

**A STUDY OF THE UKRAINIAN
VOCATIONAL EDUCATION AND
TRAINING SYSTEM AND
ITS RELEVANCE TO
LABOUR MARKET NEEDS**



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**A STUDY OF THE UKRAINIAN
VOCATIONAL EDUCATION AND
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*Prepared by Galina Borisova, Søren Poulsen and Evelyn Viertel
ETF, December 2003*

A great deal of additional information on the European Union is available on the Internet. It can be accessed through the Europa server (<http://europa.eu.int>).

Cataloguing data can be found at the end of this publication.

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Representatives from Parliament, the President's administration, the Cabinet of Ministers, the Ministry of Labour and Social Protection, employment services, the Ministry of Agriculture, regional educational authorities, VET school directors and

teachers offered their valuable time and showed the necessary patience in explaining the situation and their views on VET and labour market issues.

Individual employers and their associations contributed with the necessary information and opinions from the point of view of enterprises. This adds an important element to the analysis and understanding of how VET and enterprises are linked.

Thanks must also go to the people met and talked to during the two VET events the team attended. Their commitment to education and their willingness to discuss the future of the Ukrainian VET system gave a broader understanding of the critical issues currently being examined. For a list of individuals met and organisations visited, see annex D.

Without the logistical support of the National Observatory of Ukraine it would not have been possible to visit so many institutions and talk with so many people with an interest in VET. The Observatory team leader, Ms Olga Shcherbak, offered an insight into the VET system, which was extremely valuable.

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EXECUTIVE SUMMARY

Following independence, Ukraine experienced significant changes to its politic, economic and social fabric caused by the marked transition from a communist-ruled society towards one increasingly framed by democracy and market economy.

The transition process has proven to be far more complex and with higher social costs than expected. Ten years of overall economic decline have seen the emergence of previously unknown social phenomena such as poverty, unemployment and declining public service. Counter-balancing these developments, to a certain extent, shadow economy has become increasingly evident both in economic terms and as a source of employment opportunities. The political situation since independence has been marked by power struggles between the President and the *Verhovna Rada* (the Parliament) and the different fractions in the Parliament, which has not facilitated the reform process.

Within the last three to four years, Ukraine has experienced significant economic growth that has meant some relief for the employment situation, a reinforcement of the shaping of the labour market and increased diversity in the employment needs among enterprises.

Ukraine has inherited an education system that was tailored to support a planned economy. A relatively high level of funding reflected the importance given to education, which produced outstanding results including high literacy, solid basic knowledge, a substantial core of skilled workers and excellent scientific and technological achievements. After years of neglect however, the vocational education

system is unable to maintain previous quality levels and what is more worrying, the system reform itself, which, with economic recovery, has become more and more visible.

The government recently initiated an education reform process that includes redefined underlying education principles and priorities for the entire sector. Relevance and improved service delivery from pre-school through tertiary education are key elements of the 'National Doctrine for the Development of Education in Ukraine in the XXIst Century' which is guiding the education reform process. In support to the Doctrine, the Ministry of Education and Science (MOES) has developed an implementation plan covering short and medium-term implementation goals for meeting the objectives of the Doctrine.

To facilitate the political discussion, the MOES compiled a report on the current situation regarding vocational education and training (VET). The report focused on the chronic under-funding of VET, which has a devastating effect on the quality of training, and on the need for a critical review of the very complex legal framework governing VET. The discussions illustrated the increased attention paid to VET at the political level. The Parliament has made a resolution on VET and the Cabinet of Ministers (COM) is reviewing a draft law amending the legal framework for VET in the country. More concretely, the MOES has, with the support of the ETF, initiated a process for the development of a new concept on VET, which will be the basis for future reform efforts.

Our study confirms the MOES's concern that the VET system is unable to

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sufficiently meet the needs of an emerging labour market.

- The VET system is in need of a new funding scheme. Public funding is not sufficient, therefore a scheme for direct financial contribution from employers needs to be found.
- The effectiveness of the resources allocated and used needs to be improved.
- The state ordering system, which determines the number of students entering the VET system, is unable to tap the need of the emerging labour market.
- Management of the VET system is too centralised which is a barrier to making the system relevant to local developments.
- VET systems do not sufficiently coincide with the needs of the labour market, which increasingly is demanding a workforce with higher qualifications and/or competencies. Although the

system has gained relevant experience in standard and curriculum development through donor projects, measures need to be taken to pool these resources and to institutionalise processes that can facilitate employers' involvement.

- Teachers/instructors do not have the necessary competences to meet the need for new pedagogical teaching methods and new technical skills requirements. Training facilities and equipment are outdated.
- Continuing vocational training (CVT) cannot meet the growing needs for training both in terms of quantity and quality.

Increased attention to reforming the Ukraine's VET system is also timely given the fact that, from 2004, it will be among the new neighbours of the European Union. This will have possible implications for the country's social and economic development in which VET is so firmly embedded.

1. SETTING THE SCENE

1

1.1 THE SOCIOECONOMIC SITUATION

Since regaining independence on 24 August 1991¹, Ukraine has experienced unstable political and economic development, which has added greatly to the challenge of building a modern social fabric based on democracy and market economy principles.

The results of the initiatives taken to address the challenges facing a post-Soviet Ukraine can only be said to be disappointing. A decade of negative economic growth has naturally had tremendous social consequences, with a quarter of Ukrainians still living in poverty in early 2000, a situation that is likely to have improved slightly since then². Despite the

social consequences, Ukrainians are supportive of the continuing transition to a market economy. In 1994 a survey suggested that 43% of Ukrainians supported private business development, while 31% had a negative view of private enterprise. In 2001 the support had increased to 52%, with 23% still against private sector development (ICPS 2002). The positive economic trends experienced in 1999 and 2000 are likely to have made Ukrainians more positive about the success of market economy.

The Ukraine's initial attempts to maintain a centrally planned economic policy led, in late 1993, to an economic crisis that almost resulted in hyperinflation. In 1994 GDP dropped by 23% and industrial output by 28%. The near-collapse of the formal

¹ The Ukrainian Republic was proclaimed on 22 November 1917 and became a part of the USSR on 30 December 1922. Immediately after the failed coup against former Soviet president Mikhail Gorbachev, Ukraine declared its sovereignty. On 24 August 1991 Parliament declared Ukraine independent. In a referendum held on 1 December 1991, 84% of eligible voters took part and over 90% supported independence. The Commonwealth of Independent States (CIS) was created on 8 December 1991 and the USSR was officially dissolved on 17 December 1991.

² The World Bank estimates, based on a survey covering the first three-quarters of 1999, that 27% of the population is living in poverty and that 18% is living in extreme poverty (World Bank, 2000). This is an improvement on the figures for 1995, which showed that 31% of the population was living in poverty (World Bank, 2002). According to *Ukraine: Common Country Assessment* (UN, 2001), the situation has improved further in 2000. Different definitions might influence the comparison between data, although this cannot explain away the fact that many Ukrainians are living in poverty.

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economy resulted in an even greater decline in public revenue, stretching public resources for public services, which had a devastating effect on normal service levels. The hesitant progress towards economic reforms has made the Ukrainian transition one of the most prolonged of the New Independent States (NIS), as the Ukrainians have endured over 10 years of negative economic output³.

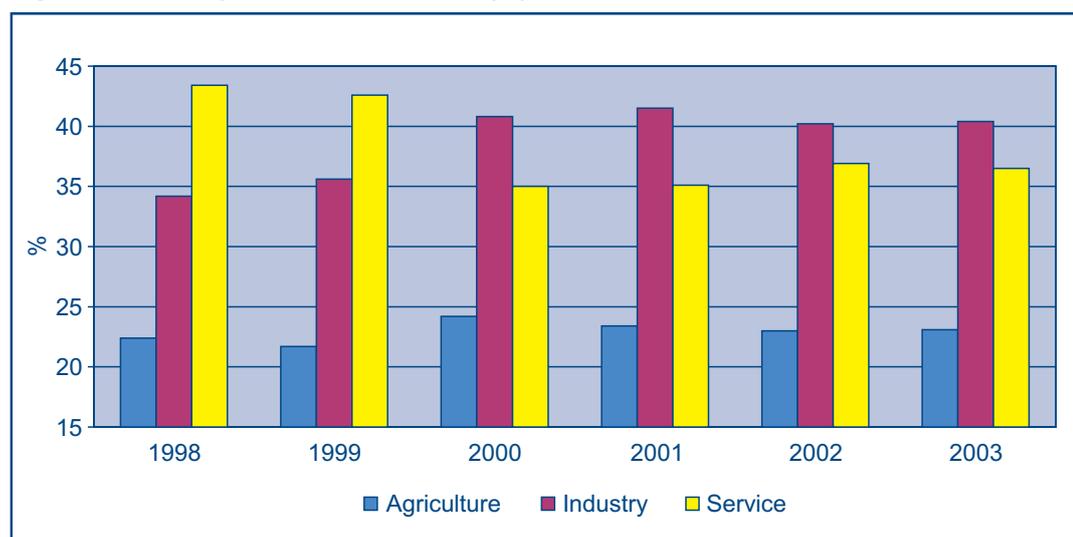
As table 1 demonstrates, it was not until the end of the 1990s that the economy was recovering to such an extent that it started to show figures indicating a sustained economic recovery. Over the last three years, Ukraine has had a high level of economic growth of almost 6.5% per year on average.

Recent very positive figures show that the economy continues to recover. In the first quarter of 2003 GDP improved by 7.5%, a trend which is likely to make the authorities adjust, upwards, their GDP prediction for 2003-04 (Institute for Economic Research and Policy Construction, 2003; and

Dansk-Ukrainsk Press Service, 2003). On the other hand, last year's harvest was very good, allowing Ukraine to export large amounts of grain, while the 2003 harvest is expected to be poor, which will have a negative influence on the overall economic performance⁴.

The positive economic developments should be viewed in conjunction with the slow progress towards privatisation since independence. Although privatisation has been progressing at a slow pace, privatised enterprises have contributed significantly to industrial production, especially since the end of the 1990s. Privatised enterprises' share of industrial production increased from 51.1% in 1997 to 58.3% in 2000, which is likely to be the critical mass which can allow restructuring, economic progress and improved employment opportunities (UEPLAC, 2001). Many of these enterprises are SMEs that are established and showing growth in all sectors. Most of the SMEs were established within the past three to five years, often as a result of the privatisation of larger industries⁵.

Figure 1: GDP by sector – 1998-2003 (%)



Note: Figures for 2003 are estimates.

Source: *The Economist*, EIU viewswire, Economist Intelligence Unit, 2 August 2002 (www.viewswire.com).

³ In Ukraine real per capita GDP fell by 62% between 1989 and 1998. Only Georgia and Tajikistan had a greater decline in GDP, with 67% and 64% respectively (Unicef, 2002).

⁴ The poor harvest is likely to set off additional internal discussion on agricultural policy issues such as privatisation and pricing. The price of grain influences the price of bread, and, consequently, the situation of low-income families.

⁵ It is relevant to make a distinction between privatised and new private enterprises. Many privatised enterprises are not necessarily progressing simply because they are privatised. New private enterprises are enterprises that were established recently, and these are showing a better growth potential.

Table 1: Ukraine basic economic indicators – 1990-2003

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Real GDP % changes over the same period of the previous year*	-4.0	-8.7	-9.9	-14.2	-22.9	-12.2	-10.0	-3.0	-1.9	-0.2	5.8	9.0	4.6***	5.3****
Consumer price inflation %**			30.8	47.5	13.2	9.1	2.9	0.8	1.6	1.5	1.9	0.5	0.9***	
Registered unemployment %**		0.3	0.29	0.35	0.36	0.53	1.49	2.74	4.30	5.40	5.31	4.53	3.8***	

Source: * Ukraine Economic Trends, Quarterly, March 2000 and December 2001 Issues, UEPLAC.

** Ukraine Economic Trends, Quarterly, December 2001 Issue, UEPLAC; Statistics of Ukraine's Economy, Institute for Economic Research and Policy Consulting; and Quarterly Predictions, #19, April 2002 and # 22, first quarter 2003, ICPS.

*** Monthly Economic Monitoring Ukraine No 4, April 2003, Institute for Economic Research and Policy Consulting; and Newsletter No 165, 11 November 2001, ICPS.

**** Monthly Economic Monitor Ukraine No 10, October 2003, Institute for Economic Research and Policy Consulting.

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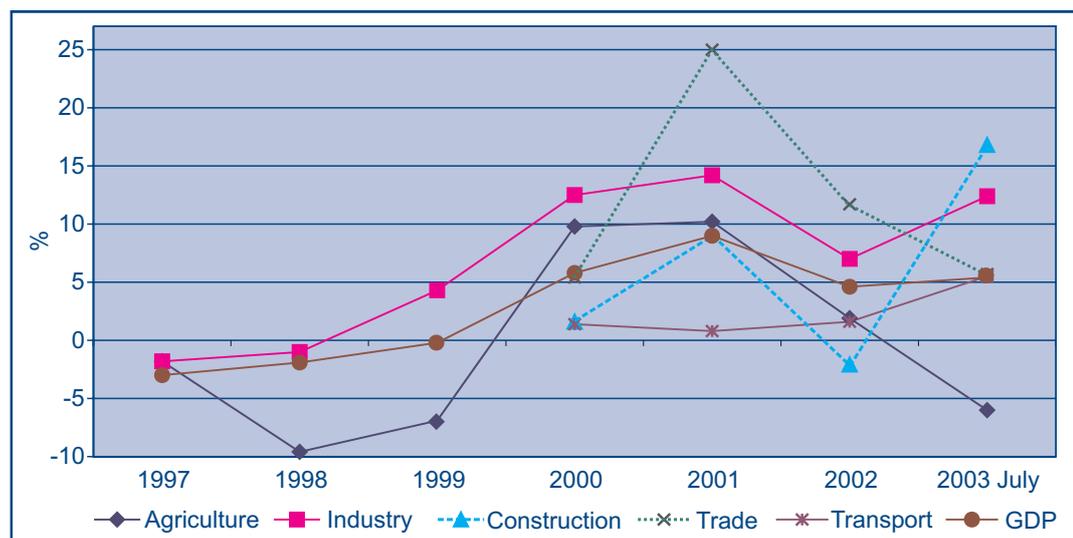
Comparisons between the main economic sectors in terms of contribution to the GDP (figure 1) show that since 2000 industry has become the dominant sector. The overall economic recovery can be credited to positive growth in all sectors. All sectors except construction are showing the same pattern. Within the industrial sector it has been machine building, lumber processing and the food processing industry in particular that have driven the sector (May 2002 to May 2003). Despite similar growth patterns, growth rates have been quite diverse (figure 2). In such a period (1998 to 2003) of relatively rapid economic changes, overall growth and transition-related issues have been difficult to assess⁶. What seems certain is that transition processes in the economy, such as privatisation, the speed of modernisation, improved technology level and managerial capacities, varied between and within sectors.

During the central planning period, enterprises were locked together into fixed supplier and sales relationships (production

chains) for both inputs and outputs, so that enterprises did not need market information or marketing capacities. These institutionalised production chains, which were a feature of all the Soviet republics, totally collapsed after independence, and this naturally left a vacuum that has yet to be filled by market economy principles⁷. As well as being a traditional economic indicator, Ukraine's foreign trade can therefore be seen as an indicator of how well the restructuring of the economy is progressing in terms of such issues as integration into the world market, market-oriented production processes, higher technology levels, increased quality and improved management, and of the economic transition policy in general.

In the late 1990s the Ukrainian balance of payment improved thanks to a slight increase in exports to European and other non-former Soviet States, which among other things is a result of devaluation and greater product diversity. Although trade figures can be ambiguous, improvements in trade cannot be the result of the

Figure 2: Growth of real GDP by sector – 1997-2003 (% year-on-year)



Note: Figures for construction, trade and transport are forecasts for the entire year.

Source: 'Macroeconomic Forecast Ukraine' No 1, Institute for Economic Research and Policy Consulting, October 2002; and 'Economic Statistics', Issue No 33, International Centre for Policy Studies, July 2003.

⁶ The difficulty that economists have in explaining overall economic developments in the Ukrainian economy is discussed in 'Why has Ukraine Returned to Economic Growth?' (Åslund, 2002). Macroeconomic forecasts made in late 2002 downgraded expectations for growth in 2003 to be lower than 2002, or predicted only a moderate increase in growth. Half a year later, predictions for 2003 were for a significantly higher growth rate than in 2002 (see for example ICPS, 2002; or Institute for Economic Research and Policy Consulting, 2002).

⁷ The collapse of production chains cannot explain a lasting decline in the overall economic performance, since enterprises are likely to develop new supply and demand relationships.

devaluation of the hryvnia alone, but are also a positive effect of the transition policy. Again, differences between and within sectors can be related to their ability to transform⁸.

The Ukrainian economy is still closely linked to the Russian economy, making it vulnerable to developments in Russia. Although progress has been made, incomplete structural transformation between and within sectors and with regard to ownership, a weak banking system, and legal and bureaucratic uncertainties regarding foreign investments are barriers that are hampering progress. The economic growth over the past three years seems to have been possible because of the utilisation of idle industrial capacities. Growth among more innovative enterprises also needs to become even more visible in order to sustain the positive trends.

In Ukraine, as in many of the NIS, the shadow economy is considerable: it is estimated to constitute some 30 to 50% of total economic activities in the country (Mel'ota and Gregory, 2001; and World Bank, 1997)⁹. In addition, analysis of transition countries suggests that the shadow economy is particularly large in Ukraine, only second to that of Georgia, and that, despite political measures to eradicate it, it appears to have been growing in terms of economic importance since 1993 (Åslund, 2002; Johnson, Kaufmann and Shleifer, 1997; Johnson and Kaufmann, 2001; and Mel'ota and Gregory, 2001).

Estimates indicate that, if the shadow economy is added to the GDP, the decline of 67% from 1990 to 1999 is reduced to 41% (Mel'ota and Gregory, 2001)¹⁰. Because such a large proportion of the total economic activities are concealed from official registration, and because the proportion will remain large for the foreseeable future, it will influence the financial capacities of the state for years to

come and remain a barrier to economic development.

Prime Minister Viktor Yanukovich announced the government's policy for addressing the economic challenges. The government will, in its economic policy, give priority to Ukraine's highly competitive industries, such as aerospace and engine-building, consumer goods, transport and pipelines, biotechnology, defence, machine building, electrical engineering and information technology, and agriculture. The measures to be employed include tax and pension reforms, improvements to the market economic infrastructure (including banking, investment, stock market, business law and administration), restoration of public confidence in the authorities, and strengthened secondary education and VET.

From a VET perspective, we find support in the economic developments for the following conclusions.

- Provided that the overall economic recovery continues, additional resources – public or private – can be made available for VET, which is an essential factor for the reform of the VET system.
- Although comparisons between and within the different sectors are inconclusive in terms of their detailed effect on the labour market, sustained economic progress and reform towards a market economy will have an overall positive effect on employment levels.
- Economic developments indicate that part of the economy is becoming increasingly confident with the market-like conditions. A survey suggests that part of this positive development can be explained by the employment of new and more market-oriented management principles introduced by entrepreneurial managers. The survey suggests that

⁸ Naturally, the agriculture sector is very dependent on the harvest and the prospects for 2003 are not good.

⁹ We consider only those shadow economic activities that are legal, meaning legitimate goods and services produced without proper permits and legal status, as being relevant with regard to VET. For definitions and measuring methods see 'Informal and Underground Economy' (Frey and Schneider).

¹⁰ In the article the authors argue that two-thirds of the shadow economic activities can in fact be detected within the official statistics.

management training plays a significant role in the restructuring of enterprises (Akimova and Schwödiauer, 2002). We find that this in turn is likely to bring about an awareness, within the progressive part of the economy, of the need for new staff competencies in order to achieve a more appropriate combination of the means of production, to take advantage of new equipment, technology and product innovations, and to improve product quality. Following this line of thinking, it will in turn underline the necessity for a modernised VET system which can support these trends by being in tune with economic realities. The interviews conducted with stakeholders support these findings. Employers are increasingly becoming aware of the need to upgrade their human capital as a precondition for modernising the production process. Employees' lack of competencies in mastering new technology and operating modern equipment effectively was clearly highlighted during the interviews.

- The shadow economy is likely to remain a significant feature of the Ukrainian economy. From an employment and training point of view, the shadow economy is consequently a factor that must be taken into account when developing employment and training measures.
- The government is acknowledging the importance of education and training for the continuing development of the economy.

1.2 LABOUR MARKET TRENDS

There is no doubt that transition has brought with it dramatic changes in all aspects of life, and that the social costs have been considerable. The very positive economic developments of recent years have not been able to eradicate the fact that living standards have declined, and that for too many, poverty and unemployment have become a sad reality.

Unemployment figures tell a story of dismissals owing to the slow pace of economic restructuring, which should have been creating new jobs in new and transformed sectors of the economy.

During the Soviet era, local labour authorities were responsible for implementing an ideologically determined full employment policy. Consequently, much effort went into creating jobs for everyone of working age, regardless of economic considerations, and this eventually led to widespread underemployment. The gradual shift from state-planned production to production increasingly influenced by consumer preferences and international competition has seen a labour market take shape¹¹.

Unemployment

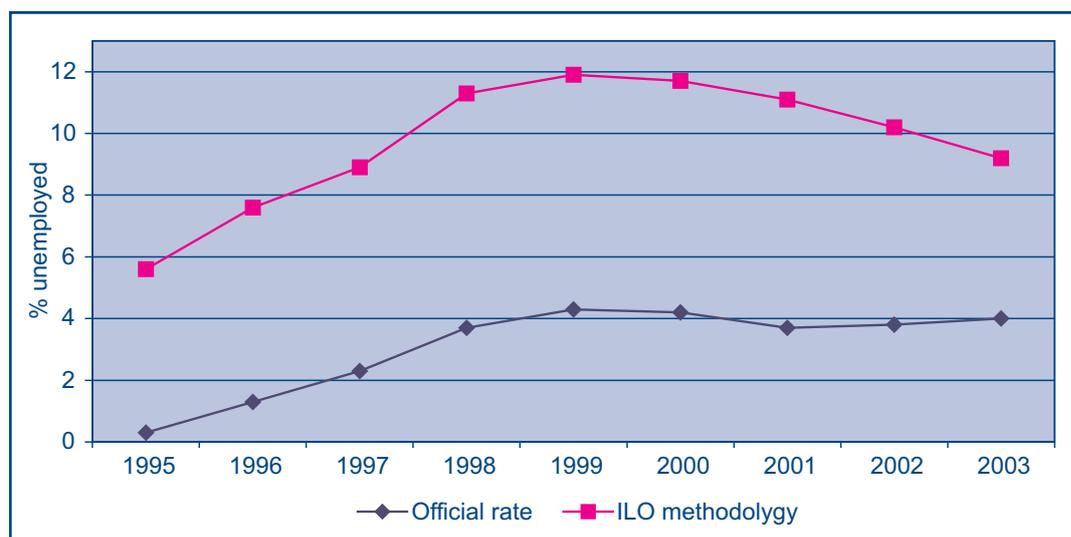
One of the first noticeable consequences was that underemployment became an increasingly visible level of unemployment, as state and privatised enterprises were financially unable and politically unwilling to continue to bear the burden of an impractical full employment policy. Consequently, unemployment became a totally new phenomenon in Ukrainian society.

The first manifest increase in registered unemployment was in 1992 when the figure was 70 000; this increase continued (figure 3), reaching its highest in the first quarter of 1999 when employment centres reported over 1 million registered unemployed (UEPLAC, 2001).

However, official unemployment figures are based on the number of unemployed people who have registered with local employment service centres¹². For social and financial reasons, employees who have been made redundant are often reluctant to register as unemployed because, if they remain officially classed as employees, they continue to benefit from the company's social services and benefits such as schooling, housing and medical

¹¹ The very first signs of a labour market can be traced back to the late 1950s when rural citizens were granted some mobility rights and workers were given the right to resign.

¹² Persons of working age (16-54 years for women and 16-59 for men) are counted as unemployed if they are out of work, have no wage or other legal income, have registered with the state employment service centres as seeking employment and are able and willing to take up any appropriate employment assigned (OECD, 2000; and also International Centre for Policy Studies, 2000).

Figure 3: Unemployment rates – 1995-2003

Source: Figures from 1995 to 1996: 'Ukraine Economic Trends', Quarterly Issue, UEPLAC, December 2001; and figures from 1997 to the first quarter of 2003: 'Statistics of Ukraine's Economy', Quarterly Predictions Issue No 33, International Centre for Policy Studies, July 2003.

care. If they are owed wage arrears they still have a chance of being paid, so many are remaining officially employed. Enterprises sometimes 'asked' their staff to take unpaid leave (also called administrative leave) or to work only part-time. Although forced leave and part-time work have been used throughout the economy, they are particularly common within the light industrial, construction material, manufacturing and construction sectors¹³.

Another reason that many people do not register as unemployed is that unemployment benefits are not substantial, and are difficult to obtain because of complex regulations¹⁴. Consequently, it can be assumed there is still a high level of hidden unemployment and that official unemployment statistics clearly understate the real situation. On the other hand, some might register although they have no real intention of working, which adds to the problem of using official unemployment figures. However, these figures are those that are directly visible to the employment

services and are therefore the basis for unemployment measures, including training initiatives.

In addition to the official unemployment figures, household survey data have been collected using the ILO employment methodology since 1995. As may be expected, the 'real' unemployment rate is higher than the official figures¹⁵. It is also interesting to note that the labour force survey (LFS) data shows a fall in unemployment since 1999, while the official unemployment data do not detect such a trend. The regions of Rivne, Ternopil, Volyn, Zhytomyr, Suma, Zaporozhye and Poltava have been particularly affected by unemployment, while the main cities have the lowest levels of unemployment (UEPLAC, 2001; and National Observatory of Ukraine/ETF, 2002). The difficult employment situation can also be seen in the high level of multiple job holding, with around 25% of employed people having more than one job (ICPS, 2001).

¹³ Indications suggest that at the start of the XXIst century 16.1% of the employed were on forced leave and 13.3% were working part-time (Selihey, 2003).

¹⁴ The requirements mentioned in the 'Law on Employment' as to who is officially acknowledged as unemployed might also add to the underestimation of real unemployment. For example, men over 60 and women over 55 are not included in the figures, and many documents such as residence permits must be produced in order to register, which for various reasons deter some people from registering.

¹⁵ Authorities are aware that the official unemployment figures are understating the unemployment problem. On 15 November 2001 a parliamentary hearing on the employment situation acknowledged the weakness of the official unemployment figures as a reflection of the true situation. The real unemployment rate was estimated to be as high as 26-32%.

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LFS data shows that unemployment rates are usually highest among the younger age groups. Furthermore, it appears that people with a low education level over the years have managed to find employment (probably a low-paid job) and to keep it. Recently however, it is interesting to note that a low level of education seems increasingly to lead to unemployment, especially among the younger age groups from 1998 to 2001 (figure 4).

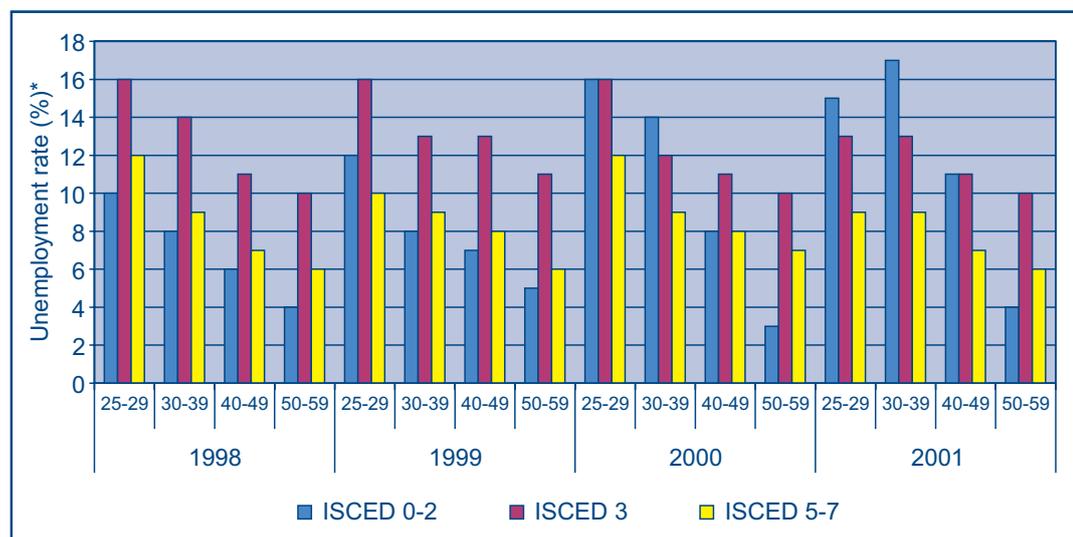
Other figures show that men with low (ISCED 0-2) and high (ISCED 5-7) education levels have a higher unemployment rate than women, while the opposite is the case for ISCED level 3¹⁶.

However, it is the general opinion of those we interviewed that the unemployment situation is improving, or will slowly do so. The unemployment rate seems to show signs of levelling off, and the number of people unemployed has actually been falling, which the LFS unemployment rate also shows¹⁷.

The other side of the coin is that employment service centres are reporting high long-term unemployment rates. As many as 30% of all job seekers have been unemployed for one to two years, and another 30% for over three years; the average period of unemployment increased from 9.9 to 11.4 months between 1998 and 2001 (UN Country Team, 2002; and National Observatory of Ukraine/ETF, 2002). As well as a lack of vacancies, the causes of long-term unemployment include low educational levels, out-of-date skills, low self-confidence and low mobility. One can only presume that a number of long-term unemployed people supplement the low level of unemployment benefit they receive with income from informal economic activities.

Many VET school leavers are moving directly from school into unemployment. Ministry of Labour and Social Policy (MOLSP) figures suggest that 30 to 35% of VET school leavers become unemployed after graduation¹⁸. Again, such figures cannot tell us how many of these young people are using their skills in the informal economy.

Figure 4: Unemployment rate by educational attainment and age group – 1998-2001



* The unemployed aged 15 and over as a percentage of the labour force aged 15 and over.
Source: LFS data, National Observatory of Ukraine, 2003.

¹⁶ National Observatory of Ukraine, 2003.

¹⁷ The actual number of registered unemployed people has decreased from a peak of over 1.2 million in the first quarter of 2000 to 1 million in December 2001 (UEPLAC, 2001). This should be seen in relation to a decrease in the labour force by 1.1 million people. This is further supported by the quarterly enterprise survey findings (see Institute for Economic Research and Policy Consulting, 2003).

¹⁸ Interview with the MOLSP. As in many other countries, the youth unemployment rate is noticeably higher than that of general unemployment.

Employment by sectors

Employment by sector is fairly stable from 1998 to 2001 in that agriculture, industry and health and education remain the three main sectors of employment. The majority of the 1.8 million jobs lost between 1998 and 2001 were in industry, trade and construction. In percentage terms the construction sector has lost more than every fourth worker employed in the sector. It is only within the public administration and finance and banking sectors that we have seen jobs being created. Although the percentage increases are impressive, the actual number of jobs created in both sectors was less than 160 000 in the same period. The general trend is therefore one of decrease in overall employment by 9%¹⁹.

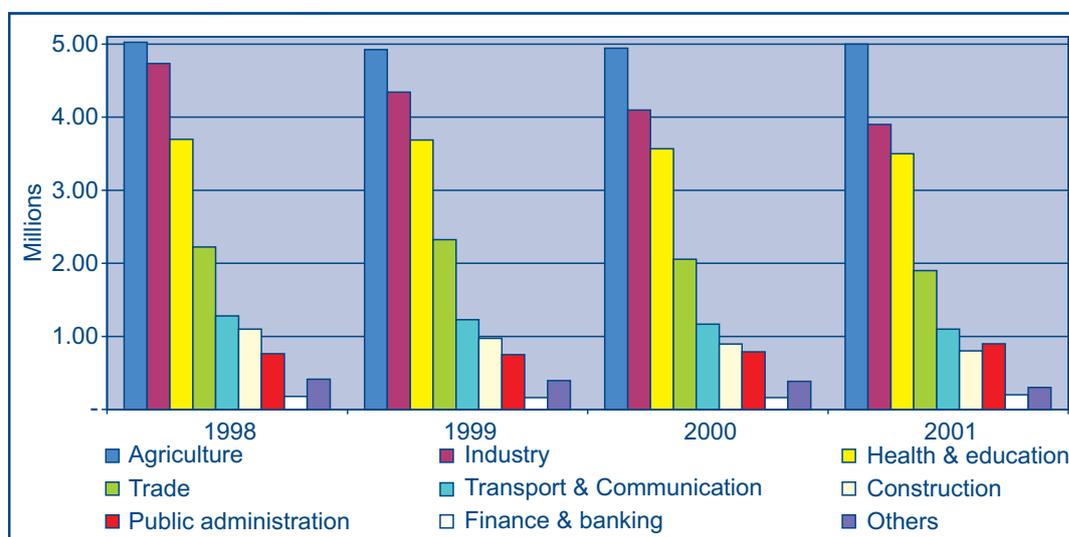
The data show that the positive economic development from 1998 has in general not yet resulted in the creation of new jobs. Many enterprises have been operating well under capacity for years and still have employees working part-time or on forced leave. Such staff resources will be utilised before additional employees are hired. At the same time enterprises will continue to reduce surplus labour, and investment in

new technology can be expected to reduce the need for labour. We are therefore likely to see that, although the economy is improving, jobs will continue to be lost.

Data suggests that when calculated as full-time employees, the number of people employed falls by some 20% (2001), which indicates that many are working part-time and that the potential for decrease or increase in employment is likely to come from part-time employees. There is also a high industrial labour mobility gross rate, which in 2001 meant that one in four people employed in industry had worked in their present job for less than a year and that one in three employees will not be in the same job next year. All in all these trends indicate that the labour market is rather unstable (UEPLAC, 2001).

Survey findings suggest that export enterprises, especially those involved in trading with Western countries, reduce their labour force quicker than other enterprises. New private enterprises are better at creating jobs than state-owned and privatised enterprises, and job reallocation seems to occur within rather than between sectors (Konungs, Kupets and Lehmann, 2002).

Figure 5: Employment by sector



Note: For each year, agriculture is the first left column followed by industry, health & education and so on.

Source: National Observatory of Ukraine, 2003.

¹⁹ SMEs show some interesting employment features. As well as having gained a significant position in the economy, SMEs employ more than 57% of the labour force, and 30% are run by women (Considine, 2003).

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Mobility, whether between and within sectors, between and within professions, or geographically, is a complex problem facing the emerging labour market. The tradition of continuing employment in the same profession and at the same enterprise has made it difficult for individuals actively to change profession and seek employment within sectors that are new to them. To some degree, the development of the regions is hampered by the lack of a tradition of geographic mobility. During the Soviet era, free movement was restricted, and was only possible with a special permit. Although liberalisation has been introduced, people do not have a tradition of looking for work outside their hometown. However, other measures are limiting mobility, such as access to housing and transfer of social rights between regions.

Skills need – a barrier to production

Employers' views on the need to invest in their human capital are an indication of the demand for new skills. High-tech enterprises exposed to international competition, such as the Antonov airplane company, which was involved in our interviews, are showing concern for their human capital, which is vital for them in order to compete in an international market²⁰. Since 2002 the Institute for Economic Research and Policy Consulting has been surveying the views of managers

on key business issues. Managers are asked for their views on a number of barriers to production, including whether or not they find a shortage of skilled workers to be such a barrier. Having managers' views on the need for skills gives us a broader insight. As can be seen from table 2, managers on the whole, despite some fluctuation, see a shortage of skills as being an increasing barrier for production.

Highly qualified workers are especially difficult for some enterprises to recruit, while finding unskilled labour does not seem to be a problem (Institute for Economic Research and Policy Consulting, 2003). Discussions with employers and employers' associations seem to confirm this trend; we therefore view this as an indication of an increased awareness among employers of the importance of a skilled workforce, and that some enterprises are facing difficulties in finding workers with the required skills.

Strong core skills are demanded, along with broader professional competencies, rather than narrow specialisations targeted at specific work tasks. Having been used to the Soviet top-led enterprise management style, Ukrainian workers are not accustomed to demonstrating initiative and organising their own work, nor do they have the skills to do so.

Table 2: Percentage of employers who see a shortage of skills as being a barrier to production (2001-03 by quarter)

	2001			2002				2003	
	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2
Shortage of a skilled workforce	10.3	11.7	-	-	16.6	14.3	13.7	16.4	19.9

Note: A panel of 300 manufacturing firms was used to monitor managers' perceptions of changes in business climate and company performance. The table shows the percentages of employers answering that they view the shortage of a skilled workforce as a barrier to production.

Source: 'Quarterly Enterprise Survey', August 2002 to September 2003, Institute for Economic Research and Policy Consulting.

²⁰ Ukrtelecom is another company illustrating that new human resource demands are emerging (Kiev Weekly, 2002).

Employment in the shadow economy

From an employment and training point of view the shadow economy is of interest because it is large and offers many employment opportunities. From this perspective, it is interesting to know to what extent the shadow economy is different from the formally registered economy.

The concealed nature of the activities naturally makes it difficult to establish a complete picture of the activities in employment and training terms. However, the literature on Ukraine's shadow economy gives some insight into its characteristics (Johnson, Kaufmann and Shleifer, 1997; Johnson and Kaufmann, 2001; Mel'ota and Gregory, 2001; Mel'ota, Thiessen and Vakhnenkon, 2001; Thiessen, 2002; ICPS, 2000). The shadow economy can be divided into unregistered household activities and underreporting by registered enterprises. A particular feature of Ukraine's shadow economy, besides its size, is that it seems, in terms of value of production, to be concentrated in large enterprises, and not in households and small enterprises as much as might have been expected (Mel'ota and Gregory, 2001).

This could indicate that a large part of the shadow economy is not very different from the formal economy except that it is concealed, meaning that enterprises are involved both in registered and non-registered activities. Consequently, the training needs of this part of the shadow economy would be no different from those that a modern VET system should be able to address.

Despite the fact that many large enterprises seem to be engaged in shadow activities, we find that many informal economic activities are entrepreneurial by nature and are hidden because this increases the survival chances of the

business. It is estimated between 1.8 and 3.0 million people are using their skills as unregistered entrepreneurs (UN Country Team, 2002). Clearly these informal entrepreneurs represent a growth potential that should be fully utilised through additional training and other measures. In 1998 the tax rules for entrepreneurs and small enterprises were simplified, which resulted in a sharp increase in the numbers of registered entrepreneurs and small-scale businesses²¹. Many of those who were previously operating in the shadow economy are likely to have entered the formal economy, thereby becoming part of the more transparent and accessible growth potential. Targeted training activities are likely to strengthen the growth of entrepreneurs and SMEs.

The sheer size of the shadow economy has meant that it has become the only alternative for many households, since it provides employment and an income where the formal sector has failed. It could be argued that the informal economy has counter-balanced the potential social unrest that would otherwise have been expected to surface as living standards declined. There is a fear that informal activities and behaviour patterns will become institutionalised before sound democratic and market-based principles are established.

Others, especially young people and single mothers, not having the capacity to find informal jobs or self-employment, are pushed into poverty. For young people and single mothers, education and training is likely to offer a way into employment.

Demographic developments

Ukraine has seen a fall in its population from 51.7 to 48.5 million between 1989 and 2001. Demographically we see an ageing population, the result of a sharp fall in the fertility rate, which will influence the education system and the labour market in

²¹ Since 1986 single entrepreneurs are required to pay a high fixed tax based on their own book-keeping and subject to inspection. This simplification means that entrepreneurs (1 to 5 employees and a gross income of up to 7,000 times the tax-free minimum income, which in 2001 was around 17 hryvnia) will pay a fixed tax, with no extra book-keeping or inspection required. This tax varies from approximate 20 to 100 hryvnia per month per employee. For small enterprises with up to 10 employees a single low-turnover tax of 10% was introduced (Thiessen, 2001).

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the near future²². The fertility rate has fallen significantly, from 1.9 in 1989 to 1.09 in 2000, which consequently will result in fewer students enrolling in the education system. From 1998 to 2001 the number of 14 year-olds fell by 4.4%. The entire education system will have to adjust itself to having fewer students, which is likely to mean some reallocation of resources and the introduction of new measures, such as increased school bussing and the restructuring of training institutions in rural areas, which can offer a wider range of educational programmes (training centres). An increased need for adult training is also likely to emerge in the coming years.

Economic performance and developments in the labour market have, since independence, had a significant influence on education and VET. This can be summarised as follows.

- Economic performance has been negative, which subsequently has a negative effect on every aspect of life. Since 2000 the economy has recovered and is showing positive growth rates.
- In a society in transition, the VET system needs to adjust its approach to the new political and economic realities.
- Public funds have not been able to sustain previous public service levels. The positive economic development in the past three years should make it feasible to allocate additional resources to strengthening public services, including education and VET.
- Visible unemployment has become a reality. Measures to address unemployment, such as retraining, are new undertakings that require the establishment of a new institutional order, giving new tasks to established institutions and at the same time developing new ones.
- Economic growth since the late 1990s has not resulted in a net increase in employment. The period since independence has been characterised by job destruction. In fact, the job destruction has been less than the decline in GDP might suggest.
- The large shadow economy is both a barrier to public service development and an area of potential economic growth in need of VET.
- Self employed and SMEs are potential growth segments for which training needs should be identified and addressed by continuing education and VET.
- Jobs are increasingly being filled via the labour market.
- Demographic developments demand educational restructuring due to the aging population.

²² UN's latest long-term estimates suggest that the population will fall by between 30 and 50% by 2050 (Dansk-Ukrainsk Selskab, 2003).

2. DESCRIBING THE SYSTEM AND RECENT DEVELOPMENTS

2

2.1 CHARACTERISTICS OF THE EDUCATION SYSTEM

Education has always held a strong position in Ukraine. During the Soviet era education was promoted at all levels, from preschool to higher education. This policy was supported by the allocation of sufficient funds to meet the educational expectations of the society. The result was a well-functioning education system producing a high literacy rate and with a focus on acquiring knowledge and skills, especially within science, which could serve the needs of a planned economy.

The education system in Ukraine is structured as a continuous system consisting of preschool, secondary comprehensive, VET, higher education and continuing education.

The comprehensive secondary school is the basic component of the education system, which, with effect from 2003, will gradually start to offer 12 years of compulsory education. The school system is divided into primary general (elementary

school), lower secondary and upper secondary general education.

- Primary school, which covers four years (from age 6 to 10), comprises grades I–IV.
- Lower secondary, which covers five years (from age 10 to 15), comprises grades V–IX, and students are awarded a Lower Secondary School Leaving Certificate.
- Upper secondary or, as it is also known, complete secondary education, comprises grades X–XII. Three types of schools (Licei and Gimnazia (special education), and Starsha Srednia Shkola two-year programme) offer upper secondary education (from age 15 to 18). After taking exams, students are awarded an Upper Secondary School Certificate. In addition, VET schools offer secondary education combined with professional training.

Since 1992, the entire system of post-secondary education has been considered to be higher education.

2.2 THE VET SYSTEM

The VET system consists mainly of public VET schools²³. Taking entrants from either lower secondary or upper secondary schools, these establishments can offer around 260 different professional qualifications at three different levels²⁴.

- **Level I** – Lasts one to six months and provides lower qualifications in different occupational areas. At the end of the course the student is awarded a state qualification depending on the results. A certificate of attendance is offered to those who fail to complete courses. This level also offers continuing training for adult participants.
- **Level II** – Lasts one to three years, depending on entrance level (lower or upper secondary) and provides qualifications for science-intensive trades and occupations. The State Skilled Workers' Diploma is awarded, depending on the results. Those entering from the lower secondary level who also take courses at upper general secondary level will in addition receive an upper secondary school leavers' certificate.
- **Level III** – Lasts one to one and a half years and provides higher qualifications for science-intensive trades and occupations. The entry requirement is a level II diploma plus a full upper general secondary education. Accredited high VET schools can award a Junior Specialist Diploma²⁵.

VET schools can offer education and training up to level II, and high VET schools

can offer education and training up to Junior Specialist. Some VET schools have a specific profile that links them to specific sectors of the economy, such as the construction or service sectors. The VET department within the MOES is in charge of these different types of VET schools.

To offer Junior Specialist programmes, which belong to higher education, high VET schools should have a level II accreditation. Graduates must sit final exams and defend a graduation thesis/work. The Diploma gives graduates the right to work at different qualification levels or the opportunity to continue education and training at institutions of a higher level. The department of higher education within the MOES is in charge of these higher VET institutions.

In recent years the majority (71%) of lower secondary graduates (grade IX students) continue on to the upper secondary, 27% of students continue their education and training in a VET institution and 2% enter the labour market (National Observatory of Ukraine/ETF, 2002). For students entering VET after the lower secondary level, their first 'career choice' is made at the age of 15. The majority of the more than 500,000 (2002/03) VET students are between 15 and 18 years of age, and almost 67% of these graduates acquire a complete professional secondary education (qualified worker at level II), and 18% of all students continue to study after graduation.

A significant feature of the VET system is its substantial social obligation with regard to offering education and training for

²³ Some enterprises also offer training outside their own workforce, but the total number is small. Private VET providers, which are mainly found in cities, are very few in number and have a limited capacity, mainly offering short courses such as language training, computer literacy and office administration. Their certificates are not recognised by the MOES.

²⁴ The number is being reduced from 800 to 260 by combining specialisations into broader occupational categories.

²⁵ High VET schools offering junior specialist programmes require accreditation for levels 1 and 2, and a licence within the four-level higher education accreditation system. Some 120 VET schools can offer Junior Specialist Diplomas within specific occupations.

Level 1: vocational schools and other higher education institutions equivalent to institutions that offer junior specialist professional programmes;

Level 2: colleges and other higher education institutions equivalent to institutions that teach bachelor and junior specialist professional programmes;

Level 3: institutes, conservatories, academies, universities that teach bachelors and specialists, as well as junior specialists using educational and professional programmes;

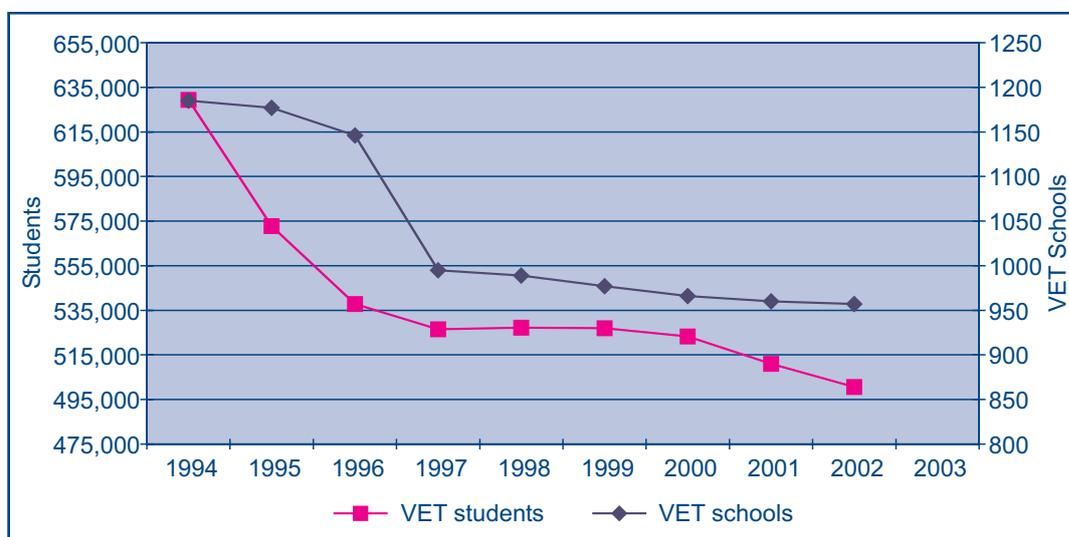
Level 4: institutes, conservatories, academies, universities that teach bachelor, master and specialist courses.

2. DESCRIBING THE SYSTEM AND RECENT DEVELOPMENTS

disadvantaged groups (orphans, students from single-parent families, troubled homes and poor families, individuals with a physical or mental disability). Over the past seven years, this group has constituted between 46 and 49% of the total number of students²⁶. These figures could indicate that socially disadvantaged students are 'automatically' guided into the VET system regardless of their personal interests and potentials, which is not necessarily the best way to utilise a country's human resources.

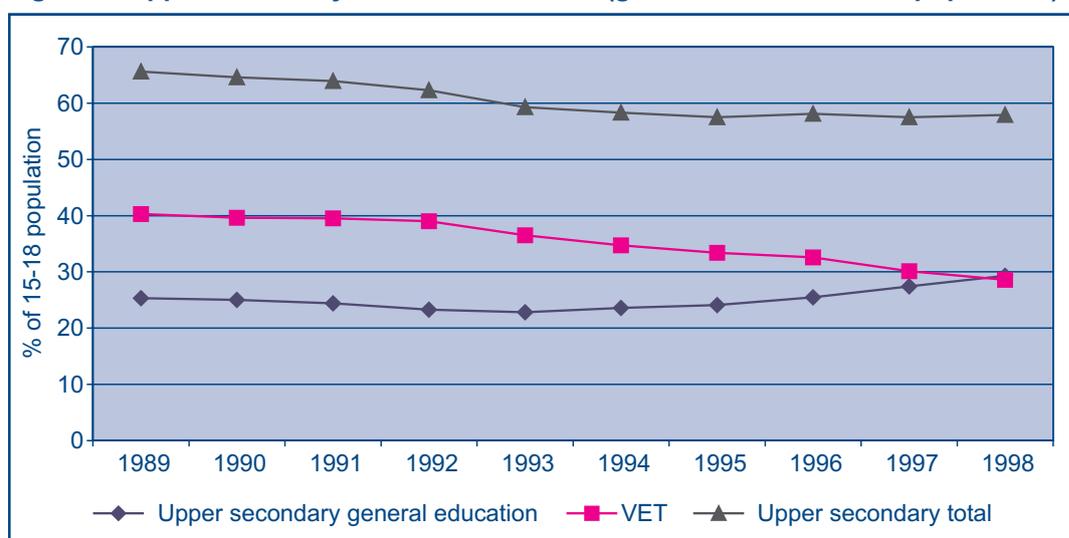
This practice also contradicts the officially stated policy of providing equal access to education. This has undoubtedly added to the image of VET as being the last resort if an academic career is not a possibility. In addition the social obligation requires substantial resources, not only in terms of offering this group of students the basic means of subsistence (board, lodging and scholarships), but also from a pedagogical point of view.

Figure 6: Number of VET students and VET schools under the MOES – 1994-2002



Note: VET schools come under the Ministry of Education and Science, department of VET and general education.
Source: Information from the Ministry of Education and Science, 2003.

Figure 7: Upper secondary and VET enrolment (gross rates, % of 15-18 population)



Source: 'A Decade of Transition', Regional Monitoring Report No 8, Unicef Innocenti Research Center, Florence, 2001.

²⁶ If the students who have suffered the consequences of Chernobyl can be regarded as belonging to a socially disadvantaged group, the percentage increases to 53% for 2002. Information obtained from the MOES.

As can be seen in Figure 6, the number of VET students fell during the 1990s. The number of VET schools has also declined, partly because of the declining number of students, but also because of decreasing funds, which has made it necessary to close VET schools. This has resulted in an increase of over 12% in the average number of students per VET school, especially from 1996 to 1997 when a relatively large number of VET schools were closed.

Although the number of VET students dropped during the 1990s, the percentage of those graduating has increased slightly. The increase in the number of students per school and, hence, per class, did not have any negative effect on the numbers graduating.

Figure 7 shows that upper secondary education is becoming less attractive to young primary school leavers, this being especially true for VET. Enrolment levels for VET schools started to fall in 1992, and by 1998 more students enrolled in upper secondary than in VET schools. It should also be mentioned that enrolment into higher education increased between 1993 and 1999, which may suggest that some young students enter higher education at a younger age than was previously the case²⁷.

The figure also suggests that employment – be it formal or informal – has attracted many young people. Either some young people leave the education system after grade IX or they drop out of upper general or VET programmes. Data from 2000 suggests that VET programmes especially have a higher dropout rate than upper secondary schools, and that among the VET programmes it is students studying solely for a vocational qualification without the upper secondary level who are especially likely to drop out (National Observatory of Ukraine/ETF, 2002). Consequently, this means that many enter the labour market without any proper skills.

2.3 CONTINUING VOCATIONAL TRAINING

With the improved economic situation, enterprises are increasingly becoming aware that their human capital needs to be maintained and constantly upgraded. However, the existing CVT system is unable to meet the new demands that are emerging.

Responsibility for CVT rests with the MOLSP. Within the ministry, an advisory council has been established which is in charge of developing further the training for employed people. However, as CVT partly shares the structures and resources of the initial education and training system, the MOES also shares responsibility. This naturally calls for a high level of coordination in terms of both policy-making and implementation.

In 2001 the Cabinet of Ministers (COM) approved several measures aimed at improving CVT, and in turn enhancing the capacity of enterprises to meet the requirements of the market economy.

Private training providers have entered the 'market', especially in areas of high demand such as computer training, languages, services, and office administration and management. Some companies with the capacity to train their own staff sometimes also offer training to staff from other companies and to self-paying participants. Private training institutions have been successful in obtaining contracts with employment service centres for the training of unemployed people, which is very often their main source of income.

Publicly funded VET schools have been able to adjust only slowly to the rapidly emerging demand for adult training. Their general lack of up-to-date equipment, material and experience with adult training has been a barrier to developing the necessary capacity.

²⁷ 'A decade of transition' (Unicef, 2001). It seems to be particularly within accreditation levels III-IV that enrolments have increased. 'Child and Family Welfare in Ukraine: Trends and Indicators' (Unicef, 2001). Other data indicate that for the 1994/95 school year an increase in the number of higher education institutions accredited for levels III-IV has taken place, many of these being private institutions. See 'System of the Higher Education' (Finnikov, 2001).

2. DESCRIBING THE SYSTEM AND RECENT DEVELOPMENTS

Although the number of people receiving training increased to nearly 7% in 2001, the MOES acknowledge that the CVT system needs to be improved in terms of both

quality and quantity. One target group in which the ministry has shown a specific interest is entrepreneurs who lack managerial skills.

3. ANALYSING THE SYSTEM

3

3.1 RECENT VET SYSTEM REFORM EFFORTS

Since 1991, when Ukraine started to reform its education system, VET has frequently been on the agenda of the Ukrainian government. The ambitious 'Education – Ukraine XXI' programme was never realised due to the severe economic situation from 1994 to 1998. The reform process was resumed in 1996 with a presidential decree entitled 'the main directions to reform VET in Ukraine', which set the priorities for the reform.

The first phase of the reform effort culminated in February 1998, when the Ukrainian government was the first of the

NIS to adopt a law on VET that included a comprehensive reform plan. The government adopted some 20 resolutions in support of the financial implications of the vocational reform²⁸.

The economic crisis has, however, imposed severe budgetary cuts on the VET system. These constraints have not only meant that the implementation of the reform plan was at a standstill, but have also led to increasing difficulties in maintaining the existing educational standards and infrastructure.

In September 2000 the MOES, in cooperation with the International Renaissance Foundation (IRF), initiated a

²⁸ Major elements of the reform efforts

- The dialogue on vocational education and training with key stakeholders must be improved. An inter-branch industry council has been created to coordinate the vocational education and training policies of several national sector ministries and regional authorities. The council is chaired by the deputy prime minister.
- The new state list of integrated professions must be implemented through the development of vocational education and training standards that reflect the vocational qualifications required by the labour market. The implementation includes the need to develop new curricula, textbooks and other teaching materials and to retrain teachers.
- The new vocational education and training law sets out the basis for decentralisation and gives greater autonomy to vocational education and training schools. Regional administrations and school heads need to be prepared for this new responsibility. Among the schools' responsibilities are the assessment of regional labour market needs, the identification of the regional component of the curricula, the development of teaching materials and training for unemployed people.

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process to strengthen further the government's educational reform effort through the development of a National Doctrine on Education (the Doctrine). In November 2000 a working group within the MOES was established and charged with the task of preparing the Doctrine that should redefine the orientation of the entire education system²⁹.

The Doctrine, which was approved in April 2002, sets out the goals and priorities for educational development: (i) to bring the individual into the focus of educational and training provisions throughout a person's life; (ii) to promote national identity and values based on solidarity, ethnic tolerance and democracy; and (iii) to facilitate European integration³⁰.

The Doctrine sets out some overall guidelines for the reform of the VET system, including the following:

- VET should be free for students at state institutions;
- VET can be provided by institutions with various forms of ownership;
- the entire VET system should meet the needs of the labour market;
- VET schools should engage in CVT;
- VET schools can engage in income-generating activities;
- social partnerships should be developed;

- teaching materials should be upgraded and information technology introduced.

For continuing education the Doctrine highlights the following points that are relevant for VET:

- continuing education should be based on a lifelong learning approach;
- it should focus on meeting individual needs;
- optimisation of the system of continuing education should be pursued;
- distance learning capacities and opportunities need to be developed;
- training institutions that cater to the needs of adult learners and the labour market must be established;
- VET institutions should offer vocational training for unemployed people according to what is needed in the labour market, based on state forecasts.

Parallel to the Doctrine, the MOES has developed an implementation plan covering short and medium-term implementation on goals for meeting the objectives of the Doctrine³¹. The implementation plan, which is divided into seven main sections and includes 25 action points directly related to VET, has much to say on the actions needed, but little detail on how the actions are connected, the logic behind the actions or the need for the resources to realise them.

²⁹ 'National Doctrine for Development of Education in Ukraine In the XXIst Century'. The Doctrine was approved by Presidential Decree No 347/2002 on 17 April 2002.

³⁰ Doctrine's main sections: 1) goal and priorities in education development; 2) national nature of education; 3) national and civic education; 4) equal access to quality education; 5) health of the nation through education; 6) continuous education – lifelong education; 7) education management; 8) economics of education; 9) education and science; 10) teaching cadres and scientific and educational brainpower; 11) social guarantees for participants in the training process; 12) strategy of language education; 13) information technologies and training aids; 14) link between education and the development of civil society; 15) international cooperation and integration in the area of education; and 16) expected results. The underlying principles of the Doctrine are a further step in the de-ideologisation of education. It departs from the Soviet educational hypotheses such as: education should be collective not individual; the application of identical curricula, material and methods throughout the country guarantees the development of loyal and correctly trained citizens; only the best ideology – communism – can guarantee the happiness of all workers in the world. www.eucen.org/conference/past/warsaw1998/ukraine/index.

³¹ 'Programme of Government's Actions Aimed at Implementation of the Doctrine for Development of Education in Ukraine in XXI Century for the Period of 2001-2004'. The programme is divided into sections covering general secondary, pre-school and non-school education, vocational education, higher schools, quality of providing educational services, development of the material basis and integration of education of Ukraine into the international educational environment.

During the second half of 2002 and at the beginning of 2003, political attention turned to VET. National discussions culminated in a parliamentary hearing and debate on VET³². The MOES report on VET was the basis for the discussion. The report focused on the chronic under-funding of VET, which has a devastating effect on the quality of training, and on the need for a critical review of the very complex legal framework governing VET (MOES/Academy of Pedagogical Sciences, 2003)³³. The discussions illustrated the increased attention being paid to VET in the political arena. Parliament has made a resolution on VET and the COM is reviewing a draft law on amendments to the legal framework governing VET³⁴. On the more concrete level the MOES has, with the support of the ETF, initiated a process to formulate a new concept of VET.

3.2 SPECIALISATIONS AND CURRICULA IN INITIAL VET

As illustrated in the previous chapters, the economic, demographic, social and labour market trends are placing new demands on the VET system. It quickly became clear that the many specialisations offered in the Soviet VET system needed to be replaced by broader occupational categories that would allow for more flexibility and adaptability to changing labour market needs and that would also increase job mobility. A reform of the different programmes following this approach is currently underway, though it is far from complete.

One of the main motivations for the revision of VET programmes was to provide students with greater access to various qualification levels by creating clear paths through the new types of VET programmes³⁵. The list of occupational profiles was reduced from around 800 to approximately 260 occupations/specialisations by grouping them into broader occupational 'families'³⁶. This can be seen as a first attempt to bring VET closer to the existing or emerging needs of the labour market.

VET curriculum structure

In August 1998 the MOES approved the core curriculum as a new basic document that describes the general structural components of any (VET) curriculum. It contains key elements, such as the qualification structure, types of training and subjects to be taught. As such, it provides the necessary basis for developing standard curricula for specific occupations or specialisations. Training institutions use the core curricula to draw up the curricula for each occupation; these are then submitted to the MOES for approval.

Curricula used in initial VET are traditionally divided into two parts: vocational and general educational subjects. As shown in Figure 8, VET curricula (levels I and II) are, as a rule, composed of around 30% general subjects, with 70% being devoted to vocational subjects. Vocational subjects are then divided up into vocational theory (40%) and vocational practice (60%).

³² In mid February Parliament's Committee on Education and Science held a hearing on VET, which was followed by a debate in Parliament on 11 March 2003.

³³ Prepared for the hearings in the Verhovna Rada's Committee for Science and Education status and development problems of vocational education and improvement of legislation.

³⁴ 'On Developments and Perspectives of the Vocational Education and Training System in Ukraine', Parliament resolution No 699-4, 3 April 2003.

³⁵ The amendments to the Law 'On Education' (March 1996) identified the following goals for vocational and technical training: '...creation of possibilities for citizens to acquire professions in accordance with their wishes, interests, and abilities; retraining and advanced training on the basis of the complete or initial general secondary education. In certain events, the citizens who had no initial general secondary education and who needed a social support and rehabilitation have been provided with opportunities to acquire professions in accordance with the list of the relevant professions'.

³⁶ In April 1998 the COM approved the 'Temporary Governmental List of Professions', according to which vocational schools broaden the training profiles of qualified workers. The existing list of 800 professions has been grouped into 260 units and shortened to 456 integrated professions.

Figure 8: Curriculum structure

General subjects 30%	Vocational subjects 70%	
	Vocational theory 40%	Vocational practice 60% <ul style="list-style-type: none"> ● Workshop training ● Industrial placement

Source: National Observatory of Ukraine, 2003.

There is provision for 20% of a given curriculum to be adjusted to local needs, which is usually done by the schools to take account of the staff and material resources available³⁷. The choice of the general subjects is to some extent dependent on the VET specialisation selected. However, the contents of the general subjects, and those who teach them, are largely the same as those in general secondary education programmes. There are two general subject areas that are compulsory: (i) humanities and mathematics, and (ii) natural science disciplines.

Part of the explanation for such a system can be found in the fact that VET, as well as offering occupation-related education and training, has also in addition been a continuation of general education to enable students to complete full secondary education. In Ukraine, this approach is seen to reflect the general European view of a modern VET curriculum in which emphasis is given not only to work-related skills, but also to contributing to personal development and preparing young people for adulthood and citizenship. However, the problem is that vocational and general education are seen as totally separate (scientific) disciplines or subjects taught by different subject teachers, and learning does not follow overarching learning goals aimed at developing the necessary occupational competence of the individual learner.

The vocational aspect is the main part of the curriculum. It aims to develop practical knowledge and skills through various, but again separate, vocational subjects. As a rule, students receive practical training at school workshops and through industrial placements. However, with the severe constraints being faced by enterprises, an increasing number are unable to offer practical training opportunities to students. Consequently, more and more practical training is confined to the VET schools, with their often poorly maintained and equipped workshops. Recognising the essential role of practical training in VET, the COM attempted to 'legislate', through a decree, an increased level of employer participation in the provision of practical training placements³⁸. As could have been expected, however, this effort failed. Those VET schools that already had good links with local employers (in mutually beneficial relationships) were usually able to find industrial placements for their students, while the decree did not help those schools that were experiencing problems in this area.

The review team did not gain sufficient insight into the question of whether vocational theory is sufficiently integrated with occupational practice. A generic analysis of this phenomenon may not in any case be possible, as, for instance, agricultural schools that run their own farms may be better able to link vocational theory and practice than vocational schools

³⁷ Findings from general secondary education suggest that the main criterion for selecting these optional subjects is to give teachers who do not have a full schedule extra lessons in order to increase their salary (Nikolayev et al., 2001).

³⁸ COM passed a decree in June 1999, The Ratification of the Procedure for offering job placements to those enrolled in vocational education institutions for industrial training and work experience. It specified the administrative, legal and teaching measures that aim to provide hands-on experience in businesses or the service sector during students' training at VET schools.

that prepare students for industrial occupations and have weak links with industry. Furthermore, it is unclear to what extent VET schools' income-generating activities could be, or are already, used to give students practical training in accordance with different curricula.

VET levels and occupational qualification categories

The Ukrainian system of education levels and occupational qualification categories is very complex. However, it deserves particular attention, as it influences employers' decisions concerning recruitment and remuneration, and hence reflects the 'currency' of VET in the labour market. The VET system has three levels, which correspond, in essence, to VET programmes of a fixed duration, rather than being linked to certain output (or qualification) standards. Occupational qualifications – a sub-division that appears in the Ukrainian labour code – are divided into six categories, the sixth being the highest. The first group of (lower) categories refers to workers and the second group (higher) to specialists.

The three levels provided by the VET system are translated into specific qualification categories that are recognised in the workplace. Students graduating at a certain level already know the qualification category at which they would start their job. For example, a car mechanic graduating at level II is grouped into qualification category 3, a cook is grouped into qualification category 4 and a tailor into qualification category 3. This means that the same amount of time spent in education can lead to diverse qualification categories when a graduate takes up employment.

In the past it was often the case that one of the preconditions for being promoted into a higher qualification category was skills upgrading through training. The fact that reaching a higher attainment level was linked to a higher salary can be seen as a

positive feature, but at times this also meant that companies were reluctant to send their staff on such courses.

According to the Employers' Association, companies are increasingly interested in recruiting workers with a higher qualification category, while workers with lower ones are less and less in demand. Graduates from VET programmes who in the past were almost guaranteed job contracts at the (lower) qualification categories 3 or 4 can now no longer be sure of getting a job at all. Employers feel increasingly reluctant to follow 'prescriptions' concerning the hiring of workers at a certain qualification category, particularly in fields where there is an oversupply of labour. More and more employers give preference to higher-level formal qualifications and transferable skills such as innovation, self-management, the command of foreign languages and computer skills. These developments testify to a changing labour market, and the VET system needs to respond more quickly to the resulting skill and competence needs.

Labour market information, VET standards and curriculum development

During the Soviet era there were no output (or qualification) standards in VET that would have defined what a student should be able to do at the end of his/her training. Instead, complete and very detailed syllabi and lesson plans were, along with teaching aids, developed centrally in Moscow and then made compulsory in every corner of the Soviet Union. Following independence, national and regional educational authorities found themselves with very limited experience and resources in the area of curriculum development.

The MOES has recognised the problems, and much attention is currently being given to the development of VET standards. A procedure for standard development has been developed that suggests the involvement of employers and key experts.

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The COM has adopted the basic structure of a VET standard, which consists of the following components³⁹:

- the qualification characteristics of the graduates of VET schools (occupational profiles);
- framework syllabi for the occupations;
- framework syllabi for each theoretical subject and for practical training;
- a system for the assessment of knowledge and skills and criteria for their assessment;
- mandatory training aids and tools to be used;
- students' entrance requirements and the type of final school leaving certificate;
- qualification levels of teachers and instructors.

Embarking on the development of standards is a complex and very resource-demanding exercise, which has been delegated to methodological centres and pilot schools. However, these centres and schools are faced with considerable resource and information constraints.

By and large, VET standards and curriculum development are still education-driven, as employers are not yet involved in an institutional and structured way. Labour market and skill changes are not monitored in a systematic way, and studies to trace the job or education careers of school graduates are not carried out. The use of such labour market information, as well as the involvement of employers in either the development or the quality checking of VET standards and curricula would, however, be an essential prerequisite for making VET more responsive to the labour market in Ukraine.

There is one interesting initiative on which the VET system could build further. The employment service centres are in the process of setting up a computerised labour market information system. The system was not specifically perceived as a means of also informing macro- and

micro-planners in VET. As the employment service centres are in direct contact with many unemployed people, and register relevant information, it could be beneficial to explore the ways in which the system could also be used to address the needs also of those concerned with either planning the network of schools and programmes or developing VET standards and curricula in VET.

Previously there was little coordination between the work of employment services and education authorities, including a general lack of exchange of information. However, the problem has been recognised, and a more structured cooperation both between the ministries of education and labour and with the social partners is beginning to emerge. In this context, an inter-ministerial committee on VET, on which the two ministries are represented, has been set up, with a mandate, among other things, to work on proposals for occupational profiles and VET standards.

Several donor-supported projects have, for a limited number of sectors and occupations, revised curricula based on adequate skill needs analyses⁴⁰. Unfortunately, each of the different donors has introduced its own curriculum philosophy, as well as curriculum development methodology. The resulting picture is a fragmented VET 'system' in Ukraine, with some schools following their own (donor-promoted) approaches and curricula, being better equipped than others and with some of their teachers having benefited from training. Although all donor projects have, without doubt, made a useful contribution to VET development, the newly gained insights have remained, by and large, restricted to the level of the institutions that have benefited from the projects. Although spread over a number of VET schools and institutions, local capacities and understanding of approaches to curriculum development are available within the VET system.

³⁹ For a detailed English description of VET standards see 'Vocational Training Standard of Ukraine' (MOES/ETF, 2000).

⁴⁰ One newly introduced course development approach deserves particular attention, not least because of its advanced degree of system penetration: the 'Modules of Employable Skills' (MES) approach introduced by ILO consultants. This approach will be discussed in the following section.

Therefore the time seems ripe for a core group of Ukrainian VET experts to discuss and agree, at national level, which of the VET curriculum models that have been piloted in Ukraine is the one to be followed for all curricula in initial and continuing VET in the future, if the system is to regain its coherence and transparency and to provide equal conditions for all students. Without a nationally agreed VET curriculum framework and without decisive effort by the MOES to steer future donors, rather than the other way round, resources may be wasted and the Ukrainian system become even more fragmented. An in-depth analysis of relevant curriculum development approaches could be undertaken in support of the work of such a national VET expert team, and regional authorities and schools would need to be made familiar with the newly agreed approaches by a core group of trainers or mentors.

3.3 CONTINUING VOCATIONAL TRAINING POLICY AND PROGRAMMES

Policy development – A modular approach to CVT

The importance of a well functioning CVT system is increasingly recognised by employers and the education community in the Ukraine. The nature of work, production and industrial relations is changing as economic recovery is sustaining itself, while in turn is pushing forward the need for competence upgrading of employees.

Responsibility for CVT is formally placed with the MOLSP and both the latter and the MOES have recognised the need to strengthen the links between initial VET and CVT with a view to share scarce resources and create a continuous cycle of education and training services.

In 1999 the MOLSP, with the support of the ILO, introduced a modular approach to CVT, called 'Modules of Employable Skills' (MES) and established the Ukrainian

Intersectional Centre for Modular Training⁴¹. Following this initiative, regional and municipal administrations set up 28 regional centres for modular training.

CVT following the modular approach has so far evolved mainly around the field of re-training unemployed adults. However, persons in charge of developing the modular approach expressed the view vis-à-vis the review team that the approach should also be promoted and applied in initial VET.

It could be argued that a truly modular system requires the existence of a central resource institution, which keeps and updates all modules regularly, and from which, institutions or individuals can flexibly draw teaching and learning materials as needed.

From our point of view, there are certain challenges connected to this, which should be carefully considered. From a learning and relevance point of view having too many narrowly defined modules, may reduce the acquisition of competencies⁴² to a minimum of technical/technological skills. This would increase the number of modules needed and could easily become counterproductive for job mobility. Another concern is, whether the modular approach will dissolve occupations as they are known today, because a number of diverse modules might create a vast number of overlapping qualifications that could blur the outline of a given occupation, possibly much to the dislike of employers. Furthermore, depending on how detailed the modular approach taken is, the whole process of developing and maintaining modules, course materials, teaching aids and equipment and the qualification scheme linked to modules requires immense resources. In addition, the system works well only if it is linked to adequate teacher development. In the foreseeable future it is questionable if the Ukrainian VET system has or will have the necessary resources to accomplish such a complex task for the entire VET system.

⁴¹ It should be mentioned that other donors also, such as Lernia from Sweden, through Swedish support, introduced different modular approaches to training. A common feature of such modular approaches is that modules are viewed as smaller self-contained didactic components/units, breaking down complex education and training programmes. Such modules often have a uniform structure and can be certified individually.

⁴² 'Competence' is the ability to act in certain, ever changing work situations.

Re-training of the unemployed

Training and re-training of unemployed adults is one of the active labour market measures, which the MOLSP has set in place and which is managed by the employment services centres. From the former employment agencies, the State Employment Service was established as an independent entity within the MOLSP in 1991. The system is a three-levelled structure composed of a National Employment Centre that manages regional and local employment service centres. Currently, all Ukrainian regions are being equipped with the necessary infrastructure and resources to register unemployed, to undertake placement services, to identify training needs and to organise re-training courses at a modest level. The activities of the employment service centres including training are financed via the State Employment Promotion Fund. The fund was set up in 1991 and its main source of revenue was mandatory contributions of enterprises and institutions. The contribution to the fund is today shared by the employers (1.5% of salary) and employees (0.5% of salary)⁴³.

The MOES and MOLSP have jointly issued a number of legal acts governing (re-)training activities⁴⁴. This legal framework gives the employment service centres the right to tender out re-training activities, which is a novelty within the world of VET. Although the bulk of training courses is carried out by public VET schools, the new rules have given room for the emergence of a private training market, which includes company-based training centres.

Courses are developed and offered, largely based on the labour market information

gathered by the employment centres and on the training needs of the unemployed. We feel that the relevance of training courses to employers' needs could be even further improved, if employers were involved in the process in a more systematic way.

There is a certain tension in the relationship between the employment service and the MOES. The former requires that all those institutions that want to get a contract for training unemployed persons would have to follow the MES approach. However, this requirement excludes many public vocational schools⁴⁵ that are not yet familiar with this approach. Not using these schools limits the choice of providers and may, however, be a waste of resources, apart from depriving these public schools from the possibility to benefit from adult training. Although schemes are underway to disseminate the MES approach on a wider scale, training schemes following other approaches may be useful, as well. It makes it all the more necessary to put in place a system for monitoring and evaluating the quality of labour market courses (or publicly-funded CVT in general), which uses efficiency and effectiveness criteria, including both employment-related and social indicators and assessing both the shorter and longer-term impact of those who benefited from the training.

However, there are also some examples at the regional level, where the cooperation between educational authorities and employment centres works well. Not surprisingly, it is in these regions where public vocational schools participate in the re-training of unemployed adults to a higher degree.

⁴³ In its 12 years of existence, the state employment service system has undergone many changes. Its financial support has changed – funds were collected independently of the state budget and became part of the state budget. In 1997 the entire system was nearly closed because its effectiveness was seriously doubted.

⁴⁴ Regulation on organisation of professional training, enhancement of qualification and re-training for discharged employees and unemployed persons; Regulation on the organisation of professional training for unemployed persons using module system; Regulation on the selection of educational establishments for professional training organisation for unemployed persons on account of Ukraine's Fund of general obligatory social insurance against unemployment; Regulation on open vocational training on module basis; Regulation on competition selection of educational establishments for organisation of professional training, re-training or qualification enhancement for unemployed persons; methodological recommendations concerning procedure of using the resources of the Ukraine's Fund of state social insurance against unemployment for the purpose of arranging professional training, re-training or enhancement of qualification of unemployed.

⁴⁵ According to the MOES, close to 50% of the vocational schools are involved in the re-training of unemployed.

In-company training

The slight recovery of the Ukrainian economy in the past few years has pushed the need for skill development. According to the MOES, in 1999 5.9% of all employees received further training, and in 2001 this figure grew to 6.9%. With the introduction of new management principles, flatter organisational structures and the need for an increased flexibility in the more progressive enterprises, there is an increasing demand for workers with 'soft skills', such as creativity, team working, communication and problem-solving skills, etc. Enterprises feel that many of these skills are better developed at the work place or around the practical job, rather than in traditional formal training settings, which is why they often meet their training needs through in-company training activities.

The MOLSP and the MOES have launched a number of initiatives, such as changes to the legal frame governing in-company training.⁴⁶ As mentioned the inter-ministerial committee was also charged, with the development of a strategy for in-company training. In this context, the Council has addressed the issue of licensing, which seems to have become a serious barrier for in-company training. If companies want to train for state-recognised occupations, they have to obtain a 'licence'. To get such a licence, enterprises have to follow, for each occupation, a complicated formal procedure that asks for an extensive amount of documents.

When encouraging and supporting companies in training, the main aim is to assist them in improving their operational methods and procedures so that they can increase competitiveness and profitability. However, the increased emphasis placed on in-company training should not eclipse the need for assessing and maintaining the competence of staff with a view to ensuring that the training results not only in in-house benefits but also in transferable

competences which in turn can secure mobility. Accrediting in-company training is an important tool in that direction.

The MOLSP has designed a project aimed at developing different approaches to in-company training and approached the EC Delegation with the request for funding. If such a project was to be funded, both the initial VET and the CVT system could benefit from the newly developed approaches.

To marry public and company interests the following issues should be considered:

- alignment of the training process to the business needs – ensuring that the training being delivered is meeting the true needs of individuals and the company;
- effective methods for measuring of competencies are in place – the targets to be reached are clear and understood by everyone, the individual, the trainers and management;
- greater motivation and commitment – individuals undergoing the programme are rewarded by national accreditation;
- measures to empower the enterprises to looking critically at their own training needs and how to respond to them.

3.4 VOCATIONAL TEACHERS AND INSTRUCTORS AT VET SCHOOLS

During the Soviet period, knowledge was greatly appreciated, and teaching was a well-regarded profession. Although education is, in many policy documents, referred to as a key factor in social and economic development, the situation of teachers and other personnel in schools is very poor, as regards both their working conditions and their remuneration levels, which are below standard living costs. There were times when the ministry could not even pay salaries at all, but the review team was told that the problem of wage arrears has largely been settled now.

⁴⁶ Regulation on the professional training of staff at production facilities, approved by the joint Order of the Ministry of Labour and Social Policy of Ukraine and the Ministry of Education and Science of Ukraine in March 2001. The Ministry of Labour has started the development of the new Labour Code, the work aimed at bringing the Professions Classifier DK 003-95 and the contents of qualification characteristics into correspondence with the demands of modern production and services.

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VET schools employ three types of teachers. On average, teachers of general subjects make up some 40%, teachers of special theoretical technical subjects 20% and, finally, workshop instructors another 40% of the entire teaching cohort at a vocational school⁴⁷.

Teachers for both general and technical subjects follow the same four-level career/salary system. This comprises the basic category, teacher of the second category and first category and teacher of the highest category. The entry level is determined by academic merits. Every five years a teacher has the opportunity to move up one category. Although instructors have a different career/salary system, they follow the same promotion scheme.

The current teacher appraisal and career progression system does not provide sufficient incentives for teachers to be innovative or to upgrade their skills continuously. One reason might be that there are only minor differences, in monetary terms, between the salaries of a junior and a more experienced teacher. Moreover, new skills can in many cases not be applied in practice immediately due to the poor conditions at schools and the limited means for obtaining new textbooks and other teaching aids.

Many professionals, especially those with practical skills, leave the teaching profession for better-paid jobs in industry. In addition, over the last five to eight years it has been difficult to recruit new teachers and instructors into the system and, as a consequence, the VET system has had a shortage of teaching staff. The MOES estimates that, with the present standards applied (such as teacher–student ratio, school staffing levels and curriculum structure) and the current number of students (school year 2001/02), vacancy levels in VET schools are 15% for instructors and 9% for teachers (both general and technical subject teachers)⁴⁸.

What remains is a teaching force that is ageing, that finds it increasingly difficult to cope with the prevailing conditions and shows signs of 'reform fatigue'. Increasing criminality, alcohol and drug abuse among the students add to the difficulty of working as a teacher. In such an environment, where teaching and learning are not much fun and where social problems loom over the teacher's primary task, it is very difficult to motivate teachers and introduce new, modern forms of learning.

The review team was told that for teaching technical subjects, teachers and instructors work together in small subject teams in order to plan and implement the training. This is a highly praiseworthy initiative, as the need to develop key occupational competencies of the individual requires a better integration of general subjects, vocational theory and practice and, hence, a close cooperation between all vocational school teachers. This is likely to present a radical challenge vis-à-vis most of the current school practice: the teacher becomes part of a collective planning body and feels responsible, together with his/her teacher colleagues, for the (subject-independent) occupational competence development of an individual student. To achieve this goal, a great deal of school-based teachers and trainers' training will be required, following different approaches. The school manager will be the central actor in this field, providing direction and leadership based on consensus and 'orchestrating' the efforts of the teacher teams.

The Ukraine Human Development Report 2001 (UNDP, 2001) summarises the main challenges with regard to the personnel of VET schools, including managers, teachers and instructors, as follows:

- 'paying employees adequate wages on time;
- attracting young professionals (into the system) and retaining top quality experienced teaching professionals;

⁴⁷ Percentages depend on the type of school and programme. For example, trade schools offer more practical lessons and therefore need more instructors.

⁴⁸ We calculate that this means that more than 19,000 teachers and 27,000 instructors are missing, according to the present manning standards (MOES/Academy of Pedagogical Sciences, 2003). Reforming the VET system should, among other things, lead to improved efficiency that might mean that the number of teacher and instructors can be reduced.

- adjusting curricula throughout the education system to assure that graduates will have necessary life skills and the professional training needed to obtain employment in Ukraine's new market-based economy;
- providing the teaching materials and equipment.'

Pre-service training of VET teachers and trainers

In an effort to modernise the learning process, much attention has recently been paid to the postgraduate pedagogical studies of VET teachers and the pedagogical training of instructors. Following an agreement with the MOES, the ETF has asked the Ukrainian National Observatory to undertake a study of the pedagogical training curricula presently offered to teachers and instructors (National Observatory of Ukraine/ETF, 2002). The draft report highlights some interesting points, which are discussed below together with other findings. The MOES has already acknowledged some of the shortcomings to which the study points, and policy measures are being scheduled that are intended to improve the situation within the existing financial framework. However, a more in-depth study, which should also investigate existing school management schemes, would be needed in order to prepare for more far-reaching changes.

As mentioned above, VET schools employ three types of teacher. Teachers of general subjects, such as languages and history, are graduates from pedagogical, higher training institutes or universities. Teachers of special technical-theoretical subjects, such as technical drawing, are graduates from higher technical institutions. For both groups, reading pedagogy and undertaking teaching practice does not form a compulsory part of their initial professional preparation, which is why many of them have limited teaching skills when they take up positions as teachers in VET. They are required to develop their pedagogical competence on the job and through short in-service training courses. Finally, there are instructors who come from vocational-pedagogical colleges and teach practical subjects at school workshops.

Every teacher can seek pedagogical advice from the school's pedagogical advisor.

According to the current legislation, each teacher should receive skills upgrading at least every five years. However, for many years this has not been possible, from either a financial or a supply-side perspective.

Vocational-pedagogical and industrial-pedagogical colleges train would-be teachers and instructors for various specialisations in VET at 'junior specialist' level ('Bachelor of Pedagogy'), and the Ukrainian Engineering Pedagogical Academy and other institutes at tertiary level train VET teachers at specialist level ('Master of Pedagogy').

The above-mentioned study points to the need to improve the pre-service training of (VET) teachers and trainers from a content-related point of view, referring especially to the need to update the psychological and pedagogical content. The revision of related 'state standards' for higher pedagogical education is underway. Psychological and pedagogical competencies are seen as particularly important in (VET) teachers mastering their profession.

Although the programmes offered by the various pedagogical academies, colleges and university faculties involved in the preparation of teachers vary considerably in terms of types of subjects and number of lessons, they all include subjects dealing with teaching or learning methods specifically related to VET. While the study does not mention the methods by which these subjects are taught (it is assumed that this is done in the traditional way that is practised in higher education in general, i.e. through *ex-cathedra* lectures rather than applying active methods of learning), nor to what extent these subjects lend themselves to the development of sound technical and methodological competence in VET teachers, future projects to upgrade pre-service VET teacher training programmes could certainly include these subjects.

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All pre-service teacher training programmes include practical training, which starts in the third semester and continues until completion of the studies. Teaching practice is estimated to take up an average of 16% of the entire study period. Doubts have been raised as to whether this is sufficient. Student teachers would like to see a reduction in the time spent on pedagogical theory in favour of many more opportunities for developing practical skills (National Observatory of Ukraine/ETF, 2002). The study concludes that graduates are not adequately prepared when they take up their teaching duties and that more practical training needs to take place within real-life contexts, i.e. schools or workshops.

The study refers to the fact that existing VET teacher training curricula do not sufficiently prepare teachers for innovative activities, nor do they develop young teachers' confidence in their own abilities, helping them to become active and independent, while solving pedagogical problems and mastering their VET specialisation. Interestingly, however, both the Pedagogical College in Kiev and Podillya Technical University offer a course called 'Elements of pedagogical creative work' (which is not offered by other teacher training institutions), and it remains to be explored further whether this could be an interesting initiative to be followed by other teacher training institutions.

All in all, pre-service (VET) teacher training programmes seem, despite the practical training involved, to be rather 'science-driven', lending themselves to developing (theoretical) knowledge rather than (practical) competence. Active types of learning are rarely applied, so that student teachers do not themselves develop sufficient proficiency in such learning methods. The study suggests the need for a more intensive use of interactive methods, including project-based assignments. It presents a long list of competencies that a VET teacher should master, divided into psychological and pedagogical areas of competence, with the latter including the potential to engage in research work and design textbooks and teaching aids, as well as skills relating to

both the strategic management of VET institutions and labour market research.

The principal problem with training for VET teachers and instructors in Ukraine is that the various disciplines, including psychology, (vocational) pedagogy and engineering and some other technical disciplines, are seen as separate rather than integrated fields. We cannot speak of a holistic VET teacher training system, as students read such subjects in parallel rather than applying psychological or pedagogical aspects directly to the teaching of technical contents. Thus, an important basis for VET teacher training is missing: the didactics and methodics of specific vocational subjects. Furthermore, there is no common standard for VET teachers as a platform on which training curricula could be built; teacher educators themselves lack the necessary expertise in VET; and no adequate, well-structured and supervised teaching practice is carried out in real-life contexts during the academic pre-service training of VET teachers or later on in practising the profession. Technical contents of VET focus on the teaching of (often out-of-date) technologies, along with partly relevant, partly irrelevant (especially in high technology sectors) practical skills, rather than taking into account the technical, organisational and managerial complexities of the real workplace in companies today. Teachers are, hence, rather ill prepared to develop, with their students, the competencies needed to act in different, highly challenging and ever-changing work situations.

The study suggests that a key role in revising the VET teacher training system be given to the scientists of the Academy of Pedagogical Science. While the review greatly appreciates the academic merits of the Academy staff and while their active involvement would be important, our concern is that they lack the necessary practical expertise themselves.

In-service training of VET teachers and trainers

The Central Institute for Training Post-Diploma Teachers, the Donetsk

Institute of Post-Diploma Education for Engineer-Teachers and VET centres such as those in Kharkov and Khmelnytsky provide short in-service training courses or seminars for VET teachers (National Observatory of Ukraine/ETF, 2002). In addition there are institutions that offer training on market terms. Both schools and the teachers themselves are increasingly unable to afford the transport and other costs involved in attending such events, and even publicly funded training institutes are considering introducing course fees. Despite the existence of legal provisions for regular attendance by all teachers at such continuing training events, in reality this is no longer common practice – mainly for reasons of cost. Moreover, current staffing levels in VET and the fact that the existing teaching force has to take on extra lessons do not allow for a great deal of time to be spent on training.

The existing dominant in-service teacher training model is supply-based: training institutes establish the list and contents of the courses on offer, mostly without conducting adequate (individualised) teacher training needs analyses. Training events follow a subject-based approach and are mostly of short duration. Training provision is focused on individuals rather than groups, and does not incorporate institutional and organisational development of the schools in question. The danger with this approach is that it risks creating individuals who, metaphorically speaking, return from their cultural island to a resistant mainland where it is almost impossible to implement what has been learned.

The need for in-service training greatly exceeds the available resources of the existing institutions. On the other hand, it is clear that teachers cannot adjust to new teaching challenges if learning opportunities are not provided. The MOES has started to address this problem by launching, with the help of international donors, a series of small-scale pilot projects. Vocational schools that have both the necessary expertise and the necessary resources within one or more occupational fields have been selected to become 'model schools' and to provide in-service

training for other schools. The aim is to supplement existing in-service teacher training schemes with a system that is (i) school-based and, hence, responsive to the needs of teachers (and local employers), and (ii) more sustainable from a financial point of view.

Findings show, firstly, that although the situation has improved slightly, low salaries, wage arrears and poor working conditions have resulted in a loss of prestige for the VET teaching profession. The result has been an ageing teaching force owing to the migration of staff to private employment, and a profession that is not attractive to the younger generation of graduates.

Secondly, the study undertaken by the National Observatory of Ukraine concludes that pre-service teacher training needs to reflect the new roles and competencies demanded by a contemporary VET system. Links and a distribution between theory and practice need to be found, in which practical application is prioritised. The review of the curricula should, among other things, ensure that learning and practice of modern, and more participatory, teaching methods are included.

Thirdly, local capacities and an understanding of approaches to curriculum development are available within the VET system, albeit spread over a number of VET schools and institutions. Furthermore, it is expected that additional bilateral donor projects will continue to focus on curriculum development. These efforts should be utilised to develop a national curriculum approach.

3.5 VET PLANNING (THE STATE ORDERING SYSTEM)

VET schools are providing training in accordance with yearly state orders that determine the number of students to be trained, and in which professions. These state orders are also the basis for funding of the training.

Each year, VET schools forward to the regional education authorities an estimate

of the number of students to be trained and in which professions for the coming school year. The regional authorities draw up regional plans, which the MOES collects and, in April each year, turns into a national estimate by region, sector and branch. This is then sent to the Ministry of Economic and European Integration (MOE). The MOE reviews the estimate and decides on state orders for VET (number and profession) for the coming school year starting in September. These state orders are then sent back to the VET system and to each school, and form the basis for admitting students⁴⁹.

The yearly state order planning process does not seem to allow for, nor to make use of, systematic labour market monitoring procedures or tools that can satisfactorily monitor labour market developments. Many VET schools have relationships with employers that can be used to obtain labour market information. However, these are not sufficiently developed or systematised to allow reliable and systematic labour market information to be gathered, on which needs can be estimated and translated into training plans for the part of the curriculum that can be adapted to local needs. In addition, is it uncertain to what extent employment information gathered by the MOLP or the employment services forms a systematic part of the state ordering system. Furthermore, the state ordering system seems only to be concerned with establishing the number of students to be trained and not with tackling content issues. This seems to be a legacy of the Soviet era, when content issues were dealt with in a uniform manner separate from the quantitative issues. In other words, it is very doubtful whether the existing state ordering system is a relevant tool for estimating and responding to employment needs and changes in professions.

VET school directors and regional education authorities are expressing

frustration over the state ordering system, which they find to be increasingly out of touch with real needs. In addition, they find that they are given a labour market monitoring task that is not theirs alone, nor do they have the sufficient resources and capacity to undertake the task efficiently. They call for greater MOLP involvement in monitoring local labour market developments, on which training requirements can be estimated.

Findings suggest, firstly, that as the labour market develops, the state ordering system is an inadequate mechanism for identifying local labour market needs and turning these needs into relevant training interventions. Consequently, a new mechanism for VET planning must be introduced which can better respond to short- and long-term needs.

Secondly, the state ordering system is as much a VET financing tool as a VET planning tool, not founded on a systematic labour market monitoring tool relevant for educational planning; it seems to have had its day. Because of its close link to VET financing, any changes to the system will have to go hand in hand with an introduction of new allocation instruments.

3.6 VET MANAGEMENT

The overall management of initial VET follows the 'division of labour' between the MOES, MOE and Ministry of Finance (MOF)⁵⁰. In simple terms, the MOE decides, through the state ordering system, the number of persons to be trained and in which professions. The MOF provides the financial resources for VET, and the MOES implements the training mainly through educational standards and regulatory instruments. Although this is a simplified description, it is these relationships that, from a managerial point of view, are up for review and that have implications far beyond the management of the system.

⁴⁹ In addition to the training ordered by the state and depending on capacity, the schools can undertake continuing training courses.

⁵⁰ The management of continuing vocational training is largely in the hands of the Ministry of Labour and Social Protection, the employment services and companies. Management of some agricultural schools is the responsibility of the MOA.

Initial VET is managed at national level by the MOES⁵¹ and the MOA, which at regional level are represented by regional educational authorities that form a part of the regional government structure. VET schools are organised under the regional educational authorities.

The responsibility for VET provision lies with the MOES⁵². The minister is becoming a more political figure, leaving the more managerial tasks to the first deputy minister. The first deputy minister is supported by four deputy ministers, each heading one of the four departments listed below:

- (i) Research and Science (Science and Technological Development; Innovation; International Section);
- (ii) Finance and Economy (Administration and Logistics; Economy and Finance; Accounting and Auditing);
- (iii) Higher Education (Higher Education; Licensing and Certification); and
- (iv) General and VET (Preschool; General; VET) (see annex C).

The management of VET is the responsibility of a department consisting of two units, one responsible for the content of VET and one for the social and pedagogical work. The VET department employs 20 people and is assisted by staff from the finance and the licensing and certification units⁵³. At regional level, one to three people deal with VET issues⁵⁴.

VET management is largely a matter of issuing and monitoring an ever-increasing

number of laws, regulations and decrees that together with educational standards (such as student–teacher ratios, class size and hours per subject) and the state ordering system determine VET inputs (content, allocation of teaching resources and financing). As a result, the ministry is fully occupied with maintaining the system through legal instruments, which the regional and school levels are left to comply with.

The VET policy and management sphere is influenced by a number of players outside the MOES. A number of political and administrative institutions, such as the presidential administration, the Verhovna Rada, the COM and other line ministries and committees, are issuing a variety of statements, recommendations, orders, regulations, resolutions, laws and advice, which together form the policy framework and environment within which VET is provided and developed. Consequently, VET is governed by fragmented, complex and in some cases contradictory rulings and policies. In a report to Parliament in March 2003 the MOES pointed out the need to review the legal framework governing VET (MOES/Academy of Pedagogical Sciences, 2003).

The general impression is that the legacy of the Soviet era still seems to compel the MOES to focus on VET system inputs such as rules, the monitoring of educational norms and the application of defined standards. This is done at the expense of forward-looking strategic management and reform steering. With many outside

51 From 1988 to 1991, the Ministry of Popular Education of the Ukrainian Soviet Socialist Republic managed the VET system. The ministry was founded in 1988 on the basis of the USSR Ministry of Education and the USSR State Committee on Vocational and Technical Training (Degree of the Presidium of Verhovna Rada of Ukraine No 6143 – XI, 6 July 1988). In 1991 the Ministry of Popular Education and the Ministry of Higher Education were merged into a single Ministry of Education. The management of VET was placed within one department of the new ministry. In June 2000 a presidential decree joined the State Committee of Ukraine on Science and Intellectual Property with the Ministry of Education, which changed name to the Ministry of Education and Science. The Autonomous Republic of Crimea followed a similar development of its education authorities.

52 The description of the MOES is based on information provided by the MOES, department of general education and VET.

53 The State Inspection Board and the State Certification Board also handle VET related issues. Adding these organisations increases the total number of staff working on VET to around 34. The VET research centre under the MOES has a staff of 47.

54 A special feature of the management structure is that VET school directors are hired directly by the MOES, while the directors and staff of the educational regional authorities are employees of the regional authorities. As one would expect, this duality in VET management presents a potential problem, as both directors and regional VET authorities might experience conflicts of interest.

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influencing policies, the MOES has limited influence on overall VET policy development.

Taking the size, responsibilities and challenges facing VET into consideration, there is no doubt that at national level (MOES level) VET management is understaffed. It seems inevitable that the lack of staff is a barrier to the VET department steering the reform process. The staffing level should correspond to the task, and undoubtedly the reform tasks require additional staff with a capacity to bring the MOES to a position where the ministry can steer the process.

Secondly, VET management – especially at national level – should increasingly focus on establishing and maintaining the framework within which VET is delivered, by providing overall VET policies and steering (outcomes and deliveries) rather than monitoring inputs. Measurable criteria for effective and relevant VET provision should be developed, which could eventually lead to benchmarking exercises striving at improving relevance and quality. Such instruments would greatly increase effective management and could become valuable tools for decision-making and reform steering. Such measures are naturally closely linked with a review of VET financing and of the legal framework governing VET, and presuppose that the necessary capacities and VET information system are in place.

Thirdly, VET management is practised without any involvement from employers. At neither school nor regional level are

structures in place to give employers a part to play in overall VET managerial decisions. The VET system cannot, therefore, benefit from the employers' view on general managerial issues, which could improve delivery and strengthen the system's capacity to meet emerging employment needs.

Fourthly, the above should be considered with a view to decentralising VET management. However, decentralisation should not be done without ensuring that staff at the lower levels of VET management has the required capacities and resources to take on board the decentralised managerial tasks. Decentralisation of duties to lower levels is being discussed within the MOES. However, the MOES acknowledges the complexity of the task and the need to build local capacities as a precondition for decentralisation. This brings into focus the general question of reviewing the relevance of the state both providing and financing VET.

3.7 VET FINANCING

Although the law on education stipulates that no less than 10% of the national income must be allocated for education, it has never been possible to reach such a high level of funding of education in the years since independence⁵⁵. As can be seen in table 3, constrained public funds have resulted in a gradual decrease of funds (in real terms) being allocated to education from 1990 to the present⁵⁶.

⁵⁵ Law on Education, Article 56.

⁵⁶ It is estimated that allocations for education have fallen by some 60 to 70% in real terms (WB, 2000). In 1999 the OECD average of expenditure on educational institutions from both public and private sources was 5.5% of GDP (public expenditure 4.9% and private 0.6%). In 1995 the figures were 5.6% (public expenditure 5.0% and private 0.6%). See OECD, 2002.

Table 3: Funding levels of education and VET (1991 and 1995-2003)⁵⁷

	1991	1995	1996	1997	1998	1999	2000	2001	2002	2003
Education as % of GDP	3.8	4.3	4.4	4.2	3.9	3.6	4.0	4.7	-	-
VET in real terms (thousand)	-	-	-	-	249.6	261.6	336.5	457.1	557.8	704.4
VET as % of GDP	-	-	-	-	0.25	0.22	0.25	0.29	0.26**	-
Actual allocated amount for VET as a % of budgeted amount*	-	-	-	-	78	88	99	94	96***	-

Note:

* The budgeted amount for VET differs from the actual allocated amount. The table shows the amount allocated, except for 2002 where it is the expected allocated amount and for 2003 where it is the budgeted amount.

** Calculated by the author.

*** Calculated based on the budget amount.

Source: 'Quality assurance and educational management at primary and secondary level in Ukraine', base-line study report, Ministry of Education and Science, September 1997; 'Ukraine Economic Trends', Quarterly Issue December 1999, Ukraine National Observatory, 2003, p. 58.

During the Soviet era VET schools were linked to base industries that provided the schools with up to 60% of their budget, either as direct financial support or, more often, in the form of equipment, facilities, materials and other necessities. Although the law on vocational education stipulates that VET provision must now be publicly financed, it has not been within the financial capacity of the state to allocate sufficient funds, nor to make up for the declining support from the former base enterprises. Consequently, the VET system has been chronically under-funded almost since independence, a situation that is likely to continue until a sustainable funding scheme is in place.

As mentioned above, state VET funding and planning come together in the state ordering system. From 2003, the MOE has requested the MOES to enhance the level of detail in their estimates for training to include needs by sub-branches and professions, and to estimate the training costs for each profession. Such new initiatives are likely to be founded on a wish

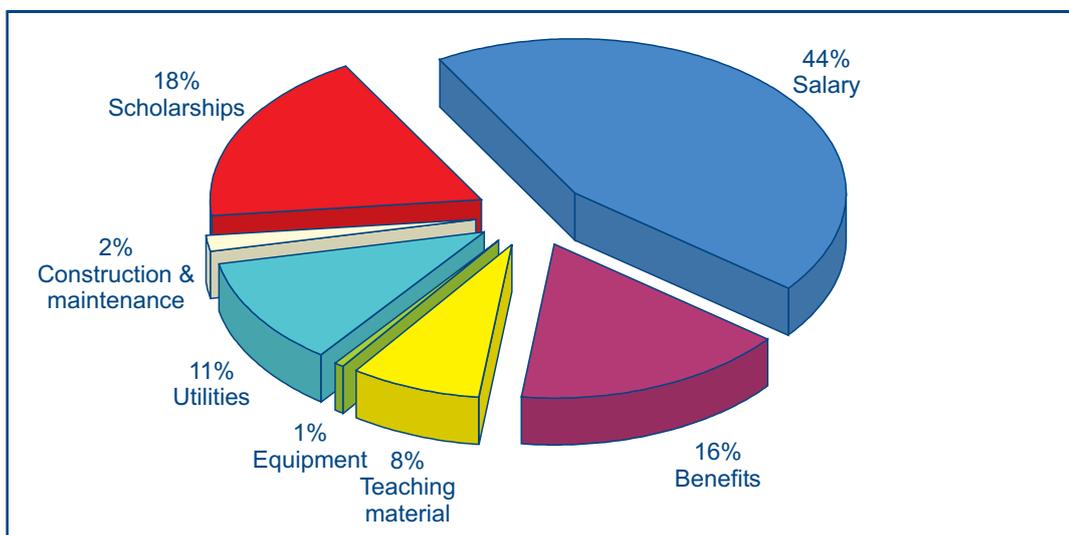
to bring VET planning and financing increasingly in line with economic developments. However, the VET system is not equipped to take on such new labour market monitoring tasks. In addition, the management information system currently in place does not allow for precise costing of VET provision by professions and branches.

Because of the budgetary constraints mentioned, state orders for VET provision are not backed by sufficient financing. As Figure 9 suggests, salary and benefit costs make up 60% of the total expenses. Together with the large social obligation to train disadvantaged students (totalling 78%) these costs are crowding out other training-related costs.

A broad estimate indicates that state funding covers 100% of the salaries, scholarships, support to orphans and other social obligations, 30% of electricity, 10% of boarding and 2 to 3% of the administrative costs.

⁵⁷ According to the National Observatory of the Russian Federation, Russia allocated 3.5 % of GDP on education and for 2003 it is estimated at 3.8% of GDP.

Figure 9: Funds allocated to vocational education and training by the Ministry of Education and Science in 2001



Note: Read the pie-chart clockwise starting with 'salary', the largest area at 44%.

Source: 'Vocational Education and Training in Ukraine', National Observatory of Ukraine, 2002.

Constant under-funding has forced the VET system to introduce other ways of raising funds. A large part of VET school funding currently comes from income-generating activities such as educational services, the sale of student-made products, and other non-training related activities such as catering services and hotels, leasing of premises and facilities, sponsorships, and donations. Figures from the MOES clearly show that production activities are by far the biggest income earner. A yearly estimate is made of how much each school is expected to generate through these business activities. Since 2000 these funds have been channelled into a special fund for VET schools (Vocational Education Special Fund), for which an allowance is made in the state budget. VET schools have accumulated a significant amount each year, and in 2001 and 2003 it provided 24% and 14% respectively of the total public funds for VET. Funds generated by a particular school are earmarked for that school. No redistribution between schools or regions is made. Funds that a school has generated above the expected level can, provided salaries

and all outstanding bills have been paid, be used as the school wishes.

It is a thorn in the side of VET schools and authorities that income-generating activities are subject to taxation, which is considered an unfair burden to place on schools that are suffering from lack of state funding⁵⁸. The financing authorities regard any funds generated by state institutions as being state funds. Consequently, funds generated by state VET schools are regarded as being state funds. When consulting statistics, this could lead to the conclusion that increased state funds have been allocated to VET, when in reality they are funds coming from VET schools' income-generating activities. The VET system, on the other hand, views VET as being financed by those ordering the training, which means firstly the state (state orders), secondly the employment services (unemployment training), and thirdly by private training orders (companies and individuals).

Despite the contribution from the schools themselves, the financial situation has not improved significantly. In 2001, the public

⁵⁸ In 2000 the tax issue was – at the instigation of the MOES – discussed at the Inter-Branch Council on VET. The council made a resolution, which the COM followed up by encouraging the State Tax Administration to lift the tax on VET schools. The Tax Administration rejected the request, arguing that the exemption from tax would leave a hole in the state budget. Instead the Tax Administration suggested that the MOES should seek additional funds from the state budget and from employers.

Figure 10: Age of equipment (%) – 2003

Source: 'Information – Analytical and Statistic Material on the Status and Development Problems of Vocational Education in Ukraine', prepared for the hearings in the Verhovna Rada's Committee for Science and Education on status and development problems of vocational education and improvement of legislation, Ministry of Education and Science of Ukraine and the Academy of Pedagogical Sciences of Ukraine, February 2003.

under-funding of VET continued, and in addition only 94% of the budgeted funds were actually allocated, though this was an improvement on 78% in 1998 and 88% in 1999⁵⁹. Although the 2003 budget was increased, it is still insufficient (believed to be covering only around 40 to 50% of the actual needs), to such a degree that the MOES views it as a 'survival budget rather than a development budget' (MOES/ Academy of Pedagogical Sciences, 2003).

The consequence of years of under-funding is a severe decapitalisation of the VET system, with disastrous consequences for the quality of VET provision. One aspect that the MOES is giving especially concerned with is the outdated training equipment. As Figure 10 shows, most of the equipment in use is over 10 years old and almost half of it is over 20 years old. Clearly the broken link to enterprises, which previously supported VET schools by donating equipment, is one of the reasons for the presence of outdated equipment in most VET schools.

During the past five years, only 90 of the 368 textbooks planned have been published, illustrating that modern teaching materials have become a scarce commodity in the VET system. In addition, most VET schools have not been maintained or modernised for years. The general condition of buildings is therefore poor.

As well as old equipment and outdated textbooks, the quality and relevance of training has been negatively affected. The point is not simply to replace old equipment, but rather to introduce new types of equipment that mirror the technology used in modern production processes. Updating (new and different) equipment can be considered a vital precondition for being able to offer relevant demand-oriented VET. Consequently, a huge investment in school maintenance and modernisation is needed to re-establish the right infrastructure for VET.

⁵⁹ Data could indicate that the execution percentage for VET (perhaps for education in general) is lower than overall public budget execution percentage. This could lead to the conclusion that (i) an 'administrative' allocation of public funds does not follow the politically established priorities; and (ii) the administrative allocation process neglects VET. However, additional data is needed to support such conclusions. For insight into the fiscal discipline in Ukraine see 'Fiscal Discipline and Budgetary Institutions in Ukraine' (Nazarovets, 2001).

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The MOES has devoted a great deal of effort to alerting members of Parliament and the COM to the financial problems of VET and its consequences. The development of a sustainable funding scheme is regarded as being vital if the modernisation of VET is to be brought forward. The MOES has proposed the introduction of a VET levy of 1 to 2% of enterprises' profit; this, together with tax exemption for VET schools' income-generating activities and an increased state budget, should secure the necessary funding for VET provision and reform of the VET system.

Although the VET system is chronically under-funded, it is also clear that financial management itself and especially the cost-effectiveness of VET provision needs to be critically reviewed. Observations indicate a waste of scarce resources, for example on power and public utilities due to run-down facilities, wasteful attitudes, expensive management procedures and high staffing levels.

In addition, a critical review and reform of curricula (content and duration), the number of training programmes offered, possible costly overlaps within the system and between VET providing systems (for example between VET provided by the MOES and the Ministry of Agriculture) and pedagogical practices are likely to add to the cost-effectiveness and efficiency of the system.

Our findings show, firstly, that the VET system is chronically under-funded because the state has been unable and perhaps unwilling to cover the financial responsibilities of VET, which were previously shared between the state and the enterprises. A chronically under-funded VET system is showing signs of fatigue, of which the most alarming is the MOES' statement that the system is financially unable to reform itself given the present allocation level (MOES/Academy of Pedagogical Sciences, 2003). Finding a sustainable solution to the financial problems of VET should therefore be given the highest priority. The issue is highly complex because it goes to the heart of the VET system and is likely to be politically sensitive, especially at a time when the

forthcoming presidential election in 2004 is moving up the political agenda. If the problem is not addressed, VET in its present structure will become increasingly irrelevant to enterprises, so that it fails to facilitate economic development.

Such a scenario is likely to become a barrier to SMEs especially, which traditionally do not have the resources to meet their own training needs. More seriously, VET could become very fragmented and incoherent as enterprises try to meet their needs for qualified staff through their own initiatives and thereby start an undesirable trend.

Secondly, the state ordering system does not seem to hold within it the capacity to facilitate the meeting of training demands through its financing mechanisms. Further studies should be made into the functioning of the state ordering system and the extent to which it is a relevant financing method for a reformed VET system. In this regard, the division of responsibility and financial procedures existing between the MOES, MOE and MOF should be reconsidered, with a view to increasing allocation efficiency, transparency and streamlined procedures.

Thirdly, financial solutions should be linked to a critical review of the entire financial management of the system with the aim of increasing the cost-effectiveness and efficiency of the system. At all stages of the reform process it is vital that decision making is based on correct information and an information system that can generate relevant data to facilitate cost-effective management and reform monitoring. To achieve this, the MOES needs to build a management information system that can become an effective tool in steering the reform process and strengthening the financial management of the system.

Fourthly, the poor and outdated equipment and textbooks used, along with the lack of school maintenance, are in themselves negative factors. However, re-equipping and maintaining VET schools after years of neglect is a Herculean financial task that will require special attention and to which enterprises will need to contribute.

Clearly the above points are interlinked, and represent some of the main areas that should be addressed in the process of modernisation for VET financing.

3.8 LEGAL FRAMEWORK GOVERNING VET

As mentioned previously, the legal framework governing VET is influenced by a number of government and political bodies. These bodies have issued a number of documents that together constitute the framework governing VET. However, other legal documents, not directly targeted at VET, also influence it. For example, application of the tax law and regulations makes income-generating activities of VET schools taxable. This is not only counter-productive for the MOES efforts to improve the financial situation in schools, but it is one among the many legislative issues that make it difficult to clearly define the legal framework governing VET. Consequently, this chapter will be limited to discussing only the legal framework directly governing VET.

In order to respond immediately to the political and socioeconomic changes in the country, the legislative reform initiatives in VET were given priority, and began in the early 1990s before any of the other reforming processes in education. The first political acts of the country regulated the rights of the citizens to receive VET as well as the function and provision of VET.

The resolutions of the COM and the joint resolutions of different ministries approved the general concepts of VET and described the basic goals of VET training in conditions of transition to a market situation. They specified the founding principles of the VET institutions, their customers and services, types and levels of training, and the arrangements for practical training. Close cooperation between the VET schools and the public employment services was declared as one of the priorities.

The newly developed law 'On Education' (1991) did not provide any regulation of specific requirements of the VET system.

Therefore amendments to the law had to be introduced in March 1996. The amendments defined the goals of VET as the creation of opportunities for citizens to acquire professions in accordance with their wishes, interests and abilities, in accordance with the list of relevant professions, approved by the COM. However, the amendments added in March 1996 were not in line with the new constitution, adopted in July 1996.

The constitution defined the basic rights of citizens, including the right to work and access for all to free VET. It prioritised the development of the VET system and encouraged the process of developing a legislative framework that could stimulate the necessary changes. This gave rise to the second stage of the legislative VET reform process.

The second stage of the legislative reform in VET focused on the internal reshaping of the system. The decree of the president 'On Basic Directions of Reforms in the Vocational and Technical Training System of Ukraine', dated 8 May 1996, defined the basic short-term goals and detailed objectives for the reform of the VET system to be carried out in the period 1996 to 2000. The decree mentions measures to be undertaken to restructure the system, such as:

- development of a new list of professions for training of qualified workers at vocational schools and industrial enterprises;
- development of a state standard for vocational and technical training;
- improvement of the organisation and procedure of licensing; and
- development of the network of VET institutions.

The number of professions and specialties were reduced from more than 800 to 260. There was a transition from one-dimensional to multi-dimensional professions, and changes in amendments to the Classifier of Professions were made.

Ukraine was the first country in the NIS to have a specific VET law. The law 'On Vocational Education', of February 1998,

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set out in 12 sections and 47 articles, includes concrete measures for the implementation of VET in Ukraine. The first section provides general regulations and main definitions, and subsequent sections cover various arrangements, including those for the provision of education and training, the organisation and content of the curricula, and special needs.

In order to comply with the provisions of this law, the COM, the MOES, and other ministries and central executive power authorities have developed and adopted a number of important acts, covering:

- higher vocational colleges and centres for vocational education;
- procedures for offering job placements to those enrolled in VET institutions for industrial training and work experience;
- state standards for vocational education;
- the core structure of curricula for training qualified workers in vocational training institutions and the core structure of curricula in higher vocational colleges.

All of these acts affected the structural changes of the system, the content-related developments, vocational practical training improvements, and the monitoring of the development process.

The legal framework governing training of unemployed people

In order to improve the social and labour relations of the VET schools and to develop social partnerships, several acts were adopted. For example, the Inter-Branch Council on Vocational Education and Training was established in accordance with the resolution passed by the COM in April 1998. Despite the council's potential to have a guiding and coordinating role, it does not seem to be influential, so that the relevance of the council to VET reform seems to be limited.

In order to govern VET for unemployed people, the MOLSP initiated legislative acts that facilitated the:

- provision of VET for unemployed people based on a modular approach;

- introduction of competitive selection of training providers for the training of unemployed people;
- development of contracts between educational institutions, enterprises and unemployed people;
- improvement of the competencies of unemployed people.

For the purpose of enhancing the qualifications and skills of employees in enterprises, the Regulation on the professional training of staff in enterprises was developed and approved by the MOES and the MOLSP. Though the legal development process involved both ministries, it does not seem to have been possible always to marry the different interests and approaches. This might be more visible at the implementation level than at the policy level.

VET reform through legal instruments

Ukraine has taken a number of important steps to strengthen the rule of law and to strengthen institutional and administrative reforms. However, the need for legislative reform is far from being fulfilled.

The VET system, like those of the other former Soviet states, is firmly rooted in law. Therefore, the natural starting point for VET reform has been to make adjustments to the legal framework governing VET. Consequently we have seen a wealth of laws, regulations and decrees, all claiming to be important, but very little has changed in the VET schools. A popular saying of the former Soviet countries describes the situation well: 'Laws are issued to be ignored'.

The first phase of the legislative reform of VET was hastily carried out over a very brief period of time, which was not sufficient to allow thorough consideration of the direction and impact of these changes. As a result, amendments to the acts have been necessary. In February 2003 the recommendations based on the hearings in Ukraine's Verhovna Rada's Committee for science and education 'On the Status and Development Problems of Vocational Education and Improvement of Legislation' highlighted the necessity of introducing changes to current legislation, because it

does not fully promote the effectiveness of VET and because a number of laws and regulations contradict each other. In its report to the committee, the MOES recommended the introduction of changes and supplements to the laws 'On Education', 'On Vocational Education', and other Ukrainian laws in order to bring VET related legislation in line with socioeconomic needs.

The majority of regulations are stronger on stating policy priorities than on implementation guidelines. In a system still largely managed in detail through laws and regulations, this often leads to a gap between the legal requirements and the instruments and resources available to fulfil them, which naturally creates frustration at lower levels. For example, the regulations requiring VET schools to strengthen their cooperation with enterprises have brought about little change, although they were issued as long ago as the early 1990s. However, supporting legislative documents containing guidelines and mechanisms to facilitate a new social partnership were never issued. VET directors, accustomed to acting according to legal orders, ventured with hesitation into uncharted territory.

The lack of coordination between the bodies responsible for the legislative framework in different areas is seen as another major problem hampering the development of VET reforms in Ukraine. In particular, there is a need for coherence between financing initiatives in VET and other areas of VET reform. Only through a better balance between the legal requirements and the financial resources available for their implementation can the VET reform process become a reality.

The above illustrates, firstly, the fact that VET reform has been addressed mainly through an overemphasis on legal instruments, and it is evident today that reform of the VET system cannot be achieved through laws and regulations alone. This brings into focus the question

or whether the MOES should be engaged in detailed legislative work at all, or whether the ministry should increasingly focus on developing the legal framework for VET provision and leave the details to lower-levels administrations and the VET schools themselves. It is debatable whether a modern demand-driven VET system can be regulated in detail from the centre. The need to be responsive to local labour market needs demands less detailed regulation and more focus on provision. Moving from a detailed input-management approach towards a framework approach that is focused on outcomes clearly requires a new orientation of the responsibilities of the MOES and of the way VET is managed.

Secondly, it illustrates the need to analyse and review the entire legislative framework governing the field of VET in order to strengthen its operational relevance and establish coherence with the legislative framework governing labour and employment.

Thirdly, the present legal framework does not give employers a legal position with regard to VET policy development, financing, management or provision. There is a need to include all the stakeholders in the legislative process and to ensure that social partnership is written into VET laws and regulations. Informal but institutionalised consultations involving social partners, regional and municipal authorities, and VET school representatives in broad discussions of VET legislation before its ratification might contribute to its appropriateness and the effectiveness of its implementation.

Fourthly, it will be appropriate to update the functions of the Inter-Branch Council on Vocational Education and Training, focusing on guiding and coordinating VET and employment efforts, and to secure the allocation of sufficient resources to support efficient and cost-effective VET provision. The involvement of the relevant ministries and employers should be secured.

4. CONCLUSIONS

4

4.1 THE COMPLEXITY OF THE UKRAINIAN VET SYSTEM REFORM: SYSTEM-WIDE AND SYSTEM-DEEP REFORMS

The study shows that the Ukrainian VET system is heavily linked to the overall transition process which is changing the entire fabric of society.

In this process, the Ukrainian VET system reform has reached a crossroads at which fundamental issues need to be addressed in order for the VET system to regain its relevance to the individual and the economy. Bringing the reform process forward is not only a question of reforming each individual VET institution, through, for instance, improving the relevance of their services and quality of training provision. It is just as much a question of reforming the institutional interface between the institutions and between them and stakeholders outside the system dependent on their services and training provision. A modern VET system is not only characterised by its internal structures and content but just as much by how it interacts with other systems/sectors.

Therefore continued VET reform should be considered both as a system-wide and system-deep reform process.

System-wide reform

System-wide reform relates to the need for comprehensive change in practically all interconnected elements of structures and contents of the Ukrainian VET system. The individual aspects or 'building blocks' of the Ukrainian VET system are closely interlinked, for example, the need for demand driven competency based curricula will demand teacher/instructor training and probably also new teaching and learning facilities and equipment.

'A change in one aspect of the VET system will therefore trigger off a whole chain of related changes in order to make that particular change work. If the wider implications of change have not been considered or are not allowed to happen, such partial change is likely to remain isolated and be short-lived. System-wide change therefore requires a well-designed and coherent strategy for change with clear and transparent objectives, a good choice

of strategic interventions based on an efficient use of resources and capacities, and effective assessment and feedback mechanisms⁶⁰.

System-deep reform

A comprehensive view on reforming a VET system in a transition period requires a reshaping of the system's interacting components, boundaries, inputs and outputs, feedback and relationships with other systems and outside stakeholders. As the social and economic transition process progresses, the Ukrainian VET system cannot provide relevant services without being in constant dialogue with society, to finetune its abilities and deliveries. This means that the VET system must develop new institutionalised (formal and informal) relationships with students, social partners, labour and employment authorities (the labour market and economic system), financial and economic authorities and the political system. Such reshaping of system-deep relationships is likely to call for a radical redefinition of the role of VET and the mind set underpinning its organisation and operation⁶¹.

Awareness of the need for system-wide and system-deep reform is increasingly present within the Ukrainian VET system itself and is beginning to spread to policy makers and employers. While the system-wide challenges seem easier to identify and address because they are linked to existing structures, system-deep challenges seem more difficult to come to terms with. As a result, the findings described on the following pages relate mainly to the system-wide challenges while many should be considered equally important for addressing the challenges of system-deep reform.

4.2 FINDINGS AND RECOMMENDATIONS

The National Doctrine on Education is the latest framework document covering reforms in different parts of the educational

system. From the Doctrine, it is clear that successful reform of the VET system relies also on a new understanding of VET and of its role in the Ukrainian society. In support of this, a new 'concept on VET' is presently being developed by an expert working group established by the MOES with the assistance of ETF. The working group tabled the draft concept at the end of November 2003, for comment by a reference group composed of key VET stakeholders. It is intended that the new VET concept will guide the reform process forward both in terms of system-wide and system-deep reform initiatives. In light of this, the study points to the following findings under three main headings.

4.2.1 THE RELEVANCE OF VET

Curriculum development

VET provision is not geared to meeting newly emerging labour market demands, neither in terms of detecting needs nor in terms of responding to them. As a result we see that students are increasingly choosing not to enter into VET, and evolving enterprises are increasingly looking for alternative training options. Although fragmented capacity does exist for developing more demand-oriented curricula, this capacity needs to be pooled and to be linked to institutionalised social partnership approaches and procedures that have local relevance. We would also suggest that:

- The work that has already begun to reduce the many specialities currently provided should be continued.
- General and technical subjects should be better interlinked, both in the curricula and during the actual teaching.
- Practical application of theory (through workshops and placements) should be maintained and possibly further strengthened.
- Simple procedures should be established for curriculum development and implementation, which can facilitate employers' involvement.

⁶⁰ 'Learning Matters – Sharing Experience from the Past for the Future', Discussion Paper presented by Peter Grootings at ETF Advisory Forum Conference, November 2003.

⁶¹ *ibid.*

The opportunity to shape the curriculum to local needs should be used not for staff and institutional interests, but to make curricula relevant to the local economy.

- The strength that exists within the system at regional and school level should be utilised, rather than attempts being made to centralise the standard and curriculum development process. The MOES should increasingly steer and guide the process, while the actual standard and curriculum development should be carried out at regional and school level with the involvement of employers. This will create system ownership and revitalise unused resources within the system.
- Existing labour market and employment information should be used increasingly in steering the standard and curriculum development process. In addition, the existing labour market and employment information system should increasingly obtain information that can be used in such a steering process.

Continuing vocational training

CVT cannot meet the growing need for training. As the economy continues to recover, the need for upgrading of skills is expected to increase. The existing capacity of the system is likely to be insufficient, as is the system's capacity to translate the quantitative needs detected into target qualitative training interventions. The existing cooperation between the MOES and MOLSP should result in procedures that can detect skill needs at an early stage. Labour market and employment information should also include information that can identify skill changes within occupations. Both ministries should actively facilitate enterprises' opportunities for undertaking in-company training, through a de-bureaucratisation of procedures.

4.2.2 THE QUALITY OF VET

Teacher training

The competence of teachers and instructors is not sufficient to meet the

need for new pedagogical teaching methods and new technical skill requirements. Based on a developed teacher training strategy, changes to pre-service and in-service teacher training should be made as soon as possible. Donor projects and the study implemented by the National Observatory offer concrete suggestions that should be implemented as soon as possible. The pilots within in-service training should be reviewed as soon as possible, and if the results are positive, measures should be implemented more widely.

Training facilities

Training facilities and equipment are outdated. As soon as resources are available, investment in the maintenance and upgrading of buildings and equipment should be increased. Upgrading and modernisation of training facilities should be carried out locally and in close cooperation with employers.

Modernising training facilities and updating schools' equipment is likely to be a very costly undertaking that, at present, it seems unlikely the Government can afford. In order to raise the funds required, as it would be untraditional to offer enterprises tax deductions for their investment in VET, it is more likely that they would be asked for a financial contribution. An alternative way to overcome to some extent the lack of adequate equipment in schools would be to increase practical training in enterprises.

4.2.3 VET GOVERNANCE, PLANNING AND FINANCING

VET governance

Steps should be taken to develop a format for social dialogue, which could lead to a social partnership model for the VET system. What has been done so far in this field is still too fragmented and sporadic to constitute a deliberate social partnership model. Employers' organisations do not seem to have the capacity to articulate their policy on education and VET. This should not, however, discourage the MOES from entering into a dialogue with

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them. Instead, the MOES should encourage employers to formulate comprehensive opinions on VET policies.

VET planning

Management of the VET system should be decentralised as much as possible. The MOES should focus on overall system steering, monitoring and guidance. Thus, the MOES should continue its considerations regarding decentralisation.

The state ordering system is not designed for a situation in which individual and market needs increasingly determine the demand for VET. The system should gradually be replaced with one that is more decentralised and demand-oriented.

Labour market and employment information gathered by the employment authorities should increasingly be used for overall VET planning. For this purpose the existing labour market and employment information system could be extended to include education and training information.

VET financing

There is a lack of funds owing to an unsustainable funding scheme. Increased public funding is likely to be insufficient to make up for years of neglect; employers' contributions, therefore, are very likely to be needed in the longer run. Employers' direct financial contributions are likely to increase their interest and commitment to training. The MOES should initiate a dialogue with employers on possible ways they could contribute to the funding of VET.

Considerations of effectiveness and efficiency do not adequately determine resource allocation and use. The VET system lacks a management information system and administrative instruments that can be used for monitoring and help to improve effectiveness. Traditional and institutional standards and norms need to be reviewed with a view to bringing costs in line with financial capacities and applying modern public management principles.

ANNEXES

ANNEX A: STATISTICAL INFORMATION

Table 1: Main economic indicators and unemployment rates – 1990-2003

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Real GDP % changes over the same period of the previous year*	-4.0	-8.7	-9.9	-14.2	-22.9	-12.2	-10.0	-3.0	-1.9	-0.2	5.8	9.0	4.6***	5.3****
Consumer price inflation % **	-	-	30.8	47.5	13.2	9.1	2.9	0.8	1.6	1.5	1.9	0.5	0.9***	-
Unemployment %**	-	0.3	0.29	0.35	0.36	0.53	1.49	2.74	4.30	5.38	5.31	4.53	3.8***	-
● of which women %	-	-	79	75	73	73	67	65	62	62	-	-	-	-
● of which men %	-	-	21	25	27	27	33	35	38	38	-	-	-	-
Unemployment LFS %	-	-	-	-	-	5.6	7.6	8.9	11.3	11.9	11.5	11	10	9.5
● of which 15-24 year-olds %	-	-	-	-	-	14.3	18.3	22.7	22.5	26.5	-	-	-	-

Source:

* Ukraine Economic Trends, Quarterly, March 2000 and December 2001 Issues, UEPLAC.

** Ukraine Economic Trends, Quarterly, December 2001 Issue, UEPLAC; Statistics of Ukraine's Economy, Institute for Economic Research and Policy Consulting; and Quarterly Predictions, # 19, April 2002 and # 22, first quarter 2003, ICPS.

*** Monthly Economic Monitoring Ukraine No 4, April 2003, Institute for Economic Research and Policy Consulting; and Newsletter No 165, 11 November 2001, ICPS.

**** Monthly Economic Monitor Ukraine No 10, October 2003, Institute for Economic Research and Policy Consulting.

Table 2: Percentage of GDP allocated to education and VET – 1991 and 1995-2002

	1991	1995	1996	1997	1998	1999	2000	2001	2002
Education as % of GDP	3.8	4.3	4.4	4.2	3.9	3.6	4.0	4.7	-
VET as % of GDP	-	-	-	-	0.25	0.22	0.25	0.29	0.26*

Note:

* Calculation.

Source: 'Quality assurance and educational management at primary and secondary level in Ukraine', base-line study report, Ministry of Education and Science, September 1997, p. 24; 'Ukraine Economic Trends', Quarterly Issue, UEPLAC, December 1999, p. 58; National Observatory of Ukraine, 2003.

Table 3: Number of VET students and VET schools – 1994-2002

	1994	1995	1996	1997	1998	1999	2000	2001	2002
VET students	629,396	572,800	537,773	526,464	527,200	527,000	523,300	511,000	500,600
VET schools	1185	1177	1146	995	989	977	966	960	957

Source: Information supplied by the Ministry of Education and Science, 2003.

Table 4: Upper secondary and VET enrolment (gross rates, % of 15-18 population)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Upper secondary general education	25.3	25	24.4	23.3	22.8	23.6	24.1	25.5	27.4	29.3	31.1
VET	40.3	39.6	39.5	39	36.5	34.7	33.4	32.6	30.1	28.6	-
Upper secondary total	65.6	64.6	63.9	62.3	59.3	58.3	57.5	58.1	57.5	57.9	-

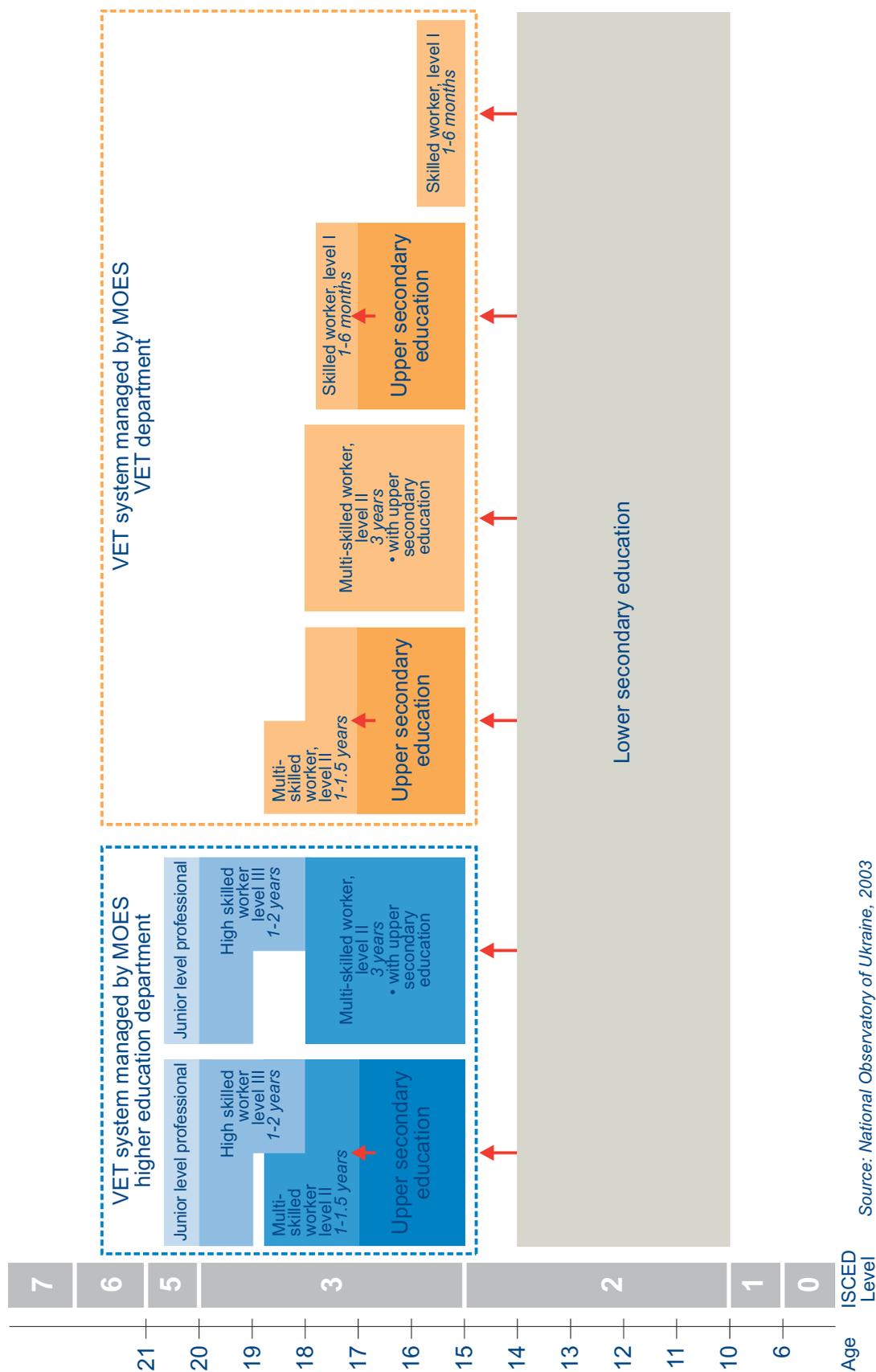
Source: 'A decade of Transition', Regional Monitoring Report No 8, Unicef Innocenti Research Centre, Florence, 2001.

Table 5: Unemployment rate by education attainment and age group – 1998-2001 (%)

	Men			Women			Total		
	ISCED 0-2	ISCED 3	ISCED 5-7	ISCED 0-2	ISCED 3	ISCED 5-7	ISCED 0-2	ISCED 3	ISCED 5-7
1998									
25-29 years	11	16	13	9	15	10	10	16	12
30-39 years	8	15	10	8	13	8	8	14	9
40-49 years	6	13	7	6	12	7	6	11	7
50-59 years	5	8	7	3	11	5	4	10	6
25-59 years	8	14	9	6	12	8	7	12	8
1999									
25-29 years	12	16	11	12	16	9	12	16	10
30-39 years	8	14	9	9	13	9	8	13	9
40-49 years	7	14	8	8	12	8	7	13	8
50-59 years	6	12	7	4	10	5	5	11	6
25-59 years	8	16	9	8	13	8	8	14	8
2000									
25-29 years	18	16	14	13	16	11	16	16	12
30-39 years	16	11	9	11	14	10	14	12	9
40-49 years	10	10	7	6	12	8	8	11	8
50-59 years	4	10	6	2	11	7	3	10	7
25-59 years	10	12	9	7	13	9	9	12	9
2001									
25-29 years	16	13	11	15	14	9	15	13	9
30-39 years	19	12	9	15	14	8	17	13	9
40-49 years ^b	13	10	7	8	13	8	11	11	7
50-59 years	5	10	6	2	10	6	4	10	6
25-59 years	12	11	8	8	13	8	10	12	8

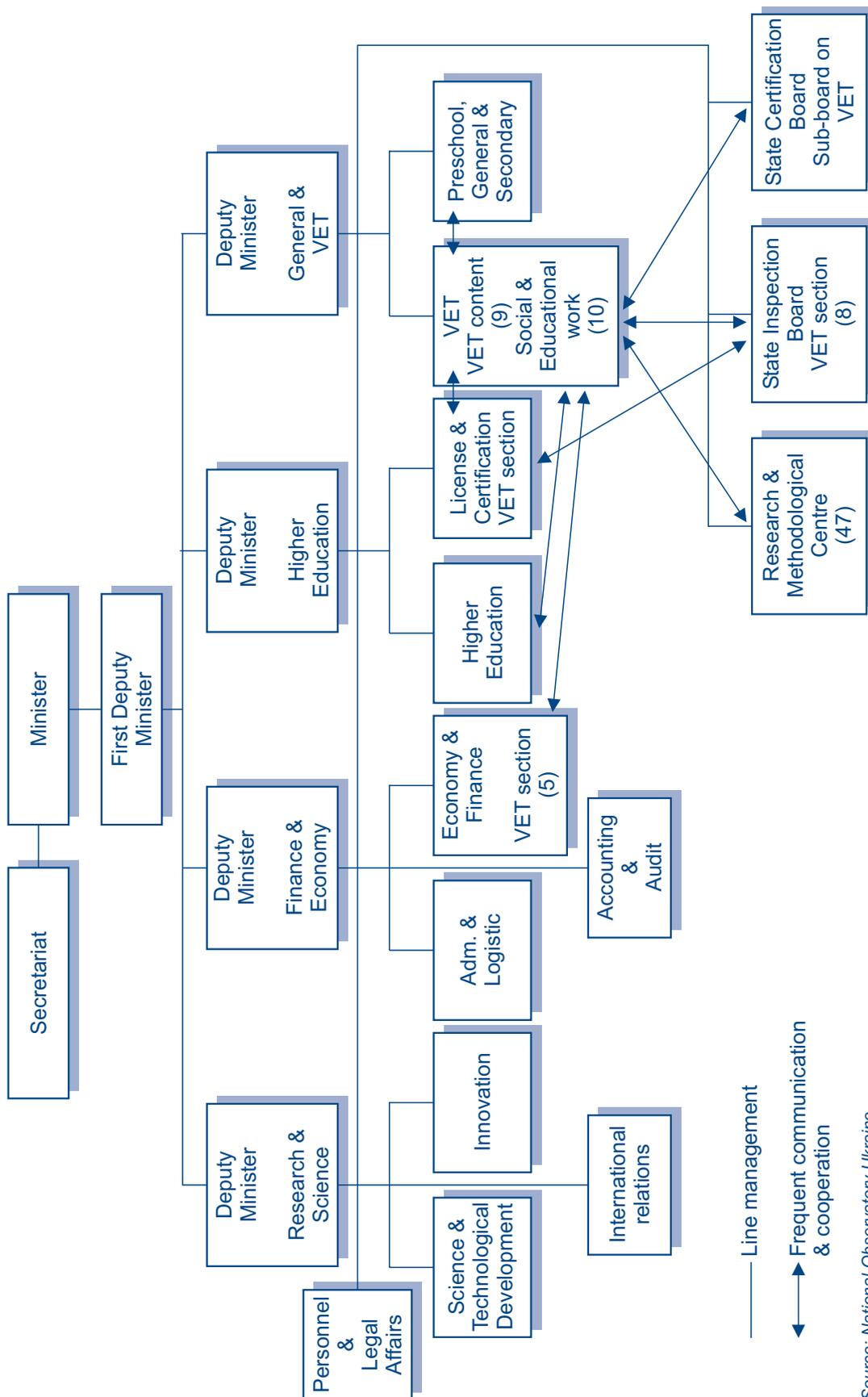
Source: National Observatory of Ukraine, 2003

ANNEX B: SYNOPTIC OUTLINE OF THE VOCATIONAL EDUCATION AND TRAINING SYSTEM



Source: National Observatory of Ukraine, 2003

ANNEX C: MINISTRY OF EDUCATION AND SCIENCE ORGANIGRAM



ANNEX D: PERSONS AND ORGANISATIONS VISITED

Ministry of Education and Science

Mr Victor Ogvujk, Deputy Minister of MOES

Mr Vitaliy Tomashenko, Director of VET Department, appointed Deputy Minister of MOES from September 2003

Ms Svitlana Danylenko, Deputy Director of Economics and Social Development Department

VET schools

VET school No 2, Kiev

VET school No 29, Kiev

VET school in Belaya Trsekov

People met during educational events in March and May 2003

Ms Valentina Kutova, VET Education Authorities in Vinnitsa region

Mr Valentin Chagin, Head of VET Educational Authorities in Kiev

Mr Timofey Desayatov, Head of Education Authorities in Cherkassy Region

Mr Igor Klukin, Education Authorities in Odessa Region

Mr Ludmila Shevchuk, Director of the Khelmintski Regional Methodological Centre of VET

Mr Volodimir Kobersky, Director, VET school No 32, Hushentsy

Mr Sergiy Ogorodnikov, Director, High School No 42, Pogrebische

Mr Victor Kovalenko, Director, VET school No 3, Kiev

Mr Ivan Pilipiv, Director, School No 34, Stryi

Ms Ludmila Gorodechna, Deputy Director, VET school No 26, Odessa

– and many others

Academy of Pedagogical Sciences of Ukraine

Ms Nellya Nychkalo, Academician-Secretary of VET Department of Academy of Pedagogical Sciences of Ukraine

Education and Science Committee of the Verhovna Rada

Mr Stanislav Nikolaienko, Head of Education and Science Committee of the Verhovna Rada

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Cabinet of Ministers of Ukraine

Mr Volodymyr Vovk, Head Consultant of Scientific, Technical and Human Development Administration of Secretariat of the Cabinet of Ministers of Ukraine

Administration of the President of Ukraine

Mr Volodymyr Golyb, Head of Department of Human Policy Board of Administration of the President of Ukraine

Ministry of Labour and Social Policy

Ms Ludmila Shcherabk, Deputy Head of Employment Policy and Labour Migration Board of Ministry of Labour and Social Policy

Ms Tatiyana Petrova, Ministry of Labour and Social Policy

State and regional employment centre

Ms Ludmila Yanevich, Head of the Department of the State Employment Centre

Mr Leonid Shayan, Employment Centre, Kiev

Ms Zhelyanska, Employment Centre, Kiev

Ministry of Agriculture Policy

Ms Tataiya Ishenko, Methodical Centre of Ministry of Agriculture Policy

National Observatory of Ukraine

Ms Olga Shcherbak, Director of Kyiv Anton Makarenko Professional Pedagogical College, Leader of National Observatory

Mr Olena Zaytseva, Project Manager

Federation of Employers of Ukraine

Mr Oleksiy Miroshnychenko, Head of Federation of Employers of Ukraine

Companies

Antonov Company Training Centres

Mr Vitaly Oliynik, Ukrtransauto Transport Company Ukraine

Ms Iryna Dudnik, Head of Staff Training Department, Joint Stock Mining Company, Poltava

Mr Ivan Tupik, Head of Staff Professional Development, Joint Stock Novokramatorsk Machinery Plant

Mr Oleksander Shcherbina, Deputy Director of Personnel Development, State Plant, Kivorogstal

Ukrainian Centre for Independent Political Research

British Council

Ms Olena Gorsheneva, Project Manager

European Commission's Delegation to Ukraine, Moldova and Belarus

Ms Alla Seletska, Project Manager, Education

Mr Michel Zayet, Project Manager, SME and Enterprises

German Embassy

Ms Elena Junatzka, Kreditanstalt für Wiederaufbau

Kultur Kontakt, Austria

Mr Hans Schustereder, Project Manager

Ukrainian Inter-Branch Centre of Modular Training, ILO

Mr Vasili Koval, Project Manager

International Renaissance Foundation

Southern Alberta Institute of Technology, Canada

Ms Wendy Yurka, Corporate Training – International

UNDP

Ms Olga Kovalenko, Project Manager

Ms Alina Martynenko, PR Manager

World Bank, Kiev

Ms Olena Bekh, Project Manager

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LIST OF ACRONYMS

CAS	Country assistance strategy
CIS	Commonwealth of Independent States
COM	Cabinet of Ministers
CSP	Country strategy paper
CVT	Continuing vocational training
EC	European Commission
EET	Entrepreneurship in education and training
ETF	European Training Foundation
EU	European Union
ICPS	International Centre for Policy Studies
ILO	International Labour Organisation
IRF	International Renaissance Foundation
ISCED	International standard classification of education
KfW	Kreditanstalt für Wiederaufbau
LFS	Labour force survey
MES	Modules of employable skills
MOA	Ministry of Agricultural Policy
MOE	Ministry of Economic and European Integration
MOES	Ministry of Education and Science
MOF	Ministry of Finance
MOLSP	Ministry of Labour and Social Policy
NGO	Non-governmental organisation
NIP	National indicative programme
NIS	New Independent States
OECD	Organisation for Economic Cooperation and Development
SME	Small and medium-sized enterprise
UEPLAC	Ukrainian-European Policy and Legal Advice Centre
UNDP	United Nations Development Programme
VET	Vocational education and training
WB	World Bank

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