate is not significantly higher than the general rate. These countries operate a vocational training system with a strong component of training in enterprises combined with training in vocational schools or training centres. The most known model is the “dual training” based on apprenticeship training provided by private companies combined with school-based theoretical training and sometimes also technical training provided by State schools.

The German dual training system was developed over centuries starting from craftsmen Guilds, and always adapted and modified till today. Germany was often requested to export this model and attempts have been made to introduce it in other countries, however; the system is far too much linked to the German context and a transfer to other countries needs a thorough adaptation. The main elements – vocational training in enterprises and theoretical training in schools or training centres – could be adapted for local training schemes like it was done in

Turkey, Egypt or Malaysia. But this is not the only model; other forms of combination of training at different learning and working places show good results as well.

In developing countries, apprenticeship training was the traditional way for handicrafts men to pass knowledge and practical know-how to the future generation and thus assuring a qualified labour for their own trade. This system was not further promoted by the emerging independent states that favoured, in most of the cases, VET systems based on training in vocational schools or centres imported from industrialized countries. This training scheme is quite costly and not able to provide sufficient numbers of qualified workers, neither for the formal nor for the informal economy.

Therefore, owners of enterprises operating in the informal economy use the learning-by-doing approach for young people working in their enterprises. The skills acquired through this approach are rather limited and correspond only to the needs of the individual enterprise. In most of the cases, the apprentices have no exposure to modern and advanced technologies, just perpetuating the low level of knowledge of the owner of the enterprise. However, this type of training has the advantage that the apprentice, not only learns technical skills, but will also become acquainted to the management of small enterprises and customer relation by observing and assisting the entrepreneur in his day-to-day business. This facilitates his/her decision at a later stage to become self-employed or to create his/her own micro enterprise.

### *New approaches*

In the seventies and eighties of the last century, the ILO and other international and bilateral donors supported skills training projects with heavy investment in government-operated training centres and vocational training schools. Sophisticated machines and equipment were imported to allow trainees to acquire new technologies. However, most often the recipient training administrations were financially not able to neither maintain the equipment and replace damaged parts, nor provide the materials for training.

The enterprise sector not directly involved in the training curricula development often complained that the skills and qualifications of the trainees leaving the national TVET system do not respond to the needs of local enterprises.

Donor support for this type of projects faded out during the end of the eighties, beginning nineties, as the national education systems could not support recurrent cost of such training centres. The result was that the existing training capacities were stagnant or shrinking and most developing countries cannot by far provide sufficient training capacity to absorb the school leavers that enter the labour market.

During the nineties, donor programmes assisted governments in policy reforms of the education system as a whole, with emphasis on basic education. Skills development had only little priority. However, the problem of youth unemployment forced governments to rethink the vocational education schemes and look for solutions that provide more training capacity.

The result was to seek more involvement of the private sector and also training in small enterprises of the informal economy was no more considered as not feasible. International

organizations like the World Bank, the ILO, UNEVOC and bilateral donors like GTZ, DANIDA, CIDA, JICA and others supported governments of developing countries with projects using as new approach the training capacity of enterprises.

By enabling enterprises – both in the formal and in the informal economy - to provide quality technical training, the training capacity of the country as a whole will be increased and thus provide access to training for a larger number of school leavers. The combination of practical training with additional theoretical training will increase the qualifications of the trainees and improve their access to decent employment.

Skills acquired in enterprises are mostly demand-driven as they respond to the needs of the enterprises for qualified workers. Young women and men that have gained working experience during training in enterprises have a good chance to be employed by the company that provided the training or by other companies working in similar branches. They are also much better prepared to start their own business.

This approach will also have an impact on the productivity of the enterprise and the quality of the products and services sold. At medium term, the competitiveness of the small enterprise sector will increase and create more and better jobs. It is also expected that improved skills and managerial capacity of the workforce in small enterprises, matched with a better insertion in market niches with higher value added and demand for labour will, jointly, lead to a sustainable expansion of the small enterprise sector.

Owners of small enterprises in developing countries are often reluctant to invest in upgrading their own technical knowledge and in training facilities in their own workshops because they only see the additional costs and not the benefits from better product quality, higher productivity and increased competitiveness. They are afraid that well-trained workers claim higher salaries, be hired by a competitor or open their own business.

Governments that aim to introduce an enterprise-based vocational training system have to develop a common understanding and the willingness of all social partners to support such a comprehensive system. The employers' organizations, SME associations and Chambers of craftsmen have to mobilize the owners of the enterprises to accept the basic principles of enterprise-based training combined with theoretical training. Governments represented through the Ministry of Labour have to prepare the legal framework once the enterprises are convinced and ready to sustain the training scheme. The unions are requested to collaborate in tripartite bodies that prepare the minimum requirements of the curricula, elaborate the qualification standards and supervise the functioning of the centres or schools providing theoretical training. However, an impact with such a scheme can only be reached when the majority of enterprises, in particular those from the informal economy, are part of the scheme.

A number of countries already tried to introduce new skills training schemes using enterprise-based training (e.g. Kenya, Uganda, Zambia, Chile) with good results concerning the out-reach but with less good results concerning the quality of training.

Governments often base their TVET reforms on the existing training system and training facilities and try to associate enterprise-based training through internships in formal economy enterprises.

A new approach to start enterprise-based vocational training should focus on the enterprise sector of the formal, and in particular of the informal economy, as there is the absorption capacity for young people entering the labour market.

Owners of informal sector enterprises have to be convinced and must be willing to support such a training concept. Progressive entrepreneurs from the selected branches who are willing to provide structured training in their enterprises must be enabled to provide training as well from the human resource capacity as from the physical installation. Together with TVET centres, they will develop training programmes adapted to the needs of their branches, elaborate the minimum technical requirements and design the practical part of the training and the complementary theoretical part. However, in most cases, training of the entrepreneur and basic equipment will be needed before an informal economy enterprise can provide training.

The ILO, with its mandate to promote youth employment and with social partners as part of its tripartite structure and the combination of know-how in the field of SME development and informal economy support located in SEED and in the field of TVET located in SKILLS, is well placed to support governments to implement such new approaches in TVET.

Therefore, SEED started as a first step a desk research on examples of skills training schemes that are combined with theoretical or additional practical training in schools or vocational training centres.

The second step would be a deeper analysis of schemes that work and that do not work with emphasis on the role of social partners and the private sector in these schemes. Based on these research findings, guidelines for small entrepreneurs on “How to provide practical skills training in combination with vocational training schools” will be developed.

The study to the present SEED working paper was commissioned to give an overview of Enterprise-Based Training Schemes and to draw lessons for replication to countries interested in such training schemes.

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## Acronyms

ADC	Austrian Development Cooperation
BDS	Business Development Services
BIBB	Federal Institute for Vocational Training (Germany)
CEDEFOP	European Center for the Development of Vocational Education and Training
DACUM	Acronym for “Developing a Curriculum”
DfID	Department for International Development (United Kingdom)
EBS-VET	enterprise-based schemes in vocational education and training
EBT	enterprise-based training
EC	European Commission
ED	entrepreneurship development
EIP	Evaluations and Investigations Programme of the Department of Employment, Education, Training and Youth Affairs in Canberra, Australia
ETF	European Training Foundation
EU	European Union
GDP	gross domestic product
GTZ	German Technical Cooperation
ICT	information and communication technology
IIEP	International Institute for Educational Planning (UNESCO)
ILO	International Labour Organization
IS	informal sector
IT	information technology
ILO/ITC	International Training Centre of the ILO
MSE	micro and small-scale enterprise
NGO	non-governmental organizations
OECD	Organization for Economic Co-operation and Development
PPP	public-private partnerships
SDC	Swiss Agency for Development and Cooperation
SEO	Simulated Enterprise Offices
SOT	self-organized teamwork
SPIVE	Swiss Pedagogical Institute for Vocational Education
TACIS	European Union initiative for Eastern Europe, the Caucasus and Central Asia, which fosters the development of harmonious and prosperous economic and political links between the EU and these partner countries
TVE	technical and vocational education
TVET	technical and vocational education and training
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNHCR	United Nations High Commissioner for Refugees
UNIDO	United Nations Industrial Development Organization
USAID	United States Agency for International Development
VET	vocational education and training
VTC	vocational training centre
VTI	vocational training institute

<b>Explanations and Definitions</b>	
Apprentice	A person, receiving VET training, attending a work-linked course in school and holding a limited work contract in an enterprise.
Apprenticeship	Programmes that combine vocational education with enterprise-based training.
Enterprise-based Schemes in Vocational Education and Training and Skills Development (EBS-VET)	Cover all EBT programmes <b>and</b> programmes that jointly (i.e. enterprises and schools) deliver skills development, vocational education and training to trainees in pre-employment, apprenticeship, post secondary and specific programmes. They are always joint schemes between participating enterprises and vocational schools and training institutes.
Enterprise-based Training (EBT)	“EBT involves the delivery of both structured and unstructured training to employees (and in some cases to customers and customers’ employees) in the private sector workplace.”(Grierson, 2002)
Key Qualifications	New requirements to be met in the labour market such as the ability to think in functional matters, to plan precisely, to anticipate difficulties and to implement solutions that truly respond to problems.
Life Skills	“Broad-based skills for preparing students for the opportunities, responsibilities and experiences of life and for employability” (www.worldbank.org).
Reflection Learning	New approach in vocational education and training based on whole cycles of learning, “Reflection Learning” as it is used in this report refers to learning processes that are relevant for learners, that stress comprehensive and joint planning in groups, and that produce planning strategies which take concrete actions and finally evaluate the results.
Self-organized Teamwork (SOT)	Ability to structure learning processes independently in teamwork combining practical and theoretical aspects of vocational education and training.
Skill	“The term “skill” refers to an acquired and practiced ability, or to a qualification needed to perform a job or certain task permanently. It is a multidimensional concept as most jobs require a combination of skills for adequate performance, ranging from physical abilities to cognitive skills and interpersonal skills” (ILO, 1999).
Skills Development	Is used here as much as in Johanson (2003 ) “...to refer to the outcome of the learning process without reference to the source of skills acquisition”.
Vocational Education and Training	Transfer of formal and non-formal skills, knowledge, team capabilities and attitudes in vocational schools and/or training institutes.

## **Abstract**

Within the activities of the Youth Employment Network (YEN) of the UN, the World Bank and the ILO, this study has been written for the ILO. The network is supposed to develop recommendations and possible solutions for the growing youth employment problems worldwide including the contributions that information technology and the informal sector can make in employment generation.

This report focuses on the impact of enterprise-based schemes of vocational education and training and skills development in pre-employment programmes, apprenticeship, adult vocational education and specific other programmes. Enterprise-based training schemes are here understood as programmes in vocational education and training that have skills-training schemes that either take place in enterprises alone or in enterprises and a combination of one or more of the following: public vocational schools, vocational training centers, be they public or private, and private training centres .

The study first analyses the major deficiencies of vocational education and training in the last few years. Furthermore eight criteria for setting up successful enterprise-based schemes programmes are being proposed and specifically successful cases for pre-employment training, apprenticeship training and continuing vocational training as well as in enterprise-based schemes in the informal sector are presented. In doing this, emphasis is put on programmes by countries that have low youth unemployment rates.

Furthermore, very successful development projects by the ILO, the World Bank, EU and from the German Technical Cooperation (GTZ) are presented.

The report then tries to cast some light on why these programmes have been successful, looks at the employment evidence and makes some recommendations on how youth employment could be promoted by using successful enterprise-based schemes in vocational education and training worldwide. Finally, specific reference is made on how to set up these activities within the context of the Youth Employment Network (YEN).

The study is followed by a directory of some 25 enterprise-based schemes, which meet a number of criteria for successful programmes stated in the first part of the study. The directory focuses on good project practices in selected European OECD countries as well as on reform initiatives in Asia, Africa, Australia and the Americas.

## **Acknowledgements**

This paper – presenting some evidence on working with enterprise-based schemes in vocational education and training and skills development – is the outcome of an independent study funded by the ILO and its “InFocus Programme on Boosting Employment through Small Enterprise Development” within the activities of the UN/World Bank/ILO activities of the Youth Employment Network.

This desk study has been carried out without field studies and is based on individual experience, interviews and a literature review of the consultant. Literature and web reviews of current practice in enterprise-based training have been carried out and talks with colleagues from the ILO, the World Bank, the European Training Foundation, the German Technical Cooperation and other organizations have been undertaken.

I would like to thank Klaus Haftendorn from the ILO’s Job Creation and Enterprise Department for asking me do this study. However, this report is based on my own experience as a consultant in vocational education and training and skills development and might not necessarily reflect the views of the ILO.

Furthermore, the enterprise-based schemes in vocational education and training and skills development selected for this study represent a subjective view of the author of what was known to him at the time of writing this study.

I would like to thank Arvil van Adams from the World Bank who – together with some of his colleagues – gave the author time to discuss some of the issues related to enterprise-based training in Washington.

In particular the author would like to express his thanks for the interviews, guidance and the support received from Friedrich Hammerschmidt, GTZ-CRYSTAL, in Eschborn, Germany, in helping to summarize the various experiences of the German Technical Cooperation with enterprise-based training.

I would also like to thank Mr. Ulrich Hillenkamp from the European Training Foundation (ETF) in Turin for his support and linking up with his colleagues in ETF and in the various EU-funded projects in vocational education and training.

Finally, I would like to thank my wife, Elizabeth Cecelski, for helping me edit the document.

## Executive Summary

In 1999, the ILO estimated that, out of a world labour force of 3 billion people, 25 to 30 per cent were underemployed and about 140 million workers were unemployed. In addition to these 140 million workers, the ILO further estimated that 60 million young people between the ages of 15 and 25 were in search of work but could not find it.

The employment situation since then has not changed much: of special social concern still is the severity of youth unemployment worldwide. Youth unemployment still seems to be directly related to the overall unemployment rate which depends on the prevailing economic situation of the country.

To address this problem, numerous programmes and projects in vocational education and training have been launched in the last few years. This study analyses the major deficiencies of these initiatives and why they have so often failed to deliver programmes that manage to get young people from (mostly) public vocational schools into jobs. Chapter 1 looks at the general challenges of schemes in vocational education and training and skills development and their low impact on tackling youth unemployment.

Statistics show that the youth unemployment rate in most countries (in developing and developed, as well as in transition countries) is two or three times higher than the general unemployment. There are some notable exceptions, however, in Europe: in Austria, Germany, Iceland, Luxembourg, and Switzerland and most recently in Denmark, Ireland and the Netherlands. In these countries, the youth unemployment rate is more closely comparable to the general rate of unemployment.

In this report, the focus is primarily on these “successful” countries, but also includes other programmes and projects worldwide implemented by the ILO, the World Bank, the European Union (EU) and the German Technical Cooperation (GTZ) that have – in individual success stories – managed to tackle youth unemployment by linking vocational education and training more closely with labour market needs.

The paper goes on by looking at the common denominators of these successful practices and proposes a framework of “Enterprise-based Schemes of Vocational Education and Training and Skills Development” (EBS-VET). EBS-VET are here understood as programmes in vocational education and training that have skills training schemes which either take place in enterprises alone or in enterprises and a combination of one or more of the following: public vocational schools, vocational training centers (be they public or private) and private training centres.

Chapter 2 suggests criteria for setting up enterprise-based schemes and describes these criteria. Eight criteria for successful programmes are being proposed:

1. “Demand-orientation” of programmes as a basic thrust of all EBS-VET;
2. Reflection learning techniques for new ways of qualifying for the challenges in the world of work;

3. Using different learning places in vocational education and training such as in schools, training centres **and always** in enterprises;
4. Using new training methods for teachers and instructors to revitalize the schemes;
5. Cooperation with the key actors in the labour market in order to divide responsibilities and share ownership;
6. Re-designing curricula in vocational education and training towards more relevance and potential employability;
7. Financing EBS-VET in a joint effort together with all the participating actors; and
8. Straightening up the legal framework last.

Chapter 3 specifically looks at successful cases of EBS-VET in

- pre-employment vocational education;
- apprenticeship training;
- enterprise-based training;
- post-secondary vocational training; and
- combination programmes of enterprise-based schemes that cover more than one of the above and those that include specific interventions outside the formal ambit of training, such as training interventions in the informal parts of the economy.

Countries covered in Chapter 3 are those OECD countries mentioned above that have succeeded in keeping the youth unemployment rate relatively low, and in addition, short descriptions of successful interventions – in alphabetical order – from Australia, Bangladesh, Bosnia and Herzegovina, Brazil, Cameroon, Chile, Egypt, Hungary, Kazakhstan, Kenya, Malaysia, Mali, Mexico, Panama, the Philippines, Romania, the Russian Federation, Senegal, Serbia, Sri Lanka, Tanzania, Thailand, Turkey, Uganda, Uzbekistan and Zambia.

Chapter 4 tries to cast some light on why these programmes have been successful and looks at the youth employment evidence of the programmes and projects introduced. It also looks at the criteria set up in Chapter 2 and identifies how much these programmes are doing vis-à-vis the eight criteria set up earlier in the report.

A number of common things can be said about the success paths of each of the programmes, such as:

- Demand-driven approaches that get started with the direct involvement of enterprises or enterprise associations;
- Emphasis of core work skills, such as teamwork, problem-solving, understanding of entrepreneurship and learning-to-learn skills;
- Institutionalizing the enabling environment of key actors in vocational education and training;
- Specific teacher and training of trainers components;
- Elements of designing new learning environments along the lines of lifelong learning; and
- Involvement of tripartite structures in administering these schemes.



Finally, in Chapter 5, recommendations are made on how youth employment could be promoted by using successful enterprise-based schemes in vocational education and training and skills development within national or international interventions in vocational education and training. This is also done in view of following up on the YEN recommendations and the Millennium Goal of “descent and productive work for young people”. Within the YEN activities, Chapter 5 makes precise suggestions for the ILO, in collaboration with the United Nations Secretariat, the World Bank and other relevant specialized agencies, on how to assist and support governments and to undertake a global analysis and evaluation of progress made in enterprise-based schemes in vocational education and training and skills development (EBS-VET). Specific recommendations include:

- Support all kinds of public-private partnerships (PPP) in vocational education and training, while scaling up successful approaches on a sustainable basis;
- Design much more demand-driven national training systems that respond to real needs in the labour market involving all stakeholders;
- Institutionalize close cooperation between Ministries of Education and Ministries of Labour and develop labour market information systems (LMIs) which constantly keep track of the performance, outputs and (youth) employment impacts of public, public-private and entirely private skills provision;
- Support existing and help to set up new associations and competent bodies – sector and trade associations and private training providers – in order to advocate their own interests and to better deliver flexible and relevant training to their members;
- Prepare teachers and trainers better for their jobs in enterprise-based schemes for vocational education and training;
- Design new learning environments in vocational education and training that allow for more independence on the side of the learners, flexibility on the side of the programme planners and relevance when it comes to curricula and learning materials;
- Make school-based vocational education more like general education in many ways;
- Set up national institutes of vocational education and training;
- Establish tripartite competent bodies of vocational education and training;
- Make (as much as possible) all beneficiaries in enterprise-based schemes – in a collaborative way – contribute to the financial costs of setting up such programmes;
- Integrate “life-long vocational learning” in the institutional framework for enterprise-based schemes of vocational education and training; and
- Focus on legal aspects of enterprise-based vocational education and training only when all other aspects are in place.

The study is followed by a detailed directory of some 25 enterprise-based schemes, which meet a number of criteria for successful programmes stated in the first part of the study. The directory expands on the information in Chapter 3 and describes in more detail practices in selected European OECD countries as well as in vocational-education reform initiatives by the ILO, the World Bank, EU and GTZ in Asia, Africa, and in Central and South America.

## **1. The general challenge of schemes in vocational education and training and their impact on youth employment**

In 1999, the ILO in its *“World Employment Report: Employability in the Global Economy – How Training Matters”* (ILO,1999) estimated that, out of a world labour force of 3 billion people, 25 to 30 per cent were underemployed and about 140 million workers were fully unemployed. The ILO further estimated that 60 million young people between the ages of 15 and 25 were in search of work but could not find it then.

The employment situation since then has not changed much: of special social concern still is the severity of youth unemployment worldwide. Youth unemployment still seems to be directly related to the overall unemployment rate which depends on the prevailing economic situation of the country.

Statistics show that the youth unemployment rate in most countries (as well in industrialized, in transition and developing countries) is two or three times higher than the general unemployment, with some notable exceptions in Europe such as in Austria, Germany, Iceland, Luxembourg, and Switzerland and most recently in Denmark, Ireland and the Netherlands.

In all of the countries (see Table 1) having low youth unemployment rates, vocational education and training (VET) is based on vocational schools having close enterprise relations.

Some programmes in countries successfully combating youth unemployment are based on enterprise-based apprenticeship training provided by private companies, combined with school-based learning and sometime also by technical training provided in schools.

Apprenticeship is the most common form of work-linked training. However, it is not always an apprenticeship alone that makes a smoother transition from school to work life. As can be seen from Table 2, other programmes than apprenticeships obviously must have similar employment effects:

**Table 1: Female and male youth unemployment rates 1990, 1999, 2000, 2001 in selected OECD countries (in per cent) (Youth unemployment measured as unemployed people ranging from 15-24 years, both sexes, in relation to the overall labour force)**

<b>Countries</b>	<b>1990 (women only)</b>	<b>1999 (women and men)</b>	<b>2000 (women and men)</b>	<b>2001 (women and men)</b>
Australia	12	13.5	12.3	12.7
Austria	4	4.8	4.9	5.4
Belgium	19	22.6	15.2	15.3
Canada	11	14.0	12.6	12.8
Czech Republic	-	17.0	17.0	16.6
Denmark	12	10.0	6.7	8.3
France	24	26.5	20.7	18.7
Finland	18	21.5	21.6	18.7
Germany	6.5	8.2	7.7	8.4
Greece	33	31.7	29.5	28.0
Hungary	15	12.4	12.1	10.8
Iceland	4.4	4.4	4.7	4.8
Italy	38	31.1	29.7	27.0
Ireland	16	8.5	6.4	6.2
Japan	4	9.3	9.2	9.7
Korea	-	14.2	10.2	9.7
Luxembourg	5	6.8	6.4	6.7
Netherlands	12	7.0	6.6	5.8
New Zealand	13	13.8	13.2	11.8
Norway	11	9.6	10.2	10.5
Portugal	13	8.7	8.6	9.2
Slovak Republic	-	18.5	17.5	16.2
Spain	40	28.3	25.3	20.8
Sweden	4	14.2	11.9	11.8
Switzerland	3.5	5.6	4.8	5.6
Turkey	15	15.2	13.2	19.9
United Kingdom	9	12.3	11.8	10.5
USA	11	9.9	9.3	10.6

Sources: United Nations Statistics Division – Millennium Indicators at: [www.millenniumindicators.un.org/unsd/mi/mi\\_goals.asp](http://www.millenniumindicators.un.org/unsd/mi/mi_goals.asp) and United Nations Development Programme website at: [www.undp.org/hdr2003/indicator/indic\\_341.html](http://www.undp.org/hdr2003/indicator/indic_341.html)

**Table 2: Apprenticeships in relation to all VET participants, 1995-96 (in percentage)**

<b>Countries</b>	<b>%</b>
Austria	36.9
Denmark	86.7
Germany	65.7
Iceland	41.7
Netherlands	24.7
Norway	100.0

Source: EUROSTAT, Statistical Office of the European Communities in Luxembourg. 1996. Key Data on Vocational Training in the European Union – Training for Young People. Luxembourg.

The overall picture of training systems worldwide is, however, that many countries are still under a lot of pressure to deal with employment challenges (such as in changing technologies, shorter product cycles and new forms of work organization) in a creative and

employment-led way. In view of these far-reaching developments, both enhancing the education and skills levels of workers and finding the most effective means of doing so are becoming of prime importance in economic and employment strategies worldwide.

The most fundamental issue in skills development still is how to best balance supply of skills with demand in the labour market and the “crisis of vocational education and training” in the 1980s and some of the 1990s – as some people have put it – can mostly be seen as an insufficient demand-orientation in vocational education and training. This is even more troublesome since the demand for skilled labour has risen significantly as a result of globalization and changes in technology and the organization of work.

In other words, not always necessarily higher skills levels are needed, but rather different skills, such as the ability to think in functional matters, to plan precisely, to anticipate difficulties and to implement solutions that truly respond to problems.

As a result of this, there is a demand for a more skilled labour force, with more autonomous, adaptable and multi-functional workers. The concept of competencies tends to put more emphasis on the more traditional notion of skills, whereas many employers place more importance on the overall competence of individuals and especially on their ability to communicate, to solve problems, to work in teams, rather than on their purely technical skills alone.

Most skills acquired over a work lifetime are still developed on the job, in both the formal and the informal economy. The more effective delivery through cooperative VET programmes between enterprises and schools is still not in use enough and government incentives for enterprise-based schemes in vocational education and training and the means of overcoming disincentives to spending on training still differ widely among national training systems worldwide.

From an economic point of view, it appears to be highly inefficient to keep vocational education and training systems in place that are not capable of using financial resources more efficiently in such a way that they give young people a real chance to find decent and productive work. Indeed, the question is being asked with increased vigour – if demand-driven training is so effective, why is not everybody doing much more of it?

Instead, in so many systems, vocational education and training and labour market policies do not always facilitate the school to work transition and also do not give especially young people a head start in working life. In a way, too often it appears that systems of vocational education and training do what they can do best, but this does not always happen to be what the labour market needs. This is why many expect VET systems to become more responsive and flexible to the new demands, which tend to be unforeseeable and increasingly diversified. The key questions here are how to reform them and make them more responsive to markets and more effective in the use of resources.

Moreover, demand and supply perspectives also come in from a different view at the micro level of enterprise-based schemes in vocational education and training when it comes to

teacher and instructor training and to the “relevance” of curricula, teaching and training materials and also the methods being used.

Teacher and instructor training in vocational education and training in so many countries is seen as something that “people will learn on the job”. Very often there are no career paths for becoming a teacher or trainer in vocational education and training.

Pre- and in-service programmes for teachers and instructors are often not even in place and it is indeed very hard for trainers working in advanced vocational education and training with high expectations in innovations and close contacts with enterprises, other vocational teachers and of course their own students. Training of teachers and trainers is too often a missing link in the common objectives of designing enterprise-based schemes in vocational education and training.

Vocational curricula in schools still tend to be written by government officials who have little or no exposure to the world of work. And, even worse, the traditional curricula are growing content-wise by incorporating new contents without scrapping outdated, irrelevant material. Thus the gap between training system and employment system keeps widening even more.

Curricula for true enterprise-based schemes in vocational education and training need to be revised and carried out in a multi-disciplinary and demand-driven approach. This also implies that curricular contents need to be looked at in a different way as far as difficulty level, complexity, validity and particularly employment-relevance are concerned. This is also true for curricula for enterprise-based schemes in vocational education and training in mutual support of entrepreneurship development.

Teaching and training materials are often outdated and not relevant to what is needed for specific skills development. Too often teaching and training materials have not enough relevance for what the students have to face after they leave their “refuge” of (mostly) government-run vocational schools and institutions.

Furthermore, training and teaching materials are also very often not done in a way that might appeal to students in vocational education and training. The drawing up of new materials is a challenge that could be dealt with better by training teachers and trainers in such a way that more relevant materials are being produced by them.

In a modern labour market with permanent innovations and the requirement for life-long learning, the ability to self-learn new things in a team approach is more important than having a broad range of technical and vocational know-how learned by cramming of theory and imitation of skills.

In too many countries, generally more so in transition and developing countries, there is still a strong tendency to equate teaching and training with pure lecturing. The opening up of the “method box” in vocational education and training, however, could not only be a true liberalizing way of learning, but also a much more relevant way of acquiring skills and qualifications as well as a much more effective one and finally one that is truly appreciated by enterprises, students, teachers and trainers.

Coming back up to the more macro problems of missing linkages for more enterprise-based schemes in vocational education and training, it seems that the participation of the social partners in the design and the implementation of EBS-VET could be much more active.

Involving employers in assessing rapidly changing requirements of the labour markets and designing programmes of course looks like the obvious answer to the need of more responsiveness to the VET system. In practice employers often prefer their own on-the-job training programmes over government-run ones, because too often they have not made the best experiences in working with governments.

On the other hand, some companies have only a short-term view of their future and find it difficult to translate it in terms of skill and training requirements. However, in so many countries most enterprises seem to have given up the notion that joint collaborative programmes could be doable.

As for the workers' representatives, their competence and ability depend largely on the strength of the labour movement, but cases show that they can play a very active role, especially in some of the Central and Northern European models of enterprise-based schemes, especially when it comes to apprenticeship programmes. However, much more efforts need to be made to get enterprises and trade unions to get involved.

Even though public training policies in many countries have pointed to greater encouragement of vocational education and training, constraints on public spending make it difficult for governments to finance even the training for which they are in charge of.

New ways of funding enterprise-based schemes have been looked into in the last years whether they have been public, private or in combination of both. At the same time, the past decade in vocational education and training has shown that more accountability measures for skills training have been investigated. But for the future it seems that in enterprise-based schemes of vocational education and training, which truly respond to the demand side, there should also be a shift towards financing (some of) these schemes by the demand side.

Finally, when it comes to the legislative aspects of enterprise-based schemes in vocational education and training, such as standardizations, vocational training laws, ordinances and rules and regulations, there is a tendency to go into these legislative aspects too quickly before setting up the programmes that truly respond to the deficiencies characterized in this chapter. In other words, there is no doubt that the legal aspects are very important, but they should really come at the end of a reform in vocational education and training system. Then it can be the grid for enterprise-based schemes in vocational education and training.

In the following chapter, some of the problems mentioned in this one are taken up and a roster of criteria for enterprise-based schemes that might better respond to the problems outlined in this section will be introduced.

## **2. Working with “enterprise-based schemes in vocational education and training and skills development (EBS-VET)” – What are their main features?**

Enterprise-based training schemes in vocational education and training (EBS-VET) are here understood as all enterprise-based training programmes (EBTs), i. e. training in enterprises only, and also all programmes that jointly (i. e. enterprises and/or schools and/or centres) deliver vocational education and training to trainees in pre-employment, apprenticeship, post-secondary and other specific programmes.

Thus, these schemes have at least some kind of training in enterprises in them and are mostly (except EBTs) carried out collaboratively between enterprises and schools of vocational education.

In the following chapter, a number of determining factors for EBS-VET schemes are suggested consisting of eight different components at different levels of interventions and briefly explained. This chapter is supposed to give some criteria for the composition of enterprise-based schemes in vocational education and training. Enterprise-based schemes in vocational education and training are in this report primarily understood as programmes that are always very closely geared to employment opportunities.

The criteria refer to the author’s experience at the time of writing this report and represent an individual and subjective view of the successful components of an EBS-VET. They are considered to be a first guideline for the overview of successful practice in Chapter 3.

### **2.1 Demand orientation – The basic thrust**

This report focuses on the importance of enterprise based schemes in vocational education and training and the importance of skill development in this strategy, but it should always be kept in mind that the demand for labour and skills is derived from sound macroeconomic policies that promote investment and job creation. Training alone never creates jobs.

When it comes to demand-related issues of training, there is almost always an interesting case of inter-dependence between supply and demand. Normally, one would argue that levels of unemployment cannot be remedied by improving supply. Providing youngsters with “employable skills” when no work is available is both economically and socially unproductive. What is really important is the development of industry-specific training for employment programmes, because there is often a shortage of appropriate skilled manpower. It is only through expanding macro-demand that such labour can be productively absorbed. However, if improved demand in specific sectors becomes a condition for structural growth, there will be a strong case for more training for employment offered by public and private training providers.

Nevertheless, the question should be asked here whether training is effective when done outside the ambit of the employing establishment. Training should not be seen as a means in itself, but much rather as a way to find “decent work” (as understood in the way the ILO has defined it), income and job satisfaction. The argument against supply-oriented training without

linkages to identified production processes and jobs is based on experiences with actual skill development and training programmes in so many countries in the world.

High youth unemployment in still so many countries in the world is an alarming sign, but it is argued here that demand-side figures from enterprise-based schemes in vocational education and training seem to indicate that future vocational education and skill development policies would lead to a decrease in youth unemployment rates, if programmes were much more closely coordinated with the private sector.

In this scenario, future prosperity is likely to come from skill-intensive growth, but only if training programmes are more geared toward employment opportunities. Therefore a major training effort in close collaboration with the private sector would be required.

In the reality of enterprises and work, supply and demand of skills are typically interdependent. Except for specific skills and situations, the role of institutionalized training, independent of industry should be limited.

One major pillar of the proposed way of looking at training here is the strong “employment drive” of any kind of training that should be offered. Demand-driven vocational education and training and skills development in this report is therefore understood as:

**Box 1: Definition of vocational education and training and skills development in enterprise-based schemes**

Any transfer of knowledge, skills, team capabilities and attitudes set up to either prepare people for productive activities or to change their working behaviour in the world of work. It may include first-time learners, as well as people who have worked for a long time; it includes both in-school and-out-of-school efforts. It covers vocational, technical, managerial, entrepreneurial, societal and other useful skills both in the productive and growing parts of the formal and in the informal sectors of an economy. It may not even be called training, such as in the case of agricultural extension or business advisory services.

In sum, the prime focus in this report augurs well for the shift from a supply driven to a demand-driven VET system, in which enterprise-based schemes in vocational education and training (broadly construed to include school-based, enterprise-based, center-based and self-employed) are the main objective and also a condition, without which VET is never meaningful.

## **2.2 “Reflection learning” – New ways of qualifying for the challenges in the world of work**

It is suggested here that for successfully designing EBS-VET programmes “Reflection learning” processes need to be used both in schools and enterprises (see Hermanns, 2000, for a more detailed description). “Reflection learning” is a new approach in vocational education and training which is based on whole cycles of learning. “Reflection learning”, as it is used in this report, refers to learning processes that are relevant for learners, that stress comprehensive and joint planning in groups, and that produce planning strategies which take concrete actions and finally evaluate the results.



Three reasons why it should be included in EBS-VET programmes are given here:

*Why is reflection learning recommended for students?*

The only safe prediction that can be made with regards to future job profiles is that they will change. Present professional job know-how gets obsolete in ever shorter periods. The pass-outs of the vocational training programmes cannot always immediately come back and join the training system for another half year. So the key aspect is to qualify them to organize their own learning-on-the-job and prepare them for life-long learning. They need to learn technical and vocational contents without too much dependence on a trainer. Since students have to learn how to organize themselves, trainers and teachers must learn how to teach with a minimum of guidance.

Simultaneously with the introduction of new technologies, the labour markets called for new “key qualifications”. Subsequently, this led to a misunderstanding that by taking up the new technical contents (such as e.g. pneumatics, electronics or CNC) as training topics in vocational schools, the challenges of the employment system would have been answered by the training system adequately. But soon it became clear that by focusing on technical issues only without major innovations in the training innovations, this would result in “the sale of old wine in new bottles”.

In a way, in lecturing, the student was expected to learn the training essentials under conditions which can be compared to students expected to learn driving a car by continuously remaining in the passenger seat during training!

Reflection-learning methods, on the other hand, do put the student in the driver’s seat and the use of innovative methods in training young people is therefore a very crucial point that must be combined with new technical contents.

*Why is reflection learning recommended for teachers and trainers?*

For teachers and trainers working in advanced training with a high pace of innovation, it will become more difficult to stay abreast with their students in terms of technical know-how. Recurrent further training for trainers will not solve this dilemma completely, because the learning ability tends to fade with growing age.

Thus, it is more important to keep pace with new developments in didactics and methodology of vocational education and training. Changing his/her role from a lecturer dispensing information to a moderator of team work (holding some of his/her information back) offers the chance that students make technical progress even beyond the technical know-how of the teacher. To the surprise of the trainers who start using this methodology, the results of some teams are sometimes much more sophisticated than expected by the trainer. This is due to the mental potential of teams. As in quality circles, the success of the team does not depend mainly on the technical expertise of the trainer.

As long as it was regarded as normal that an engineer or an economist lectured on his technical know-how and that his/her audience just memorized what he/she said and

demonstrated, the mastery of methodology meant that the trainer was able to lecture. His/her ability to make students understand was less valued than the high level of technical or economic know-how. In order to generate the broader learning effects of modern vocational education and training, however, the trainer's capabilities in coaching often matters more than his/her technical expertise.

Teaching and training are no longer limited to teaching and lecturing only, but other teacher and trainer functions, such as counseling, educating, organizing, grading and innovating become an integral part in each training programme for teachers and trainers.

With conventional vocational education and training, for too long, we made our students develop a brain that acts like a computer with a small processor and a huge memory, but what they actually need to succeed in today's world of work (as much as we need in our computers) is a brain with a much bigger processor unit while the memory capabilities could be much smaller.

*Why is reflection learning wanted by employers?*

Employers have realized that the nature of technical know-how for solving enterprise problems has changed:

- the ability to think in functional contexts now matters more than knowing vast amounts of isolated details;
- systematic and analytic approaches towards new problems are more appreciated than experience with old patterns; and
- precise planning and anticipated trouble-shooting has become more important than quick trial and error actions when the problem occurs.

The lecturing of information ("spoon feeding") in connection with testing the memorizing ability ("pseudo applications") produces an employee who is poorly prepared to meet the present job requirements in modern sectors of industry and the whole service sector offering maintenance and repair.

The new kind of training in both schools and enterprises originates from the way quality circles operate in industry. The transfer to the field of training was boosted and promoted by employers who were no longer satisfied with the human training product which the conventional training system offered to them. In other words, the changing labour market requirements forced the training system to follow.

### **2.3 Using different "learning and working places" – Making vocational education and training relevant**

In vocational education and training, so often a very typical division can be found where vocational students first get the theoretical background in schools and then usually with a time-lack of a few months – in the case of pre-employment programmes sometimes even years – they have to apply these qualifications and skills at the work place.

Research about cycles of vocational learning, however, indicates that these two different processes of acquiring skills and qualifications can and should not be divided, but should be arranged in one learning process, where interest can be raised which should be pursued after that until precise solutions and/or work applications are found. If this is not done, we might run the risk of not laying the foundations for intrinsic learning elements in vocational education and training. It is argued here that this can be best done by having EBS-VET that always take place in more than one institutional venue.

Secondly, there is of course the strong interest by enterprises to make vocational education and training more relevant by not only focusing on-the-job training in companies, but also benefiting from schemes that take place in schools and training centres. If it can be proven that these programmes can be operational and make an improvement, enterprises will be joining in.

A combination of learning and working places therefore provides one of the basic components for enterprise-based schemes in vocational education and training. A system set up like that could still seek to teach theory and practice, but furthermore it could also impart structured knowledge and active competence in their proper context.

The different learning sites involved, enterprises, training centres public or private and vocational schools interact in keeping their different emphases, but their tasks are not rigidly divided: schools are not solely for teaching theoretical aspects only and enterprise training involves more than simply practice.

When it comes to the aspect of different learning and working places in specific settings of enterprise-based schemes (pre-employment, apprenticeships, enterprise-based training, post secondary and combination programmes), this feature also always guarantees that vocational education and training programmes will become relevant, because enterprises would never get involved, if they did not see the importance to their own situation.

Furthermore, it ensures mutual understanding of each other's part of the programme and will lead to agreement processes in which the programmes will be constantly assessed, and (if necessary) updated and improved. This is why using different learning and working places in EBS-VET makes vocational education and training more relevant both from a theory of vocational learning angle as well as from a productivity aspect.

#### **2.4 Teacher training and training of trainers in vocational education and training – “Revitalizing” EBS-VET continuously**

Enterprise-based schemes in vocational education and training are being “nourished” by the people who run them and these people – the change agents in a way – must have both theoretical and practical backgrounds in their specific fields. But they should also be able to make vocational education and training fun, relevant and meaningful.

In the last few years, the changing needs in labour markets and changing needs in vocational schools and enterprises have led to new teacher and instructor training programmes in

some European countries. The teachers and instructors there learn how to deal flexibly with restructuring challenges in vocational education and training.

In these programmes, new teacher training programmes in vocational education and training have been developed by:

- focusing on the relevance of in-service teacher training programmes in vocational education and training for students, employers, teachers and instructors themselves;
- giving up spoon-feeding in previous teacher training programmes and instead helping young teachers and instructors to take their own process of learning-and becoming-teachers into their own hands;
- combining theoretical and practical aspects of teaching in learning situations that have real-life importance and are fun;
- making use of teamwork in teacher training and turning it into a powerful tool for teachers in their vocational schools and instructors in their enterprises; and
- developing new “ways of learning” and setting up new “cultures” in grading and testing, since new testing requirements should be consistent with new training systems and compatible with training.

Furthermore, many programmes for teachers, trainers and instructors focus on cooperation, teamwork and the use of reflection and self-reflection techniques in meeting new pedagogical, technical, commercial and information technology (IT) challenges.

In order to be better prepared for the changing requirements in schools and enterprises, in some European countries, “essentials” in teacher and instructor training have been developed. These essentials are covered in general courses on vocational pedagogy and didactics and deal with things like:

- defining didactic concepts in vocational education and training;
- gaining a methodological repertoire in vocational teaching;
- professional communication and its implementation in vocational classes in schools and enterprises;
- working and learning with groups;
- using media effectively in vocational education; and
- making assessments and judgments as a vocational teacher.

For group-learning purposes, heavy emphasis e.g. for example can be placed on supervised trial-run teaching situations. These trial-run teaching situations are teaching experiments where other vocational teachers, instructors from enterprises and teacher trainers are invited to make joint learning experiences in vocational teaching (for a more detailed description of this feature of EBS-VET, see Axmann, 2002).

## 2.5 Cooperation with the key actors in the labour market – Dividing responsibilities and sharing ownership

*“It is more work ... not so easy .....very challenging ....and not very rewarding!”*

When it comes to jointly organizing programmes in vocational education and training, these are classical statements that all of us have heard from stakeholders in the labour market be they from the governments, employers’ organizations, the trade unions side or other pressure groups.

This is, however, only one side of the coin. The other one looks different. There are a number of good reasons why in some countries the social partners have already got involved in setting up enterprise-based schemes and in more countries the social partners could and should get involved. Some good reasons for enterprises to participate in enterprise-based training are shown in Table 3, which shows the relative importance, to companies in Germany, of the various benefits of providing enterprise-based vocational education and training, and presents the most frequently mentioned reasons for offering this kind of training in 2003.

**Table 3: “How enterprise-based vocational education and training pays”**

Reasons Why Companies Offer Enterprise-based Training	Answers in %
Trainees meet company requirements	94
Skilled employees not available on the job market	90
Prevention of personnel fluctuation	80
Opportunities to “pick and choose” the best trainees	74
Avoidance of wrong hiring decisions	73
Cut costs for “breaking in” new employees	58
Enhances the company’s reputation	57
Trainees develop into productive employees	42
Cuts personnel-recruiting costs	35

Source: Federal Ministry of Education and Research, Germany. 2003. Germany’s Vocational Education at a Glance – Slide Presentation, Bonn: BMBF.

Apart from the individual cost-benefit side in an enterprise, cooperation with the key actors in the labour market can also be looked at from other perspectives of dividing responsibilities and sharing ownership.

From an economic point, it is not justifiable and certainly highly inefficient to keep vocational education and training systems in place that do not draw from the various resources of an economy and do not build on comparative advantages that are available. If joint efforts have been made, such as for example in some Central and Northern European countries, it has often led to strong vocational training systems based on industry consensus, well-defined courses and well-defined good employment opportunities with strong company and strong trade union involvement.

In addition, setting up enterprise-based schemes has almost always led not only to a much better and more efficient diversification of tasks, but also to some kind of ownership on the side

of the social partners, which has given them extra credits in some of their marketing strategies in their respective countries and more credibility among their members.

## **2.6 Curriculum development – Redesigning static VET schemes into EBS-VET**

Curricula in vocational education and training come at the core of an educationally and technologically well adjusted plan for learning and are meant to last for a while, since it is an arduous process to get them developed. However, they are written in so many cases by government officials who have little or no exposure to the work of world and thus curricula end up not responding sufficiently to the real labour market needs.

It is advocated here that trying to set up enterprise-based schemes in vocational education and training would always mean to make curriculum development and the design of learning materials a joint process between ministries, training institutes, vocational schools and associations of enterprises. This would make curriculum development a joint task and back to how it should be done. Designing new learning environments in vocational education and training would allow for more independence on the side of the learners, flexibility on the side of the programme planners and relevance when it comes to curricula and learning materials.

This could be further enhanced by designing flexible and short cycles of enterprise-based schemes that directly respond to training needs and by seriously shifting the role of the teachers and trainers away from lecturing more towards coaching as mentioned above.

Vocational curricula have undergone lots of changes in the last few years. Some curricula were rewritten with a view to making vocational education and training more enterprise-based and improving the school-based side of it. Programmes in some of the countries with low youth unemployment start with the following checklist:

- ensure that young people learn how to solve problems, work in teams, be enterprising;
- make sure that planning always follows the learning of the theoretical vocational knowledge;
- leave enough time for
  - implementing the plans;
  - checking and evaluation of quality; and
  - feedback.
- introduce more soft skills such as languages and communication skills; and
- provide sufficiently wide skills.

In a way, curriculum exercises set up along these lines would make the content in work-based training settings more relevant and flexible and in vocational schools more general and make technical and vocational education and training (TVET) altogether less of a dead end.

## **2.7 Financing EBS-VET – Not an easy task**

Taking into account the limitations of public financing for vocational education and training, the mobilization of different resources for funding of enterprise-base schemes has to become an integral part of setting up programmes along the lines of the thinking proposed in this

report. This resource mobilization has to be matched with incentives to improve the efficiency of existing expenditures on vocational education and training.

The modalities of financing EBS-VET are probably the most difficult component, but they also may be a very strong instrument to promote reforms in vocational education and training, since they provide incentives. They do usually include making governments recognize that they cannot provide good programmes free of charge.

Looking at the costs of enterprise-based schemes in vocational education and training is a relatively complicated process, since certain calculated costs have to be taken into account along with expenditures caused directly by training itself. However, on the other side there are always a lot of benefits of EBS-VET.

On the employers' side there are such things as opportunity benefits by not having to set up on-the-job training all by themselves. Furthermore, the employers usually have productivity improvement effects and benefit from other factors that would otherwise cause costs (see also Table 3 for a list of those factors).

There are of course economic benefits on the national level, by using resources in vocational education and training much more efficiently and economically. Compared with general education, the national budgets for vocational education and training are usually a multiple of what it costs to provide primary and general secondary education, especially in the technical fields. This would guarantee that these amounts would be spent much more economically and useful.

Finally, the students/trainees/workers benefit by finding employment opportunities much easier and faster and by not spending so much time in training programmes that have little or no relevance to their later work life.

Some current enterprise-based schemes in vocational education and training work with a selection of the following, for example by:

- providing managers of training institutions with increased autonomy to do fund-raising and to set fees;
- developing incentives for good performance for both public training institutions and enterprises (such as tax credits or deduction of expenses, services by training institutions that would be paid for, sales of products, etc.);
- (financially) involving enterprises, trainees and families on a cost-sharing basis (e.g. in apprenticeship EBS-VET); and
- linking enterprise-based schemes with performance-based financing (with specific indicators such as youth unemployment, sectoral unemployment in specific regions, etc.).

## **2.8 Legal foundations of EBS-VET – Necessities for later**

This aspect of EBS-VET is the last of the eight criteria and it has been put here last, because it should only come in when the other tasks have been successfully tackled and almost

completed. National initiatives on legal aspects of vocational education and training often tend to “over regularize” and get into things like training qualification frameworks (TQF) too early, before the actual reform initiatives have been started.

A good argument can be made for involving the social partners at this level when it comes to developing qualification, promotion and assessment levels such as enterprise-based schemes promotion acts, training regulations, framework curricula and standards for EBS-VET. This would mean involving the social partners in preparing and coordinating the draft versions for the legal foundations of EBS-VET.

There is evidence that those national systems of vocational education and training in Central and Northern Europe, which are based on the principle of industrial consensus in vocational education and training, do also have lower youth unemployment rates. It would be interesting to find out how significantly this is related to the fact that policies and legal foundations are being decided on with all the stakeholders and (very often) with unanimous agreement.

Sharing responsibilities could also be an aspect when setting the legal framework for enterprise-based schemes in vocational education and training. National institutes of vocational training can help in this for example by developing new vocational qualifications, developing scenarios for future development of vocational education and training, which might eventually lead into new policies and new legislation, and by advising governments in their specific countries on all basic questions pertaining to vocational education and training.



### **3. Successful practice from developing and developed countries as well as from transition countries – Organizing “joint efforts” in different stages of vocational education and training**

This section draws on lessons from enterprise-based schemes in vocational education and training being implemented at different levels of vocational education and training. Some of the more outstanding examples here are described in more detail in the attached Directory.

The various programmes presented in this chapter (as well as the selection of the very innovative ones in the Directory) are categorized into:

- 3.1 Pre-employment programmes
- 3.2 Apprenticeship programmes
- 3.3 Enterprise-based training programmes
- 3.4 Post-secondary vocational training programmes, and
- 3.5 Combination of programmes and programmes in the informal parts of the economy.

In each of the five categories, several different kinds of programmes from developing, developed and transition countries will be presented. The common characteristic of all the programmes is that they meet some or more of the criteria for enterprise-based schemes in vocational education and training (EBS-VET) proposed in Chapter 2:

- Demand-orientation;
- Use of reflection-learning techniques;
- Using different “learning places”;
- Innovative approaches in teacher training;
- Cooperation with key actors in the labour market;
- Curriculum redevelopment and introduction of demand-driven curricula;
- Innovative funding arrangements for programmes; and
- Laying the legal framework.

#### **3.1 Pre-employment enterprise-based schemes in vocational education and training and skills development (EBS-VET)**

Pre-employment programmes have probably been the most difficult ones in vocational education to gear towards more enterprise involvement. This is because its classic providers, the vocational schools, are not necessarily obliged to be in close relationship with enterprises.

In some countries, the only form of enterprise involvement at this level has been occasional internships of students in enterprises, not always very well integrated into the work of a traditional pre-employment programme. There have, however, been some more innovative attempts, which are presented here.

### ***ATB: Dutch use new concepts, IT and links with small enterprises***

In response to a reduction in trainees, high drop-out rates, too little use of information technology and insufficient links with small and medium-sized enterprises (SMEs), an innovative training project was launched in the Netherlands some years ago. The programme can be categorized as a typical pre-employment programme and it is called ATB (*Aantrekkelijk Technisch Beroepssonderwijs*).

The initiative came from the Ministry of Education and brought together a centre for education innovation and a teacher training centre for technology lecturers, to develop and implement an innovative programme in technical training schemes in collaboration with Regional Training Centres (ROCs) in the Netherlands.

The project focused on:

- the modernization of assessment, independent learning methods and varied learning places;
- the use of information and communication technology (ICT) resources; and
- the establishment of networks with SMEs.

Some amazing results have been accomplished in three areas. First, the pilot ROCs introduced new concepts of teaching, in which trainees learn more independently in an attractive learning environment. It also focused on flexible organization with variations in places of working and places of learning.

Secondly, during the project life cycle, good use of information and communication technology was made, and information technology became a supporting vehicle for learning that made technical vocational education more attractive.

Finally, most enterprises reacted very positively to initiatives from schools to carry out collaborative training schemes and even led to active relationships with SMEs. Forms of consultation have been initiated with the participating schools, and scenarios have been produced for projects in which knowledge is integrated into the enterprises. Both participating schools and enterprises are satisfied with the results of ATB.

Two-year projects are now being run in the four major cities in the Netherlands and the most important objective is to sustain the good cooperation between the programme and guidance at school on one hand, and the practice of in-company training on the other one.

### ***“Insertion contracts” in Europe***

In other European countries, specific programmes for disadvantaged youth have been set up within wider systems for the training of young people who have yet to secure employment. Two stages in these initiatives can usually be distinguished. Prior to entry into the labour force, vocational curricula may be offered in full-time secondary education, as can be seen in France, Sweden and Japan, for example.

After entering the labour force, youth receive so-called “insertion contracts” which may be used to provide unemployed young workers with a foothold on employers’ premises from which they may try to get into regular jobs. These employer-sponsored programmes of training and work experience for unemployed young people can last from six months to two years and are usually without any obligation to offer an employment contract.

Cases in point include the British Youth Training Scheme (YTS), France’s *Contrats de Qualification*, Italy’s *Contratte formazione-lavoro* and Sweden’s Youth Team Programmes. Such insertion contracts have been made available to unemployed youth in general, not only to the most disadvantaged young people.

### ***GTZ coordination with enterprises in Bosnia/Herzegovina***

In Bosnia/Herzegovina (BiH), it has been evident that VET is not sufficiently demand-oriented. This is visible in the absence of communication structures between VET institutions, vocational schools and industry, professional profiles with little or no relevance for the labour market, insufficient qualifications of teaching staff and trainers, and certification and accreditation systems which are not (really) acknowledged by the labour markets.

However, many companies in key sectors of the economy with growth potential in BiH are in need of well-designed training programmes for their work force. Sectors with growth potential in BiH are the metal, wood and textile sectors. Altogether, these enterprises show a lot of support for programmes in support of “enterprise-based schemes in vocational education and training” initiatives.

This is why GTZ proposed to complement already existing donor activities in VET (such as from the EU, the World Bank and others) and introduce stronger coordination links to enterprises through a project titled “Training for Employment in Bosnia and Herzegovina”, which has started this year. The project objective is that VET providers in BiH respond to qualifications needed in selected sectors in industry and services with growth potential for employment and self-employment; these are the metal, the wood and the textile industry. This is why the driving force in the project design were the companies rather than the schools.

Later project development will focus on enterprise-based training phases, provision of internships, alternating learning places, the further assessment of key qualifications, turning qualifications needed into skills and competencies, designing short modules for pre-employment programmes, setting up a framework of partner schools in Germany that have similar pre-employment programmes in the metal, wood and textile industry and beginning in very close collaboration with the sectors involved in the implementation of enterprise-based training programmes.

### ***“Simulated enterprise offices” in Austria and Germany***

In Austria and Germany, an innovation called simulated enterprise office has taken root in pre-employment programmes all over both countries. In simulated enterprise offices, students learn by doing work in simulated enterprises. In teams they carry out complex sets of simulation

exercises involved in running the office of a small enterprise with teachers acting as owner-operators or office supervisors.

Among the advantages of this approach is its ability to build vocational skills and – potentially – prepare them for future self-employment. Students learn how to handle office technology and build commercial and management skills, not only by making work in a small company transparent to students, but also by giving them more opportunity to plan and carry out the work of the group and more responsibility for controlling its quality.

Not only do simulated enterprise office students seem to be finding jobs sooner than their fellow pre-employment programme graduates, but also the simulated enterprise office approach does seem to be adaptable to different situations. It might be a cost-effective component of enterprise-based schemes to help e.g. retrenched civil servants find jobs in the private sector, as well as schemes to help people learn how to organise particular types of small businesses.

Following these experiences in their own countries, the Austrian Government through the Austrian Development Cooperation (ADC) has assisted some other Eastern European countries in setting up similar pre-employment programmes. The Austrian Government has worked with simulated enterprise offices in Ukraine and in Romania. The German Government through the German Technical Cooperation (GTZ) has started to assist the Government of Serbia and Montenegro in introducing simulated enterprise offices in pre-employment as well as apprenticeship programmes there.

### ***Iceland: School- and work-based training***

In Iceland, where for many companies it is difficult, if not impossible, to make apprenticeship agreements due to their small size and the limited scope of work they carry out, a national emphasis has always been to focus combining school-based education and training with work-based elements of training in pre-employment programmes.

Initial vocational education and training can start either at school or at a workplace with which the student has a training contract. The most common thing is to start with school and then undertake workplace training. School training is modularized and gives credits to each unit undertaken. The length of school programmes can vary from 4 to 48 months and these are usually directly followed by work-based training which varies from 4 to 36 months, according to the structure of the VET programme.

Pre-employment vocational education in Iceland is compulsory and is usually followed – with very few exceptions, as can be seen from the youth unemployment figures for Iceland earlier in this report – by workplace training.

### ***ILO: Strategic approaches to employment promotion in Thailand***

In Thailand, in the 1990s, the Ministry of Labour in Bangkok started – with technical support from the ILO and through ILO's then Asian Regional Team for Employment Promotion – a project called “Strategic Approaches toward Employment Promotion”. This project had three main objectives:

- employment promotion strategies integrated with macro- and sectoral economic planning;
- strengthened institutional framework in the Ministry of Labour for designing, monitoring and following-up employment promotion programmes; and
- improved capacity for preparing and implementing special employment creation programmes.

Within the third component of the project activities, an initiative in pre-employment vocational education was launched. It combined alternating learning and working places in the Ministry's National Institutes of Skill Development (NISD) and in participating enterprises in the carpentry and motorcycle repair sector. This initiative came from a regional association of carpenters in the South of Thailand.

The main objective of the project activities were to make NISD's pre-employment training more relevant to the needs of local carpenters and motor cycle repair workers. Together with the enterprises it involved:

- drafting new curricula that replaced the old ones;
- designing new programmes in teacher and instructor training;
- having vocational students go to alternating work and learning places in training centres and through a sequence of internships with enterprises; and
- ensure that all internships were paid for on the basis of the current minimum wage requirements.

These pre-employment programmes lasted between 6 and 12 months. Tracer studies showed that vocational students found employment opportunities not only much easier but also stayed with their carpenters and motor cycle repair shops much longer than other students who had not undergone the specific enterprise-based pre-employment scheme.

### **3.2 Apprenticeship EBS-VET**

In a way, apprenticeship programmes combine vocational education with training, since they – by definition – always take place in both vocational schools and enterprises. Basic elements of these apprenticeships and vocational education and training going on at the same time in the “dual” apprenticeship system in Austria, Germany, Luxembourg and Switzerland (Federal Ministry for Economic Affairs and Labour (2002), BMBF (2003), CEDEFOP (1999), Haefeli (2000)) can be summarized as follows:

#### ***Basic elements of the “Dual System” of apprenticeships in central European countries***

First of all, the “dual” system of apprenticeships does not have any formal admission prerequisites: all school leavers regardless of their school-leaving certificates can learn any recognized occupation in the dual system. However, opportunities and the actual number of people who enter occupations do depend on previously acquired qualifications.

A combination of working and learning provides the basis for teaching vocational skills. The system is trying to teach theory and practice and to build structured knowledge and active competence in a learning and working context.

The notion “dual” comes from the alternating learning and working places in schools and enterprises. The two learning places, company and vocational school, interact in keeping their different emphasis, but their tasks are not completely divided: schools do more than teaching theory and the in-company training involves more than simply practice.

Trainees spend one or two days each week in a vocational school and the remaining three to four days in their company. The government is in charge of the framework regulations for training in companies and training in schools. State board final exams make sure that the necessary skills and practical and theoretical knowledge have been accumulated and meet certain standards at the end of the 2 ½ to 3 ½ year-long apprenticeships.

In the four countries mentioned above (Austria, Germany, Luxembourg and Switzerland), dual apprenticeship systems are now understood both as preparing young people for specific occupations to be pursued immediately after the training **and** as preparatory work for any further learning that comes after the completion of an apprenticeship. In a way, apprenticeships are no longer seen as one-time preparations that last for a work-life but as “bridges to further and life-long learning”.

The dual system’s main objective is to promote employability in a changing workplace – a workplace that is both shaped by technological developments as well as by the people who work in it. Creating a willingness to learn and foster personal development ranks very high on the agenda of desired outcomes. In order for people to work in the knowledge society and to deal with its future challenges, they must be able to plan, carry out and check their own work independently. Vocational education in apprenticeship is therefore oriented toward this goal. Additional qualifications, in addition to regular training, can support these apprenticeships and lead to further specializations after finishing apprenticeship programmes.

Apprenticeship programmes come in all kinds of facets, and Austria, Germany, Luxembourg and Switzerland are not the only countries in Europe that have strong apprenticeship programmes which are demand-driven and very close to what the labour market needs. Other countries in Europe with similar programmes would include Portugal and Denmark to some extent.

### ***Apprenticeship systems in other parts of the world***

The dual system of apprenticeship programmes can be attractive for countries at all stages of development. There are dual apprenticeship programmes already in place as well as there are many efforts to implement it. For example, the Czech Republic, Egypt, Indonesia, Jordan, Korea, Chile and Poland, all have some form of this system and others countries, such as Kazakhstan, Tanzania, Malaysia, the Philippines, Serbia, Turkey and Zambia, are considering adopting this approach.

## **Chile – the FOPROD experience**

In Chile, between 1992 and 2000, the Chilean and German Governments together with financial support from the World Bank, worked in a project called FOPROD – El Proyecto de Formación Dual.

The starting point in 1992 was the sluggish transition of the annual technical and vocational school leavers (40 per cent each year in 1992 came from vocational and technical schools) into the Chilean labour market, with more than 800 different job profiles, low relevance of curricula and certificates, with the overall result of low labour productivity.

The Chilean Ministry of Education and the Ministry of Labour started the initiative with the objective of reducing the entry barriers to the labour market and making vocational education more relevant to enterprises. Three to six months training programmes in different sectors of industry were set up, with alternating learning and working places, both in enterprises and participating schools.

Incentives were given to enterprises on two levels: through the perspective of receiving trainees that had truly employable skills, as well as financially, by giving the participating enterprises incentives in the form of loan sum reimbursements.

The programme was accompanied by SENSE, an initiative by both ministries to subsidize internships for young people.

In the three phases of its implementation, FOPROD focused on:

- the better cooperation of learning and working places in enterprises and schools;
- the introduction of reflection-learning practices into the every day school and enterprise situations; and
- the multiplication of efforts through extensive teacher, instructor and director training and involvement of a network of training centres in Chile.

The efforts in all phases included curriculum development and heavy training initiatives in enterprises. Exchange mechanisms between enterprises and schools were set up and institutionalized and regional teams were built to further expand the initiatives.

The strengths of FOPROD – according to its users – lay and still lie basically in the strong demand-orientation, in curriculum work, teacher training and setting up sustainable structures in relevant enterprise-based vocational education.

## **Malaysia**

In Asia, the Government of Malaysia focuses on developing young Malaysians and adolescent knowledge (or so-called “k”) workers to become top performers in their respective jobs and become capable in an increasingly competitive market. At the level of their industry-oriented training, this means that training at the workplace is considered to be necessary under

actual conditions. The philosophy behind it is that high-tech training can no longer be provided without the involvement of industry.

In a recent initiative, the Malaysian Government, together with the GTZ, started a strong working partnership between the private sector and training institutions that form the basis for a “dual” technical and vocational education and training system (TVET) to ensure demand-driven and economically affordable training solutions.

This apprenticeship initiative in Malaysia has five components:

- Component 1 deals with the creation of a dual TVET culture and indicates the general direction and main thrust by increasing the direct involvement of industry and SMEs in TVET at all levels;
- Component 2 aims at developing an improved concept for skills standards and the development of quality curricula and effective instructional materials;
- Component 3 focuses on technical teacher and instructor training covering pre-service training (initial teacher training), as well as in-service training (further training);
- Component 4 aims at strengthening crucial elements within the network of TVET to improve efficiency and effectiveness of training; and
- Component 5 addresses the social value and reputation of work and training in general and tries to make vocational education and training more popular as a starting point for job career paths by trying to influence perceptions of attitude toward work and training.

Four technical committees for “dual” TEVT culture, for curriculum development, for technical teacher training and for networking and values have been started and the committees’ work is very closely embedded into Malaysia’s Vision 2020 and its National Development Plans. Since the project activities are now getting into their implementation phase, it will be interesting to see what the results will be in a few years.

### **Turkey – a EU initiative to improve apprenticeship training**

The existing vocational training system in Turkey is defined by its own labour law as “dual”. Vocational schools and enterprises are involved in training the labour force in Turkey, particularly through an apprenticeship system. However, the main problems are still the frequently insufficient linkages and the regional disparities in the effectiveness of the Turkish system of delivering apprenticeship programmes in vocational education and training.

The European Union has therefore proposed to assist the Turkish Government in this initiative to further develop a modern, flexible and high quality vocational education and training system responsive to the needs of the Turkish labour market.

The main activities on the national level will be:

- a focus on growth potential sectors;
- more active participation of the social partners; and
- setting up a National VET Information Centre.



The programme is intended to support the development of a modern, flexible and high quality vocational education and training system responsive to the needs of the labour market and well integrated into the overall education system based on the principles of lifelong learning.

Expected outputs of the project include changing the image of vocational schools into agents of innovation in VET, new decentralized management of vocational education and training (through the tri-partite structure on the national and regional levels) to ensure that training provision is better respondent to the local needs of the labour market and finally curriculum development and teacher and instructor training that start from enterprise needs.

The experience from Turkey confirms that existing apprenticeship systems – in order to stay in touch with market demand, curriculum development, teaching materials and teacher training programmes – need to be checked frequently for their usefulness vis-à-vis the clients' requests.

The following box shows an experience from Germany in which new apprenticeship programmes were introduced and explains the number of changes that this leads to.

#### **Box 2: Launching new apprenticeships – Starting IT apprenticeships in Germany**

In the late 1990s, Germany was confronted with a specific shortage of skills in IT and ICT professions. The German Government even started to hand out “green cards” to very skilled foreign IT experts who were willing to work and help out in Germany.

It was then that the German Employers' Associations took the initiative and helped, together with the Federal Institute of Vocational Training (BIBB), to develop curricula and new training regulations. In the course of this work, it turned out that the expectations in IT enterprises were somewhat different from those in, perhaps, more traditional apprenticeships.

Therefore, the new IT apprenticeships were designed in such a way that they met these demands, as articulated by enterprises in the IT sector, and also helped students in these new apprenticeships to better acquire skills that helped them to plan, carry out and check their own work much more independently in vocational schools.

Some of the vocational schools had not anticipated so much change and some were struck by surprise, when they all of sudden had to move much closer to their clients in the labour market. However, adjustments were made and many new students signed up for these programmes, which were in high demand and led to a much smoother recruitment in the IT sector.

As a result, on the national level, almost all other traditional apprenticeship curricula were re-designed for the new demands which were also articulated in many other occupations such as e.g. bank clerks, car-mechanics, forwarding agents and wholesalers.

So, in a way the introduction of IT apprenticeships led to a whole new orientation of other apprenticeship programmes and furthermore to specific in-service and pre-service programmes for teacher training. It became also very clear that new apprenticeship learning required new testing. The introduction of IT apprenticeships in Germany started a reform process in the “dual” system of trying to make the system respond more flexibly and with more relevance. This reform process is still going on.

Source: Own experience.

## **“New Apprenticeships” in Australia**

The “new apprenticeships” in Australia, introduced in 1998, have expanded fast, a testimony to their appeal among young people and employers. Young people in Australia today can take up apprenticeships in virtually all sectors and industries, groups of companies and occupations.

Considerable success has been achieved in making the new apprenticeships reflect the country’s employment structure. For example, in 2001, 32 per cent of all jobs were in the clerical, sales and service occupations; in the same year these same occupations accounted for 30 per cent of the new apprenticeships. However, the share in the managerial and administrative occupations has not been matched with a similar increase in apprenticeships.

## **Serbia and its reform of formal vocational education and training**

In Serbia, after the political transformation in October 2000, the main problem in vocational education and training seemed to be the transition from vocational education and training into the labour market, indicating enormous demand-supply mismatches. On the one hand, there was irrelevant vocational education and training providing school leavers only with insufficient skills and competencies, and on the other hand, there was the labour market, with its precise demands, skill requirements and competencies. Both systems seemed to exist parallel to each other and were not trying to match these different expectations.

Directly related to the problem, there was evidence that vocational education and training in Serbia was not demand-oriented enough and that it was also too theoretical, which can be seen in the more than 500 professional profiles in the country and also in vocational curricula of all kinds.

The qualification of teachers and trainers in vocational education and training in Serbia with respect to methods, content and technology is outdated and developments of the last 10 years, for example in Europe, have not yet been incorporated in Serbia. Pre-service teacher training as a means to prepare future teachers for the variety of tasks in vocational education does not exist in Serbia.

On the other hand, there is a high demand for qualified people in the field of private and public administration, who will be able to actively participate in the transformation process and who will possibly be helpful in starting new businesses in Serbia’s transitional economy as well as supportive in improving the competency level of the country’s labour force in the field of administration.

This is why the European Union and the German Technical Cooperation are currently working very closely with the Serbian Ministry of Education and Sports (MoES) in the reform of vocational education and training by:

- supporting MoES in restructuring VET in Serbia;
- gearing VET programmes in selected regions towards growth sectors with employment potential; and
- enabling selected institutions to develop demand-oriented programmes in commercial education and qualifying teaching staff and trainers.

These initiatives cover the development of closer linkages with enterprises in services, the bank and the wholesaling sector. They have started national and regional bodies that equally focus on the relevance of the supporting ambience for vocational education and training.

So far, in particular, commercial apprenticeship programmes, curriculum development following the DACUM approach, teacher training programmes oriented to the introduction of reflection learning methods have been started.

### **TESDA in the Philippines**

In the Philippines, the Technical Education and Skills Development Authority (TESDA) has started public-private partnership (PPP) and is going in a new direction to involve the private sector in apprenticeship design in vocational education and training:

#### **Box 3: Public-private partnership (PPP) activities in vocational education and training in the Philippines**

Products from the garment industry present the Philippine's third biggest export category. Therefore, their industrial sector is of high importance for the country's economy and especially for the job market. Despite its importance, there is a considerable lack of high quality training in the textile industry which results in quality problems and low productivity levels. The textile industry in the Philippines lacks vocational training based on a combination of theory and training on the job. TESDA, the Technical Education and Skills Development Authority attempts to improve this situation on different levels, especially with the Philippine Garment and Textile Export Board common efforts have been made to improve the competitive position. One good example are the PPP activities set up with CS Garment.

During the last 5 years, CS Garment trained some 200 seamstresses in an 18-month programme. The programme was developed together with GTZ according to German standards and was customized to Philippines requirements. In this programme, all trainees first participate in a rotations scheme and go through a training shop, which the company has set up specifically for this purpose. At a later stage of the programme, the trainees are integrated into the CS Garment's training process, which is organized on the basis of a training plan. One day per week is allocated for more theoretical instruction, which is carried out by a training expert hired by CS Garment, and the training takes place in a training room provided by the company. The training programme is accredited and well respected by TESDA and what is noticeable is the high number of trainees finding jobs within CS Garment and elsewhere, because the training is highly appreciated.

Similar activities of TESDA include partnerships in the shoe sector (with a company called Fagus) and there are plans for implementing measures already prepared with SAP in the IT sector, as well as for implementing a promising initiative – also in the ICT sector – with Nokia.

Source: TESDA and own sources.

### 3.3 Enterprise-based training (EBT)

When looking at the various search machines in the Internet, the keywords “Enterprise-based Training” produces quite a number of matches. This is certainly one indicator that EBTs have become more and more popular as delivery systems for vocational training in the last few years and they certainly do have a number of different forms depending on where they are used.

According to Grierson (2002), the distinguishing feature of EBT is that it takes place in active on-going enterprises. Some of its strengths are the quick response to labour market signals, flexible response to specific enterprise and market needs, efficient use of productive assets (through the simultaneous use in training and production), highly practical training which is usually followed by on-the-job application and the growth of social networks and relationships needed to pursue a later career as an entrepreneur.

However, there are also good reasons to be skeptical about EBTs. In Mali and Senegal, a recent comparison (IIEP, 2002) between the advantages and disadvantages came to the following rationale for those two countries.

**Table 4: Rationale for private provision of technical-vocational education in Mali and Senegal**

Expectations	Findings
	<b>Arguments for Private Provision</b>
Lower costs	In both countries unit costs are much lower
Greater responsiveness and innovation	Private providers are present in new fields of training ignored by the public institutions
Increased quality	Difficult to measure, but both countries have some high-quality institutions
Better linkages with employers	Linkages with enterprises in both countries are still weak
Increased effectiveness and relevance	Because of missing labour market data on graduates, this cannot be measured
	<b>Arguments against Private Provision</b>
Concentration on commercial subjects and simple trades	Most expensive training programmes remain with public training providers, but private ones provide a wide variety in both trades and industry
Selecting training providers	Private providers must earn their income, but in both countries do not seem to be limited to the most profitable market segments
No access for low-income families	With the exception of post-secondary level courses, programmes are not targeted to higher income families
Variations in quality and effectiveness	Wide variations in quality, probably higher than among public institutions

Source: IIEP (2002, p. 13).

#### EBT in Zambia

Other EBT surveys in other parts of Africa come to similar findings. For example, EBT in the so-called Copper belt in Zambia has been investigated by Grierson (2002). Some of his findings were that in the enterprises reviewed there was a tendency to well-established, structured training programmes overseen by qualified trainers embedding training skills at artisan, technician and supervisory levels. In the training objectives there was a strong interest from the

enterprises for their employees to become more efficient, flexible, and productive. There was a particular interest in multi-skilling the trainees and giving them team-working capacities and one important focus was to get all skilled and supervisory staff to have pedagogical skills. Training approach and training objectives in all the enterprises involved seemed to focus on strong team skills and a very “structured” approach to skill development, which all the enterprises involved had missed in public vocational programmes in Zambia.

### **EBT in Kenya**

EBT in Kenya – according to Kenneth King in Grierson, 2002 – partly legitimizes itself from the weaknesses of Kenya’s “dual” provision of apprenticeships. Apprenticeship programmes have failed to provide the labour markets with school leavers having the necessary skills levels and the government’s training provision is “currently a shadow of its former self”. All this combined has led to the collapse of public-private partnerships, and very few (to none) demand-driven programmes remain outside the ambit of enterprise-based training.

Some of the findings for enterprise-based training for Kenya include that:

- enterprise-based training is increasingly competency-based, with the focus on the specific demands of individual enterprises;
- EBT is the most common form of training delivery partly because of the lack of alternatives; and
- there is little or no inter-firm cooperation in designing EBT.

### **Australia and its EBT practice**

Not many countries have pursued the reform of vocational education and training as vigorously as Australia. Change has been a constant companion in the last 20 years. As Australia’s experience shows, no quick fixes are available in a country that has been very experimental to reform vocational education and training in such a way that it does become more responsive and flexible to what its own labour market needs.

There is a very strong history in enterprise-based training in Australia. “Enterprise-based Education and Training” there is understood as formal training undertaken by workers as part of their job (Long, 1996). This training is not always explicitly captured as part of the system of vocational education and training in the Technical and Further Education (TAFE) colleges in Australia.

Nevertheless it is important. The Australian Bureau of Statistics (ABS) 1997 survey of education and training found out that in Australia employees on average receive 16.5 hours of employee-supported formal training in a year – a value that translates into about an additional year of schooling during an employee’s working life and much more for some workers.

Many private training institutions have been formed that cater to the growing demand for enterprise-based training and specific tailor-made training programmes for certain enterprises.

A recent initiative by the Australian Department for Employment to streamline these initiatives called “National Industry Skills Initiative” (Long, 2000) tried to look at the skills levels needed in the engineering industry and also looked at ways of linking up with apprenticeship programmes and pre-employment programmes. The recommendations were to:

- build a training culture within the industry that will support continual development of skills;
- build more strongly on skills of the existing work force;
- expand the provision, variety and uptake of pathways into apprenticeships;
- ensure the ready availability of high quality, consistent and timely information on skills shortages and responses to skill needs; and
- improve outcomes from recruitment solutions to skills shortages.

### **Some EBT evidence from the UK and the USA**

Enterprise-based and employer-sponsored training carried out in the United Kingdom and the United States in the 1990s led to the following results:

#### **Box 4: Youth training at work in the United Kingdom and the United States**

Employer-sponsored training for non-college graduates in the United Kingdom and the United States was evaluated using two large national datasets to create representative samples of employees aged 23 years in the United Kingdom and 25 years in the United States. The change in pay between first job and current job was regressed vis-à-vis the receipt of enterprise-based training and changes in other potentially relevant measures, such as disability, marital status, union membership and local unemployment rates.

The study found that enterprise-based training in general, and apprenticeship in particular, generated pay increases for participants, particularly when associated with getting vocational qualifications, and more so for men than for women.

Source: Blanchflower and Lynch (1994).

### **Ireland and “Skillnets”**

A recent innovation in enterprise-based training is the development of a government-funded enterprise-based training network called “Skillnets” in Ireland. The Skillnets programme is an employer-led and enterprise-driven initiative to upgrade the skills level of the Irish labour force. In a way, Skillnets is a company whose board is composed of government, employer and trade union representatives. The project involves collaboration among companies to develop training networks in different sectors.

The key difference between Skillnets and other training programmes in Ireland is that it provides support for individual firms by forming groups or networks of companies to develop strategies that are tailor-made to the individual needs of each and every enterprise.

Skillnets provides greater flexibility and is effectively addressing a company’s training requirements. It is helping to overcome the barriers the companies face in their skill shortages in a collaborative approach. Skillnets has facilitated the development of 38 networks and is

currently working with 2,500 firms, 75 per cent of which are SMEs. Currently more than 250,000 people are in training under these networks in Ireland.

### **Sri Lanka and Bangladesh**

In Sri Lanka, the private Phoenix College of Clothing Technology (PCCT) in 1996 started offering enterprise-based training for the textile industry. High-labour turnover in the clothing industry had led many enterprises away from using vocational education and training programmes in schools. PCCT came in with an approach that tried to identify the training needs of the clothing industry more carefully than public training providers and prepared training programmes to meet such challenges.

A training centre within the factory's premises is set up, which caters to the need of individual enterprises by allowing employees to work while acquiring new skills.

PCCT also provides consultancy to enterprises in the textile industry when they want to formulate training programmes that fit their own enterprise. They offer to run EBT with their own team in the factories or to let enterprises run EBT independently with their own facilities.

A similar approach in enterprise-based training has been taken by the Textile Technology College in Bangladesh that has also tried to offer courses in the textile industry which are tailor-made to the needs of the individual enterprises.

Training venues are either in the companies as training-cum-production courses or they are held on the premises of the Textile Technology College itself. As a result of its very employment-oriented programmes, the Textile Technology College has a good reputation for its demand-drivenness within Bangladesh.

### **Russia**

In Russia, under the former system of the ex-USSR, extensive enterprise-based training was called for, both for apprentices and for workers. This training dropped sharply with the new enterprise law in 1990, which freed enterprises from this responsibility. Enterprise-based training still exists, but has been sharply curtailed because of budgetary constraints.

Of late, company managers in Russia have shown a lack of interest in spending on training because of other priorities, such as finding new markets and investing in product development. To encourage enterprise-based training again, up to 1.5 per cent of payroll is deducted from profits for expenditures on training before paying taxes. However, not many firms have made profits during the recent years (Johanson, 1998).

### **Panama**

The Government of Panama in a recent initiative decided to build initial capacity to begin the modernization of the employment and training system in the country. One focus among others was on testing enterprise-based training and youth training models in 300 firms and among 2,000 unemployed youth, respectively.

A recently established private-public Employment Training Council will help direct the reform process by trying to achieve national consensus and stakeholder support for the proposed shift to a demand-oriented and private sector-led reform. This council will also work very closely with the National Vocational Training Institute (INAFORP).

Enterprise-based training in Panama is expected to increase private-sector investment in training and improve the capacity of those enterprises participating firms to identify, select and contract services. It is also hoped that this first phase might improve the supply of training services available to small and medium enterprises.

### **UNHCR initiative with Burundian refugees**

A few years ago, UNHCR started enterprise-based training for Burundian refugees in camps in Western Tanzania. Up till then enterprise-based training had not been included in the training programmes in the camps. In the particular programmes run by UNHCR there was a strong focus on self-employment through enterprise-based training.

In that particular context it was found that enterprise-based training made use of a new source that helped the programme expand, namely the individual micro entrepreneurs who up till then had not participated in traditional training schemes, apart from training their own apprentices.

### **The GIB initiative in Germany**

Responding to relatively high youth unemployment rates in the *Land* Nordrhein-Westfalen (NRW) in Germany, an initiative was started there some years ago, which was called GIB – *Gesellschaft fuer Innovative Beschaeftigungsfoerderung*.

The initiative came from the Ministry of Labour and brought together 50 employment experts and vocational education and training specialists in order to come up with new solutions to better integrate young and long-term unemployed into the labour market in NRW. One specific programme started by GIB for long-term unemployed youth was called *JA* – Youth in Employment. The programme was geared toward those young people between 15 and 24 who do not get apprenticeships.

Young people who are unemployed for more than 6 months qualify for this programme, which provides them with 12 months enterprise-based training, 6 months of which are subsidized by the Ministry of Education, the other 6 months have to be paid for by the individual enterprises. The *JA* programme has been accepted by participating enterprises, and tracer studies have shown that about 75 per cent of the trained unemployed young people found jobs immediately after their enterprise-based training.

### **3.4 Post-secondary EBS-VET**

Many programmes in post-secondary education tend to be either in vocational schools only or in enterprises and enterprise associations actually leaving one learning place: schools or enterprise setting only. This is why in this chapter some programmes will be introduced that also



try at this stage to combine school- based with work-based training experiences in post-secondary vocational training.

### **Adult vocational training in Denmark**

In the second half of the 1990s, the Danish Government reorganized the system of continuing vocational training by improving its market and demand orientation. Adult Vocational Training (AMU) is now considered to be a public and social responsibility.

AMU is specialized in training of low-skilled adults. The training methods take their starting point in the actual work situation of the trainees. Classroom teaching has more or less disappeared in favour of learning in workshops which resembles the work situation in a company. The curricula are inter-connected, and different modules can lead to specializations, such as in concrete technology, welding, operating computer-controlled equipment and in textile and electronics. The updating of courses and development of new training materials is mainly the responsibility of a number of tripartite trade committees and run as a red thread from the central to the local level.

Responsiveness and flexibility of AMU training are further guaranteed by involving the workers actively into the process of their own training: it is done through project-organized training, where the trainees must cooperate and act as active learners – and not as passive listeners.

Advance learning technologies are applied heavily in AMU programmes and heavy emphasis is put on developing social and communicative skills. Continuing (adult) vocational training is an integral part of Danish labour market policy and is considered to be an ongoing, life-long process with training opportunities at all stages of a person's work life.

### ***Fachschulen* in Germany**

In Germany in the early 1990s, the 16 German *Laender* decided to add innovative post-secondary vocational training programmes to their array of enterprise-based schemes in vocational education and training.

Right after German unification in 1991, the demand for master craftsmen/women programmes in Germany declined. Instead, other programmes – the so-called *Fachschul-programmes*, which led to further qualification in a profession (such as technicians in the vocational field and as computer experts in the commercial and the technical field) – started to be in higher demand. Immediately, some private institutions started offering specific courses for these specific adult programmes.

At the same time, vocational schools were encouraged both by the Ministries of Education and Labour to also offer these courses, since the demand in these programmes was very high and had led to horrendous prices being charged by some private providers of training due to this particular supply-demand situation. It was then that some vocational schools started offering some of these programmes as well and – with the help of in-service teacher training institutes – began to train their staff in teaching these new courses, such as in network

administration, software applications, software design, communication and presentations skills and others.

These new programmes were set up in very close collaboration between vocational schools and local enterprises. The degree programmes last between one and three years and take place three times a week in the evening after work. Because of this, the trainees are in very close contact with their companies, with the enterprises not only interested in their staff getting additional qualifications, but also being involved in the day-to-day school work.

When e.g. logistics is being taught now in these so-called “*Fachschulen*”, the teachers take their classes into their students’ companies and identify problems that need to be solved there. In a way, students in the logistics class work as management consultants to enterprises, which some enterprises appreciate a lot and take full advantage of.

Enterprises came in not only on a regular scheduled basis, but also when it comes to identifying topics for the final theses of these students. These *Fachschule* concepts were started some 10 years ago and are part of a standard portfolio of each vocational education institute in Germany. They have helped the schools to become more flexible and responsive to the immediate interests of people wanting to get more qualifications for further and lifelong learning – also linked in this case to obtaining another degree in vocational training.

### **UNIDO EBT in Uganda**

The United Nations Development Organization (UNIDO), with financial support from DANIDA and JICA, is assisting a project to train master craftspeople in Uganda. The objective has been to provide demand-driven and sustainable advisory services to small and medium enterprises in the selected sectors: metal working, carpentry and masonry, installation and electronics, textiles, food processing and leather products. The Uganda Small Scales Industries Association, two training centres from the Department of Industrial Training, as well as some sectoral support centres, are involved.

In the last 4 years, some 200 master crafts people have been trained as trainers. The first round of training covered the following areas: training principles, objectives and methods, training needs assessment, task analysis, curricula and demonstration techniques. The next phase of training covered “industrial extension” such as production management and planning, financial management, marketing and in-plant studies for actual enterprises.

Most of the master craftsmen that have undergone the training have started their own advisory services. In addition to in-plant advice, they are now conducting needs assessments together with vocational training centres and set up skill upgrading courses for local producers. The bottom-line of this project was that businesses can improve other businesses and master craftspeople can successfully provide assistance.

### **The APME project in Cameroon**

In Cameroon, the APME Project (Programme d’Appui au Milieu Artisanal de Maroua) seeks to increase the incomes to MSEs through increased product diversification and quality.

Four trades are supported: leather products, metal and woodworking and auto mechanics. APME's training interventions are directed at master craftsmen/women and technical skills training is the main entry point of the project.

After initial support from the *Coopération Française* (AFD) and EU, the project is currently funded by UNDP and includes the following activities:

- skills training, technical skill upgrading and introduction of new technologies;
- business advice based on workshop diagnosis;
- financial support with training and follow-up assistance;
- marketing assistance in the form of market studies;
- opportunities for meetings; and
- information via a documentation centre.

The project has adopted a well-received integrated approach in which training is used as an entry point to improve the market position and opportunities enterprises in the informal economy. It was found for example that it took a micro-artisan 12 months of 9 hours of weekly sessions to significantly enhance the quality of this product.

The market-driven approach in which opportunities for local products are identified or created (through promotion activities) has become the basis for the training interventions.

### **EBT reforms in Hungary**

Notable reforms have also taken place in post-secondary vocational training in Hungary. The National Vocational Training Institute has been set up as the research and development organization for the system of vocational education and training, the first institution of its kind in the region.

Furthermore, the age of vocational specialization will be postponed more into post-secondary levels, apprenticeship schools are moving closer to the markets and vocational secondary schools are increasing the general content of their curricula and vocational curricula are undergoing modernization.

The Hungarian system of vocational education and training has become increasingly complex and after the collapse of state enterprises damaged the institutional basis for apprenticeship training, reforms have focused in particular on post-secondary programmes as well as enterprise-based training and working with a multitude of small firms.

### **CIMO in Mexico**

The Labour Secretariat in Mexico, with the support of the World Bank, has been implementing the Total Quality and Modernization Programme (CIMO), a programme of technical and financial assistance to micro enterprises and small- and medium-sized enterprises to improve their productivity and competitiveness through worker training and related advisory services.

In the early 1990s CIMO helped about 4,000 enterprises annually to develop their human resource strategies and to design and implement training and retraining courses for their workers.

In addition to the training provided by employers in the private sector, there were about 500 privately managed training institutions that offered programmes mostly in the non-manufacturing areas that do not require a large capital investment.

The share of these institutions in different trades are as follows: secretarial and clerical (32 per cent), computers (25 per cent), accounting (19 per cent), construction, trades and manufacturing (12 per cent), services including health and personal services (9 per cent) and other areas (3 per cent).

A recent impact evaluation study for CIMO involved a comparative analysis of various quantitative indicators of training, production, production processes, organizational structure, markets, employment and remuneration using a sample of CIMO firms and a sample of control groups. The study showed that participation in the programmes helped the firms increase their productivity faster than others and had significant employment effects.

### **3.5 Mixed programmes of EBS-VET**

In this chapter, some of the programmes introduced target different beneficiaries and usually cover elements of pre-employment, apprenticeship, and further secondary vocational education and training programmes; some programmes introduced in this chapter have been trying to target the informal parts of the economies in some developing countries.

#### **Egypt – the Mubarak-Kohl initiative**

In 1993, the Egyptian and German Governments jointly started an initiative – also known as the Mubarak-Kohl initiative – to launch enterprise-based vocational education and training in Egypt. The central problem was – and still is to some extent – that the system of vocational education and training existed only in vocational schools, was not sufficiently demand-oriented, and did not have strong linkages with enterprises. The annual 600,000 – 750,000 entrants from the technical and vocational schools into the labour market did not find meaningful jobs and mostly ended up unemployed or underemployed.

The initiative had the objective to start enterprise-based vocational education and training in Egypt, in other words to develop programmes jointly with enterprises. To this end, Programme Policy and Implementation Units (PPIUs) were built, in which the social partners were involved, and recommendations for the reform of the system of vocational education and training in Egypt were developed. These recommendations were then translated into pilot programmes which again were developed jointly.

In the last few years, some of these programmes were test-run in different locations in the country. Different programmes were offered for different target groups and have been run as pre-employment training and apprenticeship training, as well as in specific training programmes for further training.

The over-riding principles in running this initiative in the last few years have always been to involve industry, develop new curricula jointly with relevant partners, train new personnel both in schools and in enterprises in new teaching methods, get involved in new methods of learning and working in both schools and enterprises and find sustainable ways of funding these initiatives and of putting them on decent legal grounds.

In its ongoing third phase, the programme is planning to actively support the structural changes affecting the Egyptian labour market. It is now trying to develop (in very close collaboration with enterprises and enterprise representatives) programmes that respond to skills and qualification levels in industry and work with a variety of different target groups. These include school leavers after grade 9, skilled workers, craftswomen/men and also includes employees in small and micro enterprises.

Programmes are primarily being developed in those sectors that have growth potential and that truly respond to the qualification needs expressed by the enterprises involved in the programme.

### **VETA in Tanzania**

The Vocational Education and Training Authority (VETA) assisted by the Danish Development Agency (DANIDA) and the German Technical Cooperation (GTZ) conducted a series of labour market studies in the formal and informal sector in Tanzania between 1997 and 2000.

The studies revealed that only a few sectors provide decent employment opportunities in formal enterprises such as hotels and tourism, information and communication services and mining. The vast majority of the annual young entrants into the labour market – an estimated 800,000 in 2000 – would have to find employment in the informal parts of the Tanzanian economy.

VETA, assisted by DANIDA and GTZ, started a programme called INTEP, Integrated Training and Entrepreneurship Promotion Programme, which focused on sectors with growth potential such as food preparation, mushroom growing, carpentry finishing, vegetable and plant nursery and others.

VETA developed and tested new training approaches for the informal sector. INTEP was supported by VETA's efforts to reform vocational education and training by:

- offering shorter modular training programmes;
- rewriting together with enterprises (in closer collaboration than before) the curricula; and
- identifying viable ways to finance the reform in vocational education and training in Tanzania.

First results indicated that modules were cost-effective, the training was more relevant to the specific enterprises and relevant to the trainees inasmuch most of them found it easier to find some kind of employment in the informal sector. The main lessons from this experience were that

it was good to have a solid mix of technical and business skills (such as record keeping, pricing, marketing and customer relations) and that trainees were capable of paying a small fee, but the rest needed to be subsidized. The main problem of reaching financial sustainability, however, remained.

## **Mali and Senegal**

In the 1990s, the Malian Government was handing out a lot of state financial support to the private training sector involved in different technical and vocational training (TVE) programmes, with subsidies varying from school to school. The success of private school candidates in the national exams indicated that the private school provision seemed to have a competitive edge over the public schools.

However, in Mali, private schools are still so dependent on financial support from the Government that they are particularly vulnerable and especially dependent on growth in the private sectors that it serves.

In the textile industry in Senegal in 1995, the *Fédération Nationale de Professionnels de l'Habillement* (FEDNAPH) was started to assist the *Association des Couturiers* (ACS) in – among others – researching new commercial channels for national and international markets, and training workers in the skills required for producing modern clothes.

The training tries to improve the level of skills in the participating enterprises of the clothing industry, mostly small and medium enterprises, and also help them to be better equipped to serve the local and regional markets. At a market price FEDNAPH provides pre-employment and skills upgrading training in the following three modalities:

- 12 months basic training for clients selected by participating enterprises;
- 2–9 months extended basic training; and
- 40–80 hour modules for specific skills upgrading programmes.

No tracer studies have been carried out so far, but it is estimated that some 50-80 per cent of the trainees end up with their own garment shop, 5 per cent go abroad and the rest stay with the enterprises that sent them to the training. FEDNAPH helped enterprises in the textile industry deal with the problem of the shortage of skilled workers and it being a private provider of training might have resulted in higher levels of organization, equipment, management and better quality training than in most public training providers.

In short, FEDNAPH shows that under certain conditions such as self-interest among the members and relevant financial and technical assistance – through the *Coopération Française* (AFD) and the Friedrich Ebert Foundation (FES) – technical trade associations can be instrumental in providing skills in the informal economy.

## **TACIS activities of the European Union in transition countries**

The reform initiatives in vocational education and training in Uzbekistan, Kyrgystan and Turkmenistan in the last few years have been supported by the European Union and followed by the European Training Foundation (ETF) in Turin. These programmes have been in support of pre-employment, apprenticeship and post-secondary vocational education and training and the lessons learned there with regard to enterprise-based vocational education and training can be summarized in the following way.

The focus in all the programmes in the three countries has been on the promotion of more work-based learning and more active learning methodologies. The TACIS VET reform in Uzbekistan in particular emphasized student-centred learning and the development of enterprise school partnerships focusing on e.g. new curricula in industrial design. It was found that in the three countries mentioned above, the delivery of adult learning for unemployed is often linked with adult training centres, but in-company training is very much limited to training delivered on site and on the job, with the exception of management training.

In VET reforms in the TACIS countries, it still seemed to be difficult to integrate more work-based learning into the curricula. There were, however, exceptions linked to specific sectors such as hotel and catering (e.g. in Kyrgystan). Hotel and catering are sectors in Kyrgystan which happen to have a lot of growth potential and many young entrants into the labour markets are absorbed after their enterprise-based training into this sector.

### **Modernization of vocational training in Guinea**

The current system of vocational education and training provided in Guinea is highly theoretical and has very little or no relevance for the labour market in Guinea. Traditional apprenticeship programmes in the informal sector, especially in urban areas, are attended by school leavers. However, their graduates find little or no work after finishing the training.

Since 2000, the Guinean Government through the *Office National de Formation et de Perfectionnement Professionnels* (ONFPP) together with the German Technical Cooperation (GTZ), are working on setting up enterprise-based schemes of vocational education and training with the foci on:

- setting up joint learning and working places within the informal as well as the formal sector;
- designing demand-driven curricula in sectors with growth potential; and
- developing vocational training strategies and concepts for specific target groups.

The project objective is to improve the employment perspectives of young women and men in the Guinean labour market by designing enterprise and school-based training and following social and enterprise requirements.

## **Introduction of enterprise-based schemes in Lebanon**

The Government of Lebanon has been working on the reform of vocational education and training with the objective of improving the demand-driven provision of the Lebanese labour market with appropriately skilled and qualified workers.

The reform centres around enterprise-based vocational training in pilot areas, training of instructors and master craftsmen and revision of VET curricula. It focuses on those sections that have growth potential in the technical field, such as wood processing and heating systems.

In order to gain acceptable employment effects through VET programmes, the initial strategy was to involve enterprises and enterprise associations right from the starting point. Skills and qualification levels were jointly developed between them and the Ministry of Education and Higher Education, and representatives from the enterprises were involved in committees that were in charge of identifying skills, writing curricula and developing standards for examinations and national certificates.

From the “demand” side, the Lebanese Industrialists’ Association was actively involved in changing the structure of VET and – together with the Ministry of Education – making it fit better with what the “supply” side could offer.

The different programmes offered run from pre-employment training with mandatory internships (one year in school – followed by a two month internship in enterprises) and apprenticeship programmes with alternating times of school-based and enterprise-based training (2 days in school and 3 days in enterprises) finally to master-craftsmen programmes offered in the evenings after work.

## **The World Bank and its support for the Jua Kali project in Kenya**

The Jua Kali project in Kenya was funded with a credit from the International Development Association, the World Bank’s soft lending window. Its main objectives were:

- to provide skills and technology upgrading for more than 20,000 informal manufacturing workers;
- to diversify and improve the quality of some 20 public and 200 private sector training providers;
- to increase the access of informal sector entrepreneurs to training services; and
- to improve the policy and institutional environment in Kenya.

A main component of the project was a voucher programme intended to introduce consumers’ choice (i.e. enterprises and trainees), giving informal sector owner operators the choice to purchase training whenever and wherever they wanted. Two tracer studies found out that employment among the graduates of the Jua Kali project increased by 50 per cent compared to before training and that surviving informal sector enterprises increased their income also by 50 per cent.



One very unexpected outcome of the project was that training by master crafts people was highly favoured (85 per cent) over that by public and private training institutions together (15 per cent) and led to a new kind of training provider: the skilled master craftsman/woman.

Generally, the use of the voucher mechanism enabled the Jua Kali project to identify and stimulate demand for training, technology and management and marketing know-how among micro and small enterprises and showed that in this case a project for the private sector was best managed by the private sector without too much influence of the Government.

#### **4. The impact of enterprise-based schemes in vocational education and training (EBS-VET) – The evidence suggests more of the same**

Looking at the many examples given in the previous chapter, there seem to be a number of common things that can be said about the success paths of each of these programmes and give some evidence on how successful the individual programmes have been. These initiatives are cutting across the whole spectrum of vocational education and training, but there are some common denominators. And, no doubt, there are some programmes that score higher than others on the suggested list of indicators for EBS-VET in Chapter 2.

In general, it can be said that those programmes that meet all eight criteria score the highest on meeting the overall objective of tackling youth unemployment and these are the countries that are quoted in Table 1 having low youth unemployment rates.

It should be kept in mind, though, that these policies in vocational education and training in many of the success countries are only one cornerstone and go hand in hand with elaborated detailed economic and social policies (which have not been investigated further in this study) that altogether enable national economies to move more decisively towards the goals of higher employment, equality of opportunity in the labour market (especially for young people), further strengthened social dialogue and participation of the social partners.

Nevertheless, when it comes to the impact of the enterprise-based schemes in vocational education and training and skills development discussed in this study, the following lessons can be learnt. First of all, all programmes introduced take a very demand-driven approach that ensures that any kind of vocational education and training and skill development is:

- delivered flexibly;
- made relevant to all parties involved; and
- in response to real labour market needs of the various countries introduced.

The demand orientation has been the basic thrust of all the programmes shown. Training alone – whether applied in developing or developed countries or transition countries – never creates jobs. The lesson learnt is therefore that enterprise-based schemes have to start with an enterprise view and can only be delivered with the active participation of the private sector and that particularly includes the informal parts of national economies in developing countries.

Secondly, some of the programmes, more so in developed countries and to some extent in transition countries than generally in developing countries, emphasize core work skills, such as teamwork, problem solving, understanding of entrepreneurship, communication and language skills and learning-to-learn skills. These skills help the trainees and students in these programmes to build up their own employability and also help them to find employment easier, stay in jobs longer and increase their pay considerably.

It will have to be seen – perhaps in selected pilot efforts in developing countries under the Youth Employment Network initiatives – if and how these core skills can also become an integral

part of enterprise-based schemes in developing countries and how in the future skills like teamwork, problem-solving, understanding of entrepreneurship and learning-to-learn skills can be woven into demand-oriented vocational education and training and skills development.

Thirdly, some programmes focus on institutionalizing the enabling environment through close cooperation with national ministries, social partners and other stakeholders. The more this process is institutionalized, the better these programmes seem to work and the better is their contribution for a smooth transition from school to work for young women and men.

When looking at this point, it became clear in this study that this is still rather the exception than the rule. However, when ministries in education and labour do work together on a working level and a day-to-day basis (such as shown in this study, e.g., in Austria, Ireland, Luxembourg, the Netherlands, Denmark and others) rather than only on representational principles, synergy effects for national economic policies become visible very quickly and show results not only in lower youth unemployment.

Fourthly, programmes that have specific elements in preparing teachers and trainers better for their jobs in enterprise-based schemes for vocational education and training generally make programmes more sustainable and give more importance to enterprise-based training.

Many of the projects documented in this study found out that this was a crucial point in moving towards EBS-VET programmes. Impact evaluations have shown time and again that without these teacher and instructor training interventions on the micro level there have been no trickle down effects.

This has been true for the documented GTZ projects in Lebanon, Malaysia, Guinea, and Chile, for the World Bank support for the Jua Kali project in Kenya (where training by master crafts people was highly favoured), for various EU and ETF initiatives in Eastern Europe (where teacher training has also become a main ingredient) and also for ILO's project initiatives in support of enterprise-based schemes in vocational education and training in its member countries.

This reform has also led to some very creative and innovative approaches to teacher training in vocational education and training in some European countries and it will have to be seen how this expertise can be transferred and made useable in future ILO activities in support of YEN strategies.

Fifthly, nearly all programmes had elements of designing new learning environments in vocational education and training in their institutional set up. This allows for more independence on the side of the learners and improves the relevance and effectiveness of vocational education and training and skills development and generally better equips (in the examples given) young women and young men to take advantages of opportunities in their national labour market.

With conventional vocational education and training we made our students develop a brain that acts like a computer with a small processor and a huge memory, but what they actually need to succeed in today's world of work is a brain with a much bigger processor unit while the memory capabilities could be much smaller!

As seen in this study, there have been quite successful experiments in designing new learning environments in countries like Ireland, Denmark, the Netherlands, Austria, Switzerland, Germany and Australia and designing new learning environments has made vocational education and training more relevant, employment-oriented and enterprise-driven. In the above-mentioned countries, this has definitely made a contribution in tackling youth unemployment.

Moreover, apprenticeship programmes, when set up flexibly and evaluated continuously as seen in the examples given here, generally have a lot of potential for making young people more employable. They eventually lead to significantly lower youth unemployment rates such as in Austria, Germany, Luxembourg, Switzerland, and to lower unemployment rates in specific sectors of individual projects such as in Chile, Guinea, Egypt and others.

In addition to that, this type of training has the further advantage that the apprentice not only learns technical skills but will also become acquainted with the management of small enterprises and customer relation by observing and assisting the entrepreneur in his/her day-to-day business. This might facilitate his/her decision at a later stage to become self-employed or to create his/her own micro enterprise.

Furthermore, in some of the country examples given, national institutes of vocational education and training have assured enterprise-based schemes in efforts to the transparency and employability of VET, and in advising on future employment scenarios in specific sectors in their respective countries.

Looking e.g. at the Netherlands with its Dutch Centre for the Innovation of Education (CINOP) or Germany with its Federal Institute for Vocational Training (BIBB), it probably became clear in this report that these national institutes focusing on the promotion of vocational education and training have their strengths among others in showing paths and avenues also for enterprise-based schemes and might also provide the nearness with the private sector more easily than some government ministries might have difficulties launching or might never get at all.

And, particular programmes that have focused on establishing tripartite competent bodies of vocational education and training and skills development have been particularly successful, especially when it comes to dividing responsibilities in these bodies along the lines of comparative advantages of each stakeholder/constituent.

This has been particularly the case in some central and northern European countries where industry consensus combined with a strong cooperative role of the unions has been the driving force in jointly setting up schemes that are very closely geared toward labour market needs and in which enterprises – big and small – were in the driver's seat.

In pilot testing these cooperation models in vocational education and training in enterprise-based schemes under the YEN activities, the ILO would certainly have a lot of experiences in working with tripartite structures that could come in very helpful.

Finally, the cases in the previous chapters illustrated that while no single programme alone – be it in pre-employment, apprenticeship, enterprise-based training, post-secondary or

other programmes of skill development – can lead to lifelong employment, the concept of lifelong learning has run like a red thread through all programmes.

“Learning-to-learn” skills in vocational education and training and skill development are at the heart of all enterprise-based training, and they are what ensures opportunities for young people during their entire work life.

The whole array of programmes in vocational education and training from pre-employment, through apprenticeship, post-secondary and enterprise-based is not a means in itself, but a vehicle for achieving meaningful and decent employment for young people looking for ways to enter into the labour market.

All of these programmes should be seen in a continuum of learning possibilities in vocational education and training where certain skills are laid down also when they are not necessarily needed in the next employment opportunity, but maybe in the one following that and where skills development is seen as something useful for any further learning that comes after the completion of the next necessary step.

National systems in vocational education and training that take this into consideration are beginning to grow and reform processes have started in some countries. The documentation interest in this study has focused on some innovative European reform initiatives in Germany, Austria, Switzerland, Denmark, and the Netherlands, but also in Australia.

If and how this can be integrated in order for enterprise-based schemes in vocational education and training and skills development also in developing and transition countries to become “bridges to further and life-long learning” will have to be seen in individual planning processes in countries willing to experiment with this.

## **5. Recommendations on how to integrate EBS-VET more widely into the future ILO portfolio of interventions in vocational education and training and skill development**

This paper is the outcome of a study funded by the ILO “InFocus Programme on Boosting Employment through Small Enterprise Development” with the activities of the UN-World Bank-ILO activities of the Youth Employment Network (YEN).

The activities of this policy network are threefold:

- 1) to disseminate information on good practices and lessons learnt from specific past or ongoing youth employment policies and programmes;
- 2) to formulate a set of recommendations on youth employment; and
- 3) to identify, for implementation with its partners, a series of collaborative youth employment initiatives.

These three activities are reflected in the design of this study. A set of criteria for good practices and lessons in enterprise-based schemes has been proposed and it has been argued that these will improve the impact of vocational education and training and skills development on youth employment.

Secondly, information about successful ongoing youth employment policies in enterprise-based vocational education and training has been given and in this chapter a set of recommendations will be derived from the first two steps.

The recommendations given here are meant to serve as guidelines for the identification of collaborative youth employment initiatives, which are planned under the YEN umbrella and which will cover:

- the selection of interested countries;
- the analysis of existing training systems, training quality and training capacities in enterprises of the formal and informal economy and in VET centres and schools in urban and rural areas;
- the integration of youth employment in the poverty reduction strategy plan (PRSP);
- the awareness-raising for enterprise-based schemes in vocational education and training within the government, social partners and private sector enterprises;
- the starting of pilot test phases in specific trades linked to specific VET centres; and
- the development of feasibility implementation strategies for enterprise-based vocational education and training in association with the World Bank.

This report has illustrated some trends in what was categorized here as EBS-VET. The emphasis in this paper has been on those programmes that base vocational education and training on learning and working in a combination of the two learning places: schools and enterprises, that are highly demand-driven, and that focus on employability rather than on trainability.

It is strongly advocated here that they can certainly make a difference when designing vocational education and training schemes so that they directly and much better lead into decent and productive employment, especially for young people.

What is true for the formal system of vocational education and training can also partly be used for the informal parts of the training ambit. Good practices here can also be studied, modified, adapted to and taken to other country settings.

On the following pages, a set of recommendations will be given that might serve as guidelines for setting up collaborative youth employment initiatives in enterprise-based schemes in vocational education and training and skills development. These recommendations are based on the findings of the study and suggest possible approaches in general. They would have to be further analyzed and specified for each individual country interested in pursuing this.

Potential areas for international assistance within the context of the YEN activities with regard to enterprise-based schemes in vocational education and training and skills development should include the following:

1. Support of any kind of public-private partnerships (PPPs) in vocational training and scaling up successful approaches on a sustainable basis. This could be done through the following activities:
  - ✓ looking at successful best practices;
  - ✓ adapting cases to national and regional situations;
  - ✓ pilot run good examples;
  - ✓ multiply on a larger scale; and
  - ✓ document results.

This could for example be done by cooperating with the German Technical Cooperation (GTZ) in this field, which has developed an array of more than 1,000 PPPs, some 250 of which are in development projects in vocational education and training in countries such as China, Vietnam, the Philippines, Egypt and South Africa involving the private sector on a cost basis in as different areas as employment promotion, design of teaching material, vocational school management, teacher training and many more.

2. Design much more demand-driven national, regional and local training systems that respond to real needs in the labour market involving all stakeholders, by:
  - ✓ involving enterprises and enterprise associations at very early stages of training programme development;
  - ✓ using quantitative ways of research to identify skill needs;
  - ✓ comparing desired enterprise skills levels with what public institutions can deliver;
  - ✓ identifying deficiencies, making up for shortcomings in curriculum and programme development and providing necessary teacher and trainer training programmes.

This could be done by looking more closely (than in this study) at demand-driven programmes in pre-employment (ATB in Holland and programmes in Iceland), apprenticeship (Luxembourg, Austria, Switzerland and Germany), EBT (Skillnets in Ireland) and post secondary EBS-VET (AMU in Denmark and *Fachschulen* in Germany) and learn from the lessons made there, using analytical tools already in place (such as questionnaires) and studying research (empirical and other) that lead to the identification of skills needs at different intervention levels for enterprise-based schemes in vocational education and training and skills development in these countries.

3. Institutionalize very close cooperation between Ministries of Education and Labour and development of labour market information systems (LMIs) that constantly keep track of the performance, outputs and (youth) employment impacts of public, public-private and entirely private skills provision.

- ✓ Setting up jointly functional labour market information systems;
- ✓ Interpreting these labour market information data for decision-making in vocational education and training; and
- ✓ Putting inter-ministerial technical committees on the national and regional level in place that deal, among others, with:
  - input-output ratios of students;
  - cost-effectiveness of vocational training;
  - employment effects of specific programmes (e.g. with tracer studies); and
  - identification of new labour market trends and preparation of appropriate responses within the design of enterprise-based schemes.

This could be done by using good country examples that already serve the ILO as blueprints for change processes towards models in decent work and tackling youth unemployment. The recent 2003 ILO study on “Decent Work in Denmark” by Philippe Egger and Werner Sengenberger for example, provides a lot of material on how Denmark became a model for inter-ministerial cooperation, also in vocational education and training.

4. Support existing and help to set up new associations and competent bodies – sector and trade associations and private training providers – in order to advocate their own interests and to better deliver flexible and relevant training to their members, by:

- ✓ assessing common trade and sectoral problems;
- ✓ helping to articulate demand in training and skill development issues;
- ✓ experimenting with market-driven initiatives that identify and stimulate demand for training;
- ✓ documenting lessons; and
- ✓ helping in marketing successful practices.



This could be done by comparing the lessons in different countries in one continent that have set up or worked with new associations and competent bodies and trade associations. One does not have “to reinvent the wheel” repeatedly and the lessons from the same continent might even be more relevant than importing developed countries’ solutions. It might therefore be worth looking more closely here at Africa for example with Guinea and its Guinean Craftswomen Association (FEPAL), Lebanon with its Lebanese Industrialists’ Association and Uganda and its Small Scales Industries Association.

5. Prepare teachers and trainers better for their jobs in enterprise-based schemes for vocational education and training, by:

- ✓ setting up pre- and in-service teacher facilities for future teachers in vocational education and training;
- ✓ helping teachers and trainers to take their own process of learning-and becoming-teachers into their own hands;
- ✓ combining theoretical and practical aspects of teaching in learning situations that have real-life and real-work importance;
- ✓ emphasizing a legal and didactical framework in teacher training and the joint role of vocational schools, vocational education teacher training institutes and enterprises in teacher and training of trainers; and
- ✓ making frequent internships and/or initial apprenticeships in enterprises mandatory for vocational school teachers.

This could be done by using new and innovative approaches in teacher and instructor training in vocational education and training (as recently developed for example in the Netherlands and in Germany) and should also be supported by strengthening the school management of vocational schools and colleges in countries interested in making those changes. Impact evaluations in some countries mentioned in the directory (Lebanon, Malaysia, Chile, Egypt) have shown that this is a very important part in the reform process and should be taken seriously from the beginning. It should always be supported both on the university level (pre-service teacher training) and the school level (in-service training) and it should be kept in mind that this usually does not show immediate results.

6. Design new learning environments in vocational education and training that allow for more independence on the side of the learners, flexibility on the side of the programme planners and relevance when it comes to curricula and learning materials, by:

- ✓ qualifying students in vocational education and training to organize their own learning-on-the-job;
- ✓ designing flexible and short cycles of enterprise-based schemes that directly respond to training needs;
- ✓ seriously shifting the role of the teachers and trainers away from lecturing towards coaching; and
- ✓ trying to make curriculum development and the design of learning materials a joint process between ministries, training institutes, vocational schools and associations of enterprises.

This could be done by putting out vocational students more in the “driver’s seat” of their own learning e.g. when it comes to dealing with complex tasks such as designing marketing concepts or planning routines for CNC machines. Vocational education and training has been for too long of a time like teaching our students how to drive without ever putting them in the car.

This is clearly a whole rethinking process of what vocational education and training should be all about and it does not happen over night. However, as seen in this study, there have been quite successful experiments in designing new learning environments in countries like Ireland, Denmark, the Netherlands, Austria, Switzerland, Germany and Australia. It might be worth investigating some more which lessons can be learnt from these innovative approaches for future pilot projects in vocational education and training under the umbrella of YEN.

7. Make school-based vocational education more like general education in many ways, by:

- ✓ making the content in vocational schools more general;
- ✓ ensuring that young people learn how to solve problems, work in teams, be enterprising and creative through the way they are taught;
- ✓ introducing more soft skills such as languages and communication skills;
- ✓ providing sufficiently wide skills;
- ✓ ensuring that young people get direct opportunities to learn about the nature of the economy and the world of work; and altogether
- ✓ making TVET tracks less of a dead end.

This could be done for example by working with Simulating Enterprise Offices, SEOs (see Directory 1.2) in vocational education and training. These SEOs are simulation processes where students are guided through a process of actually setting up small businesses and developing products and services. These programmes have made it much easier for many students in pre-employment programmes in Austria and Germany to find jobs after completion of their vocational school. The Austrian Development Cooperation and the German Technical Cooperation are currently assisting the Governments of Ukraine, Romania and Serbia and Montenegro in setting these up.

8. Set up national institutes of vocational education and training for better:

- ✓ adapting the vocational education and training system to the needs of the knowledge society;
- ✓ supporting efforts to the transparency and employability of VET;
- ✓ updating initial and continuing vocational training, e.g. by developing new vocational qualifications;
- ✓ developing scenarios for future development of vocational education and training; and
- ✓ conducting vocational training research with a view to identifying correlations between technological and labour market developments.

This could be done for example by looking at organizational structures and task descriptions of similar national institutes for example in Switzerland with its Swiss Pedagogical Institute for Vocational Education (SPIVE) or in the Netherlands with its Dutch Centre for the Innovation of Education (CINOP) or Germany with its Federal Institute for Vocational Training (BIBB).

One could also make cross comparisons of recently established institutes of vocational education and training for example in certain transition countries, such as Hungary and Slovenia, and look at their institutional set up and draw lessons for other countries in the region interested in setting up institutes with similar visions.

9. Establish tripartite competent bodies of vocational education and training, by:

- ✓ involving the social partners nationally, regionally and locally in working-level committees;
- ✓ building on ILO's strengths in setting these up;
- ✓ dividing responsibilities in these bodies along the lines of comparative advantages of each stakeholder/constituent; and
- ✓ marking ownership through the documenting of individual contributions.

This could be done by looking at some of the central and northern European countries where industry consensus combined with a strong cooperative role of the unions has been the driving force in jointly setting up enterprise-based schemes in vocational education and training.

In pilot testing these cooperation models in vocational education and training in enterprise-based schemes under the YEN activities, the ILO would certainly be in a very good position to make use of its existing tri-partite working structures.

10. Integrate “lifelong vocational learning” in the institutional framework for enterprise-based schemes of vocational education and training, by:

- ✓ emphasizing “learning to learn” skills in vocational education and training;
- ✓ focusing on team-work capabilities;
- ✓ mobilizing resources for making lifelong learning opportunities more widely available;
- ✓ ensuring collaboration among a wide range of partners and stakeholders;
- ✓ developing policies for the recognition of all forms of lifelong learning, including informal and distance learning; and
- ✓ designing guidance and counseling for lifelong learning.

This could be done by looking at some national systems in vocational education and training which take these reform initiatives into consideration. Countries mentioned in this report currently working on this include Germany, Austria, Switzerland, Denmark, the Netherlands, and Australia.

If and how this can be integrated in order for enterprise-based schemes in vocational education and training and skills development also in developing and transition countries to become “bridges to further and life-long learning” will have to be seen in individual planning processes in countries willing to experiment with this.

11. Focus on legal aspects of enterprise-based vocational education and training (last), by:

- ✓ developing qualification and assessment levels, such as enterprise-based schemes promotion acts, training regulations and framework curricula for EBS-VET;
- ✓ making sure, however, that these legal aspects truly only come at the end of the reform chain that successfully covers most of the previous recommendations and activities;
- ✓ involving the social partners (employers' and employees' representatives) in preparing and coordinating the draft versions;
- ✓ involving national institutes for vocational education and training; and
- ✓ introducing consensus principles in doing so.

This could be done by first de-emphasizing the importance of legal aspects in vocational education and training, playing down total qualification frameworks and training regulations in developing and transition countries. This is where national and international donor agencies should put less importance on the immediate legislation of enterprise-based schemes in vocational education and training. Lessons from some European countries, strong evidence from Australia and also the Anglo-Saxon experience shows that it is no coincidence that these legal aspects usually come at the end of a long process.



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## Annex

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## 1. Pre-employment EBS-VET

### 1.1 “Making Technical Vocational Education More Attractive” – The ATB Project in the Netherlands

In response to a reduction of trainees, high drop-out rate, too little use of information technology and insufficient links with small and medium-sized enterprises (SMEs), an innovative training project was launched in the Netherlands some years ago, which was called *Aantrekkelijk Technisch Beroepsonderwijs* – ATB.

The initiative came from the Ministry of Education, Culture and Science and of Economic Affairs. They requested the Dutch Centre for the Innovation of Education (CINOP) and the teacher training centre for training of technology lecturers (Fontys College) to join hands and develop and implement an innovative programme in technical training schemes in collaboration with Regional Training Centres (ROCs). In the Netherlands, a ROC provides all the vocational training schemes funded by the Government and is in charge of adult education for a region. There are 46 ROCs in the Netherlands.

The ATB project focused on

- modernization of assessment, independent learning methods and varied learning places;
- the use of ICT resources; and
- the establishment of networks with SMEs.

Some amazing results have been accomplished in the three areas. First, the pilot ROCs introduced new concepts of teaching, in which trainees learn more independently in an attractive learning environment. It also focused on flexible organization with variations in places of working and places of learning. Secondly, during the project life cycle, good use of information and communication technology was made and ICT became a supporting vehicle for learning that made technical vocational education more attractive.

Finally, most enterprises reacted very positively to initiatives from schools to carry out collaborative training schemes and even led to an active relationship with SMEs. Forms of consultation have been initiated with the participating schools and scenarios have been produced for projects in which knowledge is integrated into the enterprises. Both participating schools and enterprises are satisfied with the results of ATB.

Two-year projects are now being run in the four major cities in the Netherlands and the most important objective is to keep going the good cooperation between the programme and guidance at school on the one hand, and the practice of in-company training on the other hand.

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**a. “Simulated Enterprise Offices (SEOs) – an Enterprise-driven Training Approach in Pre-Employment Programmes in Austria and Germany**

Driven by an increase in youth unemployment of students coming out of pre-employment programmes in the late 1980s, Austria and Germany both started initiatives in their vocational schools which were trying to get students in vocational education better prepared for the transition from vocational schools to work situations.

Courses in so-called simulated enterprise offices (SEOs) were made obligatory in pre-employment programmes in vocational schools. These SEOs were simulation processes where students were guided through a process of actually setting up small businesses, developing products and services for a few months and then closing down before the school year ends.

The simulated enterprise office learning situation is based on the idea that hands-on experience in running small enterprise under the guidance of a tutor supervisor is the best preparation for productive work in small enterprises.

Simulated enterprises offices resemble real enterprises inasmuch that they have common work spaces for the common office functions such as purchasing, stock keeping, sales and personnel. Students spend part of the year in each of these departments to get a feel for the whole small enterprise operation. The flow of work is much more likely to be from section to section than from student to teacher.

The offices are equipped with personal computers, telephones, file registries, etc. Teachers in simulated enterprise offices emphasize the business procedures and functions of their model enterprise and focus on getting the work out. Different classes from one vocational school with simulated enterprise offices compete with each other and by now they are all training-cum-production systems that have “real” outside contacts with local enterprises.

More than 15 years after their introduction into the curricula of pre-employment programmes, simulated enterprise offices are still part of the vocational education of many students in pre-employment programmes in Austria and Germany and have made it much easier for students to find jobs after the completion of their vocational school.

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### **1.3. Iceland – School- and Work-based Training**

In Iceland, where for many companies it is difficult if not impossible to make apprenticeship agreements due to their small size and the limited scope of work they carry out, a national emphasis has always been to focus combining school-based education and training with work-based elements of training as early as in pre-employment programmes.

Initial vocational education and training can start either at school or at a workplace with which the student has a training contract. Training can either start at school or at a workplace with which the student has a training contract. The most common thing is to start with school and then undertake workplace training.

School training is modularized and gives credits to each unit undertaken, the length of school programmes can vary from 4-48 months and is usually directly followed by work-based training which varies from 4-36 months according to the structure of the VET programme. Pre-employment vocational education in Iceland is compulsory and is usually followed – with very few exceptions as can be seen from the youth unemployment figures for Iceland earlier in this report – by workplace training.

The system of initial vocational education and training in Iceland can be divided up into two broad categories:

- those that lead to legally recognized, certified qualification; and
- those that do not lead to qualifications, but generally give the bearer some increased benefits in entering the Icelandic labour market.

It should be pointed out, however, that for Iceland the percentage of those with vocational qualifications is considerably lower than in the other Nordic countries (such as Denmark, Sweden, Finland and Norway) not to speak of countries such as Austria and Germany. This would indicate that programmes in general education are offering sufficiently wide skills that young students without vocational education do have a very good chance to compete with those students that have been through programmes in vocational schools.

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#### **1.4 Thailand – Strategic Approaches to Employment Promotion**

In Thailand, in the 1990s, the Ministry of Labour in Bangkok started – with technical support from the ILO and through ILO's then Asian Regional Team for Employment Promotion – a project called Strategic Approaches toward Employment Promotion. This project had the three main objectives:

- employment promotion strategies integrated with macro- and sectoral economic planning;
- strengthened institutional framework in the Ministry of Labour for designing, monitoring and following-up employment promotion programmes; and
- improved capacity for preparing and implementing special employment creation programmes.

Within the third component of the project activities, an initiative in pre-employment vocational education was launched that combined alternating learning and working places in the Ministry's National Institutes of Skill Development (NISD) and in participating enterprises in the carpentry and motorcycle repair sector. This initiative came from a regional association of carpenters in the South of Thailand.

The main objective of the project activities were to make NISD's pre-employment training more relevant to the needs of local carpenters and motorcycle repair workers. Together with the enterprises, it involved

- drafting new curricula that replaced the old ones;
- designing new programmes in teacher and instructor training;
- having vocational students go to alternating work and learning places in training centres and through a sequence of internships with enterprises; and
- ensure that all internships were paid for on the basis of the current minimum wage requirements.

These pre-employment programmes lasted between 6 and 12 months and tracer studies showed that vocational students found employment opportunities not only much easier but also stayed with their carpenters and motorcycle repair shops much longer than other students who had not undergone this specific enterprise-based pre-employment scheme.

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## 2. Apprenticeship EBS-VET

### 2.1 Apprenticeships: Vocational Education and Training in Austria

In Austria, vocational education and training in the form of apprenticeship training is organized in a cooperative form that combines enterprise-based vocational education and training with school-based vocational education. Vocational education and training has a long history of appreciation by the social partners and its users. This is demonstrated by the extensive apprenticeship system, which offers some 275 apprenticeship trades, and by the dense network of full-time vocational schools.

About 75 per cent of all young people in Austria complete their vocational education and training within the apprenticeship system or a full-time vocational school as pre-employment preparation. Almost half of young Austrians choose apprenticeship as their vocational education and training pathway.

According to the Federal Austrian Ministry for Economic Affairs and Labor in Vienna the Austrian apprenticeship training system is facing the following major challenges in the future:

- Apprenticeship and mastership have to prove themselves to be attractive alternatives vis-à-vis the trend of more young people opting for higher education,
- “Comprehensive Vocational Training Skills” have to be constantly reevaluated in the light of the growing specialization of enterprises,
- The Austrian apprenticeship system has to become more flexible by building bridges between the individual apprenticeship trades and by establishing closer linkages with further education and training,
- In designing new apprenticeship programmes, new methods and latest qualification levels have to be integrated for appropriate vocational education and training opportunities,
- Training curricula have to be formulated periodically, and apprenticeship-leaving exams should respond to the actual needs at the workplace both for the trainees and the enterprises involved.

However, as pointed out in the main report, in international terms Austria has a very low youth unemployment rate and the vocational education and training policy relies heavily on the consensus between all parties involved in the economy, politics and administration. This consensus used to be, and still is, a particular strength of Austria’s vocational education and training policy.

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## **2.2 Swiss Vocational Education: Some Facts and Figures**

The Swiss system of vocational training is quite similar to the German and Austrian systems. It is a "dual" system, i.e. the apprentice's training is divided in two categories: the employer and the vocational school. The employer's task is to teach the apprentice practical skills, while the vocational school teaches him or her the necessary theory relating to the chosen field, as well as general subjects.

The federal law on vocational training applies to some 260 occupations in industry, trades, commerce, domestic service; agriculture and forestry (and in the future also to health care, social works and applied arts). Young people go into basic vocational training after completing their compulsory education. At present, from the age of 16, two thirds of the young population who leave lower secondary schools go into apprenticeships of which most last for 3 or 4 years..

In the "dual" system the apprentice does not pay any fees. The vocational courses are free for anyone who has an apprenticeship contract which is approved by the cantonal authorities. The apprentice goes to school one or two days per week and for 40 weeks of the year during his or her training.

The scope of vocational training courses, the subjects taught and the number of lessons are fixed for each profession in close collaboration with the corresponding professional association, within the framework of a program drawn up by the Federal Office for Professional Education and Technology. The schools teach the basic theory which the apprentices will need for their chosen career, as well as general subjects.

The apprentice's practical training with a company is also regulated by federal legislation. Each apprentice works under the guidance of a master. In the "dual" system most of the practical training consists of taking part in the normal activities of the company. Apprentices are paid a monthly salary. At the end of their basic training the apprentices take a final examination. If they are successful they are awarded a Federal Apprenticeship Certificate (CFC) which is recognized all over the country. The final examination comprises a practical part, and two theoretical parts - one technical, the other general.

Since the vocational schools are financed mainly by the cantons, the latter are also responsible for employing teaching staff. The future teachers are generally trained at the Swiss Pedagogical Institute for Vocational Education (SPIVE), which is a federal institution. The people put in charge of the apprentices for their practical work must have several years' experience in their trade and take a special course for training apprentices, organized by the professional associations or the cantons.

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### **2.3 “Enterprise-based Vocational Education and Training in Chile – The FOPROD Experience”**

Between 1992 and 2000, the Chilean and German Governments together with financial support from the World Bank worked in a project called FOPROD – El Proyecto de Formación Dual.

The starting point in 1992 was characterized by sluggish transition of the annual technical and vocational school leavers (40 per cent each year in 1992 came from vocational and technical schools) into the Chilean labour market, more than 800 different job profiles, low relevance of curricula and the acquired skills levels with the overall result of low labour productivity.

The Chilean Ministry of Education and the Ministry of Labour started an initiative then with the objective of reducing the entrance barriers into the labour market and making vocational education more relevant to the enterprises. 3–6 months training programmes in different sectors of industry were set up, which had alternating learning and working places, both in enterprises and participating schools.

Incentives were given to enterprises on two levels: through the perspective of receiving trainees who had truly employable skills as well financially by giving the participating enterprises incentives of loan sum reimbursements. The programme was accompanied by SENSE, an initiative by both ministries to subsidise internship for young people.

In the first phase of its implementation, FOPROD focused on two things:

- (1) the better cooperation of learning and working places in enterprises and schools; and
- (2) the introduction of reflection learning practices into the every day school and enterprise situations.

Phase 2 dealt with the multiplication of the efforts through extensive teacher, instructor and director training and involvement of a network of training centres in Chile. The efforts in this phase included also curriculum development and heavy training initiatives in enterprises. Exchange mechanisms between enterprises and schools were set up and institutionalized and regional teams were built to further expand the initiatives. The third phase consisted mainly of consolidation efforts made in the previous ones.

The strengths of FOPROD – according to its users – lay and still lies basically in the strong demand-orientation, in curriculum work, teacher training and setting up sustainable structures in relevant enterprise-based vocational education.

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#### 2.4 “Dual” Apprenticeship Programmes in Germany and Luxembourg

The “dual” system of apprenticeships does not have any formal admission prerequisites: all school leavers regardless of their school-leaving certificates can learn any recognized occupation in the dual system. However, opportunities and the actual number of people who enter occupations do depend on previously acquired qualifications.

A combination of working and learning provides the basis for teaching vocational skills. The system is trying to teach theory and practice and to build structured knowledge and active competence in a learning and working context.

The notion “dual” comes from the alternating learning and working places in schools and enterprises. The two learning places, company and vocational school, interact in keeping their different emphasis, but their tasks are not completely divided: schools do more than teaching theory and the in-company training involves more than simply practice. Trainees spend one or two days each week in a vocational school and the remaining three to four days in their company. The Government is in charge of the framework regulations for training in companies and training in schools. State board final exams make sure that the necessary skills and practical and theoretical knowledge have been accumulated and meet certain standards at the end of the 2 ½ to 3 ½ year-long apprenticeships.

In Germany and Luxembourg, the function of “dual” apprenticeship systems is now understood both as preparing young people for specific employment opportunities to be pursued immediately after the training **and** as preparatory work for any further learning that comes after the completion of an apprenticeship. In a way, apprenticeships are no longer seen as one-time preparations that last for a work–life but as “bridges to further and life-long learning”.

The “dual system’s” main objective is to promote employability in a changing workplace – a workplace that is both shaped by technological developments as well as by the people who work in it. The willingness to learning and fostering personal development ranks very high on the agenda of desired outcomes. In order for people to work in the knowledge society and to deal with its future challenges, they must be able to plan, carry out and check their own work independently. Vocational education in apprenticeship is therefore oriented toward this goal. Additional qualifications, in addition to regular training, can support these apprenticeships and lead to further specializations after finishing apprenticeship programmes.

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## **2.5 Malaysia – The Dual Systems Project**

In Asia, the Government of Malaysia, focuses on developing young Malaysians and adolescent knowledge (or so-called “k”) workers to become top performers in their respective jobs and become capable in an increasingly competitive market. At the level of their industry-oriented training, this means that training at the workplace is considered to be necessary under actual conditions. The philosophy behind it is that high-tech training can no longer be provided without involvement of the industry.

In a recent initiative, the Malaysian Government together with the GTZ, started a strong working partnership between the private sector and training institutions that form the basis for a “dual” TEVT system to ensure demand-driven and economically affordable training solutions.

This apprenticeship initiative in Malaysia has five components:

- Component 1 deals with the creation of a dual TEVT culture and indicates the general direction and main thrust by increasing the direct involvement of industry and SMEs in TEVT at all levels;
- Component 2 aims at developing an improved concept for skills standards and the development of quality curricula and effective instructional materials;
- Component 3 focuses on technical teacher and instructor training covering pre-service training (initial teacher training) as well as in-service training (further training);
- Component 4 aims at strengthening crucial elements within the network of TEVT to improve efficiency and effectiveness of training; and
- Component 5 addresses the social value and reputation of work and training in general and tries to bring vocational education and training into a more favorable light of job career path by trying to influence perceptions of attitude toward work and training.

Four technical committees for “dual” TEVT culture, curriculum development, technical teacher training and networking and values have been started and the committees’ work is very closely embedded into Malaysia’s Vision 2020 and its National Development Plans. Since the project activities are now getting into their implementation phase, it will be interesting to see what the results will be in a few years.

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### 3. Enterprise-based training (EBT)

#### 3.1 Trends of EBT Practices in the Modern Sector in Zambia and Kenya

In early 2001, the ILO/ITC (Grierson, 2002) carried out studies in those two countries and surveyed 13 enterprises (7 in Kenya and 6 in Zambia) in the modern sector.

In both studies, the most progressive formal sectors in both countries (such as agro-industries, food processing and IT in Kenya and copper mine enterprises from the Zambian Copper belt) were investigated and major trends in enterprise-based training were filtered out.

EBT was understood to take place in active ongoing enterprises and encompasses “the delivery of both structured and unstructured training to employees (and in some cases to customers and customers’ employees) in the private sector workplace.”

According to the study, in these enterprises in both countries major trends in EBT are:

- A more structured approach to training with a focus on efficiency, quality and flexibility;
- All enterprises surveyed sourced some training services from specialist providers;
- New investments and new technologies require the need for retraining the existing workforce as much as new entrants into the labour markets;
- A shift from a short-term to an ad-hoc approach in training;
- EBT is increasingly competency-based with competency norms determined by specific demands of individual enterprises;
- Public sector training policy has little influence on individual enterprises;
- Private sector practice is largely driven by internal or company division needs, which are determined by current market forces;
- EBT is the most favoured form of skill acquisition;
- Little inter-firm co-operation in training; and finally, and maybe most important
- Weak relationships between national training providers and day-to-day training practice in enterprises.

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More info. can also be found in Grierson, 2002, 3–8 and 59–64.

### **3.2 Enterprise-based Training in an Economy with Labour (and Skill) Shortages: The Case of Ireland**

In recent years, the Irish unemployment rate has come down from 12 per cent (in 1996) to 4.6 per cent (in 2000). The same is true for the youth unemployment rate, which was at 6.2 per cent in 2001. In this context of the economic boom, the image of Ireland as the “Celtic Tiger” has occasionally been used.

When it comes to innovations in enterprise-based training, Ireland has taken a number of different innovative approaches, one of which has been a national agreement, the Programme for Prosperity and Fairness (PPF), which started in 2000. The programme is basically trying to better integrate women, young people and long-term unemployed into the labour market.

Within this initiative, there is a strong commitment to developing (in close collaboration with participating enterprises) an array of measures to promote the concept of “life-long learning”, which promotes all forms of learning and working in an alternate way between participating schools and institutions as well as in enterprises. The important emphasis is placed on strengthening the link between the system of vocational education and the world of work.

Another recent training innovation is the development of a government-funded enterprise-based training network called “Skillnets”. The Skillnets programme is an employer-led and enterprise-driven initiative to upgrade the skill level of the Irish labour force. In a way, Skillnets is a company which board is composed of government, employer and trade union representatives. The project involves collaboration among companies to develop training networks in different sectors.

The key difference between Skillnets and other training programmes is to provide support for individual firms by forming groups or networks of companies to develop strategies that are tailor-made to the individual needs of each and every enterprise.

Skillnets provides greater flexibility and is effectively addressing a company’s training requirements and is helping to overcome the barriers the companies face in their skill shortages in a collaborative approach. Skillnets has facilitated the development of 38 networks and is currently working with 2,500 firms, 75 per cent of which are SMEs. Currently more than 250,000 people are in training under these networks.

The Department of Enterprise, Trade and Employment in Ireland has provided additional funds to fund Skillnets for the next three years.

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### **3.3 Germany – The GIB (*Gesellschaft für Innovative Beschäftigungsförderung*) Initiative and its Youth in Employment Programme “*JA (Jugend in Arbeit)*”**

Responding to relatively high youth unemployment rates (which had gone up to over 8 per cent) in the late 1990s in the *Land* Nordrhein-Westfalen (NRW) in Germany, an initiative was started there some years ago, which was called GIB – *Gesellschaft für Innovative Beschäftigungsförderung*.

The initiative came from the Ministry of Labour and brought together 50 employment experts and vocational education and training specialists in order to come up with new solutions to better integrate young and long-term unemployed into the labour market in NRW.

Since then GIB has been quite successfully trying to integrate young people into the regional labour market in NRW and especially long-term unemployed of all ages.

GIB's work has focused on:

- involving enterprises and enterprise associations at very early stages of training programme development;
- improving linkages with small and medium enterprises;
- providing packages of services to enterprises; and
- establishing support networks for SMEs.

One specific programme started by GIB for long-term unemployed youth was called *JA* – Youth in Employment. The programme was geared toward those young people between 15 and 24 who do not get apprenticeships.

Young people who are unemployed for more than 6 months qualify for this programme, which provides them with 12 months enterprise-based training, 6 months of which are subsidized by the Ministry of Education, the other 6 months have to be paid for by the individual enterprises. The *JA* programme has been accepted by participating enterprises, and tracer studies have shown that about 75 per cent of the trained unemployed young people found jobs immediately after their enterprise-based training.

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### **3.4 EBT Practice in Australia**

Not many countries have pursued the reform of vocational education and training as vigorously as Australia. Change has been a constant companion in the last 20 years. As Australia's experience shows, no quick fixes are available in a country that has been very experimental to reform vocational education and training in such a way that it does become more responsive and flexible to what its own labour market needed.

There is a very strong history in enterprise-based training in Australia. "Enterprise-based Education and Training" there is understood as formal training undertaken by workers as part of their job (Long, 1996). This training is not always explicitly captured as part of the system of vocational education and training in the Technical and Further Education (TAFE) colleges in Australia.

Nevertheless it is important. The Australian Bureau of Statistics (ABS) 1997 survey of education and training found out that in Australia employees on average receive 16.5 hours of employee-supported formal training in a year – a value that translates into about an additional year of schooling during an employee's working life and much more for some workers.

Many private training institutions have formed initiatives that cater to the growing demand for enterprise-based training and specific tailor-made training programmes for certain enterprises are being offered by a number of private training providers.

A recent initiative by the Australian Department for Employment to streamline these initiatives called "National Industry Skills Initiative" (Long, 2000) tried to look at the skills levels needed in the engineering industry and also looked at ways of linking up with apprenticeship programmes and pre-employment programmes. The recommendations were to:

- build a training culture within the industry that will support continual development of skills;
- Build more strongly on skills of the existing work force;
- expand the provision, variety and uptake of pathways into apprenticeships;
- ensure the ready availability of high quality, consistent and timely information on skills shortages and responses to skill needs; and
- improve outcomes from recruitment solutions to skills shortages.

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## 4. Post-secondary EBS-VET

### 4.1 The APME Project (Programme d'Appui au milieu Artisanal de Maroua) in Cameroon

The project seeks to increase the incomes to MSEs through increased product diversification and quality. Four trades are supported: leather products, metal and woodworking and auto mechanics. APME's training interventions are directed at master craftsmen/women and technical skills training is the main entry point of the project.

After initial support from the Coopération Française (AFD) and EU, the project is currently funded by UNDP.

Current activities are:

- skills training, technical skill upgrading and introduction of new technologies;
- business advice based on workshop diagnosis;
- financial support with training and follow-up assistance;
- marketing assistance in the form of market studies;
- opportunities for meetings; and
- information via a documentation centre.

The project has adopted a well-received integrated approach in which training is used as an entry point to improve the market position and opportunities enterprises in the informal economy. It was found for example that it took a micro-artisan 12 months of 9 hours of weekly sessions to significantly enhance the quality of this product.

Important networking with a good selection of other organizations involved in MSE development has also improved the information available for basing training interventions on project activities.

The market-driven approach in which opportunities for local products are identified or created (through promotion activities) has become the basis for the training interventions.

A recent evaluation suggested for future activities of APME to focus more on the creativity of the trainers, take enterprise needs assessments more strongly as a starting point for training interventions and try to transfer to the artisans the capacity to find solutions for their own problems.

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More info on APME can also be found in: Haan 2002. 7.7



## **4.2 The Adult Vocational Training System (AMU) in Denmark**

In the second half of the 1990s, the Danish Government reorganized the system of continuing vocational training by improving its market and demand orientation. Adult Vocational Training (AMU) is now considered to be a public and social responsibility.

AMU is specialized in training of low-skilled adults. The training methods take their starting point in the actual work situation of the trainees. Class room teaching has more or less disappeared in favour of learning in workshops which resembles the work situation in a company. About 370,000 adults participate in AMU courses every year. Every year, approximately 15 per cent of the Danish labour force attend at least one AMU course. The courses vary from 3 to 60 days with an average of 6–7 days.

The curricula are interconnected and different modules can lead to specializations, such as in concrete technology, welding, operating computer-controlled equipment and in textile and electronics. The updating of courses and development of new training materials is mainly the responsibility of a number of tripartite trade committees and run as a red thread from the central to the local level, i. e. Uddannelsesradet (Educational Council). The committees are in charge of monitoring their specific trade area and evaluate existing training.

After identifying new development needs, the committees will hire AMU trainers and other specialists to rewrite or develop new curricula, which then must be certified by the Ministry of Labour. On average, all curricula are renewed every 2–3 years.

Responsiveness and flexibility of AMU training is further guaranteed by involving the workers actively into the process of their own training: it is done through project-organized training, where the trainees must cooperate and act as active learners – and not as passive listeners.

Advance learning technologies are applied heavily in AMU programmes and heavy emphasis is put on developing social and communicative skills.

Continuing (adult) vocational training is an integral part of Danish labour market policy and is considered to be the ongoing, life-long process with training opportunities at all stages of a person's work life.

AMU programmes in Denmark fall under the competence of the Ministry of Labour, whereas vocational training programmes come under the Ministry of Education.

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### **4.3 Post-secondary Private Technical Education and Training – The CIMO Experience in Mexico**

Confronted with new pressures brought about by international competition and drawing from the lessons learnt from existing programmes in vocational education and training, the Mexican Government has undertaken a comprehensive overhaul of the country's technical education and vocational training programmes through the Technical Education and Modernization Project.

However, skills development of workers after entering the workplace in Mexico has been largely left to employers. Large firms in Mexico tend to provide their own training, while small- and medium-sized firms rely mostly on contracting out courses in public training institutions.

In recent years, with the support of the World Bank, the Labour Secretariat in Mexico has been implementing the Total Quality and Modernization Programme (CIMO), a programme of technical and financial assistance to micro enterprises and small- and medium-sized enterprises to improve their productivity and competitiveness through worker training and related advisory services.

In the early 1990s, CIMO helped about 4,000 enterprises annually to develop their human resource strategies and to design and implement training and retraining courses for their workers.

In addition to the training provided by employers in the private sector, there were about 500 privately managed training institutions that offered programmes mostly in the non-manufacturing areas that do not require a large capital investment.

The relative areas of subject areas of these are as follows: secretarial and clerical (32 per cent), computers (25 per cent), accounting (19 per cent), construction, trades and manufacturing (12 per cent), services including health and personal services (9 per cent) and other areas (3 per cent).

A recent impact evaluation study for CIMO involved a comparative analysis of various quantitative indicators of training, production, production processes, organizational structure, markets, employment and remuneration using a sample of CIMO firms and a sample of control groups. The study showed that participation in the programmes helped the firms increase their productivity faster than others and had significant employment effects.

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#### 4.4 Germany – *Fachschulen*

In Germany, in the early 1990s, the 16 German *Laender* decided to add innovative post-secondary vocational training programmes to their array of enterprise-based schemes in vocational education and training.

Right after German unification in 1991, the demand for master craftsmen/women programmes in Germany had declined and instead other programmes, the so-called *Fachschulprogrammes*, which led to further qualification in a profession (such as technicians in the vocational field and as computer experts in the commercial and technical field), started to be in higher demand. Immediately, some private training institutions started offering specific programmes for these specific adult programmes.

At the same time, vocational schools were encouraged both by the Ministries of Education and Labour to also offer these courses, since the demand in these programmes was very high and (partly) led to horrendous prices charged by some private providers of training due to this particular supply-demand situation. It was then when some vocational schools started offering some of these programmes as well and – with the help of in-service teacher training institutes – began to train their staff in teaching these new courses, such as in network administration, software applications, software design, communication and presentations skills and others.

These new programmes were set up in very close collaboration between vocational schools and local enterprises. The degree programmes last between one and three years and take place three times a week in the evening after work. Because of this, the trainees are in very close contact with their companies not only interested in their staff getting additional qualifications but also being involved in the day-to-day school work.

When e.g. logistics is being taught now in these so-called *Fachschulen*, the teachers take their classes into their students' companies and identify problems that need to be solved there. In a way, students in the logistics class work as management consultants to enterprises, which some enterprises appreciate a lot and take full advantage of.

Enterprises came in not only on regular schedule basis, but also when it comes to identifying topics for the final thesis of these students. These *Fachschul* concepts have been started some 10 years ago and are now part of a standard portfolio of each vocational education and training institute in Germany. They have helped the schools to become more flexible and responsive to the immediate interests of people wanting to get more qualifications for further and life-long learning – also linked in this case to obtaining another degree in vocational training.

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#### **4.5 Uganda – Training Master Craftspeople – a UNIDO/DANIDA/JICA Project Experience**

The United Nations Development Organization (UNIDO), with financial support from DANIDA and JICA, is assisting a project to train master craftspeople in Uganda. The objective has been to provide demand-driven and sustainable advisory services to small and medium enterprises in the selected sectors: metal working, carpentry and masonry, installation and electronics, textiles, food processing and leather products.

The Uganda Small Scales Industries Association, two training centres from the Department of Industrial Training as well as some sectoral support centres are involved.

The project started with consultation workshops with some 600 small producers in six different districts in Uganda. They agreed to pay a fee for quality advice and skills training. The selection of candidates to be trained as advisors by their peers.

In the last 4 years, some 200 master crafts people have been trained as trainers. The first round of training covered the following areas: training principles, objectives and methods, training needs assessment, task analysis, curricula and demonstration techniques.

Based on performance assessments and visits to workshops, the second round of training and upgrading of technical skills went to only about half of the craftspeople in the first round. It took a month, full time, at the participating vocational training centres.

The next phase of training covered “industrial extension” such as production management and planning, financial management, marketing and in-plant studies for actual enterprises.

Most of the master craftsmen that have undergone the training have started their own advisory services. In addition to in-plant advice, they are now conducting needs assessments together with vocational training centres and set up skill upgrading courses for local producers. The bottom-line of this project was that business owners can improve their businesses and master craftspeople can assist them in that.

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## 5. Mixed programmes of EBS-VET

### 5.1 Pilot Programmes for Informal Sector Training in Tanzania – The VETA Experience

The Vocational Education and Training Authority (VETA), assisted by the Danish Development Agency (DANIDA) and the German Technical Cooperation (GTZ), conducted a series of labour market studies in the formal and informal sector in Tanzania between 1997 and 2000.

The studies revealed that only a few sectors provide descent employment opportunities in formal enterprises such as hotels and tourism, information and communication services and mining. The vast majority of the annual young entrants into the labour market – an estimated 800,000 in 2000 – will have to find employment in the informal sector.

VETA, assisted by GTZ, started a programme called INTEP, Integrated Training and Entrepreneurship Promotion Programme, which focused on sectors with growth potential such as food preparation, mushroom growing, carpentry finishing, vegetable and plant nursery and others.

VETA developed and tested new training approaches for the informal sector. INTEP was supported by VETA's efforts to reform vocational education and training by offering shorter modular training programmes, rewriting with enterprises (in closer collaboration than before) curricula and identifying viable ways to finance the reform in vocational education and training in Tanzania.

First results indicated that modules were cost-effective, the training was more relevant to the specific enterprises and relevant to the trainees inasmuch most of them found it easier to find some kind of employment in the informal sector. Some 20 per cent of the carpentry students opened their own shops.

The main lessons from this experience were that it was good to have a solid mix of technical and business skills (such as record keeping, pricing, marketing and customer relations) were found useful, trainees were capable of paying a small fee, but the rest needed to be subsidized, VETA tried to link trainees with providers of services to medium and small enterprises.

The main problems to provide enough employment opportunities as well as to accomplish financial sustainability of the programme, however, remain.

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## **5.2 “Enterprise-based Vocational Education and Training in Egypt”**

In 1993, the Egyptian and German Governments jointly started an initiative to launch enterprise-based vocational education and training in Egypt. The central problem was – and still is to some extent – that the system of vocational education and training existed only in vocational schools, was not enough demand-oriented and did not have enough linkages with enterprises. The annual 600,000-750,000 entrants from the technical and vocational schools into the labour market did not find meaningful jobs and mostly ended up unemployed or underemployed.

The initiative therefore had the objective to start cooperative vocational education and training in Egypt, in other words to develop programmes jointly with enterprises. To this end, Programme Policy and Implementation Units (PPIUs) had been built in which the social partners were involved and recommendations for the reform of the system of vocational education and training in Egypt were developed. These recommendations were then translated into pilot programmes, which again were developed jointly.

In the last few years, some of these programmes were test-run in different locations in the country, such as in Ramadan City, October City and Sadat City. These different programmes were offered for different target groups and have been run as pre-employment training, apprenticeship training as well as in specific training programmes for further training.

The overriding principles in running this initiative in the last few years have always been to involve industry, develop new curricula jointly with relevant partners, train new personnel both in schools and in enterprises in new teaching methods, get involved in new methods of learning and working in both schools and enterprises and find sustainable ways of funding these initiatives and put them on decent legal grounds.

In its ongoing third phase (until 2005/6) the programme is planning to actively support the structural changes affecting the Egyptian labour market and is now trying to develop (in very close collaboration with enterprises and enterprise representatives) programmes that respond to skills and qualification levels in industry and work with a variety of different target groups. These include school leavers after grade 9, skilled workers, craftsmen/women and also include employees in small and micro enterprises.

In doing this, programmes are primarily being developed in those sectors that have growth potential and that truly respond to the qualification needs expressed by the enterprises involved in the programme.

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### **5.3 Private Technical-vocational Training – Main Findings from Mali**

In the 1990s, the Malian private technical vocational training (TVE) sector grew rapidly and the private sector is now handling two thirds of the enrollments. In the last 2 years, the private TVE enrollments grew by a stunning 86 per cent.

The Government of Mali is now handing out a lot of state financial support to the private sector training sector with subsidies varying from school to school. Some schools receive no money, others rely completely on government subsidies and other contributions.

The financial support given to the private schools represents more than a third of schools' overall revenue. The per capita cost for students is about CFA 150,000 (1\$ is equivalent to CFA 600, which will bring it to \$250 per year per student) in the private sector. The Review of Public Expenditure calculates the public sector per capita training cost at about the same, but it is estimated to be much higher there.

The success of private school candidates in the national exams indicates that the private school provision of technical-vocational training seems to have a competitive edge over the public schools.

Public and private schools have their individual advantages in different sectors of the economy: private schools do better in services, public schools seem to do better in industry.

Since private schools are still so dependent on the financial support from the Government, they are very vulnerable and especially dependent on growth in the private sectors that it serves. Malfunctions immediately lead to reductions in trainees and immediately affect their functioning.

Such dependence on training subsidies negatively affects their ability to adapt the training supply to labour market needs, while they are assuring their trainees a guaranteed trainee income.

The Government has therefore considered to focus state assistance towards those schools that perform well and others that do try to integrate disadvantaged students into their programmes in the future.

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#### **5.4 Introduction of Enterprise-based Vocational Training in Lebanon**

Since 1998, the Lebanese and the German Governments have been working together on the reform of vocational education and training in Lebanon. The objective has been to improve the demand-driven provision of the Lebanese labour market with appropriately skilled and qualified workers.

The cooperation was intended to be for many years with initial emphasis on enterprise-based vocational training in pilot areas, training of instructors and master craftsmen and revision of VET curricula, and focused on those sections that had growth potential in the technical field, such as wood processing and heating systems.

In order to gain acceptable employment effects through VET programmes, the initial strategy was to involve enterprises and enterprise associations right from the starting point. Skills and qualification levels were jointly developed between them and the Ministry of Education and Higher Education and representatives from the enterprises were involved in committees that were in charge of identifying skills, writing curricula and developing standards for examinations and national certificates.

From the “demand” side, the Lebanese Industrialists’ Association was actively involved in changing the structure of VET in Lebanon and – together with the Ministry of Education – making it fit better with what the “supply” side could offer.

“Reflection learning techniques” have been introduced into the every day situations both in schools and enterprises. To make this happen, specific teacher and instructor training courses have been offered together with the *Institut Pédagogique National de l’Enseignement Technique* (IPNET). However, teacher training is still considered to be one of the bottlenecks of the project, because its high importance for well-functioning enterprise-based training was not recognized immediately.

The different programmes offered run from pre-employment training with mandatory internships (one year in school – followed by a two month internship in enterprises) and apprenticeship programmes with alternating times of school-based and enterprise-based training (2 days in school and 3 days in enterprises) finally to master-craftsmen programmes offered in the evenings after work.

Vocational education costs in schools are covered by the Government and enterprises pay their trainees – also for the enterprise-based time within the pre-employment training – the standing minimum wage in Lebanon (currently about \$200). This indicates that enterprises do value their trainees’ contribution from a very early point within their enterprise-based training.

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**b. The European Training Foundation (ETF) and its Programme in Support of Demand-driven Schemes in Vocational Education and Training**

ETF supports the reform of vocational training in its partner countries within the context of European Union (EU) external relations programmes.

For the various development activities in 2003, a number of Focus Groups have been built that work on:

- vocational training in the context of lifelong learning;
- labour market reform and vocational training;
- the organization and content of vocational training learning processes (including teacher and trainer training); and
- skills acquisition for enterprise development.

ETF's work in vocational education and training focuses on four regions: the Mediterranean, the Western Balkans, the new independent states (such as Kazakhstan, Kyrgystan, Uzbekistan) and Mongolia and the future member states of the European Union.

The priority development activities for the four regions are:

- the informal economy in relation to the vocational training and labour market systems in the Mediterranean;
- the reflection on current reforms aimed at improving lifelong learning systems in the Western Balkans;
- initiatives to identify effective training strategies for poverty alleviation in the new independent states; and
- the further promotion of non-formal and informal learning, quality of vocational education and training and linkages with enterprises, and the transparency and validation of qualifications gained in public and public-private arrangements of vocational education and training in the future member states of the EU.

Through its regional focus, ETF has gathered a lot of experience in working with economies in transition. The outcomes from these – what ETF calls “test bed” – initiatives are intended to contribute to the stock of knowledge within the ETF and thus further its development as a centre of expertise for vocational education and training.

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## 5.6 Modernization of Vocational Training in Guinea

The current system of vocational education and training in Guinea provides an annual amount of 3000 apprenticeships in 16 different vocational schools all over the country. The programmes are highly theoretical and have very little or no relevance for the labour market in Guinea. Traditional apprenticeship programmes in the informal sector especially in urban areas are attended by school leavers, however its graduates find little or no work after finishing the training.

Since 2000, the Guinean Government through the *Office National de Formation et de Perfectionnement Professionnel* (ONFPP) together with the German Technical Cooperation (GTZ) are working on setting up enterprise-based schemes of vocational education and training with the foci on:

- setting up cooperative learning and working places within the informal as well as the formal sector;
- designing demand-driven curricula in sectors with growth potential; and
- developing vocational training strategies and concepts for specific target groups.

The project objective is to improve the employment perspectives of young women and men in the Guinean labour market by designing enterprise and school-based training and following social and enterprise requirements.

The emphasis in the first phase has been both on curriculum development jointly with craftswomen/men, teachers and trainees as well as on training for instructors in enterprises and teachers in schools in order to meet the requirements of the informal sector enterprises.

Currently, programmes based on the curricula developed in the first phase and carried out with the newly trained staff in enterprises and schools are operational and two new sectoral programmes in Labe and Conakry have been started.

Sustainability has been promoted by monthly meetings of craftsmen and teachers in the training venues and in the enterprise workshops, where representatives from the Guinean Craftswomen/men Association (FEPAL) join. Both venues, Labe and Conakry, offer ongoing teacher and enterprise instructor training, which has been used also by more and more vocational teachers from “traditional schools”.

The trainees in these enterprise-based schemes are grouped together in peer groups and get regular counseling through craftsmen from their own and also from other enterprises and receive ongoing evaluations from their teachers in the participating vocational schools.

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