COMPARATIVE ANALYSIS

04 Initial vocational education and training (IVET)

0400 - Background information and synthesis of results

Description:

This study is based on a comparative analysis of country reports written by Refernet National consortia of 25 European countries: Austria; Belgium; Cyprus; the Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Iceland; Ireland; Italy; Latvia; Lithuania; Netherlands; Norway; Poland; Portugal; Slovakia; Slovenia; Spain; Sweden and the United Kingdom. The synthesis report attached presents some background information to the study and the main results on the comparative analysis of the initial vocational education and training. The country specific characteristics of IVET can be found under the Country summaries link.

Related files

- Review [pdf]
- Country summaries [pdf]

Table of Contents

0401 Introduction to initial vocational education and training (incl. statistics)

Description:

There is general consensus that IVET is vocational preparation predominantly provided at upper secondary level - lasting for a maximum of around six years - for entry into the labour market, although courses are also available at the lower secondary level, post-secondary non-tertiary, and tertiary level.

Synthesis:

In virtually all countries, IVET covers education and training aimed at preparing young people for entering the world of work by providing them with skills and qualifications. While in most countries it is legally defined, countries such as Cyprus, France, Greece and Poland do not have a regulatory definition of IVET.

For young people, there are two pathways through secondary education:

- a vocational route (IVET);
- general academic route

The vocational route tends to lead to entry into the labour market at the end of the upper secondary level – though limited post-secondary and tertiary vocational education is available – whilst the general, academic one leads more readily to tertiary level education. Attempts are being made to integrate the separate pathways so that students can have a more mixed pathway through secondary, and increasingly, tertiary education.

One of the challenges facing policy makers is to stimulate demand for the vocational route, which in many countries has declined because young people prefer to take a pathway that will allow them access to University. In some countries the vocational pathway is still popular. In countries such as Austria and Sweden the uptake of IVET at upper secondary level exceeds that of upper secondary general education; in these countries it is estimated that around 80 and 54 *per cent* of upper secondary students, respectively, attend VET courses. The opposite takes place in, *e.g.*, Denmark and Portugal, where 36 and 8 *per cent* of upper secondary students attend VET courses. The challenge is to develop vocational curricula which balance both general, academic needs and vocational ones, so that the VET option is not seen as second best.

It is particularly evident that apprenticeships have declined in their attraction to young people with a variety of initiatives in place – with some success – to increase the numbers of employers and students engaging in this form of training.

The overall reputation of the VET system, the qualifications that can be potentially achieved and the progression routes open to IVET graduates are among the factors that affect the uptake of vocational education across European countries. Other differences among countries include the extent to which accreditation is necessary for entry into an occupation or profession and the balance between general and vocational education, *i.e.*, the amount of general education provided alongside vocational preparation.

Country Transversal Summaries:

Austria	IVET is defined as education and training at the upper secondary level aimed at preparing students for certain professions. It starts during the last year of compulsory education in VET schools and colleges, or in the form of pre-vocational training. More then 60 *per cent* of young people choose some form of IVET. The proportion of young people in IVET has decreased from 50 per cent of 15-20 year olds in 1990 to 47.6 per cent in 2001 and from 52.9 per cent of 14 to 19 year olds to 51.3 per cent in 2001. The actual numbers of people enrolled in IVET in later years, however, has been relatively stable with around 278,000 students aged 15 to 20 years and about 296,000 aged 14 to 20 years enrolled in 2000 and 2001.
Belgium	Compulsory education lasts until age 18 years. Vocational training takes place mainly in the compulsory education system in schools that have the capacity to deliver vocational and technical secondary education. Educational attainment is increasing. In 2005, 66 per cent of the population had completed higher secondary education compared to 58 per cent in 2000. As a federal state, education is the responsibility of the three communities: French, Flemish, and German. That said, since 1989 full-time secondary education has been standardised throughout the country with respect to levels, types, and core subjects. The IVET system comprises full-time technical and vocational education and part-time education.
Cyprus	The aim of VET is to provide education and training to equip people with the necessary qualifications to work in certain jobs. VET includes all education and training that give people the qualifications related to this aim. In 1990/91, 5.9 *per cent* of all 15 to 20 year olds were participating in upper secondary technical and vocational education while 6.5 *per cent* were participating in such in 2002/03.
Czech Republic	Initial vocational education and training (IVET) plays a key role in the education system and is provided at the upper secondary (ISCED 3), post-secondary (ISCED 4) and tertiary (ISCED 5) levels. There is no one specific piece of legislation governing IVET as a whole but there are several laws that regulate various types IVET. These include: Law no. 561/2004, the "Schools Act" on pre-school , basic, secondary, tertiary professional and other education; Law no. 563/2004 on pedagogical staff; and Law no. 111/1998 on higher education institutions. Participation rates in IVET dropped between 1996 and 2000 as compulsory education was extended from eight to nine years in 1995/96.

Denmark	The aim of VET is to offer training programmes that allow individuals to become employed in the labour market in such a way that the demands of the private and public sector are met. Programmes consist of a number of intermediate stages that allow students the flexibility to switch between studying and working. The proportion of young people aged 15 to 20 years participating in the main programme of IVET has remained fairly stable between 36 and 40 *per cent* from 1992 to 2001. The absolute number of participants has increased from 75,616 in 1992 to 79,219 in 2001.
Estonia	The aim of VET is to provide young people with the social and professional skills required in their working life, and to enable trained workers to become competitive in the national and international labour market. VET may start at lower secondary level with pre-vocational training. Between 1995 and 2003, the proportion of young people aged 15 to 19 years participating in IVET decreased from 23 *per cent* to 20.9 *per cent*. Around two-thirds of all participants are enrolled in general education versus vocational education. This ratio has held from 1995/96 to 2003/04.
Finland	VET is defined as upper secondary education and training leading to a vocational qualification. Upper secondary VET qualifications can also be obtained through apprenticeship training or competence tests. The aim of upper secondary VET is to provide the skills and knowledge necessary for self employment and to prepare students for further studies. Between 1990 and 2004, a greater proportion of students at upper secondary level have been enrolled in IVET rather than general education. In 1990, 53.8 *per cent* of participants were in IVET and in 2004, 55.5 *per cent* were enrolled in IVET rather than general education. The bigger share of participants in IVET can be explained by the fact that there are more adults in IVET than in general education. IVET also includes students with the upper secondary school degree.
France	Students follow a common core until the end of 9th form (around age 15), the final year of the first cycle in secondary education. In accordance with the CEDEFOP glossary definition of IVET, vocational secondary schools, apprenticeship and several other specific pathways dedicated to young people are defined as IVET. The proportion of young people, between 15 and 20 years of age attending vocational secondary schools and apprenticeship has remained steady (28.5 *per cent*) between 1996 and 2000. The absolute number of participants has been lower in IVET than general education although the difference between the two has narrowed between 1990 and 2002.
Germany	The legal definition of IVET is given as: "Initial training shall, through a systematic training programme, impart the vocational skills, knowledge and qualifications (vocational competence) necessary to engage in a form of skilled occupational activity." Initial vocational training includes those vocational qualification measures which: are generally aimed at school-leavers (from ISCED level 2A or 3A; as for an apprenticeship, completion of school is not formally required) and are intended to provide qualifications in demand on

	the labour market; are acquired in a regulated and formal course of training and lead to a qualification as a skilled worker or qualifications basic to a broad occupational field; are aimed at occupational activities in all sectors. There has been an increase in not only the absolute numbers but also in the percentage of the age cohort attending and completing full time vocational studies. In 1990 there were 260,598 students at upper secondary vocational schools. In 2002, around 44 *per cent* of participants were male.
Greece	There is no explicit and firm definition of the IVET system in Greece. The institutions involved in IVET have not created and developed a single coordinated system. The main central institutions providing IVET are the Ministry of National Education and Religious Affairs, the Organisation for Vocational Education and Training (OEEK) and the Greek Manpower Employment Organisation (OAED). There are two operating levels of IVET in Greece (i) upper secondary level and (ii) post-secondary level: Upper-secondary level vocational education, in which training is provided to graduates of compulsory education, age 15 years and older. Studies last 2 or 3 years and are provided in the Technical Vocational Schools (TEE). There are 2 types of TEE: 1) school-based TEE that are supervised by the Ministry of Education and Religious Affairs, and 2) Apprenticeship TEE that are supervised by OAED and in which courses take place partly in the school and partly in enterprises. Post-secondary level vocational training which is provided by OEEK mainly to graduates of upper secondary level of education (General or Vocational) aged 18 years and above (typically 18-24 years). Studies at this level are 2 years in duration. Courses are provided in schools (Institutes of Vocational Training (IEK)), as well as in workplaces in the case of apprenticeships. The percentage of students enrolled in vocational training rather than general education has been steadily increasing. In 1998/99, 26 *per cent* of students studied in the TEEs. This proportion increased to 32 *per cent* in 1999/2000, 34 *per cent* in 2000/01 and 35 *per cent* in 2001/02.
Hungary	There is no legal definition of IVET. IVET covers both initial and continuing education. A distinction is made, however, between IVET as provided within or outside the school system. School-based IVET is offered in state-recognised public and higher education institutions and those who take part in it acquire the legal status of students. Currently around two-thirds of students aged 14-18 years study in vocational training schools, while in 2004 less than 2 *per cent* of people aged 15-24 years participated in IVET outside the school system. For the purposes of this report IVET is defined mainly with regards to education and training offered within the school system, although IVET provided outside the school system is also considered where appropriate.
Iceland	The aim of IVET is to prepare young people for employment in industry or the service sector. The organisation of IVET varies

	depending on the subject. Relatively few students enrol in IVET at the end of their compulsory schooling at the age of sixteen. In 2003, around 12.5 *per cent* of the total population of young people aged 17-19 participated in IVET. This figure was 5.6 *per cent* for the 20-24 age group and 1.5 *per cent* for the 26-30 age group.
Ireland	There is no legal definition of IVET. For purposes of this study, it is defined as encompassing people aged 15-20 years who have completed their compulsory education, but have not significantly engaged in the labour market other than through apprenticeship.
Italy	Vocational training is defined in the Framework Law 1978, essentially as a means to promote the employability of individuals. There are four elements to IVET: an academic route leading to university entrance; a vocational route delivered in vocational and technical schools; the apprenticeship system – school/work alternation; and Higher Technical Education and Training (IFTS) – available at age 19. In 2002, 93 *per cent* of the 2.9 million 15-19 year olds – the main reference group for IVET – were in IVET, representing 93 *per cent* of the relevant population.
Latvia	VET, in its present form, is defined by the Programme for the Development of Vocational Education 2002-2005. The main goals of the Programme are: to develop a flexible VET system which is responsive to the demands of the market economy, which encourages employability, and which corresponds to EU human resource development policies and promotes a competitive labour force.
Lithuania	The legal definition of IVET is presented in the Law on Education, 2002. The purpose of vocational education and training is to assist a person in the acquisition, changing or upgrading of their qualifications, as well as preparation for participation in the labour market. Initial vocational education and training (IVET) is formal, universally available and is intended for the acquisition of a primary qualification. IVET is also available to students who have not attained basic education and are at least 14 years old. Approximately 34 *per cent* of all young people aged 15-19 years participate in IVET. In 2002, there were 274,100 young people aged 15-19. Of these, 34 *per cent* participated in some form of IVET.
Netherlands	The 1996 Act on Vocational and Adult Education brought together all types of secondary vocational education and adult education. Its aim was to strengthen and further integrate the system of initial and post-initial vocational education and training, setting it apart from general education. Access to senior vocational education (MBO) is possible after completion of at least the first phase of (general) secondary education. There are three types of secondary education: junior general and pre-vocational education (VMBO), taking up to four years; senior general secondary education (HAVO), which takes five5 years; pre-university education (VWO) taking 6 years.

	Typically, VMBO is completed at age 16 and individuals can then go onto MBO. If an individual completes the theoretical programme within VMBO with high average grades they can go onto HAVO. Statistics available suggest that the total number of students in MBO increased from 434,100 in 1999/2000 to 477,700 in 2003/04.
Norway	VET is defined as all education and training leading to vocational qualifications that are formally acknowledged by the Ministry of Education. VET pathways contain several levels, each being a complete qualifying unit, leading to a formal certificate. The majority of those undergoing upper secondary IVET are in the age group 16 – 21. Most post-secondary IVET students are in the age group 20-27.
Poland	There is no formal definition of IVET. IVET is defined for the present purpose as "general or vocational education carried out in the initial educational system, usually before entering working life". Thus, IVET is offered as general or vocational education, and in apprenticeship programmes. 93.2 *per cent* of the population aged 16-21 participates in some of IVET forms, as compared to a mere 29.3 *per cent* in the 19-21 age brackets.
Portugal	IVET is training "... defined to confer a certified vocational qualification and prepare individuals for adult and working life". IVET is provided within the formal education system or within the labour market and covers general or vocational education and training carried out in the initial education system, usually before entering working life. Around 13.5 *per cent* of all secondary students attended vocational courses in 2006/2007.
Slovakia	There is no legal definition of IVET. Grammar schools are considered as the general stream of education, whereas secondary specialised schools and secondary vocational schools are recognised as IVET providers. A higher share of participants in VET is a traditional feature of the Slovak (and former Czechoslovak) education system, originally set to prepare over 80 *per cent* of secondary graduates within VET schools. Since the 1990s the share of general education (grammar schools) graduates has been gradually increasing.
Slovenia	The education system is a two-stream one that favours differentiation between general and vocational education. Although general education's popularity is increasing among young people, vocational education accounts for a higher proportion of enrolment in secondary education. IVET is defined as education and training 'in the professions' at secondary level and generally starts after a successful completion of compulsory education. It is offered through the upper secondary or vocational oriented pathways. In 2003, around 68 *per cent* of the population aged 18-24 were enrolled in some sort of education and training. This represented an increase from around 62 *per cent* the previous year.
Spain	VET is defined as training that facilitates entry into the labour market and allows individuals to take part in social, cultural and economic life. IVET prepares students for working life or further studies. The percentage of students participating in VET with

	regards to the total number of students involved in education leading to a School Leaving Certificate (Bachillerato) and VET increased from 36.1 *per cent* in 1992/1993 to 41.2 *per cent* in 2001/2002.
Sweden	The educational system aims to narrow the gap between general and vocational education and there is no 'natural' distinction between the two. Initial and continuing vocational education and training comprises: vocationally oriented programmes at upper secondary level (initial vocational training) labour market training (continuing vocational training) vocational training with the framework of municipal adult education (continuing) in-company training or staff graining (continuing) professional degrees at university level (continuing) post-secondary education (advanced vocational education) post-secondary education (complimentary education) Compulsory schools can be national, municipal or private (independent). More than 97 per cent of all pupils attend municipal compulsory school. About 98 per cent of compulsory school leavers go on to the three-year upper secondary school, which offers both vocational and academic programmes. Approximately 50 per cent of the 320,000 students in upper secondary school study a vocationally-oriented programme.
United Kingdom	There is no legal definition of vocational education and training (VET). It tends to be regarded as a "*system of education or training that has as its subject matter knowledge and skills used within certain trades, occupations or professions"*. Major programmes of IVET begin after the completion of compulsory education which ends with the school year in which the young person reaches age 16 years. Compulsory education focuses mainly on general education, but the last phase (ages 14-16) includes an element of work-related learning. IVET is delivered in schools, the further education sector, higher education institutions, Government funded and private training providers, and employers. The UK is comprised of four nations - England, Northern Ireland, Scotland, and Wales – which have devolved responsibility of education. The system described is that of England (by far the most populous of the four), but where there are major differences these are reported.

040101 Development of IVET

Description:

In general, systems have evolved out of those designed in the 19th Century to provide skilled workers for the production system. All systems have been through several reforms including many introduced recently.

Synthesis:

IVET systems evolved out of the industrial revolution across Europe. A number of big events have shaped that evolution:

- World War II;
- the collapse of the former Soviet Union; and
- structural change in the economy of Europe.

World War II created a strong demand for technical labour and resulted in a reshaping of the IVET system. In Austria, for example, VET schools were created after the War, and in Finland and Cyprus the demand for technical skills during the war led to the establishment of IVET systems.

The former Soviet bloc countries in Eastern Europe were dependent upon a centrally planned system that determined the number of people to be trained. In Estonia, from the beginning of the Soviet occupation in 1940 until the early 1990s, manual / production skills were emphasised in the general school curriculum. In Latvia, the change from a totalitarian system to a market economy gave rise to the need to prepare students to compete in the labour market and highlighted the importance of life-long professional development. In Latvia, proposals for reform were passed in 1989 to update the education system, initially designed to meet the needs of a centrally planned economy, to meet the needs of a market economy.

More recently, all countries have had to adapt to greater openness in the European and global economies and the structural changes this has brought about in the labour market. All systems are undergoing reform as part of a process of continuous improvement. In Spain, for instance, the 1990 Reform Act helped to significantly improve the role of IVET by extending free compulsory education to the age of 16 and introducing changes aimed at coordinating the provision of education with labour market demand. Important reforms have also taken place over the last three decades in Estonia, Finland, France, Greece, the Netherlands, Italy, Latvia, Lithuania, Poland, and Sweden. The aims of these reforms has been to:

- improve links between vocational education and the world of work (improving employability);
- updating of the qualification system;
- raising levels of participation; and
- creating better links between the various pathways through the education systems.

Country Transversal Summaries:

Austria:	Formal VET schooling started at the end of the 19th century to meet the need for skilled workers in the industrial era. The aftermath of World War II led to important changes in VET, including its division into VET schools and colleges. Reforms and legislation since the 1960s have contributed to a high quality VET system that meets the needs of the economy.
Belgium	The system has been through numerous reforms over the 20th century. For example, in the early 1980s vocational training curricula were introduced, and in 1984 bridges between each vocational training year and technical/general education were established. These links enabled pupils in vocational training to earn certificates equivalent to those in other forms of education. The general thrust of reform has been to improve the integration of young people into the labour market. This has included significant investments in technical and vocational education, and the development of sandwich courses that provide training and work experience.
Cyprus:	Development of VET started during the Second World War. By 1960, after independence, there were eleven Technical and Vocational Schools. The new challenges that emerged during the aftermath of the Turkish invasion in 1974 led to a gradual increase in the number of Technical Vocational Schools and to a proposal to reform VET. This reform was approved in 2001. The apprenticeship system has been in operation since 1963.

Czech Republic:	Apprenticeship dates back to 1774 and school-based VET has a long tradition. The IVET system dates back to the second half of the 19th century when lower and upper industrial schools were introduced in addition to the schools for apprentices. More recent developments include: • the national programme for the development of education (2001) sets out the broader education policy objectives for the next 5 to 10 years; • the long term plan for education and the development of the education system (2002) which defines a set of priorities to be implemented and key measures to be introduced to attain the policy objectives dealing with human, financial and material resources. The following priorities to 2010 have been set out by the long-term plan: • curricular reform – the curricula will be designed by schools as school-based curricula which will be derived from framework curricula adjusted for the relevant programme providing secondary education with maturita; • reform of maturita examination (ISCED 3A) and final examination in programmes leading to the acquisition of a secondary vocational certificate (ISCED 3C); • quality assurance, monitoring and evaluation of educational results; • developing an integrated diagnostic information and counselling system; • optimising educational provision and institutional structures; • improving working conditions of teachers and senior school staff; • establishing non-university public higher education institutions and developing other forms of tertiary education; and • developing continuing education as a part of lifelong learning.
Denmark:	The development of IVET can be traced back to the 1400s, although the first commercial and technical colleges were established in 1870. The role of the social partners has increased in importance since the early 1900s, and in 1921 the Apprenticeship Act granted these the right to make recommendations in relation to VET programmes. Limitations to the VET system led to a number of reforms that resulted in the Vocational Education and Training Act of 1977. Further amendments to this act had the aim of making IVET more flexible and adaptable to the needs of the labour market. The changing nature of the current IVET system reflects the involvement of the social partners in helping create a system that responds to employers' needs.
Estonia:	From the beginning of the Soviet occupation in 1940 until the early 1990s, manual and production training were emphasised in the school curriculum but no separate vocational education training was defined. In 1995 the first Vocational Education Institutions Act was passed. This act was followed by a number of reforms to VET, its aims and ways to modernise it.
Finland:	Systematic development of VET started after the Second World War. The VET system began as a set of independent training providers, focusing on the needs of individual occupations. Reforms to the entire VET system (upper secondary and tertiary level) started in 1990 and led to the standardisation of the duration, qualification structure and other aspects of the system. Efforts to increase the links between general and vocational upper secondary education have also been made.

France:	Since the mid-1980s, a number of reforms have been carried out to develop vocational education and apprenticeships. These initiatives include: • introduction of the Vocational Baccalaureate from 1986/87; • reform of apprenticeships in 1987, making it possible to earn vocational diplomas at all levels through apprenticeship, whether students hold technological diplomas and/or vocational diplomas awarded by the higher education system; • reassertion of the Government's target to bring 80 per cent of each generation to the Baccalaureate level and no longer allowing unqualified young people to leave the educational system (the July 1989 Outline Act); • responsibility for training programmes targeted at young people aged 16-25 was entrusted to the Regional Councils in 1993; • establishment of the vocational Licence in November 1999 in compliance with the country's commitments at the European level to provide degree courses in line with the needs of Europe's labour market, as well as to respond to demand for new qualifications; • founding of trade secondary schools in 2001, which are open to students from technological and vocational programmes who wish to work in the same set of trades. They provide training toward an extensive range of degrees and target a highly varied population.
Germany:	**Apprenticeship training**: The original form of vocational training was the master craftsman teaching his apprentice which dates back to the early Middle Ages. From the late 19th century, industry and commerce increasingly based their vocational training on the model of the craftsmen apprenticeship. From the end of World War I the trade unions also got involved in company based training. Since formal vocational training became closely connected with wages and social security it turned into the core of social partnership. This was revitalised after World War II. **Vocational schools**: The origins of the school, which eventually became today's vocational school, can be traced back to the Sunday schools founded principally in the 18th century. In the course of the late 19th century, general further training schools developed out of religious Sunday schools. Further education was compulsory in most large towns by around 1900. **Developments after 1945:** Since the Federal Republic of Germany was founded, the dual system has met with general approval, despite some particular criticism. With unification, the federal state system was introduced in the East. Training to a large extent continues to be supported and complemented by state funded schemes. **Most recent:** From 1998 to 2003 there were a number of commissions established to develop comprehensive strategies for education, training and employment. In addition to this, developments related to training disadvantaged groups, improving the quality of education and training, and improving permeability of educational pathways have been prioritised. The most significant reform in VET on tertiary level (Fachhochschule) was the introduction of dual study courses in the late nineties.
Greece:	The main reforms of the IVET system, co-financed by the European Social Fund, have taken place over the past decade. First, in 1992, the National System of Vocational Education and Training (ESEEK) was established

	with the following aims, to: • bridge the gap between the secondary and tertiary educational level • assist the young persons that are not going on to tertiary level; • combat mass unemployment; • develop a specialised workforce; • decrease economic and social inequalities; and • collaborate with employers, unions and other institutions. Second, the upper level of secondary education was restructured in 1998. This restructuring took the form of the replacement of the old type Lycea with the Eniaio Lykeio, for general education, and the Technical Vocational Schools (TEEs) for initial vocational education. Current priorities regarding the further organisation and improvement of IVET include: • better and more effective adaptation of the acquired qualifications of students to the needs of the job market; • co-ordination of the different institutions that provide training to make the system unified and integrated; • provision of recognised studies leading to vocational consolidation; • raising the role of social partners in the development of policies for vocational and education training; and • development of much needed collaboration between educational institutions and enterprises.
Hungary	The beginnings of IVET go back to the Middle Ages, but it became institutionalised and legally regulated only in the second half of the 19th century. The more immediate antecedent of the current upper and post secondary level IVET system emerged after World War II, within the framework of a new public education system under almost exclusive State control. Short-term (two- or three-year) skilled worker training was based on the German-style dual-model and was integrated into the formal school system in 1969. Consequently, apprentices acquired the same legal status as those in the school system. Secondary vocational schools were set up in 1961 in line with the contemporary education policy aiming to educate and train skilled workers and provide them with the 'maturity' certificate. A series of reforms in the 1990s transformed the structure, administration and financing of the system. Structural changes included the extension of compulsory education to the age of 16 years (which was further extended to 18 years for those who began their primary level studies in 1998 or later) and the clear separation of general education and IVET. Another later development was the publication of a modified National Qualification Register in 2006 by decree of the Minister of Education. The new Register takes into account the country's employment structure and introduced a modular system consisting of 'basic', 'partial', and 'specialised' vocational qualifications.
Iceland:	VET and general education have developed separately. Efforts to merge both systems have only been partly successful. Vocational schools offering formal training began to be developed in the 1940s. The first vocational schools offering both theoretical and practical subjects were established in 1966. In the 1970s, the emergence of comprehensive schools provided students the option of choosing either general or vocational education (or both).

Ireland:	Over the past ten years the main policy developments have been: creating a better bridge between school and work; • a greater emphasis upon the vocational route in upper secondary education; • increasing participation in post-compulsory education; • the introduction of a national framework of qualifications designed to foster access, transfer and progression through the VET system; • focusing attention on disadvantaged groups especially adults who have not completed their initial education.
Italy:	The IVET system has been subject to major reform over recent years to bring about: • compulsory participation in one of the three IVET streams until the age of 18; • access to on-going training; and • ensuring that the vocational and academic pathways are parallel, and of equal status. The reforms were designed to bring about a closer link between the university system, post-compulsory education, and the production system.
Latvia:	The change from a totalitarian system to a market economy gave rise to the need to prepare students to compete in the labour market and highlighted the importance of life-long professional development. VET in its present form is based on the Law of Education, enacted in 1991, but is based on the institutions founded during the Soviet era. From 1995 there have been three stages of development in vocational education that culminated with the development of the Programme for the Development of Vocational Education 2002-2005. This programme set specific goals (based on specific EU policy priorities) aimed at improving the quality, access and management of vocational education.
Lithuania:	Prior to the restoration of independence, the VET system fell in line with the requirements of the Soviet regime. In 1989, proposals for reform of vocational schools and technicums were suggested, and reform started immediately after re-establishment of independence in 1990. The Law on Education was passed in 1991, followed by the Law on VET in 1999. Regulation of the teachers' certification process was approved in 1994 and the VET Reform Programme Phase-94 began in 1995. The process of transforming professional colleges into general higher education colleges began in 2000; colleges not achieving this status had the option of becoming vocational schools. In 2004, a number of developments occurred. These included the development of a new law on VET, approval of a number of strategic documents, reform of the system of funding for vocational schools and the adoption of 55 VET standards.
Netherlands:	The IVET system was fundamentally reformed in the 1980s when the aim was to double apprenticeships available and to strengthen links between the training system and the labour market. Recommendations from two advisory Commissions were influential in the changes. From 1966 to 1996, the apprenticeship system was regulated separately in the Apprenticeship Act and Part-time Vocational Education Act. In 1996, the Adult and Vocational Education Act was introduced, covering senior secondary vocational education, apprenticeships and adult education. Since 1997, advisory reports have been published by the Socio-Economic

	Council and the Education Council. These reports have identified a number of priority actions. The "shift to core competences" in 1999 focussed on core competences to better reflect the needs of employers and students. The new qualification structure based on competences is to be introduced on 1 August 2010. Another development has been to streamline formal requirements and to make special efforts to coordinate the contents of courses, and to create a smooth transfer. Intensifying regional cooperation has also been prioritised. VET policy for the coming years is to focus on: space for innovation; space for the learner; and space for educational institutions to develop into broad regional training centres for lifelong learning.
Norway:	Although vocational training has been in operation for hundreds of years, it was not formalised until the 1900s. The first vocational schools started to operate in 1935. Since the late 1970s, general and vocational education are offered by most upper secondary schools; at the same time apprenticeship training became part of upper secondary vocational education.
Poland:	The educational system, including IVET, was reformed in the 1990s with the aim of preparing young people for the conditions set by an expanding European Union. Reforms initiated in 1999 modified the school system in terms of the types of schools in operation, their administration and structure. The decentralisation of the educational system, as part of the reform, meant that organisational and financial decisions were delegated to local governments and communities.
Portugal:	The 1948 Reform of Technical Education marked the start of a technical training system, but one that failed to make progress because it contained an element of social discrimination. The need for industrial labour in the 1960s increased the need for vocational training and demanded Government interventions. Efforts were made in the subsequent decades to re-establish VET, but it was not until Portugal's accession to the (then) European Community in 1986, that substantial improvements in the VET system were made. The legislative framework governing vocational education and training, which has been in force since 1991, is now being completely revised.
Slovakia:	VET began in the 1930s. Commercial, industrial and agricultural schools, as well as vocational schools for women's professions, started to emerge around this time. There were 131 apprenticeship schools in 1937. After World War II these were gradually replaced by vocational schools and, later, by secondary vocational schools in the 1976 educational reform. The three tier model of secondary schools – including grammar, secondary specialised and secondary vocational schools – was created in the 1970s. The system still continues, despite criticism of lower quality outputs, particularly in relation to secondary vocational schools (ISCED 3A programmes).
Slovenia:	When the country was part of Yugoslavia, the education system was mainly career-oriented, but since 1990 differences in content between the general and vocational streams have started to become more pronounced. It was at this time that, amid an intensive period of reform, Gymnasiums were re-introduced, marking a more distinct differentiation between general and vocational streams (see the 1995 'White Paper on Education in the Republic of Slovenia' which outlines the basis of the reforms

	introduced). Reform was mainly initiated from within the education system (the Education Ministry) and, despite increasing participation from stakeholders such as employers, the Chamber of Commerce and Industry, and the Chamber of Crafts, the VET system is still relatively centralised. One of the development priorities is to decentralise the VET system by handing over responsibilities to the regional authorities, increasing the autonomy of schools, and supporting regional cooperation between schools and employers.
Spain:	The 1990 Reform Act extended free compulsory education to the age of 16 and divided secondary education into three different stages, which were later integrated into a single system developed in coordination with labour market needs. The Quality of Education Act, passed in December 2002, has the aim of improving qualifications and training and to promote a high quality, effective and inclusive VET system.
Sweden:	A series of reforms have shaped upper secondary education since 1970, when general and vocational education schools were merged. A restructuring of upper secondary education took place at the end of the 1980s and a new system was introduced in 1992/1993. Further proposals to modernise VET include changes in the ways certificates and credits are awarded and a modernised system of apprenticeship training.
United Kingdom:	The origins of the modern system of further education can be found in the mechanics' institutes, which grew up in the 18th and 19th centuries. These offered basic and technical education and opportunities for 'self-improvement' to working people, most of who attended in their own time. During the 20th century, the decline of many traditional industries which the IVET system had served resulted in the IVET system needing to adapt to structural change and the rise of the service sector. Over the latter half of the 20th century there was increasing demand for courses that gave entry to higher education. The current reform of the IVET system is concerned with increasing participation in post-compulsory education and training (and consequent achievement of qualifications) by young people throughout the 16-25 age range; assisting adults to gain their first qualification at level 2 or above; promoting 'parity of esteem' between academic and vocational routes (introduction of a new Diploma framework, in particular); reforming vocational qualifications to make the system more easily understood and to ensure a better match with employer needs; matching provision of IVET to local and national economic needs; making training providers more responsive to employers' and learners' needs. Much of the latest reform has been driven by the "Leitch Review Of Skills: Prosperity For All In The Global Economy - World Class Skills" which identified weaknesses in the responsiveness of the VET system to economic need.

040102 Relationship between IVET and general education (incl. statistics)

Description:

The links between the lower secondary level and entry into the vocational or academic route in upper secondary education, and the extent to which either of these two routes provides entry to third level education.

Synthesis:

Efforts are being made to make the academic and vocational routes less exclusive and provide the opportunity for those taking the vocational route to gain entry to the third level. Thus, there is an emphasis upon creating education systems that offer both 'vertical' and 'horizontal' 'flexibility. In countries such as Estonia, Finland, Iceland and Poland successful completion of all VET routes give access to higher level education. In other cases, however, access to higher education is provided only via certain routes: in Denmark, only vocational upper secondary education gives access to tertiary education but so called 'IVET' courses; and in Norway, upper secondary VET graduates do not have direct access to higher education.

'Horizontal' flexibility means that students are able to some extent to move within the general (academic) and vocational routes, either from within their chosen course or by being able to switch courses. In Iceland, general and vocational upper-secondary education are organised in a single structure, with a variety of options, rather than as two separate pathways; and in Cyprus, general and vocational studies share general subjects and some technological subjects are offered in general education schools. In Norway, upper secondary schools offer both general and vocational education and it is possible to move from one strand to the other; and in Poland and Slovakia, it is possible for students to move between the different types of upper secondary schools.

In spite of the efforts to improve the status of upper secondary IVET courses, they are still considered of a lower status in many instances. In Slovakia grammar schools and secondary schools are considered to be of higher status than vocational schools, which are predominantly practically oriented. In France, despite reforms to promote vocational education and the apprenticeship system, general education is more highly valued by young people. The lower status of the IVET system is related to the fact that it is still associated with low academic achievement. The status of qualifications the potential progression routes available have an important role to play in determining the reputation and popularity of IVET.

There is a general consensus across countries that obtaining additional qualifications at the upper secondary level eases access into employment so there have been considerable efforts to improve participation in post-compulsory education. The general trend is for students to access either an academic pathway typically granting access to third level education, or a vocational pathway which is much more directed at preparation for employment.

Country Transversal Summaries:

Austria:	Efforts are made to ensure that transfers are possible within the educational system and to maintain international compatibility of credits. Students who change their type of school usually have to enrol in the entrance year of the chosen school due to differences in curricula. Transfer from apprenticeship training into secondary VET schools poses few problems and is fairly common. Other trends are the increasing popularity of advanced secondary VET (upper secondary level) and a decrease in apprenticeship uptake. The former is due in part to the double qualification that may be obtained. Statistics show that levels of unemployment are low for those who hold qualifications beyond basic compulsory education.
Belgium:	The general structure of secondary education is as follows: • a common or foundation cycle (lower secondary education); • a second cycle including four steams: general, technical, artistic, and vocational; • a third two-year cycle. In theory is possible to transfer between streams, but in practice this tends not to happen such that the vocational stream is distinct. In 2003, 56 per cent of students in upper secondary education were in vocational programmes compared to 46 per cent in the EU-25.
Cyprus:	The education system provides 'horizontal' and 'vertical' flexibility across upper secondary level education. General and vocational studies share general subjects, and some technological subjects are offered in general education schools. A considerable number of teachers work for both vocational and general schools. Apprenticeship programmes are offered as an option for students who do not wish to continue with upper secondary education or who have not completed compulsory education.
Czech Republic:	Division into general and vocational educational pathways takes place after completion of compulsory schooling. Statistics for 2005 suggest that around 80 *per cent* of young people participate in vocational education compared to 20 *per cent* in general education. In response to labour market demands, the proportion of general education in the vocational curricula has been increasing overall as has the emphasis on transferable key competencies. General education components are included in vocational education programmes. Transfer between general and IVET pathways is rare and tends to occur mainly as a result of failure in the originally selected programme. Recognition of prior education depends on the discretion of the school head. Movement back into general education after completion of secondary IVET virtually never occurs. Vocational programmes at ISCED 3A are recognised as equal to general education in Gymnazium. There are differences

	in labour market success depending on the type of programme.
Denmark:	There are four options that students can choose upon completion of compulsory education: • general upper secondary education (3 years); • higher preparatory education (2 years); • vocational upper secondary education (technical or commercial, 3 years); and • IVET (3-4 years). The difference between the last two is that vocational upper secondary education prepares students for higher vocational education and is academically based. IVET, on the other hand, includes work based training.
Estonia:	At the upper secondary level students have the option of choosing general (ISCED level 3A) or vocational education (ISCED level 3B). In both cases, successful completion of upper secondary education may lead to post-secondary (non-tertiary; ISCED level 4B) or to higher education (ISCED level 5A or 5B). Around 20 *per cent* of the young people aged 15-19 are enrolled in IVET.
Finland:	Upper secondary education is divided into general and vocational. Completion of either route provides access to higher education. General and vocational education are traditionally distinct routes, but efforts have been made to enable students to benefit from both options. Thus, it may be possible for students to complete a combination of study, consisting of general and upper secondary elements. It is possible to apply for upper secondary VET upon completion of upper secondary general education.
France:	The vocational education system is governed by the same rules as the general school system and it takes place mainly in secondary schools. Vocational education includes general education, technological education, and hands-on training. Despite reforms to promote vocational education and the apprenticeship system, general education is more highly valued. Students prefer general or technological education to BEPs or CAPs, whether vocational qualifications are offered in vocational secondary schools or in the apprenticeship system. A number of initiatives have been created to facilitate transitions from one programme to another.
Germany:	There is a clear distinction between general education in grammar schools, IVET in vocational schools and apprenticeship. General schools and vocational schools are separate institutions with separate administration. Part-time vocational schools in apprenticeship training are institutionally integrated with full-time vocational schools. Both are under the same responsibility of the *Länder*. The company part of apprenticeship is under Federal Law. The curricula of general schools and of vocational schools are designed separately by different groups but general subjects are also part of the vocational school curricula. Curricula for apprenticeship are developed separately by expert groups from industry at the national level however, there is close parallel

	development of the curricula for the in-company part of training and the school curricula of the part-time school. As a rule, once the decision for a certain type of school is made, pupils have to follow this track to the final exam. Switching from the vocational track to the general track is rather limited: Students need to add on general subjects thus extending learning time. Switching from the general track to the vocational track is much easier: the holder of an *Abitur* is exempted from general subjects forming an integral part of the vocational qualification. This reduces the time of an apprenticeship by one year. Almost all qualifications in the German system are overall qualifications and not individual partial qualifications. This hinders the possibility of switching between different tracks and providers. Transition numbers from apprenticeship into (vocationally oriented) grammar schools are rather small and there is very little transition from apprenticeship into full-time specialised vocational schools on secondary level.
Greece:	The upper level of secondary education includes the *Eniaio Lykeio* and the Technical Vocational Schools (TEEs). Participants may be registered graduates of high school (lower secondary education) without qualifications and with no restrictions on age. The *Eniaio Lykeio* are schools of general education with curricula that is internally generated. The TEEs aim to combine general education with specialised technical and vocational knowledge leading to integration in the job market. The *Eniaio Lykeio* have the following goals: • provide general education at a high level; • promote competences, initiative, creativity and critical thinking amongst students; • provide essential knowledge and competences for the continuation of studies; and • develop skills that facilitate integration into the labour market. The TEEs aims include: • boost general knowledge; • transmit modern and specialised technical and vocational knowledge; • provide skills and promote the "vocational conscience". The opportunities available upon completion of *Eniaio Lykeio* studies and completion of vocational training at TEEs also differ. More students study in the *Eniaio Lykeio* compared to the Technical Vocational Schools (TEEs) but the proportion studying at TEEs has risen from 26 *per cent* in 1998-99 to 34 *per cent* in 2000-01.
Hungary:	The education provided by vocational training schools (which include secondary vocational schools and vocational schools) is similar to that of upper secondary level general education offered in grammar schools in so far as both are part of the public

	education system. They differ, however, in terms provision, content, curricula and the qualifications offered. Both secondary vocational schools and grammar schools prepare students for the 'maturity' examination, which is a prerequisite for higher education studies. Secondary vocational schools, however, also offer IVET in the 13th grade and possible further grades to prepare students for the vocational examination. Vocational school graduates can obtain only a vocational qualification (and only of a lower level than that awarded in secondary vocational schools) and must complete two or three more years of full or part-time general education programmes to pass the 'maturity' examination if they wish continue their studies at higher education level. Secondary vocational schools leading to both the maturity examination and a vocational qualification are currently the most popular choice for upper secondary school students.
Iceland:	General and vocational upper secondary education are organised in a single structure, with a variety of options, rather than two separate paths. It is common for upper secondary schools to provide both options. All upper secondary programmes may lead to tertiary education, although certain examinations, courses or training may be required. Comprehensive schools, offering both vocational and general upper secondary education, have the largest number of students enrolled. The number of schools offering only vocational education training is decreasing. The proportion of students enrolled in general upper secondary education increased from 60.5 *per cent* to 69.2 *per cent* from 1995 to 2002; whereas the proportion of those enrolled in vocational upper secondary education decreased from 39.5 *per cent* to 30.8 *per cent* over the same period.
Ireland:	General education is predominantly academic and under the authority of the Department of Education and Science (DES). Vocational education in schools is the responsibility of the DES Vocational Education Committees (VEC), whilst sectoral, work based learning is the responsibility of the National Training Authority (FÁS). There is a strong relationship between unemployment and low educational attainment. The number of young people taking the upper secondary vocational route through the school system was in decline between 1990 and 2000.
Italy:	The lycee system (general education) and the VET system are considered to be parallel pathways holding equal status. Each system has its own identity and aims. The lycee system aims to provide students with a disciplinary preparation in the classical, scientific, artistic and pedagogical fields which lasts five years. The VET system aims to provide students with specific occupational skills. The VET pathways are at least 3 years in duration. It is possible to switch streams both within each system and between the lycee and VET paths.
Latvia:	IVET is found within the upper secondary level, which is split into general upper secondary education and vocational upper secondary

	education. Vocational education is also offered at lower secondary level and at professional higher education level.
Lithuania:	The status of IVET is equivalent to general education, but pupils tend to opt for general education pathways, which are more respected. Admission requirements for higher education do not recognise vocational subjects or work experience. There are also differences between IVET and general education in terms of institutional and operational structures as well as in curriculum. Key differences between IVET and general education include: • the budget for general education is delegated to municipalities while vocational schools are funded by their respective stakeholders; • IVET programmes are oriented towards the development of skills and competencies, while the curriculum in general education prioritises the acquisition of knowledge; • practical training is more pronounced in IVET than in general education; • the curricula are designed according to different standards; • there is greater participation in general education than in VET.
Netherlands:	There are two separate streams, the: i. vocational education stream – from preparatory secondary vocational education (VMBO) *via* senior secondary vocational education (MBO) to higher professional education (HBO); ii. general education stream – primary education *via* HAVO and VWO to higher education. The choice of either stream may occur at different stages of education. A separation between the two is more obvious in recent years since strengthening of the vocational stream became a policy priority.
Norway:	In general, upper secondary schools offer both general and vocational education, and it is possible to move from one strand to the other (although, in practice, it is easier to switch from vocational to general education). Slightly more than 40 *per cent* of those in upper secondary education choose the vocational route; the Government's target is to increase uptake to 50 *per cent*. Upper secondary VET graduates do not have direct access to higher education. General and vocational higher level education are equivalent in terms of status and credits.
Poland:	IVET at lower secondary level is offered only to students in special circumstances. At upper secondary level, most school types may lead to a Matura certificate, giving access to higher education. It is possible to move between schools and, thus, students may change from general to vocational upper secondary education and *vice versa*.
Portugal:	General courses are designed to lead students onto higher education (university or polytechnic) while vocational training

	courses are largely designed to prepare students for employment but such courses may also prepare young people for polytechnic courses and post-secondary technological courses. One policy priority has been to "consolidate the balance between general secondary education provision on one hand, and technological and vocational secondary education provision on the other hand" in order to meet modern needs. Promotion of mobility between different pathways has also been a priority. Recent reforms to the educational legal framework allow greater flexibility in terms of changing training pathways in secondary education. IVET is also provided outside the formal education system, targeting early school leavers and the unemployed. The Apprenticeship System is offered as VET within the labour market.
Slovakia:	While grammar schools provide general education, secondary specialised schools (SOS) offer predominantly theoretically based VET and secondary vocational schools (SOU) offer predominantly practically oriented VET. It is possible for students to change from one type of school to the other, although these changes usually take place from a more demanding school with higher status (e.g. a grammar school or SOS) to a less demanding one (e.g. a SOU).
Slovenia:	Secondary schools offer the following courses: • general education (25 *per cent* of students are enrolled in these courses); • technical education (43 *per cent* of students); • short-term and secondary vocational education (32 *per cent* of students are enrolled in these courses); and • post-secondary non-tertiary. According to laws passed in 1996, a new vocational course was introduced to enable pupils completing general education (Gymnasium) to obtain a vocational qualification at the level of the corresponding secondary vocational / technical schools. This qualification gives access to the labour market or to further studies. Transfers between general and vocational education are possible due to the increased level of general knowledge in vocational courses.

Spain:	IVET consists of Basic and Specific Vocational Training. The former is an introduction to occupations and professions and the latter provides on-the-job training. Basic Vocational Training is offered at lower secondary school and upper secondary school. Specific Vocational Training is divided into middle and upper (or higher) level 'training cycles', each leading to specific vocational qualifications. Middle level Specific Vocational Training can be accessed after compulsory secondary education (lower secondary school), and upper level Specific Secondary Education is accessed after the middle level Specific Vocational Training or after completion of a 2-year upper secondary course, known as the 'Bachillerato'.
Sweden:	There is a distinction between IVET and general education. Vocational education provides students with the same opportunity to pursue higher education as does general education. Vocational programmes include at least 15 *per cent* of workplace training and include core subjects of a more general nature than those offered in general education programmes. Around 54 *per cent* of all upper secondary school pupils attend vocationally oriented programmes. Around 43 *per cent* of all students go on to higher education and from these just under 14 *per cent* come from IVET programmes.
United Kingdom:	Little vocational education or training is available in Lower Secondary Education, so for most young people the first opportunity to follow a vocational course is on completion of compulsory schooling at age 16. At that point young people may continue in full time education at a school or college, taking one of a range of vocationally-related qualifications, enter an apprenticeship, leading to both vocationally related and occupational qualifications, or enter employment with or without part-time education or training. Some vocationally related qualifications are designed to lead either to employment or to higher education, others lead mainly to employment. For young people who take a course of general education at Upper Secondary level, there are opportunities to move to a vocational pathway at the end of that phase (through work, an Apprenticeship or vocational higher education) or after completion of higher education. For young unemployed people, there are special programmes – the New Deal – that aim to foster social inclusion.

040103 Qualifications structure

Description:

The qualifications that can be obtained in the IVET.

Synthesis:

Qualifications at the lower secondary level in nearly all instances refer to completion of general rather than vocational qualifications. Typically, the qualification(s) that signify successful completion of lower secondary education are a pre-requisite for entry into vocational upper secondary education otherwise young people tend to be directed toward special programmes aimed at those who have failed to attain a satisfactory level of attainment.
A range of qualifications are available at upper secondary level depending upon the focus of vocational specialisation. Generally, attaining the qualification requires the ability to demonstrate practical and theoretical mastery of the subject with examination taking into account course work, practical demonstrations, and written tests (in differing combinations). Apprenticeships qualify participants, in most instances, to practice in a given occupation. Qualification is dependent upon satisfactory progress in both workplace based learning and vocational school. Again, qualification is dependent upon satisfactory demonstration of practical and theoretical understanding.
Beyond the post-secondary level, qualifications are available at post-secondary and tertiary levels. At post-secondary level qualifications tend either towards the post-secondary or tertiary levels in part due to the problems of classifying educational activity at this level. Qualification at the tertiary level tends to be at a number of levels: at sub-Bachelor level, at or equivalent to Bachelor level, and post-graduate study. It tends to be a sub-Bachelor level (e.g. Diploma level) that most vocational qualifications are awarded.
There is a general trend towards the harmonisation of qualifications across Europe, even amongst those countries outside the EU, and many countries are moving towards the European Qualifications Framework, and participating in the European Credit Transfer System (ECTS). In some countries (e.g. the UK, Ireland) the NQF is firmly established. This provides a common structure against which particular qualifications can be classified.

The general pattern across Europe is still one a complicated qualifications structure characterised by a large number of qualifications on offer. This is made more complex in countries where the responsibility for the qualifications structure is devolved to national, regional, or local levels. In countries where there are devolved Governmental administrations (i.e. Belgium and the UK) different qualification structures are in operation in the devolved administrations. In Italy, regional authorities have a responsibility for certain elements of the qualifications structure.

Despite differences a number of trends are apparent across Europe:

- the aforementioned harmonisation of qualifications (cf. NQF);
- a simplification of qualifications structures;
- attempts to create parity between vocational and academic qualifications.

In a number of countries – Lithuania, Italy, Poland, Austria, and Sweden - it is possible to achieve a double qualification at upper secondary level. A double qualification is where the student is awarded a vocational qualification in addition to a school leaving certificate; while the former gives access to the labour market, a school leaving certificate allows the holder to continue their studies leading eventually to the tertiary level. In Lithuania, upper secondary IVET graduates acquire both a vocational qualification and a ‘maturity’ certificate, and a similar situation is observed in Austria, Italy, Poland and Sweden.

Qualifications are usually awarded by the State through the Ministry of Education and / or other relevant bodies linked to the Ministry. In Italy diplomas and certificates are also awarded by the regions, and in Norway certificates are awarded by the counties.

Across all countries the aim is to develop an integrated IVET system whereby credits / qualifications obtained *via* one route of study can be transferred to another route (e.g. from the genera/academic route to the vocational one). In practice, whilst policy makers are developing a transferable qualifications system allowing transfer between courses and pathways, the extent to which this occurs in practice is a moot point.

Country Transversal Summaries:

Austria:	There are several levels of qualification within IVET at secondary level. Vocational part-qualifications (secondary VET schools up to 2 years), full vocational education for skilled workers (secondary VET schools from 3 years onwards as well as apprenticeship training), and finally vocational education and training qualification giving access to higher education (secondary VET college) can be obtained. The graduation from a secondary VET college is the uppermost level in the secondary sector. Students achieve a double qualification consisting of the "Reifeprüfungszeugnis" (Certificate of Upper Secondary Education) and VET Diploma Examination. This double qualification gives access to higher education institutions and facilitates access to regulated occupations. Furthermore, graduates can apply to the Federal Ministry of Economic Affairs and Labour to be awarded the title of, for instance, engineer.
Belgium:	The following qualifications are provided: ▪ a certificate of secondary education is awarded upon successful completion of cycles one and two ▪ in technical and vocational education a certificate of qualification is provided at the end of years six and seven (see below); ▪ for those students opting to take an additional year of study in the vocational stream a certificate of secondary education may be applied for (see below). In part-time secondary vocational education, students make receive: ▪ certificate of second stage secondary education; ▪ certificate of acquired competences for an accomplished unit; ▪ a qualification certificate of part-time vocational secondary education. In modular vocational education students may receive: ▪ a modular certificate (for each module); ▪ a certificate for total completion.
Cyprus:	Graduates of Technical Schools who complete upper secondary VET are awarded a Leaving Certificate that entitles them to enter the labour market as skilled workers or access higher education. Successful completion of an apprenticeship programme leads to a professional certificate that allows the holder to enter the labour market as a semi-skilled worker, but does not provide access to higher education. The Ministry of Education and Culture defines the qualifications for VET.
Czech Republic:	Graduates of IVET programmes acquire vocational qualifications which correspond to the level and field of education undertaken. Certificates of IVET verify the competencies of the certificate holder in relation to a

	specific occupation or group of occupations. There are two basic qualification certificates within secondary and post-secondary IVET: • vocational certificate (ISCED 2C and ISCED 3C); and • *maturita* certificate (ISCED 3A and ISCED 4A). These certificates are issued by schools which are included in the schools registry. Education in programmes at ISCED 3A and ISCED 4A levels allow graduates of the relevant programmes either to enter the labour market or to access tertiary education. In tertiary education the following certificates exist: • diploma and certificate of "absolutorium" (ISCED 5B); and • diploma and certificate of a state final examination (Bachelor, Master or Doctoral, ISCED 5A and ISCED 6). These certificates are issued by tertiary professional schools and higher education institutions which are authorised to do so by the Accreditation Commission.
Denmark:	The highest qualification that may be obtained through the IVET system is the skilled worker's certificate. Graduates may enrol in continuing training at vocational colleges or may participate in training provided by their employer. Upper secondary vocational education graduates are awarded certificates that give access to higher education.
Estonia:	Completion of VET leads to a certificate that provides evidence of the curricula covered and the level of achievement. This certificate does not give access to the labour market. Professional qualifications can be obtained after a qualification examination. The examination may be written or oral, may consist of a series of assignments, or a combination of these. Graduates who wish to continue their studies in higher education are entitled to sit examinations in general education subjects.
Finland:	Upper secondary level qualifications can be obtained on the basis of school based education (3 years), apprenticeship training or individual competencies. Upon completion of school based upper secondary education or apprenticeship training, students are awarded a qualification certificate by the training provider. As for competence based qualifications, the certificate is awarded by the qualification committee.
France:	Vocational diplomas include the following: • ISCED 3C o Certificat d'Aptitudes Professionnelles - CAP (Professional Skills Certificate); o Brevet d'Etudes Professionnelles - BEP (Professional Studies Certificate); • ISCED 3B o Brevet professionnel – BP (Vocational Certificate); o Brevet de technicien – BT (Technician's Certificate); o Baccalauréat Professionnel – Bac pro (Vocational Baccalaureate); • ISCED 5B

	○ Brevet de Technicien Supérieur – BTS (Higher Technician's Certificate); ○ Diplôme Universitaire de Technologie – DUT (University Technological Diploma); ○ Diplôme National de Technologie Spécialisée – DNTS (Specialised National Technology Diploma); ○ Diplôme d'Etudes Universitaires en Sciences et Techniques – DEUST (University Scientific and Technical Studies Diploma); • ISCED 5A ○ Licence Professionnelle (Vocational Licence); ○ Master's Engineering Diploma. The long-track programmes are governed by universities and higher education institutions.
Germany:	Distinctions can be drawn between the different qualifications at the upper secondary and higher levels according to the following criteria: • Qualification levels: upper secondary education (general university entrance qualification / vocational training qualifications), advanced vocational qualifications ("upgrading training") and qualifications acquired at higher education institutions. • Responsibility: the sixteen *Länder* are responsible for creating qualifications which (generally) require completion of a secondary school or higher education programme. The Federal Government, together with social partners is responsible for creating vocational qualifications requiring completion of a non-institutional programme. • Objectives: The qualifications lead either to jobs, to university, to advanced vocational education and training or they prepare for career advancement. On the basis of these criteria, five (qualifications) subsystems can be defined in broad terms, which each follow different requirements and logical structures (only types ii, iii and iv belong to IVET): i. General education qualifications acquired at the upper secondary level; ii. Vocational qualifications acquired in the dual system of vocational training; iii. Vocational qualifications acquired at full-time vocational schools at the level of upper secondary education; iv. Qualifications acquired at higher education institutions; v. Advanced vocational qualifications acquired outside of higher education institutions for the purpose of career advancement.
Greece:	Graduates of the 1st circle of Technical Vocational School (TEE) may: • receive an authorisation to exercise a particular profession; • register in a corresponding field of the second circle of TEE; or • register in the second grade of the *Eniaio Lykeio*. Upon graduation from the 2nd circle of TEE, graduates may: • receive certification to practice a certain profession; • register in the third semester of a corresponding field at the IEK; or

	• compete for registration in the Technological Educational Institutes (TEI) (tertiary level education). The graduates of post-secondary vocational training (IEK) have the option to be accredited (through national examinations) by the OEEK and, on qualification, receive a Post Secondary Vocational Training Diploma, which gives entry in the Public Sector. In the private sector, IEK graduates can immediately enter the labour market.
Hungary:	The qualification structure of initial - as well as of continuing - vocational education and training is defined by the National Qualifications Register (OKJ), set up by Act LXXVI of 1993 on Vocational Education and Training. The register has been modified several times in the past 13 years and is published (at most) twice a year by a decree of the Minister of Education in agreement with the Minister of Employment and Labour and other ministers of the relevant fields. It includes all state recognized vocational qualifications which enable people to enter one or more occupations in the labour market, including regulated occupations. The OKJ remit does not include higher education qualifications.
Iceland:	Skilled worker qualifications are typically awarded after the completion of vocational schooling. For certified trades, skilled worker examinations are standardised and administered by each trade's board of master craftsmen. A master of crafts examination can be taken after the completion of two semesters of school based training. Most uncertified paths do not offer the qualifications to carry out a certain profession. All vocational qualifications offer access to general education and training at different levels.
Ireland:	The ten level National Framework of Qualifications was introduced in 2003: level one is foundation level, rising to level 10, which is doctoral level. There are five bodies which make awards and validate programmes, the: • State Examination Commission (part of DES); • Further Education and Training Awards Council (FETAC); • Higher Education and Training Awards Council (HETAC); • Dublin Institute of Technology; and • Universities. FETAC is the principal body in relation to IVET.
Italy:	Diplomas and certificates are awarded by both the State and the Regions. These allow entry into various occupations. The Regions have developed training profiles for many occupations. In the vocational schools, a Diploma is awarded after three years and paves the way for a continuation of study or entry into work. Both vocational and technical schools award a further diploma after five years of study. These diplomas are awarded by the State. In the last two years of the five year course at vocational schools, participants can take vocational modules which lead to an award from the Regional Authorities. The Regions also run training courses leading to award of certificates for entry into relatively low skilled jobs. At the end of the IFTS route, a certificate is awarded which allows entry to high-level specialist jobs.

Latvia:	VET qualifications are defined in five levels (Levels 1-5, where 5 is the highest qualification). These levels do not correspond directly to ISCED levels but can be linked to the education system (which can be linked to the ISCED categorisation). The Vocational Education Administration, within the Ministry of Education and Science, is responsible for the accreditation of VET providers and programmes and for the organisation of examinations. Qualifications are awarded by schools.
Lithuania:	The IVET system consists of five levels of vocational education attainment. Three years of full time, tertiary, non-university courses lead to the highest level - level 5. Access to a further level of education is possible if the individual has a relevant minimum level of general education. Level 3 vocational education graduates acquire both a qualification and a maturity certificate. A maturity certificate allows the individual to study at the tertiary level.
Netherlands:	There are four levels which can be followed consecutively as completion of one level is necessary to enter the next. The four levels are: i. assistant training – maximum of 1 year. Designed for those not (yet) able to obtain a basic qualification. Permits individuals to obtain a certificate to carry out simple tasks (ISCED 2); ii. basic vocational training – 2 to 3 years. Prepares students to carry out tasks (ISCED 3). The diploma is equivalent to a basic qualification; iii. vocational training – 3 to 4 years (2 after Level 2 completion). Preparation to carry out tasks completely independently (ISCED 3); iv. specialist training – 2 years (after level 3 completion). Preparation to carry out specialised tasks completely independently combined with the ability to perform a broad range of tasks or specialisations in a particular field (ISCED 4b). The qualification structure is based on occupational profiles. The majority of exit qualifications are defined nationally in order to make mobility within one sector or branch possible throughout the country.
Norway:	Successful completion of upper secondary VET leads to a skilled worker's certificate (for traditional crafts) or a trade certificate (for industrial and service trades). Both certificates have equal status. Certificates are issued by the county Vocational Committee. With few exceptions, a bachelor's degree takes 3 years, a master's degree two consecutive years, and a PhD three or more years. Credits are awarded in accordance with the European Credit Transfer System (ECTS).
Poland:	The qualifications structure has changed since accession to the European Union in order to ensure compatibility with other European countries in terms of the education provided. Upper secondary VET programmes may lead to a double qualification (vocational and general) giving access to the labour market, and to higher education, once the Matura Examination has been passed.
Portugal:	IVET courses lead to vocational qualifications corresponding to ISCED levels 2-4. They confer dual certification, *i.e.*, recognition of both the ability to perform one or more occupational activities and of academic

	ability, certified by a diploma. Courses leading to a **Level 2, 3 and 4** qualification: • Education & Initial Vocational Training Courses • Vocational Courses; • Apprenticeship Courses; • Recurrent/Adult Education Courses (when available); • Initial Qualification Courses. All of the above the courses are recognised as having equivalence to 9th grade (completion of compulsory education) and enable progression to further studies, with the exception of Initial Vocational Courses, which are designed for young people over 15 who have already completed compulsory education. Courses leading to a **Level 3** qualification: • Technological Courses; • Education & Initial Vocational Training Courses; • Vocational Courses; • Apprenticeship Courses; • Specialised Artistic Courses; • Recurrent Courses; • Initial Qualification Courses. All of the above courses, except for Initial qualification Courses, confer a diploma equivalent to 12th grade (completion of upper secondary education) and give access to higher education. Courses leading to a **Level 4** qualification: • Technological Specialisation Courses; • Apprenticeship Courses; • Education & Initial Vocational Training Courses. These are also post-secondary training courses that give students the opportunity to continue their studies.
Slovakia:	In general, IVET offered at lower secondary level does not lead to any qualification/certification. Successful completion of secondary vocational education at ISCED level 3A leads to a double qualification giving access to both the labour market and higher education. Shorter secondary vocational education courses at ISCED level 3C give access to the labour market but require 2 years of further study to give access to higher education. A number of post-secondary courses at ISCED levels 3A, 4 or 5 lead to higher education qualifications. Following the Bologna declaration, bachelors, masters and doctorate degrees are recognised as tertiary level qualifications.
Slovenia:	No information provided.
Spain:	Qualifications are awarded by the Education Authority corresponding to the educational institute in which the studies are completed. Middle level Specific Vocational studies lead to the qualification of 'technician', and upper level Specific Vocational studies lead to the qualification of 'higher technician'.
Sweden:	Successful completion of upper secondary education leads to a double

	qualification giving access to the labour market and higher education. A final examination is not required to receive an upper secondary certificate, which includes the study plan, the subjects taken, and the marks awarded.
United Kingdom:	The National Qualifications Framework (NQF) – which includes both academic and vocational awards and demonstrates their equivalence – has eight levels, from zero (entry level qualifications), to eight (doctorate). In Scotland there is a 12-level scale. National Vocational Qualifications (NVQs) is the largest set of vocational qualifications – SVQs in Scotland - and these are based on National Occupational Standards, which are common throughout the UK. Their key characteristic is that they relate to competence within an occupational role and require substantial evidence of competence in the workplace. They are therefore normally taken as part of work-based training or in continuing VET, rather than in an educational institution.

040104 Schools/training centres/providers

Description:

The organisations which deliver IVET to young people, and the extent of public or private provision.

Synthesis:

The system consists of a number of players:

- the formal education system where courses are delivered within schools;
- training centres established and run by the State;
- employers; and
- private training providers.

In many countries, outside the apprenticeship system, IVET is provided primarily through State funded organisations. In Denmark, vocational colleges, business colleges, technical colleges, and other specialised colleges and institutions are public providers that depend upon State funding. In Norway 95 *per cent* of school-based IVET is provided by publicly funded upper secondary schools, and in Ireland, the State is the main funding agent of IVET.

Private institutions account for a smaller number of schools and student uptake. For instance, 91.8 *per cent* of VET institutions in Latvia are operated by the State, though the number of private providers is growing. In Austria, 24.5 *per cent* of IVET schools and colleges (including those providing for apprentices) are private and provide services to 9.9 *per cent* of the pupils; and in Finland, private institutions account for 27 *per cent* of all vocational institutions, and account for 17 *per cent* of all vocational students.

Even where the private sector is involved in the provision of IVET (as in the UK) much of this provision is funded by the State, with the private sector regarded as an efficient delivery mechanism.

In the apprenticeship system training is provided on-the-job in workplaces with off-the-job training provided in the school system or training centres. In Greece, apprenticeship education and training take place both in the school and in enterprises. In France, Apprentice Training Centres offer general training to young people working under apprenticeship contracts, whereas the teaching can be offered in public or (accredited) private learning institutions.

At the third level the main providers tend to be public Universities and colleges, but private provision also exists and is growing across Europe.

Overall, VET institutions cross countries and across different levels tend to be public, State funded organisations. There are, however, cases where local authorities may purchase educational services from private providers, as in Finland.

Country Transversal Summaries:

Austria:	The main providers of VET at upper secondary level are state schools. 24.5 *per cent* of VET schools, colleges, and vocational schools for apprentices and part-time students are private, providing services to 9.9 *per cent* of the pupils. Recognised private schools follow federal curricula.
Belgium:	**The three communities (Flemish/French/German communities)** Schools are established and organised by 'governing bodies' of which there are many. For example, the Catholic education system has a large number of governing bodies, and cities/municipalities also function as governing bodies. **Flemish community** The Flemish Community Commission functions as a governing body for the metropolitan Flemish schools. Not all schools offer all stages of education. **French/German-speaking community** *Athenees* and *Lycees* provide general education, *Instituts Techniques* provide technical / vocational courses. Academies provide artistic education.
Cyprus:	Most of the education at primary and secondary level is funded by the Government. The main provider of IVET is the Ministry of Education and Culture (MoEC). There are a number of private institutions offering primary, secondary and tertiary level education, which also have to be approved by the MoEC.
Czech Republic:	Vocational and technical education is provided at secondary and tertiary levels (ISCED 2-6). Schools which provide IVET are divided according to the level and nature of the education they provide: • Secondary technical school (SOS) – provides IVET in mostly four-year programmes completed by *maturita* examination. SOS may also organise two-year follow-up courses for those who have completed secondary vocational programmes and hold a vocational certificate. • Secondary vocational school (SOU) – provide mainly three-year and two-year programmes. These programmes lead to a vocational certificate. They also provide a small number of four-year programmes (ISCED 3A) as well as one- and two-year programmes (ISCED 2C). • Conservatoire – programmes offered here develop the knowledge, skills and other capabilities students have acquired in basic and basic art schools. They also provide general education and prepare students for performance of activities in music, dance, singing and drama. • Tertiary professional school (VOS) – these prepare students for qualified performance of vocational tasks. • Higher education institution (VS) – these provide education in three types of programme: Bachelor, Master and Doctoral.

	Schools also provide a range of continuing education opportunities. Institutions may be public, private or of religious affiliation (allowed after 1996).
Denmark:	IVET is provided at business colleges, technical colleges, or other specialised colleges and institutions (such as agriculture, social and health). These are independent institutions that depend on state funding. Colleges are established nationally, but managed locally and, thus have considerable autonomy.
Estonia:	Upper secondary (ISCED level 3B) and post-secondary (non-tertiary; ISCED level 4B) VET are offered by public, private and municipal institutions. Public institutions are funded by the State; municipal and private institutions are self-sufficient, and only the study of certain professions is commissioned by the State. Applied higher education (ISCED level 5B) is offered in universities, applied higher education institutes, and vocational education institutions. These can be public (funded from the State budget) or private.
Finland:	General and vocational upper secondary education are usually provided by different institutions. Institutions are maintained by the local authorities or joint municipal boards (federations of municipalities), but they may purchase educational services from, for example, other local authorities. Private institutions account for 27 *per cent* of all vocational institutions, and service 17 *per cent* of all vocational students. Polytechnics are run mostly by local authorities.
France:	The State is responsible for ensuring that Government services run smoothly and that educational programmes are consistent. It sets out the teaching objectives and curricula. In the decentralisation process launched in 1982, the local authorities were given new powers: the communes are in charge of primary schools, the departments are in charge of lower secondary schools and the regions are in charge of upper secondary schools and specialised establishments. The local authorities have also been brought into the forecasting and planning process. The local authorities also now have a more clearly identified role in the everyday work of education and training establishments. There are both public and private providers. General and technological secondary schools (upper and lower) and vocational secondary schools are local public teaching establishments (EPLE), endowed with a legal status and financial independence. Apprentice Training Centres (CFAs) offer general training to young people working under apprenticeship contracts. The teaching can be offered in public or private learning institutions (private ones must be accredited by the Ministry of National Education) or in training and research institutions governed by the Apprenticeship Department. CFAs are mainly managed by: professional employer associations specific to certain trades; trade chambers and chambers of commerce and industry; public agricultural schools; and higher education institutions that have either set up an apprenticeship division or offer training in connection with an inter-university CFA.

Germany:	Vocational schools at upper secondary level are organised in the form of school centres, with all different types "under one roof". Both initial and continuing VET are offered, but only CVET leading to state recognised vocational qualifications. The curricula comprise general and vocational subjects. School centres are organised on a regional basis (in big cities locally) and by occupational fields. Most are public but some *Berufsfachschulen* (full-time specialised schools) are private. To date, there has been little autonomy in the management of schools. Schools do not have their own budget and there is no autonomy in setting curricula. In recent years schools have started delivering additional qualifications to the standard qualifications. In apprenticeships, practical training is organised by a single company or a group of companies. For SMEs there are inter-company training centres offering certain parts of the programme which cannot be covered by the single companies. Companies have total autonomy regarding the decision to provide training at all and in the management of training. They are bound to the national curricula and must deliver the qualifications which are set as a minimum programme in the training ordinances. Beyond this they are free to set additional curricula and deliver additional units/qualifications. There is internal assessment but apprentices have to sit final exams with the chamber for external assessment. "Other programmes" funded by the employment service and offered in training centres (vocational preparation programmes and entire dual training programmes) are mostly provided by NGOs, private training organisations, and some companies. Providers must be accredited by the employment service and are autonomous in managing their courses. They can create their own curricula (requires approval of the employment service) for training measures leading to employable skills (but not to recognise qualifications). They can decide whether they offer full qualifications but if doing so, dual training has to follow the national curriculum.
Greece:	Upper secondary level vocational training is provided at the Technical Vocational Schools (TEEs). These are mainly public institutions and provide initial vocational training. Curricula in the TEEs are designed by the Pedagogical Institute of the Ministry of Education and Religious Affairs. There are 2 types of TEE: i) school-based and ii) Apprenticeship TEEs. Post-secondary level vocational training is provided exclusively in school units (with the exception of certain practical courses which are provided in workplaces). The IEK provide initial vocational education at this level. The IEK are mainly public institutions. Curricula are mainly designed by the OEEK.
Hungary:	IVET is provided primarily within the formal school system in public and higher education institutions. IVET offered outside the school system is considered to be within the framework of adult training and corresponds to continuing VET (CVET). IVET within public education is offered in two types of vocational training schools that provide general education as well as VET. Vocational schools offer general education and vocational preparatory/pre-vocational training in the 9th-10th grades and VET in the

	following (1, 2 or more) grades. Secondary vocational schools offer only general education and may, in addition to this, offer vocational preparatory/pre-vocational training at upper secondary level (in the 9th-12th grades) and provide VET awarding a State-recognised qualification only at post-secondary level. Both types may provide full and part time adult education and may also offer IVET or CVET courses in the form of VET provided outside the school system. IVET in higher education is offered by colleges and universities in the form of non-degree higher level VET programmes leading to ISCED level 5B higher level vocational qualifications. Colleges and universities also offer degree programmes which can be classified as IVET inasmuch as they provide a higher education degree and a qualification that entitles the holder to enter an occupation.
Iceland:	The main types of upper secondary schools are: comprehensive schools, industrial-vocational schools, a specialised vocational school and private institutions. Post-secondary VET (non-tertiary) is offered in various institutions such as technical universities and specialised schools. Universities offer various professional programmes at tertiary level but these are not classified as VET.
Ireland:	There are a range of different schools / training centres depending upon the level of provision. Second Level: The main forms of IVET at second level education are the Leaving Certificate Vocational Programme (LCVP) and the Leaving Certificate Applied (LCA). The main providers at this level are: • Vocational Education Committee (VEC) schools and colleges; • Voluntary schools and community and comprehensive schools. Vocational Training: Apprenticeship training is organised by the National Training and Employment Authority (FÁS). Apprenticeship training is standards-based (SBA). It has seven phases; three off-the-job (totalling 40 weeks in all) and four on-the job. The first 'off-the job' phase takes place in FÁS training centres. FÁS has a network of 20 training centres which are located throughout the country. The final two 'off-the-job' phases take place in the 13 Institutes of Technology which also are located throughout the country. Further Education (post-secondary, non-tertiary): Post-Leaving Certificate (PLC) courses are delivered by a network of over 230 schools and colleges throughout the country. The majority of provision (92 per cent) is by the VEC colleges. Other Further Education programmes are provided by sectoral bodies. FÁS provides Traineeships and Specific Skills programmes in its network of training centres. Higher Education: The Institutes of Technology have main responsibility for IVET at this level. There are 13 Institutes located throughout the country.
Italy:	There are a number of providers: • technical and vocational schools within the State sector; • religious institutes or institutes run by the social partners; • training institutes run by Regional/Provincial Authorities (e.g. providing off-the-job apprenticeship training); and • consortia providing for the IFTS vocational route (schools, universities, employers).

	The funding system leads to a high rate of turnover in the number of religious institutes or institutes run by the social partners.
Latvia:	VET may be provided by private or public (state or local) centres. The majority of VET institutions are operated by the state (91.8 *per cent*) but there is a growing number of local and private VET institutions. Vocational education secondary programmes include both vocational and general subjects, but vocational education institutions provide only vocational education.
Lithuania:	Formal vocational training curricula may be implemented by vocational schools, gymnasiums or other education providers who are licensed to train. The two major types of IVET providers are: i. vocational schools (lower secondary and upper secondary, ISCED 2-3) and post-secondary (non-tertiary, ISCED 4); ii. colleges (tertiary level, ISCED 5). The majority of providers are public (not private).
Netherlands:	Main providers at the senior secondary vocational education level are the Regional Training Centres (ROCs), which provide training in all sectors, at all qualification levels. These centres have an average of 10,000 students. There are also separate agricultural training centres (AOC) and a number of branch specific vocational schools. In 2003/04, there were 43 ROCs and 12 AOCs. These each have an average of 1,000 students. ROCs and AOCs are autonomous, with their own budgets and management responsibilities. The Ministry supervises quality assurance and controls output. In addition to public institutions, there are also a number of private training centres.
Norway:	School-based IVET is provided by upper secondary schools, 95 *per cent* of which are publicly funded. The majority of schools provide both general and vocational upper secondary education. Tertiary level VET is mainly provided by university colleges, specialised universities and colleges of art, whereas universities offer more general, academic studies.
Poland:	VET is provided at public (state funded) school and non-public schools, as well as in practical training centres, continuing education centres and further training centres. The proportion of public and non-public schools varies depending on the region; most non-public schools operate as post-secondary level schools.
Portugal:	The training network within the education system is regulated by the Ministry of Education. It includes secondary schools (public, private and cooperative secondary schools) and the predominantly private vocational schools. In the scope of the Ministry of Labour and Social Solidarity, the Institute for Employment and Vocational Training is responsible for the implementation of training policy within the labour market. Training is offered through a network of Employment Centres and Vocational Training Centres.
Slovakia:	Basic schools offer subject specific technical education. VET at upper secondary level is offered by secondary specialised schools (SOS), secondary vocational schools (SOU) and associated secondary schools. Schools can be state, public, private and church affiliated. Public schools

	are originally state schools that were transferred to the responsibility of a self governing region in 2002. Former state universities were transformed into public ones according to the Higher Education Act; this act also enabled the creation of private universities, although there is only a small number of them so far.
Slovenia:	The education system is programme oriented and thus students enrol in a programme, not a school. The types of educational programmes are: • short-term vocational education (56 schools); • secondary vocational education (136 schools); • secondary technical education (107 schools); • vocational technical education 3+2, (80 schools); and • general secondary education (Gymnasium, 80 schools). The system inherited a wide network of well-equipped primary and secondary schools distributed across the country. Due to demographic decline and industrial restructuring, however, this network is becoming unsustainable. The main aim is to reorganise the system and discussions as to how to achieve this are taking place.
Spain:	VET may be provided by private or public centres. Middle level Specific Vocational Schooling may be offered in dedicated centres, or in Secondary Education Institutes where compulsory secondary education and Bachilleratos (2-year upper secondary courses) are also offered. Upper level Specific Vocational Schooling is delivered in centres that, in general, also offer middle level Specific Vocational Schooling. Some Autonomous Regions, however, are creating vocational education institutes exclusively for upper level training. The maximum number of students *per* teacher in the centres is 30.
Sweden:	Upper secondary education is provided by the municipalities for those starting before the age of 20. A small number of studies take place at schools run by the county councils. There are also a number of private schools, mostly in major urban areas.
United Kingdom:	The main providers of IVET are: • **school sixth forms** which provide mainly academic courses but some vocational ones as well; • **further education institutions:** providers of initial vocational education and training. The further education sector includes sixth-form colleges, tertiary colleges, general further education colleges, specialist colleges (mainly in land-based provision and art and design) and colleges, which cater for people who have learning difficulties or disabilities, or both. All of these provide both initial and continuing vocational education and training, catering for both young people and adults through both full-time and part-time courses, as well as specialist short courses; • **the higher education sector**: initial vocational education is provided by many universities and other institutions, covering not only the traditional areas such as law and medicine, but also 'newer' areas such as hospitality; • **work-based learning providers (**publicly funded): offer Apprenticeships at levels 2 and 3 and may also offer 'Entry to

	Employment' programmes for those not yet able to benefit from an Apprenticeship, and training both young people and adults on the New Deal programmes for the unemployed; • **private providers** that offer training independently of Government funding; • **employers** may provide various forms of training for new recruits without recourse to Government funding.

040105 Role of social partners and enterprises

Description:

The extent to which the State, employer bodies, and employee representatives are engaged together in the process of establishing the content and structure of IVET.

Synthesis:

In all countries social partnership is writ large into the vocational education system with the social partners playing an important role to ensure that the IVET system delivers skills the economy requires. This is most manifest in the apprenticeship system but is also much in evidence in other parts of the IVET system too. Even in countries with little tradition of collective bargaining the voice of the employer and employee is represented in the decisions about the structure and content of IVET. But the history of social partnership varies across countries and is much less well established in some countries such that, whilst the social partners might be represented on official bodies, the extent of their influence is uncertain (e.g. East European countries). In the UK, the emphasis is very much upon the engagement of employers in ensuring that IVET meets the needs of the economy.

Social partners influence the decisions being made with regard to IVET through national and local representative bodies. Through these bodies, Government, trade unions and employers' organisations cooperate in the development of curricula and organisation of IVET. The level involvement of the social partners varies from one country to another and between the different forms of IVET. For example, whereas in Denmark trade committees composed of representatives from industry and trade unions decide on the content of IVET programmes and ensure that the needs of the labour market are met, in Slovakia curricula development is dominated by the formal education sector.

Where IVET is more academically oriented, the influence of the social partners tends to decrease. In Greece, for example, the role of the social partners is much less in the more academically oriented Technical Vocational Schools (TEEs) supervised by the Ministry of Education, than in the more vocationally oriented Institutes of Vocational Training (IEK) where the social partners are represented on the Management Board of the Organisation for Vocational Education and Training and the Tripartite Advisory Committees.

Country Transversal Summaries:

Austria:	The Party Commission is the formal mechanism through which representatives of employers and employees, as well as the federal authorities, influence the economic and socio-political decisions being made. The Advisory Council provides advice on administration, content and organisation of apprenticeship training. It comprises representatives of the Federal Economic Chamber and is supported by two teachers. Cooperation between regional social partners is ensured by delegating duties to several representatives. The social dialogue at this general level of policy making sets the framework within which the social dialogue on training is embedded.
Belgium:	At a Federal level, the National Labour Council's education committees negotiate over the provision of vocational education and training, and establish models of training for each profession. There are also consultative and advisory bodies in the communities engaged in the establishment of occupational profiles and standards. In general the social partners at Federal and community levels play an important role in establishing the norms of vocational education and training.
Cyprus:	There is a long-standing tradition of tripartite consultation (government, trade unions and employers' organisations) and social dialogue. This is reflected in the active participation of social partners in the various bodies and committees. The Directorate of Secondary Technical and Vocational Education (STVE) in order to be able to re-examine and adapt the content of its curricula according to the current development needs of the country's economy and industry, and taking into account the latest scientific and technological advances, has developed close cooperation with the following agencies: • The Advisory Committee for STVE. • The Branches and Specialisations Advisory Committees for STVE. • The organised agencies of employers and manufacturers (Employers' Organisations). • The organised agencies of employees (Employees' Organisations). • The Human Resource Development Authority (HRDA).
Czech Republic:	The involvement of social partners is largely voluntary and is based on the initiatives of interested parties. Their involvement and the definition of their role are set out in the schools law (2005). The role of social partners is largely consultative. Social partners actively contribute to the development of VET at various levels. At the national level, social partners are involved, via the Council for Economic and Social Agreement (RHSD), mainly in formulating and commenting on legal regulations, government papers and education development and funding policies. At the regional level, social partners are represented on regional RHSDs and regional Councils for HRD but the situation differs by region. In practice they contribute to commenting on proposals for optimisation of the schools network and changes to the IVET programme structure. At the sectoral level, there are examples of good co-operation between social partners and IVET schools. Sectoral professional associations usually initiate interaction. At the company level there are

	also good examples of good involvement. Social partners are represented on "branch groups" that are involved in the development of national curricula. There are also a number of individual projects through which social partners are involved in the development of IVET.
Denmark:	Trade committees decide on the content of IVET programmes, ensure that they meet the demands of the labour market and issue certificates. Trade committees are composed of representatives from both sides of industry (unions and industrial federations) and they ensure that the needs of the labour market are translated into training programmes. The Vocational Education and Training Council advises the minister and Government, acts on behalf of the trade committees at a national level and makes recommendations to the Ministry of Education.
Estonia:	Supervisory boards are responsible for the adequate management of VET institutions. They comprise at least seven members and at least half of them must be representatives of associations of employers and employees, as well as professional associations. Other bodies at national level influence the development of VET programmes. The National Examination and Qualification Centre contributes to the development, implementation and evaluation of curricula. Developing a unified qualification system is the responsibility of the Estonian Qualification Authority.
Finland:	Both the training committees and the Advisory Board for Educational Cooperation coordinate the development of upper secondary and additional VET for young people and adults, as well as higher level VET. The Advisory Board for Educational Cooperation is composed of senior members of the training committees. The training committees are the main channels through which employers' representatives and other social partners participate in the planning of IVET at the national level. Consultative committees operate at a more local level to promote links with employers. They influence curricula and the internal development of institutions.
France:	Social partners play an important role in designing, modifying or cancelling diploma programmes. Social partners are represented on advisory vocational commissions (commissions paritaires consultatives - CPC) managed by the ministries (education, employment and agriculture). Each CPC gives its opinion regarding the relevance of new diplomas and the content of the diplomas themselves. Each CPC is composed of four collegiate bodies: employers, employees, public authorities and qualified experts. The social partners also have the opportunity to create, within each trade branch, specific qualifications, often referred to as "vocational qualification certificates". The social partners define the objectives for such qualifications. Social partners are also present on the examination panels of all vocational education diplomas and national diplomas in higher education. Social partners are also involved in CEPs (Forecasting Research Contracts).
Germany:	Employers and employees, and their organizations (employers' associations and trade unions) take a great interest in vocational training

	and in influencing the way it is structured and run. Their interest has been taken into account through legislation stipulating that employer and employee representatives must be present in equal numbers in all institutions and committees dealing with vocational training issues and that they have more or less equal weight. At the federal level the BIBB – a public research and development institute, legally established and funded by the Ministry of Education and Research – advises the Federal Government on all Vocational Education and Training issues. Social partners are also represented in the tripartite organisations of the Federal Employment Agency (Administrative Board, Board of Directors and administrative committees). In these bodies they co-decide *inter alia* on other youth programmes in IVET. The Land committees for vocational training (*Landesausschüsse für berufliche Bildung*) are made up of an equal number of employer representatives, employee representatives and members of the highest Land authority. It is their task to advise their respective Land government on all matters concerning vocational training which arise for their Land. Social partner involvement at company level is defined in the Industrial Constitution Law of 15 January 1972 and (for the civil service) the Personnel Representation Laws.
Greece:	Social partners and enterprises do not have a substantial role in the Technical Vocational Schools (TEEs). They have indirect participation in the development of curricula. In Apprenticeship TEEs, enterprises play a part in providing practical training and are also indirectly involved in the development of curricula. In the IEK, social partners participate in the Management Board of the OEEK and in the Tripartite Advisory Committees (TSE). Social partners also participate in the examinations of certification in the IEKs. In particular, social partners participate in the committee for the selection of examination subjects
Hungary:	Social partners are extensively involved in the policy- and decision-making processes of IVET as prescribed by law. Councils such as the National Council for the Conciliation of Interests, the National Vocational Training Council, and the Higher Education and Research Council serve as forums, at a national level, for dialogue and the conciliation of interests regarding VET. National expert committees set up by the Ministry of Education in 2001 contribute to the development of qualifications and their professional and examination requirements. These committees also review the National Qualification Register at least once every three years. The regional development and training committees hosted by the National Centre for Assessment and Examination develop regional strategies for the development of IVET and assist in the tendering of public subsidies from the decentralised section of the Labour Market Fund. The two chambers of commerce (the Hungarian Chamber of Commerce and Industry and the Hungarian Chamber of Agriculture) play a particularly important role in IVET at national, sectoral, and local levels.

	Regarding IVET provided within public education, the chambers participate in the development of professional and examination requirements and perform various quality assurance tasks.
Iceland:	The Upper Secondary School Act of 1996 specifies the influence and responsibilities of social partners in VET. This is achieved through a Cooperation Committee for Vocational Education on the one hand, and the Vocational Councils on the other. The Cooperation Committee for Vocational Education strengthens links between school and industry and advises the Ministry of Education, Science and Culture on a general policy for vocational study. Vocational Councils are appointed for all vocations or vocational groups in which education and training are offered. Among other responsibilities, they define the needs of the occupations concerned with regards to knowledge and skills and set out the objectives of vocational study. They also make proposals concerning the structure of vocational studies, curricula, the form and methods of evaluation, and monitor the quality of instruction and instructional materials.
Ireland:	Historically industrial relations have been adversarial, but since 1987 there have been a series of three year 'national partnership agreements' between Government and the social partners, covering a range of economic and social issues, including IVET. Importantly in relation to IVET, employers and trade unions have equal representation on the board of FÁS and its advisory bodies. Since 2000 the Agreements made nationally between the Social Partners have encouraged the formation of worker/management partnerships at local level and in many organisations both public and private this is now happening. Also, the Skillnets Training Networks Programme was set up in 1999 by employer bodies and trade unions to support enterprises to develop strategic answers to their joint training needs.
Italy:	The role of the social partners is enshrined in law – they play a role in the content, co-ordination, and provision of training. With specific reference to continuing vocational training for workers, Law 388/00 set up the *Fondi interprofessionali*, managed by the social partners and supervised by the MLPS (Ministry of Labour and Social Policies), to which employers pay a contribution of 0.30 *per cent*. The funds, which finance corporate, sectoral and local training plans, supplement the work of the Regional Authorities in the continuing training system. As a result, the enterprises have assumed a strategic role in achieving an effective implementation of employability measures.
Latvia:	Since 1993, representatives from the state, employers and union bodies have been involved in the decision making in VET through the National Tripartite Council for Co-operation (NTCC). The creation of the NTCC sub-council for Vocational Education in 1999, and its expansion to include employment in 2000, ensures that VET is a co-ordinated activity between the Government, employers and employee bodies. At the end of 2005, the Tripartite Sub-councils for Co-operation in Vocational Education and Employment have been organised in 4 regions of Latvia: Kurzeme, Dienvidlatgale, Vidzeme and Zemgale. Their main tasks are to promote cooperation in VET development and to improve accessibility, quality of VET, employment development and international cooperation. Regional

	sub-councils are involved in co-ordinating activities of the regional examination centres, activities regarding practical placement, information exchange and accreditation of education establishments and programmes. They are also involved in the coordination of continuing training. There are some challenges in encouraging employer participation in VET related to the high proportion of small employers (76 *per cent* of businesses are micro enterprises and 20 *per cent* are small businesses with 10-49 employees).
Lithuania:	The Vocational Education and Training Council functions as the advisory body on issues concerning VET. This Council consists of representatives from the state institutions, employer and employee organisations and training institutions. The function of qualification evaluation is delegated to the social partners. At the regional level, the County Vocational Education and Training Councils play the advisory role and these councils are established in all counties.
Netherlands:	Social partners play an important advising and initiating role in many of the networks, bodies, councils and boards of institutions involved in many new developments in education and training. At the national level, the Social Economic Council is the main advisory body for the Dutch Government. The steering committee, Impulse VET, was installed to strengthen vocational education, to define a joint responsibility between education and the social partners for education and training, and to take initiatives for training the employed and unemployed. The national Government created a number of incentives to increase the engagement of individual enterprises in VET. At the sectoral level, the social partners are represented in the board of Colo, the association of expertise centres on vocational education, training and the labour market. Colo forms the link between education and work. At the regional level, most ROCS have representatives of the regional level social partners in their supervisory board. The national expertise centres on vocational education, training and the labour market are organised by branch or sector. The board of an expertise centre consists of employers, employees and educational institutions. With the Adult and Vocational Education Act, the expertise centres have acquired broader tasks such as the formulation of attainment targets. They also play a role in quality of workplace learning. Technocentres are intermediary organisations set up at the regional level by educational institutions, local businesses, the local authorities, manpower services and other relevant partners. The roles of these centres include: • improving the alignment of education and employment; • furthering the diffusion and application of knowledge; and • allowing the joint use of advanced equipment. Technocentres are focused on technical training programs.
Norway:	Social partners and enterprises play a major role in the development and implementation of upper secondary VET. Employers and employees' organisations influence upper secondary VET through a number of councils, boards and committees, in which they hold the majority of

	representatives. In relation to higher education, the role of social partners and enterprises is limited; university and university colleges are considered autonomous.
Poland:	Since 2002, representatives from employer organisations and self governed business organisations cooperate with the Ministry of National Education and Sport to improve the quality of VET. Activities include the creation of networks of enterprises providing practical training to students, improving the standards for vocational placements, and offering training to teaching staff. These social partners take active roles in schools by participating in curricula development, examinations and quality assurance exercises.
Portugal:	Vocational schools are predominantly private (run locally with public funding) and small in size. They address the needs of the working population by involving local and regional partners such as municipalities, enterprises and commercial and industrial institutions. As for VET within the labour market, the Government, employers and trade unions participate through the Administration Council, the Audit Committee and other regional bodies. The National Vocational Training Council advises on strategy issues and proposes training measures.
Slovakia:	Links between IVET schools and enterprises weakened during the 1990s, when the economy suffered significant transformation. Fifteen expert commissions were established in 2002 to deal with content, conceptual and methodological issues relating to IVET. Their mission is to cooperate with educational institutions, employers and enterprises. In practice, however, curricula development is dominated by the education sector.
Slovenia:	Although the principle of social partnership in the area of vocational and technical education was introduced relatively recently, employers and employees' representatives already participated as social partners. Employers and their interests are represented by the Slovene Chamber of Commerce and Industry, the Slovene Chamber of Crafts ,and by the Slovene Association of Employers. Employees are represented by trade unions. The Chambers propose occupations for which regular educational programmes are prepared; they are involved in the preparation of programmes and are responsible for the implementation and supervision of training programmes within companies. The participation of trade unions in vocational and technical education is modest at present, mostly because of the lack of personnel and due to financial problems. So far they have been active mainly as protectors of apprentices' rights and through cooperation in final examination boards. Social partners also participate in the Council of Experts for Vocational and Technical Education, and the National Council for Adult Education.
Spain:	Social partners include Government representatives, trade unions and employer organisations. They participate in national and regional councils to advise about VET. One of the aims of these councils is to achieve 'coordinated training' based on "a close relation and exchange of services between industry and the education system". One of the measures being developed to achieve coordinated training is the creation of a catalogue of occupational qualifications to establish the kind of training that should be offered.

Sweden:	There is a long tradition of close cooperation, both formal and informal, between the education and training authorities and the social partners. The Ministry of Education and Science coordinate, at a central level, with representatives from trade unions and employers' organizations. At a local level, there is also cooperation between schools/VET providers and representatives from the labour market. During the last revision of Goal, Structure and Syllabuses in upper secondary school in 2000, the social partners took part in a reference group to evaluate all upper secondary study programmes.
United Kingdom:	Government policy on VET places a strong emphasis on meeting the skills needs of employers, so that VET is designed to lead directly to employment or to complement work-based training and experience. Employers have traditionally taken the lead in liaison with Government agencies and with colleges, but the views of Trades Unions are also considered in consultations at all levels. In higher-level occupations the views of associations of practitioners are very influential in determining education and training programmes. At the lower secondary level, the curriculum is designed and monitored by Government departments responsible for education in each of the four nations, together with agencies responsible for design of curricula and an inspectorate. With respect to IVET beyond the lower secondary level, Sector Skills Councils (SSCs) play an important role too in establishing the content and purpose of vocational qualifications. There are currently 25 SSCs; each is an employer-led, independent organisation that covers a specific sector across the UK.

040106 Planning and forecasting

Description:

The process whereby the future skill needs of the economy are determined and feeds into the planning process that establishes where resources should be allocated to meet future demand.

Synthesis:

In most countries there is a formal, statistical / econometric process in place to identify the future level of demand by occupation / profession. In France, for example, macroeconomic forecasting studies are carried out on a regular basis by the research departments at the Ministries for Education and Employment, respectively, and by the General Planning Commission. These studies are intended to anticipate, over the medium term, the economy's foreseeable requirements in terms of employment per sector and per level of qualification.

Forecasts and other statistical data are produced by the State authorities – through organisations funded by them – and feed directly into national expenditure plans. The following are some of the State funded organisations providing labour market forecasts to inform IVET development:

- Human Resource Development; Planning Bureau (Cyprus);
- Ministry of Economy and Communication (Estonia);
- Research Centre for Education and the Labour Market (Netherlands);
- Inter-Ministerial Team for Forecasting Labour Demand (Poland);
- Institute for Innovation and Training (Portugal);
- Institute of Information and Prognoses (Slovakia);
- University of Warwick Institute for Employment Research (UK).

In other cases the use of formal projections is less well developed. In Austria, planning and forecasting are based mainly on experts' and social partners' recommendations. In Latvia, there are insufficient data for medium- and long-term forecasting. In Sweden, although some forecasting does take place to provide general labour market information, provision of education is not based on wholly on this type of supply and demand analysis.

As well as quantitative forecasting of skill needs, there is also a general recognition that qualitative changes are taking place in the nature of skill demand, in relation to changes in the economy. Ministries of Education / Labour are involved in assessing these changes and their implications for the provision of IVET.

Planning and forecasting is largely interpreted with respect to formal econometric forecasts of future skill demand. Less information is provided about the curricula content and how this is developed to ensure that it meets future demand [see 040201, 040302, 040702].

Country Transversal Summaries:

Austria:	Planning and forecasting for VET schools and colleges, as well as for apprenticeship programmes are based on experts' recommendations, and in collaboration with social partners. No systematic evaluation or scientific analysis is used for defining curricula and content. Only in some areas of tertiary education are formal processes used to define courses and lectures.
Belgium:	Government in the communities is responsible for planning the education system and meeting future demand.
Cyprus:	Analyses of changes in the labour market and projections for the growth of the economy are prepared by the Human Resource Development Agency and the Planning Bureau, respectively. The Ministry of Education and Culture identifies the education and skill needs and is ultimately responsible for the design of curricula for VET.
Czech Republic:	Over recent years, methods for identifying future skills needs have been developed and tested at national, regional and sectoral level. There is currently no coherent system and forecasting activities are carried out as part of separate projects. In 2001, a methodology was developed for forecasting skilled labour needs. This methodology involves a five year quantitative forecasting model which facilitates identification of prospective employment opportunities for holders of various qualifications and provides information for employers about their chances of finding suitably qualified individuals. There is also a methodology for the development of qualitative sectoral and regional studies which aims to provide more detailed information and to add a qualitative dimension to the required qualifications. There is also analytical work underway which is focused on comparing the developments in education with labour market developments and on the identification of employers' needs. Analyses are being conducted concerned with the match between qualifications attained and jobs performed and with the occupational structure of the labour force from the perspective of education. "Branch groups" are also involved in identifying qualitative changes in the content of skilled labour for the needs of the education sector. Finally, a comprehensive information system is being developed as part of the Information System on the Situation of School Leavers in the Labour Market (ISA) project and a regional version of the ISA system is the Regional Information System on the Position of School Leavers in the Labour Market (RISA) which was set up in 2004.
Denmark:	Recommendations for new programmes are put forward to the Ministry of Education by the trade committees and are also discussed in the Vocational Education and Training Council. Recommendations include statistical data and other documentation to prove that there is a need for the programme in question. Estimated annual uptake and expected job opportunities are also taken into account.
Estonia:	Labour demand forecasts by area of activity are prepared by the Ministry of Economy and Communication. These are then used by the Ministry of Education and Research to determine the number of student places to be

	financed. Other statistical indicators are taken into account such as international trends in education and the labour market.
Finland:	The training committees and the Advisory Board for Educational Cooperation base their decisions for VET provision on forecasts of educational needs prepared by the National Board of Education and the Labour Force 2020 Project.
France:	Macroeconomic forecasting studies are carried out on a regular basis by the research departments at the Ministries for National Education and Employment and by the Centre of Strategic Analysis. These studies are intended to anticipate, in the medium term, the economy's foreseeable requirements in terms of employment *per* sector and *per* level of qualification. CEPs (Forecasting Research Contracts) are agreements reached between the State, representative trade organisations and one or more outside operators. They allow the social partners in a given branch to provide themselves with a tool for forecasting the economic and social changes they may expect. The CEP improves the visibility of the sector and its trades. A number of observatories were created (on the CEPs' recommendation) in order to better track data on employment and training. The observatories allow branches to remain abreast of all developments regarding employment, trade, enterprises and establishments and to carry out specific studies in response to special requests. Regional Observatories on Employment and Training (OREF) were created in each French region and are managed by the local authorities (conseils régionaux). They encompass a number of different regional government offices and, in some cases, the Consular Chambers and representatives of social partners. The role of the OREFs is to summarise all information regarding employment and training gathered by the various offices and present them in a complementary manner. In doing this, the OREFs contribute to setting up a regional statistical system. They gather data about training for young people and jobseekers and also play a role in the field of forecasting skill/qualification needs. The information may influence regional policy concerning training, leading to some training programmes to be opened or closed, or enabling better coordination between initial and continuing training programmes in a given sector.
Germany:	The Commission of the Federal Government and the *Länder* for Educational Planning is the state planning establishment for the entire education system. Its work with regards to educational planning concentrates on major current issues arising from the effects of demographic developments and the growing internationalisation of education and employment systems, as well as from the changes to qualification structures and demands as a result of new technologies. Other forecasting instruments are two major panel studies with a qualifications/skills component: a panel of the Institute for Occupational and Labour Market Research and the Socio-Economic Panel. The government is now also funding an "*Arbeitsmarktradar*" (labour market radar). To identify qualitative trends at the skills level the Federal Ministry of Education and Research sponsors a network of research institutes in which various institutes and institutions contribute to the early

	identification of skills needs.
Greece:	The Organisation for Vocational Education and Training (OEEK) has set up the Tripartite Advisory Committees in the regions with the participation of social partners. Tripartite Advisory Committees consist of representatives of employers and employees in the region and a representative of OEEK. These Committees observe the economic and social profile of local markets, economic activities, demographic developments, skill shortages in the labour market, and the dynamics of each region.
Hungary:	Short-term prognoses prepared by the Public Employment Service are currently the only built-in mechanism to forecast labour force needs and skills shortages. In general, forecasting is limited due to significant differences in needs and demands according to size of enterprise and region, fast development of alternative employment forms, size and openness of the economy, weakness of social partner mediation, etc. The county labour centres of the Public Employment Service and their branch offices conduct surveys of the labour force management of enterprises on a quarterly basis. Additionally, they collect annual data on prosperity indices and employers' intentions regarding employment and/or dismissal of their labour force. Data supply is, however, voluntary and in 2004 information was provided by less than 3 *per cent* of enterprises (although this covered more than 20 *per cent* of all employed people).
Iceland:	Defining the knowledge and skills that employees need to possess and the objectives of vocational studies is the responsibility of the Vocational Councils. A Vocational Council is appointed by the Ministry of Education, Science and Culture and social partners in each occupation or occupational group for which VET is offered.
Ireland:	The principal education and training organisations carry out their own forms of future assessment, in addition the *Expert Group on Future Skill Needs* and the FÁS/ESRI (Economic and Social Research Institute) *Manpower Forecasting Programme* provide a research and co-ordination mechanism at national level. Under the aegis of Forfás, the Expert Group on Future Skill Needs (EGFSN) was established in 1998 by the Government in the context of increasing concerns about labour and skill shortages. The Group reports jointly to the Ministers of Enterprise, Trade, Employment and Education & Science. It comprises representatives of the social partners, Government Departments, industrial development organisations and education/training bodies. The Skills and Labour Market Research Unit in FÁS is designing a database with the objective of collating all available information regarding the supply and demand of skills at national level.
Italy:	In recent years the social partners, the Union of Chambers of Commerce, and the Regional Authorities have promoted and implemented a series of surveys with the objective of describing the vocational and training needs determined by the processes of globalisation and technological innovation. A limitation of the analyses conducted up to now can be observed in the different approaches adopted. This has often made comparability difficult at the national level. To overcome this limitation, an attempt is being made to set up a networked system that will allow for the use of a common

	language and method, in order to facilitate forecasting of training needs, as well as the design of suitable training pathways.
Latvia:	One of the challenges for the provision of VET is to develop a system that responds appropriately to the current labour market. The Latvian National Observatory, the Latvian Academy of Science, universities and non-governmental organisations have been in charge of research on VET and the labour market. Regular reports assessing the state of the labour market can be obtained from publications made by the Ministry of Economy, the State Employment Agency and the Labour Force Survey of the Central Statistics Bureau. In relation to skills needs and the demand for occupations, however, information is collected in a less systematic way, making medium and long term forecasting difficult.
Lithuania:	Labour market needs are identified through sectoral studies and the development of VET standards. Sectoral studies assess turnover among employers as well as the need for training. The study of the retail sector, for instance, has already been used in the planning of the enrolment of students into IVET retail programmes. All new VET standards are based on labour market needs analysis carried out by expert groups and approved by the respective industry lead bodies. Forecasting and planning is also complemented by the questioning of the managers and other key players in the field.
Netherlands:	The Research Centre for Education and the Labour Market (ROA) specialises in labour market forecasting and skills anticipation. ROA publishes biennial reports on the labour market by education and occupation. Colo works with the ROA to make better use of sectoral-level data. The respective expertise centres for vocational education, training and the labour market publish 'education and labour market research' for their own sector, making use of ROA information. The regional training centres (ROCs) also sometimes carry out their own market research to gain insight into the expected needs for qualified employees at the regional level. Centres for Work and Income (CWI) cooperate to match the information on demand and supply in the labour market, at sectoral and regional level.
Norway:	Upper secondary and post-secondary VET programmes are organised based on the information provided by the private sector in relation to labour market needs. In higher education there is no formal mechanism for planning and forecasting. Universities have no obligation to include members of the private sector, although many of them try to take local and regional demand conditions into account. There are a number of general labour market forecasts available.
Poland:	The Inter-Ministerial Team for Forecasting Labour Demand (established in 1998) provides long term forecasts and expert reports on the conditions in the labour market. The Ministry of Education can introduce new occupations or specialisations in order to meet the needs of the labour market. Schools may also introduce changes to their curricula for this purpose.
Portugal:	Forecasts on jobs and skills requirements were prepared by the Institute for Quality in Training, set up by the Ministry of Labour and Social

	Solidarity. With the Public Administration Reform this responsibility will be undertake by the National Qualifications Agency.
Slovakia:	The Institute of Information and Prognoses provide statistics on education and overviews on enrolment trends and unemployment risks of graduates at all levels. Analyses, however, are educationally driven. There are no regular forecasts of skill needs, except for *ad hoc* surveys based on self-reporting of employers. Sectoral analyses on demand are only available for the automotive industry, and there is no research infrastructure for analysis of regional labour market needs.
Slovenia:	The Employment Service of Slovenia (ESS) collects information on the knowledge and skill needs both at national and regional levels. At the regional level (only in Podravje region), the information gathered is used for developing appropriate training programmes. The Slovene Chamber of Commerce and Industry also conducts various analyses on skills needs, but their reports are mainly prepared for internal purposes. Besides administrative databases providing information on available jobs and the skills of the unemployed, ESS uses the data obtained by LP-ZAP inquiry. This database provides detailed insight into the characteristics of the unemployed compared to the needs of employers. The information gathered is used to prepare appropriate training programmes which aim to decrease or eliminate structural imbalances in the labour market.
Spain:	The 1990 Reform Act (LOGSE) marked the start of a comprehensive reform of VET and led to the publication of basic guidelines for a common academic structure for vocational schooling. It is the responsibility of the Autonomous Regions to establish the curricula for each qualification in the region, and the teaching centres are in charge of developing these curricula. It is the responsibility of the Government to review the available qualifications and, when necessary, to update or create new ones, to ensure that changing vocational requirements are met.
Sweden:	Provision of education is not based on supply and demand in the labour market, although some forecasting does take place to provide general labour market information (LMI).
United Kingdom:	The Government anticipates training and qualifications needs through: • development of standard systems of classification and an National Qualifications Framework (NQF); • introduction of regular national surveys of households and employers; • quantitative modelling – national projections of skill demand are produced by the Institute for Employment Research (IER). These projections have been widely used and have been developed to cover sectoral and more localised dimensions. All SSCs through their Sector Skills Agreements have a remit to forecast future skills needs for their particular sector.

040107 Diagram of main pathways

Description:

Diagramatic representation of the main pathways through the system.

Synthesis:

The diagram below provides a synthesis of the pathways through the IVET system in Europe. Broadly, pupils have two options upon completion of lower secondary level education:

• to enter the **academic / general pathway** that leads to tertiary level education and / or entry to the labour market; or

• the **vocational pathway** that equips young people with the skills necessary to practice in a given profession or occupation.

The pathway for most young people entering the vocational pathway is, upon completion of lower secondary education, to enter either vocational school leading to a vocational qualification, or to enter an apprenticeship. Where people take the route *via* the vocational school there is sometimes differentiation between higher and lower level studies depending upon the ability of the individual student and the specific vocational path they have adopted.

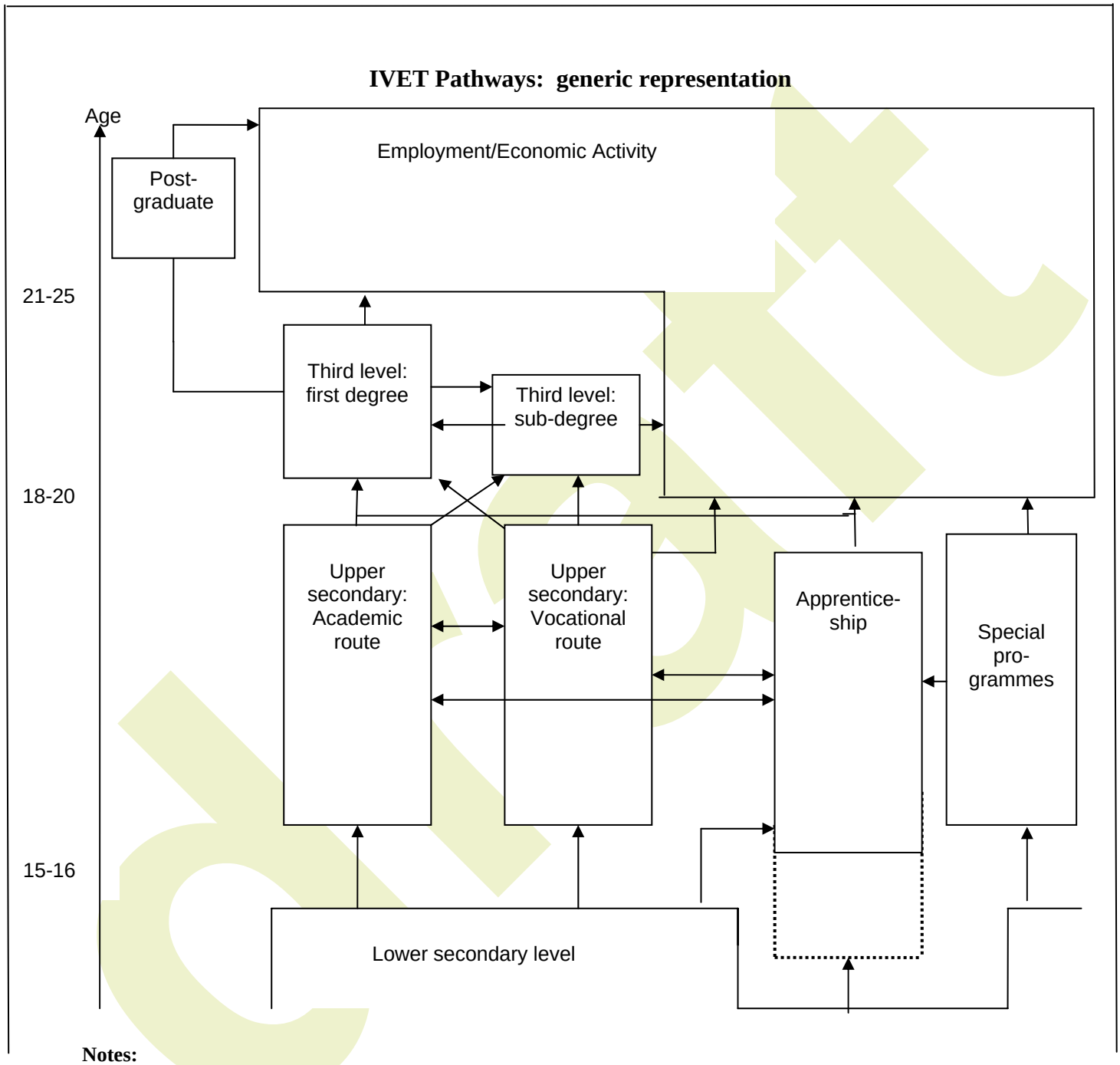
In a few countries IVET commences in lower secondary school, but for in most it starts after successful completion of this level of education.

Vocational school lasts for around two years after which students are qualified to enter the labour market in their chosen field, though in some instances they will need to take a further test to be licensed to operate in a regulated occupation. In theory, after completion of vocational school there is the option of entering post-secondary or tertiary education. In practice, relatively few people enter post-secondary, non-tertiary education, and if students enter tertiary education it is more likely to be in a vocational subject rather than an academic one because of: (a) the rules governing access to tertiary courses; and (b) the preferences of students who are studying for a particular vocation. It is possible for those who have chosen the vocational pathway to enter general / academic tertiary education, but in practice it will require the tertiary institution to be persuaded through, for example, sitting an entrance exam. In general, the vocational school route is designed to give people access to skilled employment upon its completion.

The apprenticeship route is directed much more at securing entry to the labour market upon the completion of training. Theoretically it is possible for studies to continue after the end of the apprenticeship into post-secondary non-tertiary education – and lifelong learning is encouraged in all countries – but in practice the preference of apprentices is to enter the labour market.

For those who fail to satisfactorily complete their lower secondary level education, or fail to obtain access to a job or training upon completion of compulsory education, special programmes – usually part of active labour market policy aimed at the most vulnerable in society – are provided to assist young people to obtain the skills that will allow them to successfully enter the labour market, or gain a place in vocational school or an apprenticeship.

IVET Pathways: generic representation



Notes:

1. The diagram shows the structure of provision across Europe. It indicates the transitions and progressions which are theoretically possible within IVET systems even if, in practices, some transitions do not take place. For instance, the transition from apprenticeship to the academic route in upper secondary school tends not to occur even though national systems allow for such a move to take place. There are often significant barriers – such as the recognition and transferability of credits between pathways – that prevent movement between pathways taking place.

2. Vocational training at post-graduate tertiary level is available, but it is questionable whether this constitutes IVET or continuing vocational education and training. Hence it is not treated extensively in the reporting or the diagram above.

Country Transversal Summaries:

Austria:	Lower secondary education is divided into secondary academic school (lower level) and lower secondary school. Compulsory education extends to the first year of studies after lower secondary education (*i.e.* into upper secondary education). The most common VET routes after secondary academic school are secondary academic school (upper level) or VET at a VET college. The most common routes after lower secondary school are VET at a VET school or apprenticeship training. Education at VET colleges lasts five years and finishes with a higher VET exam, giving access to post-secondary and tertiary level programmes. Education at VET schools lasts 3-4 years and finishes with a lower VET exam. To access tertiary education, students must take an entrance examination. To access an apprenticeship programme, students must complete one year of pre-vocational education after lower secondary school or 1-2 years at a VET school or college. Apprenticeship training finishes with a lower VET exam that gives access to post-secondary education, but not to tertiary education.
Belgium:	Young people have a range of options at the upper secondary level (vocational or academic) depending upon the orientation of the individual. At the end of upper secondary level education in the IVET stream there are a number of further options to allow the individual to progress their vocational education.
Cyprus:	IVET may start upon completion of basic compulsory schooling and students may choose the theoretical or the practical direction, each lasting three years. (General education is an alternative option to these VET routes.) Upper secondary VET gives access to the labour market or higher education. Students may enter an apprenticeship programme after completing basic compulsory education, or earlier if they drop out. Apprenticeship programmes last two years and give access to the labour market.
Czech Republic:	IVET at the lower secondary level is represented by very few programmes for pupils with learning difficulties. A range of IVET options is available at the upper secondary level. Beyond upper secondary level there are also options for people to progress with their professional studies in IVET.
Denmark:	After completion of primary and lower secondary education at the age of 16, students who choose VET can enrol in IVET or in upper vocational secondary education. Successful completion of IVET qualifies students to enter the labour market and also provides access to tertiary education in short-cycle higher vocational education courses. Upper vocational secondary education prepares students to enter tertiary level education in technical or commercial fields.
Estonia:	IVET at upper secondary level (ISCED level 3B) can be accessed after compulsory schooling. Post-secondary (non-tertiary) education (ISCED level 4B) can be accessed after general or vocational upper secondary schooling and lasts between one and two and a half years. General and vocational upper secondary schooling also give access to tertiary education, which can be academic (ISCED level 5A) or applied (ISCED level 5B).
Finland:	Compulsory education can be followed by upper secondary general or vocational education. Upon successful completion of upper secondary vocational education, graduates may enter the labour market or access

	tertiary level education. To access specialist or further vocational education candidates must have completed upper secondary vocational education and acquired work experience.
France:	Entry into the vocational education route usually occurs after completion of the 9th Year of education (lower grade school certificate) at around age 15. To enter the vocational route students may take an 11th year adaptation course and receive a high school vocational diploma, a CAP or a BEP. Most who take a CAP move into the labour market, while most with a BEP move on to further study. At the next level, young people may obtain a BTS (after which the majority move into the labour market) or a DUT, which is the usual route into further study. The DUT may be followed by obtaining a license, then a masters and finally a doctorate. Through the apprenticeship system, students may move on from a BEP to obtain a professional certificate, a high school vocational diploma then a BTS. Any of these are main exit routes to the labour market. Alternatively to the BTS, one may obtain a DUT, which is the usual route to an engineering diploma.
Germany:	Comparative presentation of the main pathways based on the diagrams provided by the country report. The German system broadly matches that described in the synthetic chart provided in the synthesis above, except that the vocational route / apprenticeship pathway – the dual system – predominates.
Greece:	From age 12 to 15 years, students are usually enrolled in lower secondary education or high school. After completion of high school students may continue in the general education stream with upper secondary level studies at the *Eniaio Lykeio* from ages 15 to 18 years. Alternatively, after completion of high school, students may enter the IVET system. Students over the age of 18 may enter the IVET system through the Institutes of Vocational Training (IEK) for one year of study. From the ages of 15 to 17 students may enrol in the 1st circle of TEE for two years of study at the ISCED level 2. Alternatively, students from ages 15 to 23 may enrol in the 1st circle of Apprenticeship TEE for three years of study at ISCED level 2. Students completing studies at the *Eniaio Lykeio* also have the option to enter the first circle of Technical Vocational School (TEE) or Apprenticeship TEE. Completion of the 1st circle of TEE or Apprenticeship TEE permits students to enter the 2nd circle of TEE. Students must be over the age of 17 to enter the 2nd circle. The 2nd circle consists of 1 year of study at ISCED level 3. Completion of the 2nd circle of TEE permits students to continue onto IEK (after age 18) in the IVET system. Studies in the IEK consist of 2 years at the ISCED level 4. Alternatively, those who complete the 2nd circle of TEE may enter the general education system and enrol in tertiary level education.
Hungary:	Vocational education and training commences in the 11th grade of specific upper secondary institutions at the earliest (*i.e.*, in the third year of upper secondary education). These vocational training schools admit pupils upon completion of the eight grades of primary school. In compliance with new regulations, they may provide only career orientation and vocational preparatory training in addition to general education to students younger than the age of 16. There are two main types of vocational training schools providing IVET within the public education system: vocational school and

	secondary vocational schools. Vocational schools offer two years of general education and two years of IVET to students aged 14-18 years. Secondary vocational schools offer four years of general education and one or more optional years of IVET to students aged 14-19 years. Secondary vocational schools prepare students for the 'maturity' examination, which is a prerequisite of higher level studies, and then students can choose to continue their studies at higher education level or in further VET grades (*i.e.*, at post secondary level) to take the vocational examination. Vocational school students, however, can take only the vocational examination and obtain ISCED level 3C or 2C vocational qualifications. Higher education VET is offered by colleges and universities.
Iceland:	IVET at upper secondary level can be accessed at the age of 16, after completion of compulsory schooling. Most students choose general paths, but a proportion of these may drop out and move into vocational training. Vocational education studies may last from 1.5 to 4 years and are offered by comprehensive schools, industrial-vocational schools, and a specialised vocational education school. Vocational education studies are completed after an examination which is both theoretical and practical. Vocational education students can access higher education studies after one or two years of further study which lead to the matriculation examination.
Ireland:	Upon exiting the compulsory education system at age 16, the main pathways are through studying for the Leaving Certificate (Established, Applied or Vocational) or through the YOUTHREACH programme. The Leaving Certificate takes two years to achieve and provides access to training programmes run by FÁS, the sectoral training organisations, apprenticeship, or a VEC course. This then provides the basis for either leaving for work or entering third level education. In practice, the vocational route overlaps with higher education, such that those entering third level education *via* the vocational route will enter that level at an older age than those taking the academic route (*i.e.* the Leaving Certificate Established).
Italy:	Compulsory education lasts up until 18 years of age. Upon leaving lower secondary school at age 14 a number of pathways are available generally lasting five years: • the academic route (lycee); • the vocational route (technical/vocational schools); • at the age of 15 years, apprenticeships become available. There is the opportunity for transfer between the vocational and academic routes, and both routes allow entry into Universities, IFTS, and Regional post-qualification courses.
Latvia:	Basic compulsory secondary education (ISCED levels, 1 and 2) lasts for 9 years, starting at the age of 7. Basic education can be either followed by general secondary education or by vocational secondary education (ISCED level 3). The latter can last for 3 or 4 years and, in both cases, may lead to either the labour market or to further study. Vocational secondary education lasting for a shorter period may need to be complemented with 2 or 3 years of study if the student wishes to pursue tertiary education.
Lithuania:	Completion of basic school permits entry into vocational schools. Completion of Level 1 vocational education leads to a qualification

	certificate, while completion of Levels 2, 3 or 4 leads to a qualified worker's diploma. Completion of Levels 3 or 4 permits the individual to move into professional colleges or higher education in colleges or universities.
Netherlands:	The earliest entry into vocational education is possible around age 12 years after completion of primary education. At the upper secondary level a variety of progammes are available depending upon the level the individual student wishes to attain. There are around 700 qualifications students may study towards – but the intention is to reduce the number.
Norway:	IVET starts at upper secondary level once primary and lower secondary school have been completed. IVET at upper secondary level includes two years of school-based education plus two years of apprenticeship training. To access higher education, upper secondary vocational education graduates must take a theoretical 'bridging' course lasting 6 months.
Poland:	A form of IVET is offered at lower secondary school, involving work preparation classes for early school leavers and students with learning difficulties. Successful completion of lower secondary schooling or work preparation classes give access to upper secondary education. Upper secondary education is offered in 7 different types of schools, 5 of which are vocational: • basic vocational schools – 2-3 years – prepare students for working life by confirming their basic-level vocational qualifications. This may be followed by 2 years of supplementary general secondary education or 3 years of supplementary technical secondary education; • profiled general secondary schools – 3 years – include general education and general vocational education, which prepares students for entrepreneurial activity or further education; • technical schools – 4 years – prepare students for a career in a specific occupation. This addresses students wanting to qualify as technicians, but not interested in general education; • supplementary technical schools – 3 years – provide vocational education to basic vocational school leavers. The curricula is organised as to bring the pupils' qualification up to an intermediate level and prepare them for the Vocational Examination and or the Matura Examination; • special needs schools – 3 years – offer preparation for performing a given job for pupils with disabilities who completed lower secondary school. To access higher education, candidates must have passed the Matura Examination. Access to post secondary (non-tertiary) education requires successful completion of upper secondary education, but the Matura Certificate is not compulsory.
Portugal:	IVET is offered at lower secondary education for young people wishing to enter the labour market. Completion of general or vocational lower secondary education may lead to upper secondary VET. Upper secondary education lasts for three years, comprises a single cycle and begins at the age of 15. It can be completed either by studying general courses or by following a vocational pathway – vocational courses,

	apprenticeships, education and training courses, specialised art courses, technology courses, adult-education courses; these qualify students to enter the labour market but also allow them to continue their studies. Young people under the age of 25, who have exceeded the compulsory education age or who attended but did not complete upper secondary education, may enrol in apprenticeship training to ease their way into the labour market. Holders of an upper secondary vocational qualification (or equivalent) may broaden their knowledge and skills through Technological Specialisation Courses (post-secondary, non-tertiary level).
Slovakia:	Basic education may lead to upper secondary education at a grammar school, secondary specialised school (SOS), a secondary vocational school (SOU) or an associated secondary school. Upper secondary education at a grammar school may lead to higher education studies or a post-secondary VET programme. Education at an SOS may lead to higher education studies (usually a technical university), the labour market or a post-secondary programme. Education at a SOU usually leads to the labour market or post-secondary studies. Studies at an associated secondary school may lead to similar routes to those of SOS or SOU.
Slovenia:	Secondary education in Slovenia caters for young people aged between 15 and 19 years old and is free of charge. Completion of compulsory education may lead to one of the following secondary education programmes: • general secondary (4 years duration); • technical secondary (4 years); • vocational secondary (3 years); and • short-term vocational (2.5 years). Successful completion of basic compulsory education also gives access to apprenticeship training, leading to the same qualifications as other forms of (upper) secondary education. Vocational secondary education can be followed, after three years of employment, by a two-year vocational technical programme. One-year vocational courses are designed for Gymnasium leavers who would like to gain vocational education. Tertiary level vocational education is offered in programmes of 2-3 and 3-4 years which are open to those holding a baccalaureate, a vocational matura, or a certificate of school leaving examination.
Spain:	Middle level Vocational Schooling can be accessed after Compulsory Secondary Education as an alternative path to the 2-year upper secondary course known as the Bachillerato. Upper level Vocational Schooling can be accessed with a Bachillerato or Technician (middle level Vocational Schooling) certificate. Whereas a Bachillerato certificate leads directly to higher level studies, a Higher Level Technician (upper level Vocational Schooling) certificate gives access only to certain university studies related to the certificate obtained.
Sweden:	Upon completion of compulsory education, students may access upper secondary general or vocational education. Upper secondary VET graduates may enter the labour market or continue their studies at a university, university college or on an Advanced Vocational Education course at post-secondary level.

United Kingdom:	Although some IVET is available at the lower secondary level, it commences in earnest at the upper secondary level. At this stage, young people have the option of entering an academic stream (giving access to higher education), a vocational stream delivered either through courses delivered in the further education sector or apprenticeship training, or special programmes aimed at those with problems accessing the labour market.

0402 IVET AT LOWER SECONDARY LEVEL (INCL. STATISTICS)

Description:

Provision of vocational education and training within the compulsory education system.

Synthesis:

Few countries offer vocational education at this level and even in these countries participation tends to be low. A distinction can be drawn between those countries that:

- have a distinct stream of IVET at this level;
- those that provide vocational options as part of compulsory general education.

Among the countries that offer vocational education at this level are: Belgium, Czech Republic, Latvia, Lithuania, Netherlands, Poland, Portugal, Slovakia and Spain. Aside from exceptions such as the Netherlands and the Dance Conservatoire in Slovakia, IVET offered at this level usually targets early school-leavers and those who face difficulties in completing compulsory education. In Lithuania, upper secondary IVET programmes are available for pupils aged 14 years or more who did not complete lower secondary education. Also, IVET at lower secondary level is offered in Poland as work preparation for students who at the age of 15 have only completed one year of education at this level, usually due to learning problems or truancy.

In countries such as Latvia and Portugal, lower secondary IVET has the objective of helping young people to enter the labour market, albeit with lower level qualifications. But in most countries, the focus is on offering pre-vocational training or guidance to help pupils make informed choices in relation to career options and future studies, rather than to provide qualifications to enter the labour market. In Spain, pupils are offered general technological education and are introduced to careers and further education options. In Austria, students attend professional orientation classes and are provided with advice and guidance on labour market issues during the last year of compulsory education. In the UK, some vocational options are provided as part of general compulsory education, but this is not a separate stream of education. Moreover, in Slovakia, vocational schools (affiliated to secondary vocational schools) offer training to young people who have difficulties in completing basic education.

Provision of IVET at Lower Secondary Level

Distinct course of study available at lower secondary level	Vocational studies – other than work experience - included in general education	No IVET reported	
Latvia	Austria	Cyprus	Norway
Lithuania	Belgium	Denmark	Sweden
Netherlands	Czech Republic	Estonia	Slovenia
Poland	UK	Finland	Iceland
Portugal	Germany	France	Italy
Slovakia		Greece	Ireland
Spain			
Hungary (Art Schools only)			

Country Transversal Summaries:

Austria:	No IVET is provided at this level. During the last year of compulsory education (first year of upper secondary education) students attend professional orientation classes, and are provided with advice and guidance on work and labour market issues.
Belgium:	There are some vocationally oriented options in lower secondary level but these form part of the general compulsory education system.
Cyprus:	IVET is not provided at this level.
Czech Republic:	This is largely represented by the second stage of basic school which provides general education as a part of compulsory education. This level also covers short IVET programmes (ISCED 2C) which are very rare and may be entered after the completion of compulsory education. Programmes at this level are mostly attended by students who completed remedial and auxiliary programmes at basic school and students who completed compulsory education but failed to successfully complete all nine grades of basic school and do not meet the requirements of secondary vocational schools. Students usually range from 15 to 16 or 17 years of age. Most programmes are offered by practical schools.
Denmark:	IVET if not offered at this level.
Estonia:	IVET does not exist at lower secondary level.
Finland:	VET is not provided at this level.
France:	Not applicable
Germany:	There is no formal initial VET at lower secondary level. However, there is preparation for the world of work in various forms.
Greece:	Not applicable
Hungary:	IVET is not provided at this level. As established by the 1998 Amendment of the Act on Public Education, IVET can commence at the 11th grade and at age 16 at the earliest time. There is only one exception to this regulation: in vocational schools and secondary vocational schools preparing students for the vocational examination in a branch of art, IVET may be provided parallel to general education. Although education and training may start in the 5th, 7th or 9th grade in such schools, a qualification is obtainable only in the 10th grade of vocational schools of art, or after passing the maturity examination organized in the 12th grade of secondary vocational schools of art.
Iceland:	Several courses that can be classified as lower secondary education are on offer outside the official system of education and training and could also be classified as continuous education and training. Complete information is not available.
Ireland:	There is no vocational training at lower secondary level.
Italy:	No IVET at this level

Latvia:	VET programmes are offered at lower secondary level, allowing students to obtain a first or second level professional qualification. Students who do not complete compulsory education at the age of 16 must, by law, continue studying until the age of 18 and may choose a VET programme. A pedagogical correction programme is compulsory for students without basic education and who want to access IVET at lower secondary level. The aim of the programme is to integrate school leavers back into the education system and help them acquire basic professional skills. In 2004-05, 1227 students (0.75 *per cent* of basic education level students or 2.75 *per cent* of vocational education students) participated in lower secondary VET programmes.
Lithuania:	At lower secondary level, IVET delivers Level 1 VET programmes (ISCED 2). These programmes are available for pupils, at least 14 years of age, who have not finished lower secondary general education. The typical student is 16 to 18 years old. Programmes at this level are 2 years in duration when the aim is to obtain a qualification. Programmes are provided in vocational schools. There are currently 81 vocational programmes at this level. Children in VET account for 2 to 3 *per cent* of the total number of children in lower secondary education.
Netherlands:	IVET at the lower secondary level is known as pre-vocational secondary education (VMBO). This was introduced in 2001 through merging pre-vocational training with junior general secondary education. These two levels were merged to ensure better access opportunities to further (vocational) education and employment. Pre-vocational secondary education lasts 4 years and is intended as a foundation course with regards to both the general and pre-vocational component. The VMBO provides the basis for further education (MBO, HAVO) and caters for pupils aged 12 – 16 years. Pupils may choose one of four different types of programmes. At the end of the second year, VMBO pupils choose a sector and one of four learning pathways.
Norway:	There are no vocational elements at lower secondary level.
Poland:	IVET at lower secondary level is offered as work preparation classes for students who, at the age of 15, have only completed one year of education at this level, usually due to learning problems or truancy. In the 2003/2004 school year there were 1,681,180 pupils in lower secondary schools, including 811,551 girls. Of this number, 22,709 pupils attended the work preparation classes, i.e. 1.35 *per cent* of the total lower secondary school population.
Portugal:	IVET courses at this level (Education and Training Courses and Apprenticeship Courses), are run by the network of public, private and cooperative schools, Vocational Training Centres and other accredited institutions. Courses are offered to early school-leavers and young people with no vocational qualifications who wish to enter the labour market.
Slovakia:	In general, there is no IVET at this level except for a dance conservatoire and vocational schools. The latter are affiliated to secondary vocational schools and offer training to youngsters who have difficulties in completing basic education. There were 85 participants in the dance

	conservatoire in 2000, 54 of those were girls and 31 were boys of up to 14 years of age. In 2002 there were 3,428 participants in vocational and special schools.
Slovenia:	VET is not provided at this level.
Spain:	VET at lower secondary education offers general technological education in a specific area as well as an introduction to careers and educational options. Social guarantee programmes developed in secondary education centres include, besides VET, 2 to 3 hours of counselling per week. These programmes are aimed at school leavers. In the academic year 200/2001, there were 1,887,912 students taking part in basic vocational training. Of these, 965,091 were male and 922,821 were female.
Sweden:	Not applicable.
United Kingdom:	There is no separate IVET pathway, but IVET is available as part of pupils' general studies. It is provided for 14-16 year olds in the following ways: • all pupils experience work-related learning as a compulsory part of the curriculum; • pupils may choose vocational subjects in the optional part of their programme; • the Increased Flexibility Programme for 14-16 year olds Programme (IFP) allows young people to spend part of their last two years of compulsory schooling in non-traditional settings – a workplace or (more usually) a further education college; • the Young Apprenticeship programme allows young people to combine two days a week at school with work experience and training programmes leading to level 2 vocational qualification. It is important to note that vocational options in compulsory schooling are not a pre-requisite for any vocational route post-16.

040201 Curricula

Description:

The content of learning and teaching provided at the lower secondary level.

Synthesis:

Where it exists, IVET at the lower secondary level tends to be a mix of general and vocational education and sometimes includes training at a workplace. In Latvia the proportion of general and vocational subjects is 60:40, whereas in the Netherlands the first two years of the four-year IVET programme at this level comprise general secondary education. In Lithuania subjects are divided into vocational, general cultural, and general education. In Portugal the courses are vocational oriented but also include socio-cultural elements in addition to scientific and technological, and practical training elements.

Since lower secondary IVET at this level is in some cases aimed at early school-leavers or those facing difficulties completing compulsory education, curricula are sometimes adapted from general lower secondary education to meet pupils' abilities and needs. This is the case in Poland and Slovakia.

Although not many countries provide qualifications at this level, it is possible to acquire a lower secondary vocational qualification in Lithuania. In this country, two-year programmes lead to a lower-secondary level qualification and three-year programmes lead, additionally, to a basic education certificate.

Country Transversal Summaries:

Austria:	Not applicable.
Belgium:	Not applicable.
Cyprus:	Not applicable.
Czech Republic:	Education and training at this level is implemented in line with approved curriculum. The lengths and demands of the curricula take into account students' disadvantage and prior education. Most subjects are practically oriented. Education is normally provided by special pedagogues using special teaching methods.
Denmark:	Not applicable.
Estonia:	Not applicable.
Finland:	Not applicable.
France:	Not applicable.
Germany:	Not applicable.
Greece:	Not applicable.
Hungary:	Not applicable.
Iceland:	Information not available.
Ireland:	Not applicable.
Italy:	Not applicable.
Latvia:	The proportion of general and vocational subjects is 60:40. Furthermore, the proportion of theory and practice is 35:65 for vocational subjects. Practical training may take place at schools or enterprises depending on the particular study programme.
Lithuania:	The training programmes are developed following relevant vocational education and training standards and the General Regulations for training plans, approved by the Minister of Education and Science every year. There are two types of programmes: i. to acquire a qualification (2 years); ii. to acquire a qualification and a basic education certificate (3 years). Subjects are divided into vocational, general cultural and general education subjects. Vocational subjects make up the majority of programmes.
Netherlands:	The first two years of VMBO comprise basic secondary education. Each sector and learning pathway has its own curricula. The first 3 years contains a minimum of 1,280 periods *per* year (each period is 50 minutes) (32 periods *per* week) while the fourth year is made up of 1,200 hours (30 periods *per* week). Each subject combination comprises a common component, a sector specific component and an optional component. New emphasis has been given to workplace learning and integrating this into the core curriculum. The total number of students in secondary education (including VMBO,

	HAVO and VWO) grew from 904,500 in 2001 to 924,900 in 2003. Participation in VMBO (preparatory secondary vocational education) was 145,400 in 2001 and 177,200 in 2003.
Norway:	Not applicable.
Poland:	Education is based on the relevant core curricula, adapted to meet the pupils' abilities and needs. The special curricula are prepared by the teacher. In addition to this, occupational training is provided in or outside of school (at a workplace or another training institution).
Portugal:	Courses last between 1 and 2 years and are vocationally oriented. They comprise socio-cultural, scientific and technological, and practical training elements.
Slovakia:	Curricula for the dance conservatoire are subject to the standard procedure of development approval by the Ministry of Education. Curricula for vocational schools are derived from the related ISCED 3C training branch by a reduction of theory to a minimum and expansion of practical training.
Slovenia:	Not applicable.
Spain:	Curricula depend on the starting point of each student and on the general objectives for skills development at this stage. Variations in the curriculum are based on the common curriculum of the second cycle of the stage. A clear specification of methodology, contents and assessment criteria must be made within the framework established by the relevant education authority.
Sweden:	Not applicable.
United Kingdom:	The Curriculum in each country sets out the requirements for young people up to the end of compulsory schooling at age 16. It is primarily academic in orientation and sets out core and optional subjects, but provides for: • work-related learning including a period of work experience; • study towards vocational subjects (as optional courses); • Increased Flexibility Programme allows (often disaffected) youth to spend part of the last two years of compulsory schooling in a workplace or an FE institution to maintain their participation in education; • Young Apprenticeship Scheme allows young people to combine spend two days a week at school with work experience.

040202 Learning outcomes

Description:

The award of qualifications and the destination of students completing at this level.

Synthesis:

In general, lower secondary IVET at this level is aimed at early school-leavers or those facing difficulties completing compulsory education and thus the main learning outcome is a certificate confirming successful completion of compulsory education and giving access to further studies. This is the case in Latvia and Spain, for instance. In Lithuania it is also possible to obtain an ISCED level 2C qualification certificate in shorter programmes and in Slovakia vocational school graduates receive a certificate indicating ISCED level 2 competencies after two years of study and passing a final examination. Although it may be possible to access the labour market upon completion of some lower secondary IVET programmes (*e.g.*, in Latvia and Lithuania), the tendency is to try to retain students in the education system for longer and encourage them to acquire higher level skills and qualifications.

See *040201* for further details of the aims of IVET at this level.

Country Transversal Summaries:

Austria:	Not applicable.
Belgium:	Not applicable.
Cyprus:	Not applicable.
Czech Republic:	Completion of these programmes results in the award of a certificate of final examination or a certificate of completion. The final examination consists of a practical part and an examination in vocational subjects. A certificate of completion (without the final examination) usually leads to employment in so-called sheltered workshops.
Denmark:	Not applicable.
Estonia:	Not applicable.
Finland:	Not applicable.
France:	Not applicable.
Germany:	Not applicable.
Greece:	Not applicable.
Hungary:	Not applicable.
Iceland:	Information not available.
Ireland:	Not applicable.
Italy:	Not applicable.
Latvia:	Students successfully completing the vocational basic education programmes are awarded an education certificate which allows them to either enter general or professional upper secondary level education, or to enter the labour market.
Lithuania:	Lower secondary Level 1 VET programmes lead to a qualification certificate (ISCED 2C). Those who complete basic general education obtain a basic school-leaving certificate. Graduates wishing to continue with their studies need a basic school-leaving certificate, which provides access to upper secondary education, either general or vocational. Those who leave with a qualification certificate compete in the labour market like anybody else.
Netherlands:	Pupils may take up to five years to complete the first stage of lower secondary education. A student receives a certificate upon completion of the VMBO programme. The VMBO leaving examination is internal and

	national. Examinations are written and practical, dependent upon the particular learning pathway. Typically, VMBO is completed at age 16 and individuals can then go onto MBO. If an individual completes the theoretical programme within VMBO with high average grades he can go onto HAVO.
Norway:	Not applicable.
Poland:	Students who attend work preparation classes are awarded a lower education certificate specifying the occupational training undertaken. Students who complete lower secondary IVET acquire preliminary skills for performing a given job, but are not awarded any vocational qualifications.
Portugal:	Courses qualify trainees for an occupation and lead to Level 2 and 3 qualifications in recognised training areas. These qualifications are equivalent to the 9th and 12th years of schooling, respectively. Successful completion of IVET at this level allows students to continue their education in the formal system.
Slovakia:	Lower level IVET courses at the dance conservatoire are not certified; graduates are only certified after completing the full programme. Vocational school graduates receive a certificate indicating ISCED level 2 competencies after successful completion of the 2nd year and passing a final examination.
Slovenia:	Not applicable.
Spain:	VET at the lower secondary level is introductory and there are no particular VET qualifications at this stage. Students who successfully complete Compulsory Secondary Education obtain the qualification of Secondary School Graduate.
Sweden:	Not applicable
United Kingdom:	A separate certificate is awarded for each subject passed in the National Curriculum subjects. This is mainly by examination and school assessed coursework. More practically or vocationally oriented subjects have a higher proportion of practical assessment. In general, students are awarded a General Certificate of Secondary Education (GCSE) in each subject.

0403 IVET at upper secondary level: School based and alternance (incl. statistics)

Description:

The structure of provision of vocational education and training at the upper secondary level. This tends to be the stage at which IVET commences in many countries.

Synthesis:

Education at this level tends to fall into three streams:

i. academic education leading to employment or third level education;
ii. vocational training within vocational schools and colleges leading to employment and the possibility of third level education;

iii. apprenticeship training based on alternating between work and training (see 0404).

In Norway these three forms of education are offered by the same institutions and have equal status, but this is not the case in most countries where general (academic) education is offered separately.

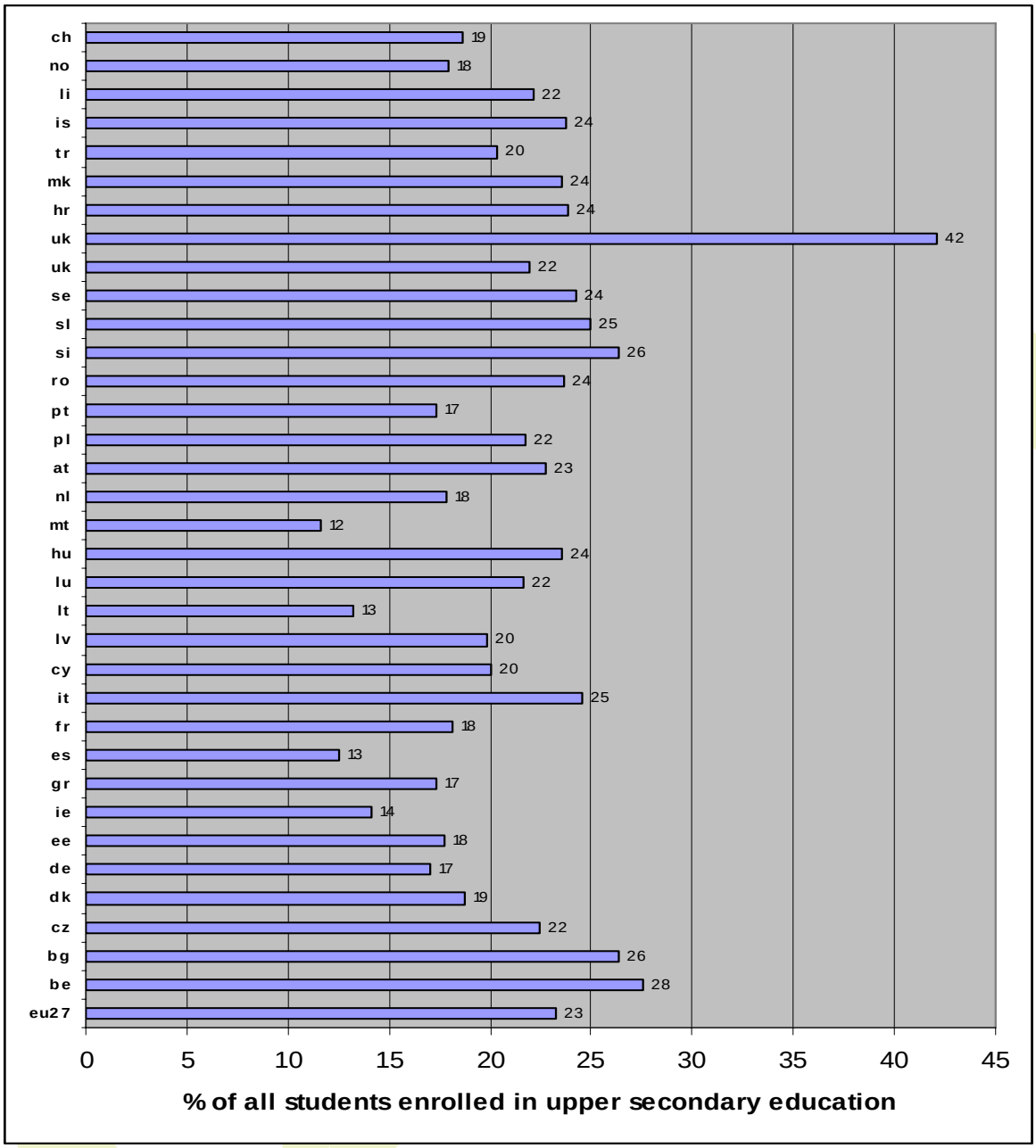
Some countries even distinguish between different forms of VET: Slovakia offers a *study* branch and a *training* branch, whereas Portugal provides Secondary Education Technological Courses and Vocational Courses, and in Denmark 'IVET' and 'secondary vocational education' are separate pathways. A similar situation can be observed in Latvia and Lithuania. The main difference between these IVET pathways is that the first pathway leads to both the labour market and tertiary education, and the second is aimed at giving access to the labour market.

In general, there is increasing recognition of combining the academic education and vocational training provided in IVET at the upper secondary level. In Norway upper secondary VET includes two years of apprenticeship training; in Finland work-based training accounts for at least 1/6 of the course; and in Iceland IVET is mainly apprenticeship based.

There are, however, difficulties associated with organising and implementing work-based training due to curricula arrangements and links with employers and social partners. With declining numbers entering apprenticeships in some countries there is more emphasis on the vocational route through full-time study at schools and colleges.

The figure below gives and indication of the extent to which all young people are enrolled in upper secondary, vocational education.

Percentage of all students enrolled in upper secondary education (2005)



***Source*:** Eurostat Education and Training Statistics

Country Transversal Summaries:

Austria:	IVET at upper secondary level is provided by VET schools, VET colleges and pre-vocational schools. Forty *per cent* of secondary academic school students continue their studies at a VET college and only 3 *per cent* at a VET school. The proportion of lower secondary school students that study at a VET college is the same as those who study at a VET school (25 *per cent*). About 20 *per cent* of all students choose pre-vocational schooling and 90 *per cent* of these enrol in apprenticeship training.
Belgium:	At the end of lower secondary school at age 15/16 pupils may continue in the full-time education system, enter block release training (sandwich courses), or enter an apprenticeship, until the age of 18 years. In **Flanders**, *General secondary education* (ASO) provides broad theoretical education and prepares students for higher education. *Technical secondary education* (TSO) concentrates on the practical application of theoretical knowledge. It aims to prepare students for a vocation and for higher education. TSO mainly concentrates on general and technical theoretical subjects, supplemented with practical lessons. *Full-time vocational secondary education* (BS) provides a practically oriented form of education and offers students specific training for a specific vocation alongside general education. The BSO is divided into 18 areas of study. The BSO permits access to higher education but this is rare. *Artistic secondary education* (KSO) combines general and broad education with artistic practice and prepares pupils either for professional life or for higher (artistic) education). *Special education* (BuSO) is aimed allowing disabled students or those with learning or educational difficulties to attend mainstream education with assistance. The aim is to integrate students as much as possible. In 2005/06, there were a total of 148,452 participants in IVET at upper secondary level in Flanders. In the **French and German communities**, students aged 16 (or 15 if they have completed two years of secondary education) may undertake technical education or block release training or training covered by the period of compulsory schooling. Education is free and parents may choose the school or institution their child attends. A student gains the certificate of secondary education after successfully completing six years of ASO, TSO or KSO or seven years of BSO. In the French Community, there were more than 110,000 students in upper secondary IVET in 2005/06. There were almost 89,000 participants in the Walloon Region.
Cyprus:	IVET is provided from the upper secondary level. Successful completion of lower secondary education makes students eligible for upper secondary VET. Students may follow either a theoretical or a practical direction. VET is part of the national school system and maintains close links with industry. Amongst 16 to 19 year olds, the gross participation rate in upper secondary technical and vocational education grew from 8.8 *per cent* in 1990/91 to 9.6 *per cent* in 2002/02. For 15 to 17 year olds, the gross

	participation rate increased from 12.2 *per cent* in 1990/91 to 13.2 *per cent* in 2002/03. The net participation rates were, as expected, lower than the gross rates in 2002/03 – 6.5 *per cent* of 16 to 19 year olds and 11.2 *per cent* of 15 to 17 year olds. Men accounted for around 83 *per cent* of all participants in upper secondary IVET in 2002/03.
Czech Republic:	IVET at upper secondary level (ISCED 3) is school-based but educational programmes at this level have a large proportion of practical training. Programmes may be divided according to level of education and programme of education. By level of education, there are: • programmes providing secondary education with a vocational certificate (ISCED 3C) – the main objective of which is to prepare students for the labour market, but they can also enter the follow-up courses to fulfil ISCED 4A level of education (*maturita*); • programmes providing secondary education with *maturita* (ISCED 3A) – this is required for admission to higher education, but the graduates can enter to the labour marked as well; • programmes at conservatoire (ISCED 3A and ISCED 5B). Fields for education are set out in government regulation. There is a separate educational programme for each field and level of education. There are currently about 180 programmes within VET with a vocational certificate and 370 programmes within education with *maturita*. Lack of flexibility within programmes at this level is a major concern.
Denmark:	There are two VET routes at this level: IVET and upper secondary vocational education. IVET includes instruction at a vocational college and in-company training. Vocational upper secondary education is entirely school based and is divided into technical and commercial education. IVET is a less attractive option for students than more 'academic' courses such as general upper secondary education. In 1990, there were a total of 54,191 15 to 20 year olds participating in IVET (main programme) at upper secondary level.
Estonia:	The aim of upper secondary VET is to prepare students to perform independent skilled work or to continue their studies at a higher education institution. This level of education can be accessed upon completion of lower secondary education. The number of students in upper secondary VET has remained stable for some years. In 1995/96 there were 19,071 students enrolled in upper secondary vocational education while in 2003/04 there were 17,396. More than 90 per cent of participants are aged 15-19.
Finland:	Upper secondary vocational qualifications can be acquired in three ways: • by school-based education and training; • by apprenticeship training; or • based on the candidate's competences. School-based upper secondary VET includes workplace training

	amounting to at least 1/6 of the course. In 2004, there were 83,774 16-19 year olds in school-based VET. This equates to 33.1 *per cent* of all 16 to 19 year olds. The absolute number of participants in school-based IVET has increased from 116,012 in 1990 to 183,115 in 2004.
France:	Vocational education diplomas offered at the secondary level can be earned through coursework in vocational secondary school or through the apprenticeship system. Certificate of Professional Skills (CAP) and the Certificate of Professional Studies (BEP) are ISCED 3C level diplomas that grant status as a qualified production worker or office worker. Both can be earned through two years of training after 9th grade (end of 1st level of secondary education). Unlike the CAP, the BEP grants a qualification not for a specific trade, but for a set of activities. There are 250 specialities offered under the CAP and 40 for the BEP. Once training is complete, most CAP holders enter the labour market, while more than 60 *per cent* of BEP holders continue onto a technological or vocational Baccalaureate. The Vocational Baccalaureate is an ISCED 3B level diploma obtained through 2 years of coursework after a BEP or CAP. Graduates may enter the labour market or continue studies. The Vocational Baccalaureate, the CAP and the BEP may be obtained through schooling or apprenticeship. There are also special degree programmes. Agricultural schooling is offered by special institutions, either public or private. Programmes include: Agricultural Professional Skills Certificate (CAPA), Agricultural Professional Studies Certificate (BEPA), Vocational Baccalaureate, and Higher Agricultural Technician's Certificate (BTSA). Maritime training also exists at the secondary level and offers, at level ISCED 3C, a Maritime Professional Skills Certificate (CAPM) and a Maritime Professional Studies Certificate (BEPM), and at ISCED 3B Vocational Maritime Baccalaureate diplomas.
Germany:	Courses lead to either a vocational qualification for skilled work as qualified staff or to a higher education entrance qualification. • Berufsfachschule (BFS) (Full-time vocational school) - full-time schools which prepare pupils for employment or provide them with vocational education as well as general education. Education at BFS varies in duration depending on the intended career specialisation from 1 to 3 years. • Fachoberschule (FOS) (Technical secondary school) - covers years 11 and 12, and builds on a Realschule leaving certificate or a qualification recognised as equivalent (Mittlerer Schulabschluss). It equips its pupils with general and specialised theoretical and practical knowledge and skills and leads to the Fachhochschule entrance qualification (Fachhochschulreife). • Berufsoberschule (BOS) - have been established in some Länder in order to enable those who have completed vocational training in the dual system to obtain a higher education entrance qualification. Attendance of the BOS is normally 2 years but it can also be on a

	part-time basis for a correspondingly longer period. • Berufliches Gymnasium/Fachgymnasium (Upper level of the Gymnasium with a vocational bias) - This type of school is called Berufliches Gymnasium (BG) in some Länder and Fachgymnasium (FG) in others. The Gymnasium with a vocational bias offers no lower or intermediate level. In some Länder, this kind of school takes the form of a gymnasiale Oberstufe (upper level of the Gymnasium) with career-oriented specialisations and offers a three-year course of education. The rate of participation in dual system and vocational foundation schools increased between 1990 and 2003 amongst those aged 20, 21 and 22+. Participation amongst 15, 16, 17, 18 and 19 year olds decreased. Participation rates in specialised vocational schools decreased between 1990 and 2003 amongst 15 and 16 year olds as well as those 22 years of age and older. Between 1990 and 2003, the rate of participation in vocational grammar schools increased for each age group between 16 and 21 years. The participation rate for those aged 22 and older decreased from 2.2 *per cent* in 1990 to 1.2 *per cent* in 2003. The rates of participation in advanced vocational schools increased from 1990 to 2003 for 17 to 21 year olds while the participation rate decreased from 6.4 *per cent* in 1990 to 2.6 *per cent* in 2003 for those aged 22 and older. Amongst all students at upper secondary level, the proportion enrolled in IVET decreased from 67 *per cent* in 1995 to 62.2 *per cent* in 2003. This number grew to 340,363 in 2000 and further to 398,784 in 2002.
Greece:	Studies in the TEE are supervised by the Ministry of Education and Religious Affairs. These studies are divided into 2 circles and included both courses of general education and courses for specific occupational fields. Which sectors are covered by each of the Technical Vocational Schools (TEEs) depends on local socioeconomic conditions and the number and preferences of students. The aim of TEE is to provide general knowledge as well as modern and specialised skills and techniques. TEEs promote the 'vocational conscience' to assist graduates to integrate into the labour market. The number of students in the TEE supervised by the Ministry of Education has grown from 101,000 in 1998-99 to 129,000 in 2001-02.
Hungary:	IVET is offered in vocational schools and secondary vocational schools. The major differences between these schools lie in their objectives and the qualifications they offer. Secondary vocational schools prepare students for the maturity examination organized at the end of the 12th grade, leading to the maturity certificate (ISCED level 3A). Students can then continue IVET at post secondary level and take the vocational examination, or enrol in higher education studies. Vocational school students, on the other hand, can take only the vocational examination and (since 2006) they can attain only ISCED level 3C or 2C vocational qualifications. In 1990/91, 42.09 *per cent* of 16-19 year olds were enrolled in IVET at

	upper secondary level. This proportion fell slightly to 41.88 in 1995/96. The proportion of 16-19 year olds enrolled in IVET at upper secondary level has fallen dramatically in more recent years to 11.92 *per cent* in 2001/02 and 12.22 *per cent* in 2004/05. It should be noted that restructuring of IVET was taking place in 2001/02. Considering only those in VET grades of vocational school, the proportion of 16-19 year olds participating has not changed dramatically between 1990/91 and 2004/05. The participation rate for VET grades in vocational school decreased from 14.97 *per cent* in 1990/91 to 11.68 *per cent* in 2004/05. There has been a decrease in the absolute number of participants in IVET at upper secondary level from 439,804 in 1995/96 to 330,914 in 2004/05.
Iceland:	Almost all IVET is apprenticeship based but there are a few pathways that are entirely school based, e.g. computer studies, several paths in art and craft, training for parts of the health and welfare sector, cosmetics, computer studies, massage, arts, design, mass media. This is a constantly changing field and centralized information does not exist. Disaggregated participation rates of students in apprenticeship training are not available.
Ireland:	In the school based system the principal pathways are based around studying for the Leaving Certificate: • Leaving Certificate (Established); • Leaving Certificate (Applied) - LCA; • Leaving Certificate (Vocational) LCVP. Before commencing study for a Leaving Certificate, many students enter a vocational year that provides personal, social, vocational, and educational development to make students valuable members of society. It may contain work experience, but this does not count as alternance. The Learning Certificate (Established) is academic in nature, and prepares the student for third level education. The LCA contains vocational preparation and education, including general education, after which students tend go on to the Post-Leaving Certificate or enter the labour market. The LCVP is mainly vocational and prepares the student for further and continuing education or the labour market. While the proportion of students engaged in IVET is comparatively low, it is increasing steadily. In 1990, 6 *per cent* of all upper secondary students were in IVET and the remaining 94 *per cent* were in general secondary education. In 2000, this distribution changed to 12 *per cent* of the students enrolled in IVET and 88 *per cent* in general education.
Italy:	Within the State school system the vocational and technical schools are the principal providers, giving three and five year courses which qualify people to work in occupations in selected industries. Just under 20 *per cent* (19 *per cent*) of the 15-19 age group participated in vocational schools, and a third (33 *per cent*) were in technical schools (2002). With the framework establishing regionally run vocational training, there are a range of courses (usually lasting a minimum of two years) providing specific occupational skills, including theoretical and practical training,

	and work experience. The law also allows people aged 15 and over to engage in school-work alternation. This training is vocational and is designed by schools and training schools in conjunction with the social partners.
Latvia:	Vocational Secondary Education (ISCED levels 3A/3B), which lasts for 3-4 years, can be accessed after completion of general or basic vocational education. Successful completion of vocational secondary education leads to a Diploma of Vocational Upper Secondary education as well as a level 3 qualification, meaning that the student is theoretically and professionally prepared to undertake the planning and organisation of work. Vocational Education (ISCED level 3C), which lasts for 2-3 years, can be accessed after completion of basic education or the 'pedagogical correction' programme. Successful completion of this type of vocational secondary education leads to a Certificate of Vocational Education corresponding to a level 2 qualification, meaning that the student has the theoretical knowledge and skills to undertake executive work with no assistance. Statistics provided suggest that the proportion of students choosing IVET upper secondary programmes is decreasing. In 1990, 62.4 *per cent* of upper secondary students were enrolled in IVET programmes. This proportion decreased to 48.3 *per cent* in 1995; to 43.7 *per cent* in 2000; and to 39 *per cent* in 2004.
Lithuania:	IVET at upper secondary level (ISCED 3) comprises two types of programme: • Level 2 VET – 2 years (vocational qualification only); • Level 3 VET – 3 years (vocational qualification and upper secondary education). For both types of programme, most training time is provided in schools. More young people opt for the Level 3 VET programmes. Of all 15-19 year olds, 0.3 *per cent* undertake Level 2 programmes, while 10 *per cent* opt for Level 3. Furthermore, the uptake for Level 3 programmes increased from 6.8 to 9.9 *per cent* from 1992 to 2003, but the uptake for Level 2 programmes decreased from 22.3 to 0.3 *per cent* in this same period.
Netherlands:	IVET at upper secondary level includes four levels and two learning pathways. Gaining a diploma in one level allows access to the subsequent level. Level 4 is the highest IVET for entering the labour market and is also the level required for entry into HBO. ROCs and AOCs offer IVET courses at upper secondary level (MBO). Pupils are aged 16 and over but 95 *per cent* of those in the main pathway (vocational training with theoretical and practical components) are under 22 years of age. The four levels and their respective length are as follows: • Level 1 – training to assistant level – 6-12 months; • Level 2 – basic vocational training – 2-3 years; • Level 3 – professional training – 2-4 years; • Level 4 – middle management training – 3-4 years; • Level 4 – specialist training – 1-2 years;

	• Other courses – at least 15 weeks. The Central Registrar of Vocational Qualifications (CREBO) lists all possible qualifications, for different sectors and at each level. There are currently 700 registered qualifications but the number of qualifications will be drastically reduced in the future. There are also two learning pathways: • vocational training (BOL, school-based IVET), where practical training comprises 20 to 60 *per cent* of learning time; and • block or day release (BBL, alternating work/study IVET), where practical training comprises more than 60 *per cent* of the total. Exit qualifications and requirements are the same for both BOL and BBL. Unemployment among those with an MBO is lower than the national average.
Norway:	Since 1976, general and vocational upper secondary education have held equal status and are offered by the same institutions. Upper secondary VET follows the '2+2' model, which includes two years of school-based education plus two years of apprenticeship training at an enterprise or public institution. Around 90 *per cent* of all students leaving compulsory education choose to enter upper secondary school. Of these, more than 40 *per cent* choose IVET. In 1996, 2000 and 2002, 43.4, 41.1 and 44.4 *per cent* of all upper secondary school students were in IVET (the rest were in general education). The goal of the government and the Storting is that at least 50 *per cent* of the entrants choose a vocational path.
Poland:	The following types of upper secondary schools were introduced in 2002: • basic vocational schools; • profiled general secondary schools; • technical schools; • supplementary technical schools; • special needs schools. Alternative training is provided mainly by non-formal VET institutions and organisations. In the 2003/2004 school year, the number of schools offering vocational education and training to young people, including profiled general secondary school, increased by 0.2 *per cent* as compared to 2000/2001, while the number of pupils decreased by 30.9 *per cent*. By comparison with the 2002/2003 school year, both the number of pupils and that of schools decreased, by 3.4 *per cent* and 2.2 *per cent*, respectively. Absolute numbers of participants in secondary school level IVET, including formal (school-based) and non-formal (out-of-school) education, has decreased from around 1.7 million in 1990 to slightly over one million in 2003.
Portugal:	Upper secondary VET is mainly offered as vocational courses, education and training courses, specialised art courses, apprenticeship courses and technological courses. Statistics available suggest that the number of students participating in IVET at upper secondary level has not changed

	significantly. In 1995, there 107,379 students taking part in IVET at secondary level, and in 2000 and 2002 there were 115,219 and 101,113, respectively.
Slovakia:	ISCED level 3A *study* branches are typically related to education offered at secondary specialised schools (SOS). ISCED level 3C *training* branches are typically offered at secondary vocational schools (SOU). Due to factors such as a decrease in population, financing based on per capita funding and broken links with enterprises, SOU are gradually offering a wider share of studies.
Slovenia:	Vocational and technical initial education at upper secondary level comprises the following programmes: • short-term vocational education (2.5 years); • secondary vocational education (3 years); • technical education (4 years); and • vocational technical education (2 years after secondary vocational education). Whereas enrolment rates for most vocational courses have decreased between 1995 and 2004, they have increased for general secondary education. Enrolment in vocational technical education decreased from 41.5 *per cent* in 1995/96 to 32.1 *per cent* in 2000/01 and 31.6 *per cent* in 2003/04. As for general education, enrolment rates increased from 24.1 *per cent* in 1995/96 to 32.2 in 2000/01 and 36.9 *per cent* in 2003/04.
Spain:	Upper secondary VET is defined as Middle-level Specific Vocational Schooling (also known as Module II). Statistics show that the number of students participating in this type of education has been increasing since 1993/1994. During this academic year, 14,213 students took part in middle-level Specific Vocational Schooling and this figure continually increased until reaching 210,750 in 2001/2002. There is also some basic vocational training offered as part of the Bachillerato (a 2-year upper secondary courses) aimed at easing students transition to working life.
Sweden:	Upper secondary VET programmes last 3 years and provide general education and access to higher or post-secondary level education. There are 17 upper secondary programmes and 13 of these are vocational. Most vocational programmes include at least 15 weeks of workplace learning. Approximately 50 *per cent* of the 320,000 students in upper secondary school study a vocationally-oriented programme.
United Kingdom:	Pathways at Upper Secondary level are best described in terms of qualifications aims. Vocational qualifications taken by 16-18 year olds fall into four main categories: • AVCEs (Advanced Certificate in Vocational Education); • vocationally related qualifications, which prepare people for progression into work or for further or higher education; • occupational qualifications, mainly NVQs / SVQs, which are work-based qualifications for a particular occupation or profession;

	• ‘short qualifications. The main providers are described above (see 040104). All vocational qualifications offered to students up to the age of 19 must be accredited into the National Qualifications Framework (NQF). Level 3 of this Framework is the normal requirement for entry to higher education. Level 2 represents both the academic level reached by around half of pupils at the end of compulsory schooling and also the standard expected of a skilled worker in a craft or similar occupation.

040301 Access requirements

Description:

Qualifications required to obtain access to IVET at the upper secondary level.

Synthesis:

In general the main requirement is to have successfully completed lower secondary education by obtaining the relevant qualifications. In some cases students are also required to have reached a certain age (*e.g.*, 16 years in the case of Iceland, 15 years in the case of Latvia). The right to access upper secondary VET may be limited by age: in Sweden, young people aged over 20 must apply for adult education.

In some countries (Austria, Estonia) schools are free to apply their own selection criteria, particularly in situations where the demand for places exceeds the supply. Lithuania and Norway also offer courses for which there is a strong competition and thus there is limited access. In addition to a lack of sufficient study places, geographical limitations may also prevent students from accessing their chosen course, as may be the case in France.

In many countries the aim is to keep people in the system after the end of lower secondary education, hence discretion in allowing people to continue in their studies. Thus, in Finland the education provider may admit students on the basis of perceived capabilities, and in Spain students may gain access to upper secondary IVET through other routes such as specific academic courses or an examination.

A number of general observations can be made:

- IVET is aimed at bring as many people as possible into this stream and so there is a degree of discretion exercised by the responsible authorities with respect to access requirements;
- in many respects the aim is to effectively match the vocational orientation of individuals to their capability based on a number of criteria (e.g. interest in subject matter) alongside their qualifications;
- access requirements vary by course / area of study. In some areas demand outstrips demand so access requirements are more stringent.

In some countries, such as Italy and the UK, young people have a right to access vocational training at this level. In Italy, this is reinforced by compulsory education continuing until young people are aged 18 years, and in the UK there is a right to receive training up to a certain level. Maintaining young people in the education system is an objective in most countries so as to avoid the problem of youth employment and raise the skill levels of the workforce. Whilst individual students might not be able to study the course of their first preference, the aim is to find a place somewhere in the system for all young people.

Country Transversal Summaries:

Austria:	Students may access VET schools and colleges if they have successfully completed lower secondary school or secondary academic school. Some students may be required to take an entrance examination, depending on their level of achievement and the subjects completed. Where places are limited, schools may apply their own selection criteria.
Belgium:	In **Flanders,** students are generally admitted to secondary education aged 12 years. Students may enter first school year A if they have a Certificate of Elementary education or may be admitted without a certificate if the pupil has parental consent and recommendation of Pupil Guidance Centre along with approval from the first year admissions committee. In the **French and German communities t**o enter the secondary orientation degree students must have successfully completed lower secondary level.
Cyprus:	The only requisite to access upper secondary level VET is successful completion of lower secondary education.
Czech Republic:	Applicants may choose any programme and any school offering the relevant programme and students must meet respective admission requirements. There is also a choice of form of study available. Specific admission criteria may include: • performance in previous education; • entrance examination; and • health requirements. Admissions differ according to fields and levels of education and from school to school.
Denmark:	Students are admitted to IVET programmes on the basis of their educational and personal achievements in lower secondary education. Interviews and tests are only required in some cases. Access to upper vocational secondary education requires successful completion of compulsory education.
Estonia:	Completion of basic compulsory education grants students access to upper secondary vocational education. General access requirements are defined by the Minister of Education and Research Regulation but individual VET institutions may establish additional requirements. Admissions committees of at least seven members are formed in each VET institution to provide information in relation to access to VET programmes and their content, and to help manage the admission process.
Finland:	Completion of compulsory education gives access to upper secondary VET. Those who have not completed basic education may be admitted to upper secondary VET if the education provider considers them capable of completing the course. The Ministry of Education provides detailed criteria that may apply in some cases.
France:	Students in the 9th Form (age 15) can choose a General or Technological 10th Form with the aim of obtaining a Baccalaureate, or a Vocational 10th Form or a first-year CAP programme with the goal of earning a CAP or BEP and, in some cases, a Vocational Baccalaureate ISCED Level 2. Faculty, students and parents are involved in the decision of which

	pathway to take. The decision is based on academic results and preference. One limitation is that certain special degree programmes are offered only in specific regions.
Germany:	Admission is based on leaving certificates and qualifications acquired at the end of lower secondary level. The admission requirements for the various types of schools and courses differ according to whether the upper secondary level course of education in question culminates in a higher education entrance qualification or in a vocational qualification. Depending on the training objective, *Berufsfachschulen* require their pupils to have a *Hauptschulabschluss* or a *Mittlerer Schulabschluss*. The *Fachoberschule* requires a *Mittlerer Schulabschluss* or the completion of vocational training or equivalent practical experience. Acceptance into the *Berufsoberschule* requires the *Mittlerer Schulabschluss* and at least two years' successful vocational training or at least five years' relevant practical experience. The first year of the *Berufsoberschule* can be replaced on the basis of a *Mittlerer Schulabschluss* satisfying the requirements for admittance to the *Gymnasiale Oberstufe* or an equivalent qualification.
Greece:	Graduates of high school (lower secondary level education) may register in the Technical Vocational Schools (TEEs) that are supervised by the Ministry of Education and Religious Affairs. Registration in the 1st circle does not require examinations but only a simple statement recorded by students at the high school from which they graduated. Registration in the 2nd circle requires a 1st circle degree in the corresponding field of study.
Hungary:	Access to vocational and secondary vocational schools requires successful completion of the eight grades of primary school. School principals may define further access requirements such as a certain level of attainment in primary school and/or entrance examinations. Entrance examinations must be taken in front of a board that includes teachers/trainers of the school, and can be based on national tests or prepared by the school principal. Access requirements for recognised qualifications may also include vocational/career aptitude tests or certain medical requirements. Although the demand for upper secondary education places has remained constant, the number of schools organising entrance examinations is increasing; this is particularly the case in secondary vocational schools.
Iceland:	Admission requirements to all upper secondary programmes are defined by law. Students can enter upper secondary education on the year they turn 16 if they have completed basic compulsory education. Passing grades examinations in mathematics and Icelandic are the only requisites for those who wish to commence VET. People over 18 years of age can even be exempted from this rule.
Ireland:	Access to post-secondary education is dependent upon grades obtained at the lower secondary level. Those with the highest grades tend to pursue the Leaving Certificate (Established) – *i.e.* the academic route.
Italy:	Entry level requirements are defined by law at a national level. In order to enter vocational schools, technical schools, or initial vocational training courses, a lower secondary level certificate is required. Progression within the system requires the necessary diploma to be awarded after three years.

Latvia:	The enrolment procedure for VET is regulated by the 'Enrolment procedure in vocational education establishments' document, prepared by the Ministry of Education and Science. To access Vocational Education at ISCED level 3C, applicants must be at least 15 years old. Applicants who have not completed basic education are required to enter the pedagogical correction programme. To access Vocational Secondary Education at ISCED levels 3A/3B, students are required to have completed general or basic vocational education. Places are awarded by competition, based on previous results in relevant subjects. Access to Intermediate Vocational Education (ISCED level 3A) requires satisfactory completion of vocational education.
Lithuania:	Access to both Level 2 and 3 VET programmes requires a basic school-leaving certificate. Participants are free to choose the programme and the school according to their personal interest. The number of entrants to a specific programme and schools are agreed beforehand each year and, therefore, places in popular programmes are competitive.
Netherlands:	For Levels 1 and 2 of the MBO sometimes there are no access requirements. Admission for Levels 3 and 4 requires the following: • a certificate of pre-vocational secondary education (VMBO); • proof that the first three years of senior general secondary education (HAVO) or pre-university education (VWO) have been successfully completed. Preparatory courses are sometimes offered for those lacking the above requirements. Choices within programmes depend on subjects taken at VMBO level. The absolute number of participants in IVET at upper secondary level aged 15 to 19 has changed relatively little between 1990 (469,000 participants) and 2002 (463,000 participants). The proportion of the 15-19 year old cohort has increased from 42.3 *per cent* in 1990 to 49.7 *per cent* in 2002.
Norway:	Successful completion of lower secondary education gives the right to upper secondary education leading either to a general or vocational qualification. The number of places, however, is limited and candidates may face strong competition when trying to access their chosen course.
Poland:	Upper secondary VET is open to lower secondary school leavers who have completed at least 9 years of compulsory schooling. Schools recruit students based on specific criteria that should be announced no later than 3 months before the start of the recruitment process. Criteria are usually based on the marks obtained in the final examination or in selected subjects.
Portugal:	Upper secondary VET courses are open for young people who have not completed upper secondary education or equivalent.
Slovakia:	Access to upper secondary school is granted to those with completed basic education. Schools prepare their own admission tests, which must be made public in advance. Traditionally only grammar schools and some secondary specialised schools have fewer places than those in demand.

Slovenia:	Access requirements are established by the Ministry of Education. In general, successful completion of compulsory education gives access to vocational and technical initial education at upper secondary level. Vocational technical education courses are an exception to this and access to them requires three years of employment after the completion of secondary vocational education. Although students are free to choose the school they want to attend, places are limited. In cases where the demand for places exceeds the supply, schools have autonomy to decide on how places will be allocated.
Spain:	To access middle level Specific Vocational Schooling, students must have a Graduate Diploma of Secondary Education or have qualified as Auxiliary Technician or *via* Technician Access. It is also possible for students with different backgrounds to enter by completing specific academic courses or, when established academic requirements are not fulfilled, by sitting an examination.
Sweden:	Successful completion of compulsory education with pass marks in primary subjects (Swedish, mathematics and English) give access to upper secondary education. The right to begin an upper secondary programme applies to young people up to the age of 20. After this, candidates must apply for adult education.
United Kingdom:	Entry to level 3 vocationally related qualifications and the Vocational Certificate of Education (VCE) A levels, also known as A levels in applied subjects (available in AS/A2 as from 2005) usually requires that the student has at least four 'good' (i.e. Grade A* to C) passes in GCSE subjects or equivalent level 2 qualification, slightly below the five good passes required for academic A levels. For specialist subjects the student should be able to offer a portfolio of work indicating that he or she is likely to succeed in the vocationally related area of study. Entry requirements for level 2 vocationally related qualifications and NVQs are lower and may emphasise interest and commitment rather than specific qualifications. Entry to a level 3 NVQ may require the corresponding level 2 NVQ or a vocationally related qualification in a similar area. For all NVQs access to workplace employment of experience is essential.

04030101 Promoting participation

Description:

The means used to persuade people to continue in their studies and take a particular route through upper secondary level.

Synthesis:

In each country emphasis has been given to persuading people to stay on education and take the vocational pathway. A number of initiatives are identifiable:

- targeting particular groups – such as those at risk of social exclusion or with special educational needs – and developing practices that will enable them to successfully complete this cycle of their education;

- campaigns, typically organised by the social partners, to raise awareness of the various vocational pathways available;

- making the system sufficiently flexible so that more students have access to the education system and can move between pathways using credits as the means to do so.

Providing support to specific groups includes offering financial assistance (Austria, Spain) and pedagogical support and guidance (Latvia, Netherlands, Norway) to young people considered to be at risk of curtailing their education. Also in relation to this, Cyprus, Iceland and Sweden provide special tuition and language classes for students with a different first language to that of the host country. Other forms of support involve making sure that places are available in IVET institutions for those with disabilities or who face other disadvantages (Latvia). In the UK, disadvantaged students can receive funding to continue their studies into the upper secondary cycle.

There are several forms in which countries raise awareness of the IVET programmes that are on offer for young people, particularly for those of upper secondary school age. In Finland and Norway, national campaigns have been launched to increase awareness of the choices available to lower secondary school graduates. In the latter case, the education authorities, together with employer and employee's organisations collaborate to increase the number of enterprises involved in training. In Slovakia, *training* schools have to make special efforts to attract students and for this purpose they organise open days or advertise in the media or the internet.

Two ways in which countries make their IVET systems flexible to attract and retain more students are by: (i) giving more young people access to education and; (ii) by expanding the criteria according to which previous studies and experience are validated for further studies. Evening classes, distance learning and e-learning are ways of reaching students who cannot, for some reason, access regular schooling. In Cyprus, evening technical schools offer students with particular needs the opportunity to access upper-secondary level education, and in France, Iceland and Latvia distance learning helps to attract more students. Sweden provides an interesting case since this is one of the few countries where individual programmes are prepared for students who for some reason cannot follow a national programme.

Finally, to promote participation Austria, Finland, and the UK have put in place mechanisms to make previous knowledge or qualification count towards further IVET (acquired prior learning). In Denmark and France, programmes are flexible in the sense that qualifications are obtained at various levels and these are transferable and valid for a period of time, during which students can choose to move between programmes, or to enter the labour market temporarily and then then rejoin the programme.

Country Transversal Summaries:

Austria:	Pedagogical support is offered to students in the form of tutorial classes. Students may also receive financial support to cover fees and other expenses, and in the form of family assistance payments. To promote participation, mechanisms have been put in place to make previous knowledge or qualifications count towards further VET.
Belgium:	Mechanisms are in place that allow students to switch from one form to another, but at the moment there appears to be little transition except where students fail in a given stream.
Cyprus:	Evening technical schools offer students with particular needs the opportunity to access upper secondary level education. Evening and morning schools offer equivalent programmes and lead to the same qualifications. Recent revisions to the curricula include the introduction of new VET 'specialisms' to make VET more attractive. Some support is offered to students whose first language is not Greek.
Czech Republic:	There is no centrally or systematically organised promotion of participation at this level. Courses may be organised to prepare students for secondary education or to complete basic education. Some schools use advertisements to promote themselves to prospective students. Considerable attention is paid to the issue of ensuring access to education and qualifications for special needs pupils. Various complementary programmes are offered to promote access and participation for such students.
Denmark:	Lower secondary education students receive information and guidance in relation to further education choices. They are also introduced to IVET by visiting vocational colleges and following short, introductory IVET subjects at school. IVET programmes are flexible in the sense that prior learning is accredited at various stages. This allows students, within a specified period, to move between programmes, or to enter the labour market temporarily and then to rejoin the programme.
Estonia:	The main mechanisms for promoting participation were introduced in 2005, including: • increased facilities for students without basic compulsory education to access certain vocational courses; • the introduction of an extra year of study for students completing upper secondary vocational education who wish to access higher education; and • a new system of scholarships for upper secondary VET.
Finland:	A campaign was launched in 2000 to promote VET. A key element of this campaign was a website dedicated to increasing awareness of the programmes on offer. Providing the opportunity to acquire VET qualifications based on previous knowledge and experience has the aim of increasing participation in VET programmes.
France:	Reforms carried out in the 1980s have the aim of bringing about greater

	participation of young people in vocational education. These initiatives include the creation of the Vocational Baccalaureate in 1986/87, the reform of the apprenticeship system in 1987, and the founding of trade secondary schools in 2001. The credit based system with credits being valid for five years and transferable to other diplomas at the same level makes vocational diplomas flexible and attractive. Distance learning is also used as an attraction. The Personalised Teaching Workshop (APP) Network, is intended for young people ages 16 – 25, who have left the school system without any qualifications and offers training using a variety of teaching tools depending on student needs.
Germany:	There are no programmes to promote participation in school-based IVET.
Greece:	Students of the TEE that are supervised by the Ministry of Education and Religious Affairs may receive additional support, both in courses of general education and in their special field.
Hungary:	Students who for any reason do not continue their studies in regular full time education can enter adult education at the age of 16 years. Adult education is offered in both types of vocational training schools and may lead to the same qualifications as regular, full-time education. In addition to this, vocational schools offer one- or two-year 'catching-up' programmes to help students who did not finish the 8 grades of primary school by the age of 16 catch up with their age group. A related legal measure is the modification of requirements for awarding recognised vocational qualifications at ISCED level 3C. As from 2005/06, these qualifications may be awarded to individuals with no formal school certificate but who gained the necessary competences by participating in a catching-up programme.
Iceland:	A set of measures is in place to promote access and participation: • remedial courses for students who did not successfully complete basic compulsory education; • special assistance for students with disabilities; • special tuition for deaf students and for pupils whose first language is not Icelandic; • increased facilities for anyone aged 18 or over to access upper secondary VET; and • distance or mixed methods of learning in upper secondary schools.
Ireland:	The introduction of the LCA and LCVP was designed to encourage young people to stay on to take post-compulsory education and attain the target participation rate of 90 *per cent*.
Italy:	No information available.
Latvia:	Disabled applicants, orphans or those without parental support are not required to compete for places to access Vocational Secondary Education. Students have the right to take external examinations, and distance learning is possible in some cases.
Lithuania:	The ability to recognise knowledge and skills acquired outside the formal

	education system is promoting participation in IVET. The four levels of IVET provide choice. The possibility of undertaking higher education or moving into the labour market also promotes participation in IVET. Finally, the emphasis that IVET places on technology also makes it an attractive prospect.
Netherlands:	Occupational guidance, on-the-job placement periods and work in mini-enterprises have been implemented to prepare young people and to decrease drop out rates. Guidance is a continual process available to students throughout their programme(s). Each ROC has a central student services centre and portfolio systems are being introduced to enable students to record the development of their competences. ROCs, in conjunction with municipalities, are also following and supporting early school leavers and guiding them back to school or work where possible. The ROCs have funds earmarked for providing support to pupils with deficiencies and for preventing early leaving. There are also temporary programs and techno-centres aimed at promoting technical vocational education.
Norway:	To achieve the goal of increasing the uptake of upper secondary VET to 50 *per cent*, school counsellors, social partners and the county authorities organise campaigns to increase awareness of the choices available for lower secondary school graduates. The education authorities and the employers' and employees' organisations collaborate to increase the number of enterprises involved in apprenticeship training. Enterprises receive public funding for training apprentices. A 'follow-up' service is in operation to organise and offer special educational arrangements for students who do not complete their upper secondary courses or are not in regular employment.
Poland:	It is the responsibility of the district authorities to establish pedagogical assistance and counselling centres to help students and teachers make the most of the education system. To assist pupils in making informed career choices, the head teacher is responsible for establishing a system of careers guidance services.
Portugal:	Information not available.
Slovakia:	There are no specific measures to promote participation, but schools predominantly offering training (as opposed to study) have to make special efforts to attract students. These schools may, among other strategies, organise open days or advertise in the media or on the internet.
Slovenia:	Short-term vocational programmes (lasting 2.5 years) are primarily designed for both pupils with weaker learning abilities and those who did not complete primary education. Italian and Hungarian languages are also used in schools in order to support students from minority groups. For disabled pupils, training is organised in specialised institutions and state-subsidised sheltered workshops. Apprentices and secondary students who meet specific conditions laid down by the law have the right to apply for a national scholarship. In addition to this, the Zois scholarships are aimed at providing economic support for the education of gifted students.
Spain:	Secondary Education Centres and some vocational education centres must offer personal and material support for students with special education

	needs. Students are provided with tutorials and guidance support. Tutors are responsible for coordinating the assessment and personal guidance of students. Training and career guidance advisers provide students with information and support with regards to their studies and/or accessing the labour market.
Sweden:	Individual programmes can be prepared for students who for some reason cannot follow a national programme. Individual programmes vary in terms of length and content and include language and social studies classes for students whose first language is not Swedish. Individual programmes may also allow students to combine studies and employment.
United Kingdom:	Increasing and widening participation (from groups that tend to be under-represented in upper secondary education and training) have been major policy priorities in recent years and levels have improved substantially. There have been numerous initiatives to promote participation in IVET, ranging from: encouraging more cooperation amongst different agencies to achieve social objectives; targeting employers; targeting young people and their families, provision of advice and guidance on career options and course availability; the right to time off for study to young people in employment; the provision of education and training that suits the needs of the learner; provision of funding to allow young people from poorer backgrounds to stay on in education; and lately, a government plan to increase participation age to 18.

040302 Curricula

Description:

The different bodies responsible for defining curricula.

Synthesis:

A number of organisations are involved in setting curricula:

- the State at a central level usually under the aegis of the Ministry of Education;
- the social partners through a range of committees; and
- in many countries Regional and Municipal authorities also have a role in establishing complementary standards.

The different countries Ministries of Education or an equivalent body are usually responsible for providing the legislative background for preparing the curricula for IVET. In some cases, the Ministry of Education takes a more operational role and define the subjects, assessment procedures and other details of courses. This is the case in Denmark and Italy, for instance.

In most cases, however, curricula are approved by the State but developed by the education and training providers (Estonia, Finland, Lithuania, Netherlands) or other bodies such as the Vocational Councils in Iceland, and the National Council for Curriculum and Assessment in Ireland.

There are countries such as the Netherlands and Norway in which the social partners play an active role in defining the curricula. Moreover, in Estonia, employers and professional associations cooperate with IVET institutions in the preparation of curricula; and in Lithuania the regional Chamber of Commerce, the Chamber of Industry and Crafts, and the Chamber of Agriculture have the right to comment on early curricula drafts and thus to influence their development. Similarly, in the UK institutional arrangements are in place to ensure that employers are represented in the design of some vocational courses.

Social partnership is less evident within the compulsory education system, but is much more evident at higher levels. This is particularly with respect to higher level vocational courses that grant access to a particular profession or trade. Here the general structure is one of the State setting an overall framework within which typically licensed trade or professional bodies, which include the social partners, set curricula.

There has been a trend towards increasing the autonomy of schools and Regional and Municipal authorities in preparing curricula. In Austria, schools may decide on the amount of time dedicated to different subjects; in Spain it is responsibility of the Autonomous Regions to establish the curricula guidelines for each qualification; and in Sweden school plans describing how schools are to be run are defined by each municipality.

Overall, there is more autonomy the higher the level of education being provided. At lower and upper secondary schools (especially the more academically inclined courses), the role of the State in setting and approving curricula is much more pronounced than at higher levels where their role is to approve the courses established by vocational institutions.

Country Transversal Summaries:

Austria:	The curricula are legislated by the Federal Ministry of Education, Science and Culture and designed by experts from the Ministry of Education, Science and Culture, with support from school inspectors, teachers and external experts. Social partners have the right to comment on newly drafted curricula, which are circulated by the authorities. School autonomy has increased in recent years and schools may decide on the amount of time dedicated to different subjects.
Belgium:	Individual education institutions have a degree of autonomy in establishing curricula subject to meeting minimum standards established in the communities. In **Flanders,** the government establishes minimum teaching time and obligatory subjects but allows individual educational institutions to depart from the minimum teaching time on the condition that the same educational level for the core curriculum is guaranteed. Institutions have more autonomy in the later stages of upper secondary education. In the **French community**, each organising authority and even each establishment can decide its curricula (subject to ministerial approval), its teaching methods, and delivery.
Cyprus:	Curricula are developed by the Directorate of Secondary Technical and Vocational Education in cooperation with advisory committees, organised agencies of employers and employees, and the Human Resource Development Agency. The theoretical direction of upper secondary VET is completely school based. The practical direction combines school-based learning and work-place training during the third (last) year.
Czech Republic:	In general, the curricula of secondary technical and secondary vocational schools are approved by the Ministry of Education, Youth and Sports (MSMT). Curricula for healthcare programmes are approved in agreement with the Ministry of Health. Specific curricula may fall within the jurisdiction of the Ministry of Defence, Ministry of the Interior, and the Ministry of Justice. Curricula are developed according to levels and filed of education with a separate curriculum for each field of education. The MSMT has delegated the responsibility for developing curricular documents to the National Institute for Technical and Vocational Education (NUOV). Information collected by "branch groups" is used in the development process. There is continuous innovation of curricula with updates at least once in 10 years.
Denmark:	Subjects, assessment procedures and other details of IVET programmes are set out by executive orders prepared by the Ministry of Education, the Vocational Education Council and the relevant trade committees. The latter are strongly involved in reviewing and amending executive orders. Curricula for upper secondary vocational education, including assessment and requirements, are decided by the Ministry of Education.
Estonia:	Curriculum regulation is strict. VET institutions prepare their curricula in compliance with relevant standards that take into account labour market needs. Teachers, employers and professional associations are involved in this process. The body in charge of approving curricula for VET is the

	National Examination and Qualification centre.
Finland:	Core curricula are approved by the National Board of Education; detailed contents and methods are defined by the VET providers, taking local needs into account. Personal study plans are agreed between the student and the institution to define how the programme will be covered.
France:	Vocational diplomas are created by the Advisory Professional Commissions (CPC). Diplomas are updated every five years, on average. Diplomas are implemented by the Ministries governing them. The decision to maintain a diploma is also left with the CPCs, based on assessments carried out by ministerial departments or specialised organisations, such as CEREQ, the Research Centre on Employment and Qualifications, which is responsible, in particular, for studying trends in young people's entry to the job market.
Germany:	Curricula for all types of school are the responsibility of the Ministries of Education and Cultural Affairs in the Länder. The curricula are published as regulations of these Ministries. It is the responsibility of the head teacher to ensure that the current curricula are taught at his/her school but, curricula are formulated in a general way so as to give freedom over the method of delivery however, there is a degree of consensus on methods and assessment criteria within schools. A commission is appointed to develop curriculum. Curricula not only deal with the contents, but also the course objectives and teaching methods. Experience gained with previous curricula is taken into account when it comes to devising new ones. In some Länder, curricula are launched on a trial basis before being finalised. There are set procedures according to which the commission may consult associations and parents' and pupils' representative bodies. Once a new curriculum has been completed and is introduced at schools, the in-service training institutes for the teaching profession maintained by the Ministries of Education and Cultural Affairs are charged with training teachers to work with it.
Greece:	The Ministry of Education and Religious Affairs has ultimate responsibility for curricula. The Ministry delegates responsibility for developing curricula to: • the Pedagogical Institute – a scientific pedagogic body, responsible at the level of primary and secondary education for the conduct of vocational research, the development of curricula, the development of educational material and the training of teachers; and • the Secondary Education Studies Department in the Ministry of Education and Religious Affairs, which has responsibility for the application of the general and vocational education curricula, in collaboration with the relevant regional agencies.
Hungary:	The curricula for the general education years of both types of vocational training schools are developed by the institutions in compliance with the requirements of the National Core Curriculum and following the recommendations of the framework curricula issued by the Minister of Education for every school type. As for vocational education years, the corresponding curricula are known as 'professional programmes' and are

	developed by the institutions in accordance with the professional and examination requirements of the relevant qualification and the recommendations of the framework curricula. Labour market needs are therefore taken into account through the established requirements, which are developed in cooperation with the representatives of the economy and the social partners.
Iceland:	Curricula are defined by each training provider, based on the law on upper secondary education and the general curricula as defined by the Ministry of Education, Science and Culture.
Ireland:	The National Council for Curriculum and Assessment (NCCA) is the primary body that defines the curricula in primary and secondary schools. It has been in a process of constant monitoring and reform since its inception in 1987, and was responsible for the introduction of the LCA and LCVP.
Italy:	For vocational and technical schools, curricula are established by the State. For initial training courses it is established by the Regional Authorities.
Latvia:	VET curricula were developed on the basis of two standards defined by the Ministry of Education and Science and approved by Cabinet Ministers. These are the National Standard for VET and the Occupational Standard. The latter was initially drafted by trade unions, employer organisations, professional organisations, and educational establishments, and eventually adopted by the Ministry of Education and Science.
Lithuania:	Training programmes are developed following the relevant standards and regulations for training plans approved by the Minister of Education and Science each year. The curricula are drafted by a working group set up by the director of the vocational school. The draft is then coordinated with regional Chambers of Commerce, Industry and Crafts or the Chamber of Agriculture. The draft is then addressed to the Methodological Centre for VET evaluation. If a positive assessment is made, then three experts visit the school to assess the ability to implement the programme. The Minister of Education and Science makes a decision whether to license the school to provide the programme and register it. Curricula tend to be reviewed and updated every 3 to 5 years using the same procedure. Employers are also involved in the assessment procedure.
Netherlands:	In each sector, national expertise centres for vocational education, training and the labour market are active as a link between education and the labour market. One of their tasks is to develop and maintain 'exit' qualifications. An occupational profile is translated into competences and qualifications. Under the Adult and Vocational Education Act, educational institutions are free to devise their own programmes for the courses they offer on the basis of the exit qualifications.
Norway:	Curricula standards for upper secondary VET are developed by the relevant social partners and industries through the Vocational Training Councils and the National Council for Vocational Training. Decisions on how the curricula are to be structured and delivered are made by the county authorities.
Poland:	The Vocational Core Curricula, prepared by the Ministry of National

	Education and Sport, define the vocational skills and competences mandatory for each listed occupation. Vocational Curricula are developed on the basis of the Vocational Core Curricula and provide details of the learning contents as well as the educational process for each upper secondary VET programme. Vocational Curricula may be drafted by the Ministry of National Education and Sport or other interested entities.
Portugal:	The courses are divided into modules of varying length, which can be combined in different ways and cover three components: socio-cultural, scientific and technical training. The technical component varies from course to course and accounts for approximately 52 % of total training hours, of which 13 % are spent training in a work environment.
Slovakia:	The National Institute of Education and the State Institute of Vocational Education are responsible for designing general and VET curricula, respectively. These institutes were established by the Ministry of Education. The basic pedagogical documents (ZP) stipulate the main components of the curricula, as well as formal entry and exit requirements to programmes, descriptions of contents and graduates' profiles, as well as timetables. Knowledge and skills of graduates are explicitly established. Educational institutions have the right to change 10 *per cent* of the weekly teaching hours and 30 *per cent* of the content.
Slovenia:	The Centre for Vocational Education and Training and the Slovenian Centre for Adult Education assist with matters related to the review of vocational education curricula. Review processes are initiated by changes in the needs of the labour market. All programmes cover the following subjects: Slovenian languages; • Mathematics; • foreign languages, • arts; • social sciences; • natural sciences; • physical education; • specialist subjects; and • practical training. As an exception, short-term courses do not include arts and special arithmetic is provided instead of mathematics. The proportion of time devoted to each of these activities varies depending on the programme. Work placements are not part of secondary vocational and technical education courses. Curriculum development has benefited, in the initial training area, from both the Phare 1994 VET and bilateral aid programmes.
Spain:	It is the responsibility of the Autonomous Regions to establish the curricula guidelines for each qualification in the region, and the teaching centres are in charge of developing these curricula. It is responsibility of

	the government to review the available qualifications and, when necessary, to update or create new ones, to ensure that changing vocational requirements are met.
Sweden:	Local school plans describing how schools are to be run are defined by each municipality. These plans are based on the national objectives and guidelines for public education laid down by the Swedish Parliament and Government. The Principal of each school, in consultation with the school's teachers and other relevant staff, draws up a work plan based on the municipality's local school plan. Local school plans include a description of the role of the labour market in students' workplace training.
United Kingdom:	There is an important distinction between the regulation of qualifications, which is the responsibility of the national bodies in each of the nations, and the programmes of studies that a particular college or school will offer its students. In planning both general and vocationally related courses, providers have considerable autonomy, in deciding which qualifications and options to offer and in planning the timetable. NVQs / SVQs are based on National Occupational Standards for each occupation, drawn up by the relevant Sector Skills Council in close co-operation with employers in the sector. Awarding bodies use these standards to develop qualifications (including arrangements for assessment and quality assurance), which are then submitted for accreditation to the Qualifications and Curriculum Authority (QCA) for use in England, Wales and Northern Ireland or to the Scottish Qualifications Authority (SQA) for use in Scotland. For all qualification the awarding body/bodies draw up the specifications for the qualification as it is to be examined, define the modes of assessment (external examination, internally set project, practical work, etc), establish a system of assessment, including marking and grading students' work; provide sufficient numbers of trained markers, assessors, moderators, as appropriate and establish an effective sustainable system of quality control.

04030201 Content and delivery

Description:

How courses are designed and delivered.

Synthesis:

The general principles that guide the content and delivery of courses are the following:

- provision of both general and vocational specific education (sometimes this is specified as a certain number of hours that is to be devoted to each activity);
- obtaining both a theoretical and practical education given the particular vocation;
- provision of cross-disciplinary skills in an attempt to provide transferable skills.

This very much depends upon the level at which a course is being taken with a tendency for general education to be emphasised more at lower levels. Great variety in the content and structure of IVET is apparent across countries.

Some countries offer more than one vocational option, with one being more academically oriented than the other and thus with a greater proportion of general and theoretical content. In Austria, VET colleges allocate an equal proportion of the time to general education subjects, specific theoretical subjects and practical training; but IVET schools which are more vocationally oriented allocate half of the time to practical training and the remaining time is divided between general education and specific theoretical subjects. A similar situation can be observed in Cyprus, Denmark, Latvia and Slovakia. In the UK, the emphasis is very much upon vocational skills with general education provided only where it is of direct relevance to the vocational course.

Country Transversal Summaries:

Austria:	The proportion of general education subjects, specific theoretical teaching and practical training varies between VET schools and colleges. VET colleges allocate an equal proportion of the time (1/3) to each of these activities. At VET schools general education subjects take up ¼ of the time, ¼ of the time is allocated to specific theoretical teaching, and ½ of the time is dedicated to practical training.
Belgium:	*see 040302*
Cyprus:	The theoretical direction is school based; 58 per cent of the total programme consists of general education subjects and 42 per cent of technology and workshop subjects. The practical direction includes work-based learning during the last year; 57.5 per cent of the time is allocated to technology and workshop subjects and 42.5 per cent to general education subjects. Curricula emphasise the development of skills such as problem solving, communication and creativity. Innovative teaching methods are used to help students acquire new skills.
Czech Republic:	The Standard of Secondary Vocational Education and Training (1998) sets out the objectives and content requirements for secondary VET at national level. The requirements are differentiated in terms of levels of education and sectors. The document sets out the proportions of the different programme elements and the respective requirements. Programmes leading to *maturita* must comprise 45 *per cent* general education elements and 55 *per cent* VET elements while programmes leading to a vocational certificate must comprise 30 *per cent* general education and 70 *per cent* VET elements. This ratio is not identical in all years and programmes. General education elements include language and literature, mathematics, civic education, physical education and ICT. Practical skills are acquired through practical training, laboratories and workshops and through workplaces.
Denmark:	IVET programmes include four types of subjects: general (1/3), general vocational (1/3), electives (1/6) and subjects related to the skilled worker's certificate (1/6). The programmes start with a basic level of training followed by a main level. Basic training last between 10 and 60 weeks and give students insight into the chosen field. Main programmes last 3.5 years and it is at this level that in-company training takes place. Vocational upper secondary programmes last for 3 years and subjects are more theoretical and less practical than IVET programmes. Subjects are general vocational ones and students can choose between the commercial and the technical branch.
Estonia:	Upper-secondary vocational education lasts at least 120 study weeks and accepted students are required to have completed basic education. A basic skills module is compulsory for all students. The students acquire the knowledge, skills and competences necessary for independent skilled work over at least 35 study weeks. The work load comprises 50 *per cent* of theoretical studies, 25 *per cent* of school-based practical training and 25 *per cent* of training in an enterprise.
Finland:	Upper secondary VET is provided mainly by institutions owned by the

	local authorities and joint municipal boards. The curricula include vocational, core and free choice subjects, as well as work-place training.
France:	Diploma programmes are divided into general subjects, technical subjects and on-the-job training. Depending on the type of diploma, emphasis may be placed on broad skills groups (BEP, Vocational Baccalaureate) or on specialisms (CAP, Vocational Certificate, Technician's Certificate). Vocational diplomas are arranged into general and vocational certification credits. Each examination includes one or more cumulative credits. The grades received for each credit are recorded for a five-year period following the date they were earned. Diplomas of the same level may require common skills. The balance of general instruction, vocational instruction, and enterprise-based apprenticeship varies from diploma to diploma.
Germany:	At *Berufsfachschulen* instruction is given in general/ multidisciplinary and subject-specific areas. The ratio of general to specific subjects varies from 20:80 to 50:50, depending on the type of course, the occupational field and on the Land. Teaching in the two areas of learning accounts for at least 30 periods per week. Practical training periods vary from a few weeks up to a third of the course, depending on the occupational field/the Land. The *Fachoberschule* is divided into the fields of study including business and administration, technology, health and social work, design, nutrition and home economics, as well as agriculture. Training includes instruction and professional training. General subjects comprise 50% of the course, field-specific 15% and practical training 35%. Practical training takes place in grade 11 as a relevant controlled placement in companies or equivalent institutions. Completed relevant vocational training can serve as a substitute for grade 11 of the *Fachoberschule*, so that pupils with such qualifications can proceed directly with grade 12 of the *Fachoberschule*. In the *Berufsoberschule* pupils attend for two years with instruction covering approximately 30 periods in total. The ratio of general to specialised subjects is 50:50. Apart from the general subjects offered at a Gymnasium, the *Berufliche Gymnasium* has career-oriented subjects like business, engineering, nutrition and home economics and agronomy, as well as health and social studies, which can be chosen in place of general subjects as the second intensified course. In individual *Länder*, information and communication technology is also offered within the scope of pilot projects.
Greece:	In the first year of the 1st circle of studies at the Technical Vocational Schools (TEEs), there are 14 hours of courses in general education (including Religion, Modern Greek Language, History, Mathematics, Physics, Chemistry, Gymnastics, Foreign Language and PC applications (computing)) and 20 hours of vocational courses each week (34 hours of instruction each week). In the second year of the 1st circle, there are 10 hours of general education and 24 hours of vocational courses (34 total instructive hours per week). In the 2nd circle of studies, there are 8 hours of General Education and 26 hours of vocational courses provided each week. General education

	comprises 33-37 *per cent* of the curricula in the 2nd circle. The study year for TEE starts on the 1st September and ends in June of the following year. Over the course of the study year, courses are taught and various examinations take place.
Hungary:	Content and delivery vary according to the type of the school and the qualification(s) offered. Secondary vocational schools provide the first four years of (primarily) general education at upper secondary level preparing students aged 14-18 years to take the maturity examination. After these four years, these schools offer one or more years of IVET leading to a recognised vocational qualification at post-secondary level. Vocational schools, on the other hand, offer two years of (primarily) general education and, typically, two more years of vocational education and training to students aged 14-18 years leading to a recognised vocational qualification at the end of their training programme and after passing the vocational examination. In the first two years of general education, vocational schools must provide career orientation, practical training, and 'vocational grounding' including practical training.
Iceland:	This type of studies is delivered solely at schools and includes core skills such as Icelandic, mathematics, life skills, and physical education as well as in depth knowledge of the chosen subjects.
Ireland:	The Leaving Certificate (Established) lasts two years and students normally study six or seven academic subjects at ordinary or higher levels. The LCA also lasts two years and involves students in work and study with a practical, task orientation. Students take a number of courses lasting a half year each, for which their achievements are credited. The LCVP is based upon students taking the Learning Certificate (Established), but including at least two vocational courses. They must take three activity based Link Modules: enterprise education; preparation for the world of work; and work experience.
Italy:	In the vocational and technical schools the content is divided between general education (covering subjects common across all courses) and education/training in a given area of specialisation. In the technical schools the first two years are given over to general education, whereas there is more of a balance in the vocational schools over the entire period of study. In schools offering the vocationally oriented module, students are taught by an expert from industry and receive work experience.
Latvia:	For Vocational Education (ISCED level 3C), the National Standard states that the ratio of theory to practice should be 35:65. For Vocational Secondary Education (ISCED levels 3A and 3B), these ratios are 50:50. In both cases, 60 *per cent* of the theoretical courses must cover general academic subjects and the remaining 40 *per cent* should be devoted to professional subjects.
Lithuania:	Level 2 and 3 programmes include vocational and general cultural subjects. Level 3 also includes general education subjects. Broad occupational skills are emphasised. Specialisation subjects make up 10 to 15 *per cent* of the total allocated subject time. Vocational subjects comprise the largest part of programmes. Vocational subjects are divided into three groups:

	• basic specialty subjects; • specialist subjects; and • practical training (which may be continuous or split into separate parts).
Netherlands:	The content of the courses and the method of delivery is the responsibility of the individual educational institutions. Each course includes practical training. The percentage of practical training depends on the chosen pathway. Great importance is also given to practical occupational training to ensure a good connection with occupational practice. Strengthening of the on-the-job part of vocational training courses is an important item on the policy agenda.
Norway:	All upper secondary curricula start with two years of school-based education consisting of mainly theoretical subjects. Curricula for general and vocational upper secondary VET are similar during these two years making it easy for vocational students to move to general education. Upper secondary VET students take two more years of apprenticeship training in an enterprise or public institution. This path is known as the '2+2' model. Apprenticeship training is delivered by individual enterprises or groups of enterprises that cooperate through a local Training Office. Curricula may vary according to the nature of the different trades.
Poland:	The curricula define the key competences or generic skills that students must develop at school. Upper secondary VET is provided by different types of schools and these may be public (state funded) or non-public. Their curricula include vocational and general subjects.
Portugal:	In general, courses offered at this level include general, scientific and technological components. Technological Courses and Vocational Courses last for 3 years and include workplace training.
Slovakia:	VET offered within the *study* programmes are characterised by the dominance of theory over practice, while, for *training* programmes, the share of practical training is such that it leads to an apprenticeship certificate.
Slovenia:	In the 1998/99 school year, there were 156 secondary schools for youth (providing general, vocational and technical-professional courses); six of which were private. Given the current early stage of reform, not all new areas have been developed yet and curricula for occupations in the environmental field, information technologies and financial control are yet to be designed. Curricula revision shall put more emphasis on the integration of work and learning, and on the development of core skills and competencies such as problem-solving, teamwork, and communication skills. Programmes are to some extent still education- rather than labour market-driven, and there are opportunities for introducing in-company training elements. VET teachers need support (through training and other initiatives) to be able to deal with new technological and pedagogical challenges. On average there were 26.4 students *per* classroom at the secondary level of education. There were on average 12.1 students *per* teacher in public secondary schools, while in private schools there were 10.2 pupils *per* teacher. There are no significant differences between urban

	and rural areas.
Spain:	Middle level vocational schooling consists of a combination of school based and workplace training (the number of hours devoted to each activity is between 1,300 and 2,000 school based and 300 and 700 workplace training). School based training includes a mix of theoretical and practical training. School based training modules may be related to particular skills, or cover basic or cross disciplinary skills. Workplace training is obligatory, except for those who can prove sufficient relevant previous experience. The aim of workplace training is to complement the skills acquired at the education centres. All training cycles include a module on advice and guidance on workplace issues such as legal advice and health and safety matters.
Sweden:	All programmes include 8 core subjects (750/2500 credits), programme specific subjects (1450/2500 credits), and elective/individual choice courses (300 credits). Most vocational programmes include at least 15 weeks of workplace learning. Most programmes are divided into different specialisations after either the first or second year of study.
United Kingdom:	The content and assessment arrangements for each qualification are determined by the awarding body, subject to the accreditation requirements of the regulatory body and following the requirements of National Occupational Standards, as appropriate. The schools and colleges decide what programmes to offer and by what mode (e.g. full or part time), take major responsibility for decisions on the delivery of the curriculum, programmes of study and pedagogy to be used and undertake much of the assessment. Some qualifications, especially vocationally related qualifications, have a core-plus-options structure, allowing some flexibility for students to choose optional subjects which match their own interests or their employer's needs. All programmes have a mix of practical work and theory. Almost all emphasise the practical and work-based applications of the knowledge and use a practical, 'hands on' approach to learning, emphasising resource-based learning and learning through doing. General education plays little part in UK vocational qualifications, except where a subject such as Mathematics is required for the understanding or application of the theory. All vocationally related programmes of study for young people are expected to include an element of 'key skills', specifically Communication, Application of Number and ICT. Most programmes also include the 'wider key skills' of 'Working with others', 'Improving own learning and performance' and 'Problem solving'.

04030202 Assessment

Description:

How assessment is made of whether an individual has successfully completed their course.

Synthesis:

Three forms of assessment are evident:

i. examination;
ii. coursework;
iii. assessment of practical capability.

Depending upon the course, all three tend to used in combination although the balance between them varies by course and country.

There is considerable variety in relation to the means of assessment both between countries and between different types / level of course. In some instances the balance is tipped towards continuous assessment of skills learnt, in other cases there are both written and practical examinations. The assessors are sometimes professionals in their field where the assessment is of practical skills.

Standardised school-leaving examinations take place in several countries: Cyprus, Ireland, Latvia and Poland. In Cyprus, the school-leaving examination is organised by the Ministry of Education and Culture, whereas in Ireland the Leaving Certificate (Established) is awarded through examinations set by the State Examinations Commission. Vocational secondary education is completed with State examinations in Latvia, and in Poland students may take the Vocational and Maturity examinations prepared by the Territorial Examination Commission.

In addition or standardised examinations taken at the end of school year or a specific cycle, students are also constantly assessed with oral or written tests, projects and assignments. In Finland, for example, assessment takes place at regular intervals during and after the study period, and a similar case is observed in Cyprus, Denmark, Greece and Poland.

Assessment may have a role to play in giving the education system vertical flexibility. For instance, in Estonia the Government plans to harmonise IVET and the applied higher education assessment process to ease students' transition from one educational level to the next.

Country Transversal Summaries:

Austria:	Students are graded on a five-point scale system on their written, oral and practical performance. They must achieve a minimum of 4 in every subject to complete each level; if this is not the case, they may be allowed to sit an examination. School leaving examinations are taken at the end of the last year of secondary education. Exams are not standardised, but prepared by subject teachers and approved by the regional education authority.
Belgium:	In **Flanders,** assessment is based on tests and examinations organised by the individual teachers under the ultimate responsibility of the governing body of the school. Continuing assessment is also possible. In secondary education, the *class committee* is the essential assessment instrument. The *class committee* consists of the school head or a representative of the head and all members of the teaching staff. The *class committee* is also responsible for instruction of a specific group of pupils, the assessment of their school progress, the decision regarding each pupil's promotion to a higher class, and the issuing of certificates where appropriate. In the **French and German communities** schools and educational establishments have responsibility for the evaluation of studies. The government acknowledges the competence of schools to deliver certificates in so far as they are submitted to a ratification procedure. An inspectorate is responsible for ensuring that standards in education are upheld.
Cyprus:	Students are constantly evaluated with tests, projects and assignments. Final examinations take place at the end of the first and second year of studies and are organised by each school. The school leaving examination, taken at the end of the third year, is organised by the Ministry of Education and Culture. Students are evaluated on a 1-20 point scale and they are awarded a Leaving Certificate if they achieve a minimum of 10 in all subjects.
Czech Republic:	General requirements regarding student assessment are determined by the Ministry of Education, Youth and Sports (MSMT). There is a growing trend towards peer assessment and self-assessment. There are various methods of continuous assessment which are related to the content and focus of the relevant subject. Students receive school performance reports twice a year. Final assessment takes place in front of an examination board in the form of either a final or *maturita* examination. All final examinations are entirely or largely designed to test students' performance in the programme's vocational component.
Denmark:	IVET concludes with the skilled worker's examination. Students are also assessed at the beginning and end of each training period, with oral and written examinations. Upper secondary vocational education programmes are assessed, with subject examinations prepared by the Ministry of Education. Examinations can be oral, written or consist of project work. Attendance on the course is compulsory in order to enrol in examinations in both cases.
Estonia:	Upper secondary vocational education students are assessed after

	completing each subject. Exams consist of written, oral and practical components and students are evaluated on a 5-point scale. Examinations are carried out by a board of representatives of professional associations and employers. The government plans to standardise the VET and applied higher education assessment process to ease students' transition from one educational level to the next.
Finland:	Assessment takes place at regular intervals during and after the study period. Assessment methods are aimed at measuring competences against the objectives of the course. 'Skills demonstrations' are being piloted as an assessment method that allows students to demonstrate their acquired skills in situations that are as 'realistic' as possible.
France:	The examination panel is composed of an equal number of instructors and professionals. Students are evaluated on written, oral and hands-on examinations. The certification guidelines are set out at the national level, as are the curricula, types of exams and pass marks. Each school district or region, however, sets out the content of the exams. Panels meet at the end of the school year.
Germany:	In all types of schools, each pupil's achievement is continuously monitored by means of written tests and an assessment of the pupil's oral and practical work. A summary of each pupil's achievement is evaluated in the form of mid-year and year-end reports. Before moving up to the next year, a pupil must fulfil certain minimum requirements in all relevant subjects. There are written and oral exams for each type of school at the end of the programme.
Greece:	At the Technical Vocational School (TEE), evaluation and assessment of students takes place during teaching in the form of oral examinations and through intermediary written examinations. Other assessment takes place through individual or group assignments of work (typically written reports). At the end of each year of study, the final written examinations are held. The objective of the year-end examinations is the final assessment of the students' knowledge, critical skills and competences acquired during the year.
Hungary:	Students' are assessed continuously by their teachers/trainers and by national examinations. The requirements and forms of assessing and grading students, including oral and written tests and the conditions of progression to higher grades, are defined in the school's pedagogical programme. Additionally, national examinations are conducted for both general and vocational subjects. The General Knowledge Examination, based on the requirements developed by the institution, may be (it is not compulsory) organised at the end of the 10th grade in both types of vocational training schools to provide students with a certificate of general education. The Maturity Examination is relevant only to secondary vocational schools and is organised at the end of the 12th grade. This examination is conducted in front of an examination board comprising school teachers and a person delegated by the Ministry of Education. Vocational practical training provided either in a school workshop or at a

	workplace may be assessed by the training provider at a level examination in the 11th or 12th grade. The vocational examination (leading to a vocational qualification) takes place at the end of a training programme in front of an independent examination board. The latter comprises a president nominated by the minister of the relevant field, as well as representatives of the institution organising the examination and the competent local chamber of the economy.
Iceland:	Most courses are assessed continuously (giving 30-50 *per cent* of final grade) and through examinations held at the end of every semester (the remaining 50-70 *per cent*).
Ireland:	The State Examinations Commission sets, examines and awards qualifications in the secondary school system. The Leaving Certificate (Established) is awarded primarily through examination. The LCVP is also awarded through examination, but 60 *per cent* of the marks for the Links Modules can be awarded through course work. The LCA is awarded through assessment and a final examination.
Italy:	Assessment is based upon general education and occupational/sectoral skills relating to the particular qualification in question, and is based upon both examination and practical work. At the end of the five year pathway at technical schools and the post-qualification course in vocational schools, students take an examination set by the State which comprises three written tests and an oral test. The tests are designed to assess the students' language skills, critical abilities, and subject knowledge. Students can also gain credits based on their school work over the past three years, or on their training experiences outside of school. At the end of the first two years in vocational school, the student takes two written tests: the first to test their language skills and critical abilities; the second to gauge their occupational skills and problem solving abilities. At the end of the initial training courses in the Regions an examination is taken.
Latvia:	Vocational and Vocational Secondary Education are both completed with State examinations. In the former case, students must sit a professional qualification examination, consisting of a theoretical and a practical part. In the case of Vocational Secondary Education, students are required to sit a similar professional qualification examination, plus four examinations in academic subjects.
Lithuania:	Final assessment is delegated to social partners through the Chambers of Commerce, Industry and Crafts. The Chambers delegate representatives from employers to the Qualification Exam Commission which assesses students. The exam is divided into two parts: i. a written test; ii. a practical task to demonstrate skills (if the written test is passed). For general education subjects in Level 3 programmes, students take the same exam as those in general education. The assessment is unified and the national exams are undertaken in special exam centres.

Netherlands:	The educational institutions set their own examinations and award certificates on the basis of the exit qualifications, laid down for each qualification within the qualification structure. Assessment takes place throughout the programme for separate parts of the course. There are no national exams, but there are national standards. Exit qualification and attainment targets are set in the national qualification structure. The quality of examinations is monitored by the Quality Centre for Examinations (KCE).
Norway:	The Directorate of Primary and Secondary Education issues national guidelines on assessment, but exams are generally developed at a local level. Assessment is conducted throughout the course and includes both formal and informal methods. The final trade or skilled worker's examination requires students to demonstrate the skills acquired in front of a group of experts. The content of the examination is defined by the county Vocational Training Committee.
Poland:	Assessment comprises internal and external evaluations. The former include assessment of students' daily work, as well as a mid-year evaluation. External evaluations include the Vocational Examination (confirming vocational qualifications) and the Matura Examination (secondary school examination). The Vocational Examination is not compulsory. External examinations are prepared by the Central Examination Commission and the Territorial Examination Commission, both are independent of the schools.
Portugal:	Information not available.
Slovakia:	Teachers, in general, are responsible for developing oral, written and practical forms of assessment for their pupils. Written forms of examination are increasingly being used as alternatives to the traditionally used oral examinations. Standardised tests are only available for general subjects.
Slovenia:	In general, pupils are assessed on all subjects during three assessment periods each academic year. In each assessment period, the grades refer to oral, written, and numerical aspects. The assessment scale is from 1 to 5, where 1 means that the pupil did not show a satisfactory level of knowledge. At the end of the school year, an overall achievement grade is awarded depending on all grades in individual subjects. Pupils go on to the next class if they have passed all the subjects and they meet all the other conditions set by the curriculum. At the end of the school year, pupils may re-take the exams in a maximum of three subjects they have failed. Students that successfully complete four years of education in a secondary technical school take a vocational *matura* exam in front of a commission (board of examiners) whose members are not only teachers but experts proposed by the appropriate chamber of employers. Part of this exam is external. Students that successfully complete a short-term vocational course or a vocational secondary course take a final examination in front of a board of examiners comprising teachers and experts proposed by the appropriate

	chamber of employers. Final examinations have both theoretical and a practical components.
Spain:	Following basic national regulations, each Autonomous Region is responsible for regulating the assessment of Specific Vocational Schooling. To complete a training course, students must achieve a pass grade in all individual modules. Modules are assessed using a 'continuous assessment' system that takes into consideration the level of skills to be developed and the maturity of the student.
Sweden:	Marks are awarded for subjects completed and for special project work. Teachers are recommended to use national tests set by the National Agency for Education in order to support compatibility of study outcomes.
United Kingdom:	Awarding bodies have overall responsibility for assessment, subject to the requirements of the regulatory authorities and to any assessment guidance, which forms part of the relevant National Occupational Standards. Awarding bodies must also satisfy the regulatory authorities that they have systems in place to ensure that all assessment is 'fit for purpose', i.e. valid, reliable and cost-effective. Assessment methods vary according to the nature of the qualification and the subject. Many vocationally related qualifications are assessed by a mixture of externally set and marked written examinations, written or practical assignments, set and marked by the college, and assessments of practical skills made by the college. For externally set and marked examinations awarding bodies have quality control procedures, which normally include checks on the draft examination papers before use (by subject experts including teachers) and procedures to ensure consistency between those responsible for marking candidates work. Many qualifications are modularised and individual modules may be taken at intervals during the course.

04030203 Quality assurance

Description:

How quality assurance is guaranteed in the content and examination of knowledge and competence.

Synthesis:

There are a variety of bodies in place to guarantee standards but the regulations and standards they adopt are nearly in all cases passed down from a State authority at a national or Regional level. In most instances there is a quality assurance organisation that operates across qualifications or for a particular qualification.

It is thus possible to distinguish a number of regional or local bodies aimed at ensuring that quality of education is maintained at the school level. In the Netherlands, the education Inspectorate, on behalf of the Minister of Education, Culture and Science, is responsible for monitoring the quality of all educational providers by carrying out regular inspections of educational institutions. In Cyprus, branch inspectors ensure that curricula are properly implemented, supervise the role of educators and ensure that the infrastructure of technical schools is used efficiently. And similar arrangements are reported for Austria, Finland, France, Ireland and Sweden.

Another method used to maintain high quality standards in schools is the use of self-assessment procedures. These procedures require schools to evaluate themselves against a set number of criteria and to submit reports indicating both strengths and areas where improvements can be made. The implementation of self-assessment varies across countries. One the one hand, Austria is at its early stages and initiatives have been aimed at encouraging schools to take measures to ensure quality and foster improvement. In the Netherlands, on the other hand, institutions are required to set up and maintain a quality assurance system and are expected to be self-regulating.

At a macro-level, the Ministry of Education is responsible of ensuring that upper secondary education, including IVET, maintains a high quality standard and achieves its objectives. In most cases, tasks are delegated to special branches of the Ministry of Education (e.g. an Inspectorate). Bodies such as the National board of Education in Finland, and the National Institute for the Evaluation of the Education System in Italy are responsible for evaluating the education and training system.

In countries where employers participate in the provision of IVET at upper secondary level, special arrangements have been adopted by some countries to ensure that quality is maintained. Employers that participate in the third year of the practical direction in Cyprus are responsible for the proper implementation of the given technical programme. In Denmark, company appointments last between two and four years and may be withdrawn by the relevant trade committee if the company fails to meet its obligations. As for France, the quality of the working conditions in enterprises in ensured by Labour inspectors who report to the ministry in charge of labour.

Finally, there are some countries, such as Norway and Slovakia, where no specific mechanisms or bodies for ensuring quality assurance were specified. Furthermore, in Estonia, final examinations were reported as the main means of measuring the quality of VET programmes; in Iceland, the quality of VET programmes is assured by ensuring teachers and

trainers are properly qualified and have adequate work and/or teaching experience; and in Greece the main form of quality assurance is educational guidance provided to teachers by school counsellors.

Country Transversal Summaries:

Austria:	Monitoring systems are established at national and regional level. School inspectors and representatives from regional education authorities monitor performance and compare quality across schools. Recent developments include initiatives to encourage schools to take measures to ensure quality and foster improvement.
Belgium:	In general, the *class committee* is responsible for regular review of pupils. An inspectorate monitors the quality and equivalence of provision in compulsory education. Where a school is found to be inadequate, the steering committee forwards a report to the government who takes appropriate measures or disciplinary action.
Cyprus:	Branch inspectors ensure that the curricula are properly implemented, supervise the role of educators and ensure that the infrastructure of technical schools is used efficiently. Employers that participate in the third year of the practical direction are responsible for the proper implementation of the given technical programme. Technical schools are inspected every two years by the inspectors of the Directorate of Secondary Technical and Vocational Education.
Czech Republic:	Evaluation of schools and assurance of the quality of education are carried out through self-evaluation and external evaluation. The Czech School Inspectorate (CSI) is the authority for external evaluations. It identifies and evaluates the situation, implementation and outcomes of education, the compliance of schools with regard to school-based curricula. CSI also evaluates the efficiency of the education system and ensures that legal regulations are observed and that public resources are spent efficiently. Self-evaluation of schools is carried out according to the regulations and deadlines determined by the MSMT. The results of self-evaluation form the basis for the development of an annual report about school activities and serve as background material for the CSI's external evaluation. Schools assess the quality of vocational training (including work placements and practical training in companies). Teachers are in regular contact with the workplaces.
Denmark:	Colleges are inspected by advisors of the Ministry of Education. Failure to conform to quality criteria can prevent colleges from being recognised as training providers and can lead to appointments being withdrawn. Company appointments last between two and four years and may be withdrawn by the relevant trade committee if the company fails to meet its obligations. Since 1996, the Ministry of Education initiated a series of projects to develop a framework for evaluation and quality assurance. The National Evaluation Institute was established in 1999.
Estonia:	Final examinations are the main means of measuring the quality of VET programmes. The National Examination and Qualification Centre is responsible for the quality and development of the curricula. Both local governments and the Monitoring Department of the Ministry of Education and Research supervise the completion of the curricula and perform supervisions upon request.

Finland:	At a national level, the National Board of Education evaluates the outcomes of educational institutions. The Evaluation Council, in connection with the Ministry of Education, is in charge of coordinating and developing the evaluation of education. At a regional level, the Provincial State Offices evaluate and monitor educational institutions, and provide the information needed for national evaluations. Performance based funding has been in operation for VET institutions since 2001.
France:	The school system is assessed by the director of education and (representative of the regional authority –conseil regional) and *recteurs* (representatives of the ministry of Education). Administrative marks are assigned. The school system itself is evaluated by general inspectorates. The quality of the working conditions in enterprises is ensured by labour inspectors, who report to the ministry in charge of labour. Surveys are also carried out each year by schools, regional authorities, by the ministry in charge of Education, or by CEREQ. These surveys are aimed at supplying information on the employment and unemployment rates of students 6 months and 1 year or more after completing their studies. This information is used to create or eliminate specific programmes.
Germany:	School supervisory authorities exercise three types of supervision within the school system: • *Fachaufsicht* (academic supervision); • *Rechtsaufsicht* (legal supervision); and • *Dienstaufsicht* (staff supervision). Civil service guidelines stipulate the need for the appraisal of teachers on specific, occasions (end of probationary period, promotion, transfer) and in some cases at periodic intervals. In recent years, initiatives have been taken in all *Länder* to develop measures for assuring the quality of education at both the level of the school system and the level of the individual schools; this goes beyond the traditional range of instruments of the school supervisory authority and project supervision. The *Länder* have taken a number of evaluation measures which combine various quality assurance and quality development procedures including: • the development of framework curricula; • comparative tests, especially in core subjects; • the extension of external evaluation; • the development of standards; • quality management in schools In 2003 and 2004, educational standards were adopted for the primary sector, the *Hauptschulabschluss* and the *Mittlerer Schulabschluss.* For the first time, quality development in the general education schools of all *Länder* can be checked against jointly agreed criteria in the form of general standards. The standards are also applied for vocational schools in the respective subjects. The Institute for Quality Progress in Education (IQB) is responsible for standardising, checking and further developing the educational standards.

Greece:	The main form of quality assurance is educational guidance provided to teachers by school counsellors.
Hungary:	The internal evaluation of the efficiency and quality of education in public education institutions is the duty of the school maintainer. The principal of the school is responsible for the professional and lawful operation of the institution, for the quality of the pedagogical work, and for the implementation of the quality assurance programme. Enterprises providing the practical training part of vocational training programmes must fulfil the conditions defined by law.
Iceland:	The quality of VET programmes is assured by ensuring teachers and trainers are properly qualified and have adequate work and/or teaching experience.
Ireland:	The Inspectorate division of DES is responsible for quality assurance. It uses a number of mechanisms including self evaluation and external evaluation. The Inspectorate contributes to curriculum development through its representation on the NCCA. Responsibility for quality assurance in examinations is the responsibility of the State Examinations Commission.
Italy:	Institutions must follow the accreditation procedures established by the State. The National Institute for the Evaluation of the Education System (NVASI) is responsible for monitoring, measuring, and evaluating the education and training system at both macro- (*e.g.* nationally) and micro-levels (*e.g.* at the level of an individual school).
Latvia:	Since 1999, VET training programmes need to be licensed by the Ministry of Education and Science. To obtain a license, VET institutions are evaluated in terms of their ability to provide a programme, including the compliance of their teaching staff to legal requirements. The licensing committee consists of 5 members (mandatory from the Ministry of Education and Science and State Education Inspectorate) and other ministries or social partners.
Lithuania:	Quality assurance is implemented through the student assessment process. Inspection of schools is mainly oriented towards control of administration.
Netherlands:	VET institutions are required to set up and maintain a quality assurance system and should be self-regulating. Adult and vocational education institutions must submit a quality assurance report to the Inspectorate every other year. The report must outline steps to improve quality and it is made available to the public. The Education Inspectorate, on behalf of the Minister of Education, Culture and Science is responsible for monitoring the quality of all educational providers. The Inspectorate carries out regular inspections of educational institutions. In the field of VET, the Inspectorate has criticised the standard of examinations. This criticism has led to the establishment of the Quality Centre for Examinations. This centre monitors the quality of examinations in MBO programmes and produces national standards for these exams. The centre also issues certificates of approval to complying institutions. Institutions must hold an approval certificate to set exams. The national expertise centres for vocational education, training and the labour market also play a role in quality assurance. The expertise centres maintain the quality and

	availability of places for practical training, ensuring that there are sufficient places and that teachers are sufficiently well trained. The expertise centres also give external recognition of examinations in order to guarantee the quality of exams and qualifications.
Norway:	Activities related to quality assurance for upper secondary IVET are the responsibility of the Directorate of Primary and Secondary Education. There is no public body established to solely supervise training institutions. Active involvement of the social partners and industries is considered a key element in quality assurance. The Secretariat for the Vocational Training Committee recruits and inspects enterprises for apprenticeship training and conducts inspections of the training offered.
Poland:	External evaluations have the aim of ensuring a better quality of education by facilitating the comparison of school certificates, and providing a diagnosis of pupils' academic achievements and failures with regards to national examination requirements. The aim of pedagogical supervision is to improve the quality of the educational system by supporting pupils in their development and stimulating professional development of teachers. All issues pertaining to pedagogical supervision are regulated by the Minister for Education. Bodies in charge of pedagogical supervision carry out assessment of the performance of schools and establishments on the basis of assessment standards. Efforts undertaken by the Minister of National Education and Sport to improve the quality of educational provision in the non-formal context are reflected in the recently amended Education System Act, which introduced a system of accreditation for institutions and establishments offering non-formal (out-of-school) education and training.
Portugal:	Information not available.
Slovakia:	There is no formal system of quality assurance; the quality of education is monitored in 'traditional' ways. New Schools must be approved by the Ministry of Education and their curricula must be based on approved curricula guidelines. The State School Inspectorate verifies the quality of the educational equipment and the physical aspects of the schools. Quality is also monitored by students' achievements in the school leaving examination.
Slovenia:	The norms and standards for carrying out regulated non-formal training programmes and courses are defined by the relevant ministries. They include material conditions and qualification requirements to accredit particular training programmes or to obtain public financing. Compliance with the requirements is checked only at the time of registration/verification. In relation to non-formal non-regulated training, quality is regulated by the training market.
Spain:	The Autonomous Regions are responsible for developing and organising a system of inspection for all VET activity, public or private, within their jurisdiction. Quality is ensured, in some cases, through models, or systems, that define the procedures and tools to be used for evaluating training centres.

Sweden:	The Educational Inspectorate, which operates within the National Agency for Education, inspects and evaluates at the local authority and school levels. The reports prepared by the Inspectorate are aimed at helping local authorities and educational institutions improve the quality of their operations.
United Kingdom:	Each nation has an Inspectorate responsible for inspecting and reporting periodically on the quality of teaching, learning and management of individual schools, colleges and other learning providers, and for area reviews of post-compulsory provision of all kinds. The reports of the Inspectorate are used to monitor the quality of provision, to provide 'benchmarks' against which providers can judge their own performance (by enabling comparisons with other providers of similar size and student characteristics), to ensure that action is taken where providers are failing and to provide examples of good practice.

040303 Learning outcomes

Description:

The destination of the student when they complete their cycle of education and the qualifications / certificates they obtain.

Synthesis:

A distinction needs to be made between level of qualification and the vocational specificity of the qualification. Qualifications can be obtained at a number of different levels but generally a distinction can be made between lower and upper level qualifications where the individual can exit the system upon completion of the first cycle of the upper level (*e.g.*, Austria, Netherlands). There is also the occupational specificity of the qualification to consider with some very much targeted upon granting entry to a given occupation and others being more broad-based.

Countries such as Austria, Denmark, Latvia, Lithuania, Portugal and Slovakia provide examples of systems where dual levels of qualifications operate. In Denmark, completion of an IVET programme leads to a certificate giving the holder the status of skilled worker, whereas completion of upper secondary vocational education leads to a higher commercial or technical examination certificate, giving access to tertiary education. In Austria, three years of study at a vocational school qualify students as skilled workers, whereas vocational college students obtain a double qualification consisting of a Certificate of Secondary Education and a VET Diploma. This double qualification has led to an increased interest in the latter form of VET, as is reflected in recent enrolment numbers.

The possibility to achieve a double qualification is not the only factor that students consider when deciding which form of IVET to take part in. Although increased numbers in certain forms of IVET have been attributed to the possibility of achieving more than one qualification, the case of Finland suggests a different picture. In this country, although it is possible to obtain a combined qualification by completing the general upper secondary syllabus and taking the matriculation examination while studying for upper-secondary VET, less than 10 per cent of students choose to take this route.

Norway provides one of the few cases where the main focus of IVET at upper secondary level is to provide a certificate giving access to employment as a skilled worker. In this country, IVET graduates do not gain direct access to higher education studies upon completion of their courses. Nonetheless, it may be stressed that in this country general and vocational higher level education are equivalent in terms of status and credits.

Finally, in relation to whether more than one qualification can be awarded, differences between countries are mainly related to the definitions given to different aspects of their IVET programmes. In Cyprus, although qualifications are awarded in only one occupational field students may specialise in other areas through continuing IVET, and in France students may obtain several diplomas granting access to specific trades or to a broad spectrum of activities.

What is not clear from the comparison of statistics provided for each country is the effectiveness of IVET in people: (a) gaining qualifications; (b) using those qualifications to gain entry to the labour market; (c) the sustainability of their position in the labour market.

Country Transversal Summaries:

Austria:	At VET schools, partly completed vocational education (usually leading to apprenticeship training) takes 1-2 years; fully completed medium level vocational education takes 3-4 years and is equivalent to completion of an apprenticeship. Completion of five years of studies at an advanced level VET school or college leads to a Higher Vocational Education Diploma that is equivalent to the Matura and gives access to higher education as well as the labour market.
Belgium:	**In Flanders,** there are two groups of certificates: ▪ orientation certificates upon successful completion of the year; ▪ orientation certificates when pupil has to repeat a year. In the **French and German communities** a diploma is awarded at the end of: ▪ 6th year of secondary education ▪ 7th year (specialisation year); ▪ 1st or last year of vocational education.
Cyprus:	Upon successful completion of upper secondary VET, students are awarded a Leaving Certificate. Students may then enter the labour market as skilled workers or continue their studies at higher or tertiary level institutions.
Czech Republic:	Successful completion of all years of studies is a precondition for the student to take a final or *maturita* examination and obtain the relevant certificate.
Denmark:	Upon completion of an IVET programme students are awarded a certificate giving them the status of skilled workers. In addition to this, the training company issues a final practical statement. The final certificate is issued after the skilled worker's examination has been passed. Successful completion of upper secondary vocational education leads to a higher commercial or technical examination certificate, giving access to tertiary education.
Estonia:	On successful completion of upper secondary VET, students are awarded a Certificate of Upper secondary Vocational Education. This provides access to the labour market. A qualification may be obtained by sitting a professional examination.
Finland:	Upper secondary VET leads to an upper secondary qualification providing basic and specialised skills. Formally, all the upper secondary qualifications give access to the labour market but employers recruit at their own discretion. There are few regulated professions which require proof of specific skills.
France:	All students in vocational secondary schools and apprentices are eligible to obtain official diplomas awarded under the supervision of the Ministries of National Education and Higher Education or other ministries.
Germany:	According to the different types of full-time vocational schools there are seven types of statements of learning outcomes. There are two types of *Berufsfachschulen* (specialised full-time schools)

	which don't lead to a qualification: i. Those that provide vocational preparation leading to a certificate documenting basic occupation oriented knowledge, skills and competences; and ii. Those that provide the foundation for a certain training occupation leading to a certificate recognising the acquisition of the knowledge, skills and competences of the first year of a regular dual training. There are two types of specialised full-time vocational schools leading to a nationally recognised qualification: i. those that follow regulations according to the Vocational Training Act or the Crafts Code respectively, and lead to a skilled worker qualification documented in a diploma; and ii. those that accord to the Land law and lead to a skilled workers qualification, documented in a diploma that can only be acquired at school. The other three types of vocationally oriented grammar schools lead to certificates documenting the knowledge, skills and competences that are required to start studies at universities. These entrance certificates are either for universities of applied sciences (issued by *Berufsoberschule* or *Fachoberschule*) or for certain subjects at universities (issued by *Fachgymnasium/Berufsgymnasium*).
Greece:	Certification provides the following qualifications (TEE = Technical Vocational School): • Degree of the 1st Circle of TEE (ISCED Level 2) – requires regional examinations administered within the school. • Degree of the 2nd Circle of TEE (ISCED Level 3) – requires national examinations administered within the school.
Hungary:	Secondary vocational school students receive a certificate upon completion of the upper secondary level general education (9th-12th grades) and can obtain the ISCED 3A level maturity certificate after passing the maturity examination organised at the end of the 12th grade. The maturity certificate qualifies graduates to apply to tertiary level education or to continue studies in the IVET grades of a secondary vocational school at post secondary level. Vocational school students receive a certificate upon completion of the 9th-10th general education grades and can obtain an ISCED 3C or 2C level vocational qualification of the National Qualifications Register after completing the vocational training programme of the (1-3) VET grades and passing the state vocational examination. 'Catching-up' courses organised in the general education grades of vocational schools award the primary general education graduation certificate to students 16 years or older.
Iceland:	Certificates are awarded at the end of certain levels of study. These may give the right to enter further studies and access to the labour market.. Qualifications obtained in the non-regulated sector may, in some cases, be credited towards training in regulated occupations.
Ireland:	Award of the Leaving Certificate is the primary outcome. There is a strong link between educational attainment and being in employment. Though the

	data are now dated, those who have obtained a Leaving Certificate (Established) are nearly twice as likely to be in employment compared to those without qualifications, and have an unemployment rate between five and seven times lower.
Italy:	Data from *ISFOL* on those qualifying in 1998 suggests that they had the following economic status in 2001: • all upper secondary school: 56 *per cent* in employment, 17 *per cent* looking for work; • vocational schools: 76 *per cent* in employment; 16 *per cent* looking for work; • technical schools: 67 *per cent* in employment; • academic route: 29 *per cent* in employment; 15 *per cent* looking for work. The main difference between the vocational and academic routes is that many more in the latter continue to study (54 *per cent* compared to 14 *per cent* of technical school graduates). It is also apparent that graduates from technical schools are more likely to remain in study (14 *per cent*) compared to their vocational school counterparts (5 *per cent*).
Latvia:	Students who successfully complete Vocational Education (ISCED level 3C) are awarded a Certificate of Vocational Education. Students who successfully complete Vocational Secondary Education (ISCED levels 3A/3B) are awarded a Certificate of Secondary Vocational Education.
Lithuania:	Completion of Level 2 VET programmes results in a qualified worker's diploma (ISCED 3C), while completing Level 3 VET leads to a qualified worker's diploma and a maturity certificate (ISCED 3B).
Netherlands:	All MBO courses lead to a qualification. Full completion is marked by a diploma, while those who complete part of the programme receive a certificate. Completion requires the passing of examinations set by the ROC. Qualifications and courses at this level are intended to prepare students for entering the labour market or for further learning.
Norway:	Successful completion leads to either a skilled worker's or a trade certificate relating to the trade in question, although they have the same status. They give access to employment as a skilled worker.
Poland:	Formal vocational qualifications are awarded upon successful completion of the relevant course and passing the Vocational Examination. As described below, VET at different schools leads to different learning outcomes: • basic vocational schools prepare students for working life by confirming their basic level vocational qualifications; • profiled general secondary schools prepare students for entrepreneurial activity or further education; • technical schools prepare students for a career in a specific occupation; • supplementary technical schools aim is to bring pupils' qualifications to an intermediate level and prepare them for the Vocational Examination and/or the Matura Examination; • special needs schools prepare secondary school leavers with

	disabilities to perform a given job.
Portugal:	Successful completion of upper secondary VET courses leads to an upper secondary education diploma and a level 3 of qualification. Students may continue their education at a polytechnic or a post-secondary Technological Specialisation Course.
Slovakia:	Certificates awarded include the final examination certificate, the '*maturita*' school leaving certificate, the apprenticeship certificate and the '*absolutorium*' diploma (ISCED 5B post-secondary programmes at conservatoires and post-*maturita* specialising studies at SOS). Completion of a 'study' programme makes students eligible for higher education. Completion of a 'training' programme does not give access to tertiary education. These programmes are designed for helping secondary school graduates enter the labour market.
Slovenia:	A vocational qualification consists of a combination of practical and theoretical knowledge and skills and social competencies needed for performing a job at a certain level of difficulty in compliance with the Standard Classification of Occupations. The legal framework is given by the National Vocational Qualifications Act. After completing the technical curriculum, students are awarded the title of technician and receive a final examination certificate showing the title of the course and qualification they have achieved. After completing the vocational curriculum pupils receive a certificate of achievement, which provides entry to the labour market in specific occupations and gives the possibility to continue education in vocational colleges or in professionally-oriented tertiary courses.
Spain:	Students who successfully complete middle-level Specific Vocational Schooling are awarded the qualification of Technician. The qualification of Technician, with the requisite accreditation, allows access to *Bachillerato* studies in fields related to the training course completed. It is also possible to study other specialised or complementary fields, such as the special education streams (Art or Foreign Languages).
Sweden:	Upon successful completion of the programme, students receive a final leaving certificate summarising the subjects completed and the marks awarded for special project work. If more subjects are completed than necessary, students can choose which should appear in the certificate.
United Kingdom:	The great majority of students in school-based and college–based IVET are studying for publicly recognised qualifications. Depending upon their level and subject matter, these normally allow entry to further learning, in either further or higher education, and may also be used for entry to the labour market. The terms 'certificate' and 'diploma' are used almost interchangeably in the UK, although the trend is for 'diploma' to indicate a more substantial qualification (with more hours of learning) than a 'certificate'. A diploma is not necessarily at a higher level than a certificate.

04030301 Qualifications/certification

Description:

The type of qualification people obtain when completing upper secondary education.

Synthesis:

The principal outcomes are either employment or continued study – possibly leading to third level education. Courses at upper secondary level are usually divided between a lower and upper level and this often determines the type of occupation / profession they can enter. This very much depends upon the extent to which entry to an occupation is dependent upon gaining a specific vocational education. The route to the third level is very much dependent upon successful completion of the upper level cycle and even then there may need to be a conversion course to be completed before being granted entry. Generally, unemployment levels fall the higher the level of attainment. At this level, the school based system appears to generate better results than the apprenticeship system.

(For further information please refer to *040303*)

Country Transversal Summaries:

Austria:	Successful completion of three years of study at a VET school qualifies students as skilled workers. VET college graduates obtain a double qualification: a Certificate of Secondary Education and a VET Diploma. This double qualification has led to an increased interest in this form of VET. Titles can be obtained after 3 years of relevant work experience and by application to the Ministry of Economic Affairs and Labour. Qualifications are, by law, recognised in the highly regulated Austrian labour market.
Belgium:	In **Flanders t**he class committee may issue the Diploma of Secondary Education at the end of: • the 6th year of secondary education (after completion of general, technical or artistic education; • the 7th (specialisation) year; • the 1st or last year of the fourth stage (vocational education). In the **French and German communities a** certificate of intermediate competencies is issued to students who have completed at least a fourth year of study in vocational or technical education when they leave school. A Sixth Year of Vocational Education Certificate of Studies is issued to pupils who have successfully completed that year. A certificate is also issued at the end of the fifth or seventh further-development and/or specialisation year in technical, artistic or vocational education to those students who have attended and successfully completed these years. A Qualification Certificate certifies the final years of study. This certificate is issued to those students who have attended the year and have passed the qualification exam. These certificates are: • Qualification Certificate for the 6th year of technical, artistic or vocational secondary education; • Qualification Certificate for the seventh further-development or specialisation year of technical or artistic education; • Qualification Certificate for the seventh further-development or specialisation year of vocational education. An Upper Secondary Education Certificate is issued to those regular pupils who successfully completed the last two years of study in general, technical or artistic full-time secondary education. At the end of the 7th year of vocational education, students who wish to enter university education may obtain a *Diplome d'Aptitude a acceder a l'Enseignement Superieur* by sitting an exam.
Cyprus:	A Leaving Certificate is awarded on completion of upper secondary VET. This is equivalent to the certificate awarded by Public Schools of Secondary General Education. Qualifications are awarded in only one occupational field but students may specialise in other areas through continuing VET in other programmes.
Czech	Graduates of IVET programmes acquire an initial vocational qualification depending on the level and branch of education. Qualifications at upper

Republic:	secondary level correspond to the following levels of education: • Secondary education with a vocational certificate; • Secondary education with *maturita*.
Denmark:	IVET students are awarded a formal qualification that qualify them as skilled workers and provides access to the labour market. The upper secondary vocational education certificate qualifies students to enter higher education institutions and universities; students can also access other specialist courses.
Estonia:	The right to sit a qualification examination is granted to graduates from VET institutions, i.e., to students who have covered the relevant curriculum in full, including successful completion of assessment and practical training.
Finland:	Upon successful completion of upper secondary VET, students are awarded a qualification certificate. Students who do not complete the course are awarded a certificate detailing the subjects completed and the grades obtained. It is possible to obtain a combined qualification by completing the general upper secondary syllabus and taking the matriculation examination while studying for upper secondary VET; less than 10 *per cent* of students choose to take this route.
France:	Students may obtain several diplomas. Some diplomas grant access to a specific trade (CAP, BEP) while others lead to a broader spectrum of activities. Students must pass theoretical and hands-on exams held throughout the year or at the end of the year. The work completed during the apprentice training programme with companies also provides credits.
Germany:	The programme at *berufsfachschulen (BFS*: specialised full-time vocational schools) normally concludes with a final examination. In the BFS lasting one to two years, different qualifications can be obtained, depending on admission requirements; these qualifications are either of a vocational or a general education nature. There are two types of programmes that don't lead to a vocational qualification. Both types provide the opportunity to acquire the *Hauptschulabschluß* (general leaving certificate) or the *Mittlere Schulabschluß* (advanced leaving certificate). A third type of BFS leads to a vocational qualification according to the Vocational Training Act (the Crafts Code respectively); the *Mittlere Schulabschluß* may be acquired simultaneously. The fourth type of BFS leads to a vocational qualification that can only be acquired at a vocational school; the *Mittlere Schulabschluß* may be acquired simultaneously. The *Fachhochschulreife* (entrance certificate for universities of applied sciences) and vocational qualifications can be obtained at the type of BFS that requires an advanced leaving certificate for admission and leads up to a qualification in various subjects as a state-certified technical assistant or as a state certified business assistant specialising in data processing, foreign languages or secretarial skills. Double qualification courses of education that are offered at the *Fachgymnasium* and the *Berufliches Gymnasium* (and other places) lead to the *Allgemeine Hochschulreife* (a general entrance qualification for higher education), take three to four years and conclude with two separate

	examinations (academic and vocational examinations).
Greece:	Certification provides the following qualifications (TEE = Technical Vocational School): • Degree of the 1st Circle of TEE (ISCED Level 2) – requires regional examinations administered within the school. • Degree of the 2nd Circle of TEE (ISCED Level 3) – requires national examinations administered within the school.
Hungary:	All vocational training school students may be awarded a formal certificate or qualification. Completion of the general education grades of secondary vocational school and passing the maturity examination leads to the maturity certificate, which entitles the holder to continue studying in the IVET steam. As for vocational schools, completion of the modules, passing the relevant exam for that level or module, and successful performance at the state vocational examination leads to a vocational qualification enabling the holder to enter the labour market.
Iceland:	On completion of a VET course, students are awarded a certificate detailing the subjects taken and the students' level of achievement. This certificate confirms that a certain amount of VET has been completed. Most certified occupations, however, require students to pass a qualification examination in order to access the labour market. Certificates in non-certified trades do not give rights to professions, but they often make it easier for graduates to obtain jobs.
Ireland:	For both the Leaving Certificate (Established) and the LCVP, students are allocated points obtained in their six best subjects at a single sitting of the Leaving Certificate, at either higher or lower level. Higher points are awarded for subjects taken at the higher level than at the lower level or in Link Modules. On the LCA, awards are made at pass, merit and distinction levels; a minimum of 120 credits (60 *per cent* of the total) is required to obtain a pass. The Leaving Certificate (Established) and LCVP give entry to third level education, whereas the LCA facilitates progression onto a number of other FÁS training courses, apprenticeships or into work.
Italy:	At the end of the five year course in technical school, participants who gain their qualification are ready to enter employment. At the end of the three year cycle in vocational school, participants are ready to enter the post-qualification cycle (a further two years) or the world of work. After the five-year cycle in both schools there is also the possibility of entering University.
Latvia:	Students may be awarded a Certificate of Vocational Education or a Certificate of Secondary Vocational Education depending on the course on which they are enrolled.
Lithuania:	Most IVET graduates are awarded a formal qualification, usually in a single occupational field. Some may lead to qualifications for two fields. The maturity certificate (Level 3) allows the individual to continue their studies at tertiary level. To successfully complete a programme, a candidate must have positive evaluation in all subjects and accomplished practical training. A finalist must also pass a theoretical test at the end of the programme which, if passed, is followed by a practical test.

Netherlands:	Each partial qualification must have independent significance. In practice, obtaining only one or a few partial qualifications is not considered appropriate or desirable. All partial certificates for the training course together form the diploma, which gives access to professions on the labour market or gives access to further education. School based subjects are tested *via* exams, while practice based periods are also assessed at the workplace.
Norway:	A skilled worker or a trade certificate is awarded after successful completion of upper secondary VET and passing the final examination. Students who do not complete their studies may receive a document detailing the subjects or training modules completed. Given the degree of specialisation for each programme, it is not possible to graduate with more than one qualification in the '2+2' scheme.
Poland:	Formal vocational qualifications are awarded upon successful completion of the relevant course and after passing the Vocational Examination. Qualifications vary depending on the type of school attended.
Portugal:	Information not available.
Slovakia:	Successful completion of secondary vocational education at ISCED level 3A leads to a double qualification giving access to the labour market and to higher education studies. Shorter secondary vocational education courses at ISCED level 3C give access to the labour market, but require 2 years of further study to give access to higher education.
Slovenia:	In certain cases, occupational qualifications can be obtained either by completing a vocational education and training programme or by certification. While the former lead to educational qualifications and the right to practice an occupation, the latter pathway leads to the award of occupational qualifications only. This means that holders of occupational qualifications obtained by certification possess a licence to work but not an educational qualification.
Spain:	A Technician qualification, awarded upon completion of middle-level Specific Vocational Schooling, does not give automatic access to a profession. For instance, a person qualified as an electrician requires additional administrative authorisation.
Sweden:	Upon successful completion of the programme, students receive a final leaving certificate summarising the subjects completed and the marks awarded for special project work. If more subjects are completed than necessary, students can choose which should appear in the certificate. No final examination is necessary.
United Kingdom:	Almost all vocational qualifications allow progression to similar, higher level qualifications, which may be studied part-time or through evening courses. Depending upon their nature, they may also lead to higher education and/or into employment. 'Broader' vocationally related qualifications are designed to lead either to the labour market or to general or (more often) vocational higher education, whilst 'narrower', more occupationally specific, vocationally related qualifications are intended to lead to employment in a specific occupation or group of occupations.

	A young person obtaining an NVQ /SVQ would normally already be employed or in training in the occupation and would be expected to remain in their job or move from an apprenticeship or traineeship to a job in the same field, but could also study for a more advanced qualification. The principal requirement for achievement of a qualification is usually satisfactory completion of the assessment, often including both a formal written examination and an assessment of practical and project work. It is not usually necessary to have attended a course for a fixed length of time, although in practice most young people do attend such courses.

04030302 Progression and transition (incl. Statistics)

Description:

The destination of people entering the upper secondary cycle.

Synthesis:

Depending upon successful completion in their course participants can carry on to higher levels of study. But an important development in some systems is to ensure that participants are not locked into one course of study so that they can change, for whatever reason, to other areas and take with them credits they have obtained to that point. These then count towards another qualification. Alternatively, people may enter work but in several countries obtaining a qualification is not sufficient for entry and further official authorisations are required from organisations that regulate the occupation / profession, as is the case in Iceland.

Overall, a number of transitions are possible:

- continuation into education possibly to the third level;
- transference to other programmes;
- entry into work.

Entering third level education is an attractive option and for this reason the academic route is generally favoured over the vocational route. Nonetheless, the vocational route does provide access to higher education and in some cases the transition can be made directly. In Sweden, for example, all programmes give access to higher education (although specific qualifications in certain subjects may be required).

IVET in some countries is divided into a more academically and a more vocationally oriented route, with the latter aimed at preparing students mainly for the labour market and the academic route aimed at providing the qualifications needed to access both the labour market and third level studies. This tendency can be observed in the figures provided by some countries regarding the number of students accessing higher education from each route: In Cyprus, around 53 *per cent* of the graduates following the theoretical direction successfully go on to pursue higher education studies, but this figure is 15 *per cent* for graduates following the practical direction. And in France, 79 *per cent* of technological Baccalaureate holders – but less than 20 *per cent* of vocational Baccalaureate holders – sign up for one of the degree programmes offered in higher education.

In terms of entering the labour market, the support provided by each country ranges from the Public Labour Market Service helping IVET graduates finding jobs in Austria, to offering no specific mechanisms to help students enter the labour market in countries such as Estonia and Iceland. Other options include providing careers advice and guidance and offering alternative training options for unemployed young people, as is the case in Denmark. In France, Information and Guidance Centres provide students with information about the various degree programmes and trades available to them; and in Slovakia, School counsellors may offer careers advice, or students may access internet based services for support on finding employment.

Country Transversal Summaries:

Austria:	The Public Labour Market Service helps VET graduates find jobs. More than 50 *per cent* of VET college graduates continue with tertiary level education and around 37 *per cent* of all technical college graduates do this after unsuccessful attempts to enter the labour market.
Belgium:	In **Flanders** the *class committee* evaluates students on a regular basis and decides on promotion to the next class for each student. The committee may also suggest remedial help or other measures to assist students, if it is deemed necessary. In the **French and German communities** a CCCG permits access to regulated professions. There are a number of mechanisms in place for those who drop out of the system before completing their programme. These mechanisms include distance learning and education for social advancement.
Cyprus:	Qualifications give access to regulated occupations but do not define the student's level of competence. New entrants to the labour market may enrol in the programmes offered by the Human Resource Development Agency. Around 53 *per cent* of students following the theoretical direction successfully go on to pursue higher education studies. This figure is 15 *per cent* for graduates following the practical direction.
Czech Republic:	There are no official statistics on the number of young people dropping out prior to completion of secondary education. The unemployment rate among those completing vocational and technical education is 23 *per cent* one year after completion and 10 *per cent* five years after completion. The unemployment rate for those with a vocational certificate is 26 *per cent* one year after completion and 14 *per cent* five years after completion. Those with a *maturita* (ISCED 3A) exhibit an unemployment rate of 20 *per cent* one year after completion and 7 *per cent* five years after completion. The outcomes of educational programmes leading to a vocational certificate (ISCED 3C) include: • transition to the labour market – graduates acquire the qualifications to perform manual occupations and most enter the labour market; • progression to further education – follow-up programmes are attended by almost 25 *per cent* of graduates with a vocational certificate, of which, about 70 *per cent* successfully complete the follow-up programme. Programmes that lead to a *maturita* examination (ISCED 3A) allow progression to tertiary education or transition to the labour market.
Denmark:	The majority of IVET graduates join the labour market upon completion of their courses. Some become permanent workers in their training company, but this is not a legal right. IVET and upper secondary vocational education students receive advice and guidance for finding a training company and in relation to higher education options, respectively. Students that cannot find a training company are offered school based apprenticeship training.

Estonia:	The most common path for IVET graduates is entry into the labour market rather than to pursue further studies. Around 75 *per cent* of upper secondary graduates choose to enter the labour market. Although unemployment is low among VET graduates, the jobs in which they are employed will often be unrelated to their professional qualification. There are no specific mechanisms to help students enter the labour market.
Finland:	Upper secondary VET aims to provide students with the knowledge and skills needed for self employment and further study. The employment offices provide information and guidance to upper secondary VET students. This type of support is also provided by the different types of educational institutions. Around 67.3 *per cent* of students that completed upper secondary VET in 2002 were in employment in 2003 and 14.2 *per cent* were unemployed.
France:	Some secondary vocational education diplomas (such as Vocational Certificates in hairdressing) are essential to those wishing to set up their own business. Information and Guidance Centres (CIOs) have been established for students seeking information about the various qualification programmes and trades available to them. Within establishments, these centres assist in the guidance and educational undertakings that, over time, should help students become familiar with the professional world. Special structures, including permanent reception, information and guidance centres, local chapters, or organisations governed by the Ministry of Employment, have been set up for young people who have exited the school system in order to support them in their job-seeking. A large number of secondary schools and Apprentice Centres also help young people their job search, in conjunction with local enterprises. All qualification holders may continue their studies. Those with CAP or BEP can go onto a Vocational Baccalaureate while those that hold a Vocational Baccalaureate may study for a higher education diploma. In most cases, however, these degree holders immediately enter the job market. Almost all general Baccalaureate holders sign up for one of the degree programmes offered in higher education. This is true of 78.5 *per cent* of technological Baccalaureate holders and less than 20 *per cent* of vocational Baccalaureate holders. The vocational track typically leads to the labour market.
Germany:	The destinations of those having completed a full-time vocational school differ according to the type of school. Nearly all of those who complete *Fachoberschule, Berufsoberschule or Berufliches Gymnasium* move on to universities of applied sciences. In 2000, more than half of those leaving *Berufsfachschulen* directly entered the labour market, nearly 30% continued with further studies, and almost 10% moved on to universities of applied sciences.
Greece:	Graduates of the 1st circle of TEE may: • receive an authorisation to exercise a particular profession; • register in a corresponding field of the second circle of TEE; or

	• register in the second grade of the *Eniaio Lykeio*. Upon graduation from the 2nd circle of TEE, graduates may: • receive certification to practice a certain profession; • register in the third semester of a corresponding field at the IEK; or • compete for registration in the Technological Educational Institutes (TEI) (tertiary level education).
Hungary:	The vocational qualifications of the National Qualifications Register awarded in vocational schools are all State-recognised and provide access to regulated as well as non-regulated occupations. The existing mechanisms to assist graduates to enter the labour market and/or continue studies are limited. The high number of drop-outs is a serious problem in vocational schools. The *Strategy of the Development of VET* (2005) is aimed at preventing early school leaving and to help drop-outs reintegrate into IVET. Among the implemented measures are the organisation of catching-up courses and the modification of the content of general education for vocational schools. The destination of vocational training school leavers is not monitored continuously but the introduction of a career tracking system is a policy objective defined in the *Strategy of the Development of VET* and will be developed by 2008. Although many students of secondary vocational schools passing the 'maturity' examination at the end of the 12th grade apply to higher education, only around one-fifth of them are admitted immediately. The majority of students therefore continue their studies in IVET to obtain a vocational qualification, and it is estimated that many of them later continue their studies in higher education.
Iceland:	Qualifications acquired through solely school based VET do not give access to regulated occupations. Access to these is more directly granted *via* the apprenticeship system. Upper secondary students receive financial support in the form of low interest financial loans or other financial arrangements. Schools are required to provide counselling on educational matters. The most common path for IVET graduates is to enter the labour market rather than to pursue further studies. The high number of vocational job opportunities contributes to the high drop-out rate in upper secondary VET institutions. There are no specific mechanisms to help students enter the labour market.
Ireland:	The Leaving Certificate (Established) gives entry to third level education. The LCA gives access to a range of Post-Leaving Certificate courses mostly run by the VECs – that take place in local schools and colleges – FÁS courses and apprenticeships, but does not give direct entry to University. Many LCA graduates go into employment. Available data, now quite dated, shows that 89 *per cent* of LCA graduates proceeded to work or further education: 37 *per cent* entered employment, 28 *per cent* went onto PLC courses and 14 *per cent* into apprenticeships (data for 2000).
Italy:	The academic route is more likely to lead to further study than the vocational route, which is more likely to lead to employment over the short-term. The State has engaged in the promotion of work experience for

	individuals to improve their employment prospects or work-readiness. Schools, training institutions and universities can engage with employers to provide work experience (a minimum of one month to a maximum of 12), and the participant can gain credits that can count towards a qualification. The quality of training is guaranteed by the organisation promoting the work experience. There is also a training contract available, whereby people aged over 15 years can gain work experience and training in return for a wage. This is also available to 18-25 year olds who have completed their upper secondary level education, and to university graduates up to age 29, or 32 years in Objective 1 areas.
Latvia:	A Certificate of Vocational Education provides access to the labour market, but does not provide direct access to a higher education institution. Holders of this certificate who wish to enter higher education must complete a one year intermediate course in general secondary education. A Certificate of Secondary Vocational Education provides access to the labour market as well as to higher education. Among the young people who completed upper secondary IVET in 2003, 75.2 *per cent* did not continue their studies, 5.3 *per cent* continued their studies at secondary vocational education level, and 19.5 *per cent* enrolled in higher education programmes.
Lithuania:	None of the IVET programmes at upper secondary level provides training for professions on the list of regulated professions defined by the Ministry of Social Security and Labour. All IVET programmes have an entrepreneurship module (including job search) and graduates from all levels can apply to their local employment office for assistance in entering the labour market. Individuals who complete Level 3 may opt to move into higher education.
Netherlands:	There are significant differences between BOL and BBL pupils upon entering the labour market. BOL certificate holders are more inclined to go onto further education while BBL holders are more likely to move into work. There are experimental projects designed to promote the transfer of students from specialist training courses in the adult and vocational education sector to dual HBO courses. Less than 10 *per cent* of school leavers go on to the HBO level, 13 *per cent* move onto another MBO course, while the majority, nearly 80 *per cent*, go outside education.
Norway:	Those who possess a trade or skilled worker certificate may seek employment or establish their own business. Graduates may be offered a job by their apprenticeship training company. There are no specific mechanisms to assist graduates in finding employment, but upper secondary schools and employment offices offer guidance in relation to work and further studies. Students who do not complete their courses are contacted by school counsellors as a standard compulsory procedure. A trade or skilled worker's certificate does not give direct access to higher education, but students can undertake a six month bridging course to obtain the right to access education at this level.
Poland:	The education system allows for school leavers from any type of upper secondary school to continue their education.
Portugal:	Information not available.

Slovakia:	School counsellors may offer career advice, or students may access internet based services for support on finding employment. Unemployed graduates may use the services of job centre counsellors to assist them in developing an individual action plan to increase their employability.
Slovenia:	No information provided.
Spain:	Students completing middle level Specific Vocational Schooling have the option of entering the *Bachillerato* (2-year upper secondary courses) or the upper level training cycle. Students choosing to enter the *Bachillerato* are credited with the subjects that have studied in middle level schooling. Those awarded with the qualification of Technician and who want to access an upper-level training cycle in the same occupational group or one officially established as being related, can do so by taking an entrance examination. Alternatively, they can gain access by completing the courses offered by Autonomous Regions to supplement the learning and skills obtained through the studies for which they received the qualification of Technician. The minimum age requirement for accessing the upper-level training cycle is 18.
Sweden:	Students who do not complete their programme receive guidance and support in finding alternative ways of completing their studies. All programmes give access to higher education, but courses require specific qualifications in one or more subjects. Around 43 *per cent* of all students go to higher education and from these 14 *per cent* come from IVET programmes.
United Kingdom:	Progression after completion of initial VET at Upper Secondary level depends upon the qualification route taken (see 04030301 above). The modular design of many qualifications is intended to allow certification in individual modules and to facilitate transfer to a related course or subsequent re-entry for a student who drops out. In practice these opportunities are probably under-utilised. For some years there has been concern about low achievement rates in the learning and skills sector and this is one focus of inspections of colleges. Achievement rates have risen steadily since the late 1990s, but it is still a matter for concern that under 60 per cent of young people who start a long vocational course at a college achieve their target qualification (for the academic route the figure is 75 per cent).

0404 Apprenticeship training (incl. statistics)

Description:

The general organisation and delivery of apprenticeship based training.

Synthesis:

Apprenticeships are offered across all countries except in the Czech Republic, Slovakia and Lithuania. In Estonia, apprenticeships were first introduced in 2006 and accordingly are not well established.

Apprenticeship training is generally understood as a practical based education that mixes learning in vocational schools with that of on-the-job experience and training in the workplace. This may take the form of a "2+2" approach, as in Norway, where the first two years are spent in vocational schools acquiring practical and theoretical perspectives in a given occupational area, followed by two years spent in the workplace putting theory into practice. Alternatively, the apprentice may have a rather more mixed distribution of school / workplace activities over the duration of the apprenticeship. Apprenticeships may also be spent entirely in vocational schools where workplace based training and experience cannot be secured.

Apprenticeship training takes on average around three to fours to complete but there is variation by both country and the particular course of study, with courses lasting as little as one year and extending to five years. In the UK, no time period is specified rather the apprenticeship is complete when the individual has acquired the required level of competence.

Apprenticeship training is a choice students make at the end of their compulsory education. In an effort to promote apprenticeships the age limit has been extended in some countries such that in Italy anyone aged 15-29 is eligible to enter an apprenticeship, with a general drift towards people being eligible for apprenticeships until their mid 20s. It is also, predominantly, an activity equivalent to upper-secondary education. In France, however, apprenticeship is a form of learning and training available at all levels of the educational system – including tertiary level – but even here most participants are at ISCED level 3.

Across many countries apprenticeship has been regarded as "second best" option for young people. In Latvia, for example, no particular qualifications are sought for entry, and in Sweden it is for people aged 16 without qualifications. More highly qualified young people take other courses of study. The general impression is one of decline in participation levels that has led to campaigns by the social partners to promote the value of this form of learning and training. Additionally, in France there are tax breaks available to employers that are willing to engage in apprenticeship, and many countries provide subsidised training by covering training costs and all or part of apprentices' wages whilst training. These subsidies are long-standing even if the levels of subsidy vary over time.

Apprenticeship training is provided in a limited number of trades / professions. Curricula are decided through national and / or local agencies responsible for this activity that typically include the social partners and industry / occupation experts. Participation in an apprenticeship programme by an employer is dependent upon them agreeing to provide training and make the apprentice available for training in vocational schools at certain times. The apprenticeship programme is policed by an inspectorate from one of the agencies responsible for apprenticeship training (either nationally or locally).

A contract is established between the apprentice (and often their parents), the employer, and the authority(s) responsible for apprenticeships – a three-way contract. The contract

specifies the terms and conditions according to which the apprentice and the employer participate in the apprenticeship. Apprentices are not guaranteed employment with the employer on successful completion of the apprenticeships, though many apprentices do go on to become permanent employees with the company.

Assessment of apprentices is based upon an examination of their theoretical and practice knowledge as well as a demonstration of their practical capability. They are assessed by experts in their chosen profession or trade. The outcome from apprenticeships is entry to the labour market as a skilled worker in a given craft or profession. In theory, access to higher education is possible but is dependent upon some form of additional "bridging" training to enable this to happen.

Country Transversal Summaries:

Austria:	Apprenticeship training takes place in public or private enterprises and emphasis is placed on the development of practical skills. School matters regarding apprenticeship training are the responsibility of the Ministry of Education, Labour and Culture; the Ministry of Economic Affairs and Labour is responsible for issues concerning work based training. 40 *per cent* of young people aged 15-18 years enter into apprenticeships. In recent years, apprenticeship placements in training enterprises have decreased, while the number of apprentices searching for a vacant apprenticeship placement has increased. In 1990, there were 145,516 apprenticeships. This decreased to 123,377 in 1995 and was 123,762 in 2001.
Belgium:	Apprenticeship is a well-established from of alternating training. A key element of apprenticeships is the provision of on-the-job training provided by employer-trainers in the workplace four days a week. One day a week, apprentices attend general and technical courses at the training centres run by Commercial Sector Continuing Vocational Training Institutes in the Flemish, French and German communities. Apprenticeships are available in more than 200 occupations. There are two other similar forms of training which are not recognised as 'apprenticeships'. These are industrial apprenticeships and employment training contracts. In 2003/04 there were a total of 5,814 students in contractual apprenticeships and more than 93 per cent of those were aged between 15 and 19 years. Almost 70 *per cent* of contract apprenticeships were held by men. In 2004/05 there were 4,545 participants in contractual apprenticeship and 20,316 training in entrepreneurship. In the Walloon Region, the number of apprenticeship contracts decreased from 6,959 in 2000 to 5,532 in 2005.
Cyprus:	The Apprenticeship System offers two-year VET programmes to young people aged 14-18. Enrolment rates are decreasing and completion rates are around 60 *per cent*. Only one *per cent* of those enrolled are women. The system is associated with school failure and low education achievement. Reforms are currently being considered to modernise the

	Apprenticeship System. In 1990/91, 2.3 *per cent* of 16 to 19 year olds and 3.2 *per cent* of 15 to 17 year olds were participating in the apprenticeship system (gross participation rates). These gross participation rates have fallen to 1.2 *per cent* of 16 to 19 year olds and 1.6 *per cent* of 15 to 17 year olds in 2002/03. Women are greatly outnumbered by men in apprenticeships.
Czech Republic:	Apprenticeship training, as specified by the EU definition, does not exist.
Denmark:	Apprenticeship training is well established, with 153,000 apprentices in 2004, and one third of all companies participating.
Estonia:	Apprenticeship training was made official by law in January 2006. Schools started to offer apprenticeship training programmes from September 2006. In 2004, there were a total of 177 participants in the apprenticeship pilot project. Of these, around 65 *per cent* were aged 15-19 years.
Finland:	Apprenticeship training provides another route for acquiring an upper secondary VET qualification. Apprenticeship training combines workplace training and instruction at an educational institution. The majority of skills are learnt through practical work at company providing training. Less than 1 *per cent* (0.4 *per cent*) of 16 to 19 year olds were in apprenticeship training in 2004. The number of participants in apprenticeship training has increased from 41,243 in 1999 to 47,685 in 2004.
France:	Until the 1980s, apprenticeship training was considered a qualification path for young people who had failed their academic studies, with the only option being to work towards a vocational aptitude certificate (CAP). Apprenticeships became a fully fledged training system in 1987. Apprenticeships are defined by law as "a form of alternating education" the goal of which is to offer general theoretical and hands-on training to young people who have fulfilled their schooling obligations, so that they may earn a vocational qualification made official through a diploma or certificate. The apprenticeship system offers alternating training (in enterprises and apprentice training centres – CFAs). Considered as a form of initial education, apprenticeship training prepares participants for all diplomas or vocational certificates listed in the National Vocational Certifications Register. Since 1987, apprenticeships have been intended as a training system open to all diploma levels, being equal to training in the traditional educational system. The diplomas run from Levels 3C to 5A. Level 3C training programmes are the most frequently selected for apprenticeships. Increases in apprenticeship programmes can be found at Level 3B and higher. Men account for 70 *per cent* of all apprenticeship participants. Apprenticeships accounted for more than a quarter of all secondary vocational training in all regions in 2002.

	Between 1995 and 2000, the number of apprentices increased by 24 *per cent*. In 2000/01 there were a total of 365,874 apprentices in training, 30 *per cent* of which were women. The apprenticeship participation rate in 2000/01 was highest fro 17 year olds (9.2 *per cent*).
Germany:	Apprenticeship training is defined as the "dual system" - pursued by the majority of young people after leaving the general education system - a training system where the company/inter-company vocational training facility and the respective specialised vocational school (part-time vocational school, vocational training centre, or company vocational school) cooperate on the basis of officially regulated training and school curricula. About 1/3 of the traineeship is spent in school. As a general rule there are no formal access requirements for individuals to enter the dual system although a large number of young people with an intermediate-level or upper secondary school leaving certificate opt to enter the dual system. The average age of trainees is 17 years. IVET in the dual system usually takes 2-3.5 years. The duration of training depends on the requirements and regulations of the occupation pursued. Vocational training in the dual system is based on the occupational concept whereby formal training and qualifications should be oriented to the needs of work. In 2002, there were 1.7m participants in apprenticeships. The percentage of the age cohort completing an apprenticeship was more than 60% in 1990 and around 55% in 2002. The decline is mainly due to a lack of places. The percentage of the age cohort completing an apprenticeship was greater than 60 *per cent* in 1990 and about 55 *per cent* in 2002. This reduction is mainly due to a lack of places being available, rather than due to less demand for apprenticeships. In 1990, there were more than 1.86 million people participating in apprenticeships while in 2002 there were just over 1.78 million apprentices. In 2002, nearly 60 *per cent* of apprentices were male and more than 62 *per cent* were between 15 and 18 years of age.
Greece:	The system of Apprenticeship is provided by the Technical Vocational School (TEE) that are supervised by the OAED. Programmes last for three years. The first year involves theoretical and practical courses within the school, while in the second and third year of study training takes place both in the school and in private or public sector enterprises. Students on apprenticeships are remunerated and insured. The main objective of the Apprenticeship System is to combat unemployment *via* the vocational education of young persons aged 15-23 in modern and traditional fields and, ultimately, to provide a skilled workforce adapted to the needs of the labour market. The total number of students in apprenticeships increased from 12,340 in 1990 to 20,285 in 2000. In 2003, however, there were 16,121 apprentices.

Hungary:	Apprenticeship training as a form of practical training provided by an enterprise on the basis of a student contract is not a separate IVET pathway but one of the ways in which practical training is delivered at: • upper secondary level IVET provided in vocational schools; • post secondary level IVET in secondary vocational schools; and • tertiary level in higher level VET . The number of vocational training school students participating in practical training based on a student contract increased significantly since 1997/98. The number of students increased from 6,616 in 1997/98 to 32,117 in 2005/06. The proportion of young people aged 16 to 19 participating in practical training based on a student contract has increased from 1.09 *per cent* in 1997/98 to 4.16 *per cent* in 2004/05.
Iceland:	Apprenticeship programmes provide training in preparation for certain jobs. They consist of school and work-based training. Work placement covers between a quarter and one third of the total study time. The status of apprenticeships is lower compared to general education. Employers maintain that hiring apprenticeship trainees is a cost rather than a benefit to their business, partly because retention after completion of the programme is low. The Government has not been successful in improving the status of apprenticeship programmes and they are decreasing in number.
Ireland:	Apprenticeship is the recognised means by which people enter craft occupations. There are currently 25,000 registered apprentices (data for 2003) in 25 designated trades. FÁS has responsibility for the apprenticeship system. In conjunction with DES, employers and unions, it establishes the Rules of Apprenticeship. It also maintains a register of apprentices and oversees their training and related education. Upon successful completion of the apprenticeship a National Craft Certificate is awarded. Apprenticeship is standards based, lasts typically for four years and includes forty weeks of off-the-job training. FÁS pays a weekly allowance to employers to cover the apprentices recommended wage during off-the-job training. There has been a rapid growth in the number of apprentices – 13,000 in 1990 to 26,000 in 2002 – reflecting the strong growth in the economy.
Italy:	The apprenticeship system has been reformed recently with the aim of extending the eligible age groups, setting a maximum duration (six years), allowing people with appropriate qualifications to become apprentices; and providing supplementary training partially funded by the State. There are three types of apprenticeship: (i) for young people aged 15-19 years who have a right/duty to participate in vocational education; (ii) a more occupation specific apprenticeship for 18-29 year olds; (iii) a diploma for entry to secondary or university education.

	In 2002, there were 1.7 million 15-17 year olds and 4.5 million 18-24 year olds participating.
Latvia:	The apprenticeship system involves mainly the craft sector in traditional (as opposed to modern) professions. The system is not mentioned in the Law of Education or the Law of Vocational Education, and it is not linked to the IVET system. The apprenticeship system is underdeveloped, declining and exists on a small scale in the crafts sector. In 2004, there were just 80 apprentices.
Lithuania:	There is no work-based route to obtaining vocational qualifications, nor is it covered in the legislation on VET.
Netherlands:	Most training in the BOL pathway takes place within school, but practical training periods in companies form part of the curriculum. On the more practically oriented pathway (BBL), the main place of learning is the workplace.
Norway:	Apprenticeship training is provided as an integral part of upper secondary VET. It starts after two years of school-based training and consists of on-the-job training at an enterprise or institution. Apprenticeship training is part of the '2+2' model. There was a significant increase in the number of apprenticeship during the 1990s, from a total of 21,000 in 1990, to almost 32,400 in 1998. But, since 1998 there has been a stable decline, down to approximately 29,100 running contracts in 2002. In 2005, there were 29,000 apprentices.
Poland:	Apprenticeships exist for the crafts sector, which includes construction, carpentry, textiles, metalworking and electronics. Apprenticeships may be offered as 'occupational training' for those under 18. This form of apprenticeship includes theoretical training, in addition to training at the workplace. Apprenticeship training can also be offered as 'training to perform a specific job'. In this case, only relevant work activities are included. Programmes last between 24 and 36 months. In the recent years, the number of enterprises offering apprenticeship training has been systematically decreasing. In the early 1990s, there were about 60,000 such employers. In 1996, this number fell to 47,500, and in 2000 to 39,000.
Portugal:	Apprenticeship programmes are intended for first-time job seekers under the age of 25, who did not complete upper secondary education. The aim is to reinforce academic, personal and social competences, to develop scientific and technological knowledge, and to provide work experience. In 1990 there were 10,493 young people in apprenticeship training. Ten years later this figure more than doubled. In 2000 there were 26,078 apprentices and in 2002 there were 26,735.
Slovakia:	In spite of the use of the term 'apprentice' to refer to secondary vocational school students, there is no apprenticeship programme as such.

Slovenia:	Apprenticeship training is aimed at providing young people with the theoretical knowledge and working skills that they need for the start of their working lives. Apprenticeships were introduced in 1946, reduced in 1967, and officially abolished in 1981. After sixteen years, the apprenticeship system was reintroduced in 1997 as a three-year system of dual training that could be extended to a maximum four years. The number of apprentices increased from 29 *per cent* of the whole population involved in IVET in 1997/1998 to 54 *per cent* in 2000/2001. This figure fell to 35.5 *per cent* in 2003/2004. Considering the population of secondary school students as a whole, the proportion of students enrolled in apprenticeship programmes increased between 1997 and 2000 from 2 to 10 *per cent*, but then decreased again to slightly less than 2 *per cent* in 2004.
Spain:	Apprenticeship contracts, now called 'training contracts', are aimed at providing theoretical and practical preparation needed for a trade "requiring a level of qualification subject to formal accreditation". Apprenticeships last for up to 2 years. Besides training contracts, there is another programme offering alternation between training and employment. This is the School-Workshop, Trade Learning Centre and Employment Workshop programme. The aim of this programme is to help young unemployed people under 25 enter the labour market. In 2003, there were 125,744 students enrolled in apprenticeship training. Of these, less than half were women (48,222). Although, overall, women's participation is less than that for men, the situation is different for Employment Workshops, where 65 *per cent* of the participants are women.
Sweden:	The traditional apprenticeship system declined over a long period through the 1970s. Since then, however, there has been a new attempt to integrate employment on an apprenticeship basis with theoretical instruction within the ordinary upper secondary school system. Social partners and schools provide some form of apprenticeship training for their employees and students who do not get access to national upper secondary programmes, respectively. Uptake of apprenticeship training in schools has been limited and in 2002 only 102 students participated in apprenticeship training.
United Kingdom:	Apprenticeships declined in the second half of the 20th century due to structural change in the economy. Modern Apprenticeships were introduced by Government in the mid-1990s as a replacement, which would offer a high quality work-based alternative to full time educational routes. Renamed simply Apprenticeships in 2004, they are available at levels 2 (Apprenticeship) and 3 (Advanced Apprenticeship) of the National Qualifications Framework (NQF). A preparatory scheme, entitled Entry to Employment (E2E) is available for those not yet ready to enter an Apprenticeship. Collectively these schemes are known as 'Work Based Learning for Young People' (or WBL) and are supported with funding via the same funding agencies as

	further education colleges, i.e. the Learning and Skills Council in England, Department for Education, Children, Lifelong Learning and Skills in Wales, and the Department for Employment and Learning in Northern Ireland. In Scotland there is a slightly different arrangements and the Modern Apprenticeships are manages by Scottish Enterprise and Highlands and Islands Enterprise. Each type of apprenticeship requires a combination of workplace training and experience with an employer, together with off the job study, often in a further education college. Completion normally takes between one and three years, although the time requirement is intended to be flexible. According to the Fifth Report of the House of Lords Select Committee on Economic Affairs published in 2007, the LSC funding programme has helped to increase completion rates for apprenticeship frameworks, which were, until recently 'unacceptably' low. According to the report, the overall success rate for framework completion in 2005-06 was 50 per cent for all apprenticeship and 44 per cent for Advanced Apprenticeship. These figures were 37 per cent and 34 per cent in 2004-05, respectively.

040401 Access requirements

Description:

Synthesis:

Access is dependent upon completion of compulsory schooling. Overall access is not dependent upon educational attainment, although where apprenticeships are provided at levels higher than that equivalent to upper secondary level education it is dependent upon successful completion of education at lower levels. Access is generally available to students from age 15/16 to their mid to late 20s. There have been some moves to increase the age range in an effort to increase the numbers of people participating and provide practical assistance to young people looking for work (see 0404 above for a fuller description of the apprenticeship system).

Whilst access is dependent upon successful completion of lower secondary level education, it is evident that access is subject to some discretion depending upon perceptions of the individual's aptitude to successfully complete the period of training. To some extent this depends upon the level of demand for a particular course and the academic competency required for successful completion. Apprenticeships are now offered across a wide range of subjects which require differing levels of ability for their completion.

Country Transversal Summaries:

Austria:	The only access requirement for apprenticeship programmes is completion of compulsory education. Access, however, depends on candidates finding an apprenticeship placement in a suitable enterprise. Demand for placements is higher than the supply and applicants are faced with a strict selection process.
Belgium:	Apprenticeships are available to young people from the age of 15 years onwards who have completed the first two years of secondary education. The lower age limit is 16 years for a number of occupations. There are also some conditions that are particular to specific occupations. The apprenticeship training period lasts for three years.
Cyprus:	To access an apprenticeship programme candidates must be 14 years old or over and have completed the second year of lower secondary education. Apprentices "must not be over 18 at the time of graduation".
Czech Republic:	Not applicable.
Denmark:	Completion of compulsory education is the only access requirement for IVET. For some of the main programmes, however, other prerequisites may apply depending on the nature of the course.
Estonia:	The target group includes both young people and adults with basic education and who are at least 16 years old. Study duration is determined by the curriculum, being at least 40 study weeks for students with basic education and at least 20 study weeks for students with secondary education.
Finland:	The minimum age to participate in an apprenticeship programme is 15 and candidates must have completed basic education. Exceptions may be made for those who do not satisfy these criteria, but are considered capable of coping with the training. In general, apprentices are responsible for finding a company to provide training.
France:	Apprenticeship is open to young people between the ages of 16 and 25 years. Admission criteria vary according to the level of diploma taken. The choice of pathway is restricted by the number of places available in training centres, which is determined by the local governments according to the specific needs of the local economy and also by local companies. Some specific training sessions are also only available in selected regions.
Germany:	As a general rule there are no formal access restrictions for individuals to train in the dual system nor are there entrance examinations. Usually training takes place after the students have finished lower secondary school – '*Hauptschule*', but a large number of young people with an intermediate level or upper secondary school leaving certificate also opt for training within the dual system. The dual system has been implemented

	across all industry sectors in the Federal Republic. The supply of training places does not usually meet the demand for them so young people are constrained in the choice of apprenticeship they might wish to follow.
Greece:	Programmes at Apprenticeship level in Technical Vocational Schools (TEEs) are aimed at young persons, aged 15-23 years, who hold at least a high school (lower secondary level) qualification. The vocational fields provided are at the discretion of each school, based on local labour market research, and with the collaboration of local trade unions.
Hungary:	All students of vocational training schools in higher level IVET can participate in apprenticeship training in the practical training part of their vocational training programme if they are at least 16 years of age and comply with the pre-qualification and medical requirements of the vocational qualification pursued. Students are free to choose their training enterprise but the enterprise may organise vocational aptitude tests as the precondition for concluding an apprenticeship contract with the student. The availability of training places varies according to sector and geographic area.
Iceland:	Students can enter apprenticeship training in the year they turn 16 if they have passing grades in mathematics and Icelandic from compulsory school. Those who are 18 years old or over may be excepted from this rule.
Ireland:	Apprentices must be at least 16 years of age, and have a minimum of five passes in the Junior Certificate (lower secondary education) or the equivalent of this. If this level is not met, passing an interview or taking preparatory training might prove alternative means of entry. Persons over 25 years of age with three years work experience in the chosen occupation may also be accepted. Most entrants tend to possess a Leaving Certificate. *Fáilte Ireland* also offers apprenticeships in tourism, catering and related occupations. Entrants must possess, as a minimum, a Junior Certificate and be aged 17-24 years.
Italy:	Available to all aged 15-29 years.
Latvia:	Admission to apprenticeships does not depend on previous education. Candidates that are not 16 years of age on the calendar year of admission require consent from their parents or tutor.
Lithuania:	Not applicable.
Netherlands:	There are no specific access requirements for apprenticeships, other than those for initial (school-based) vocational training.
Norway:	As an integrated part of upper secondary education, apprenticeship training requires successful completion of compulsory education. An apprenticeship contract can be obtained upon completion of two years of school-based training. Competition for apprenticeship places is strong, and

	those who are not able to find a training company are entitled to a third year of school-based training, consisting of workshops and short placements in industry.
Poland:	Candidates for occupational training crafts must be between 16 and 18 years of age, have completed lower secondary education and submit a medical certificate. Those wishing to train to perform a specific job must be at least 15 years old. The latter option is offered to young people who did not complete lower secondary education.
Portugal:	Apprenticeship training is open for young people under 25 years of age, who have exceeded the compulsory education age or attended, but did not complete, upper secondary education.
Slovakia:	Not applicable.
Slovenia:	Successful completion of basic compulsory education, or completion of at least the first year of a short-term educational programme, plus a health certificate, gives access to apprenticeship training. Apprenticeship training is not targeted at any specific group. Since the number of places is limited, candidates may be chosen according to school achievements and health status.
Spain:	Apprenticeship programmes are open for people over 16 and under 21 years of age, who are not qualified for a work experience contract. The maximum age limit does not apply for some groups such as people with disability, some foreign workers, etc. The number of apprenticeships is determined through collective bargaining.
Sweden:	Apprenticeship programmes under the individual programme scheme are open to students who leave compulsory education at the age of 16 without achieving the necessary qualifications.
United Kingdom:	For entry to Apprenticeships, interest in the occupation and willingness to work are generally more important than formal educational qualifications, but young people are expected to have practical aptitude, interpersonal skills and/or key skills appropriate to their chosen pathway. For direct entry to an Advanced (level 3) Apprenticeship the young person would normally be expected to have some GCSE passes at Grades A* to C. Success in a (level 2) Apprenticeship normally provides access to an Advanced (level 3) Apprenticeship, providing that a training place is available. Access depends upon the availability of suitable places, which in turn depends upon the willingness of employers to participate in the scheme. There are no rules restricting particular Apprenticeships to certain geographical areas, but the availability of places naturally reflects the economic composition of the area. Apprentices choose their occupational pathway and then apply to an employer or training provider offering that pathway.

04040101 Apprenticeship contracts

Description:

The status of the apprentice's contract of employment.

Synthesis:

Contracts are established between the apprentice (and often their parents), the employer, and the authority that governs the apprenticeship. Apprentices are not guaranteed permanent employment with the employer at the end of their apprenticeship, but for the duration of their training they are treated as employees or equivalent to employees with respect to terms and conditions of employment other than those established in the apprenticeship contract (see 0404 for further details).

The contract, in general, stipulates both the content and volume of training to be delivered. The apprentice must be released for classroom training at designated times, and the employer and the apprentice must keep a log of training activities conducted within the workplace. In some countries, however, the contractual situation is more complex. In Ireland and the UK, for example, the employment contract does not necessarily specify that the individual is an 'apprentice' or 'trainee'. Often the contract will stipulate only that they are an employee. The obligation on employer's behalf to meet the training requirements of a given apprenticeship programme arises from the registration of the young person as an apprentice with the relevant training organisation. The employer's incentive for doing so relates to: (a) the availability of training subsidies; (b) the structure these organisations are able to give to training; and (c) the provision of a qualification to young people which can assist with recruitment.

In countries / sectors where collective bargaining is firmly established, apprentices' wage rates tend to be established as a percentage of the fully experienced worker's wage. The wage rate increases over the period of the apprenticeship in line with the expected increases in the apprentice's productive contribution such that by the time the apprenticeship is completed they are earning the same wage as the fully experienced worker, or close to it.

Where collective agreements are not firmly established employers have more scope to set wage rates, subject to other measures in the Labour Code, such as a national minimum wage and its application to young people.

Country Transversal Summaries:

Austria:	Apprentices are employed according to an apprenticeship training agreement between the training company and the apprentice. The agreement is in writing and prepared in accordance with a set of established principles. The apprentices are considered to have regular employee status and receive payment for their work (wages are proportionally lower than those for regular employees).
Belgium:	In **Flanders** the apprenticeship is organised by the Flemish Agency for training in *Entrepreneurship Syntra Flanders-Syntra Vlaanderen*. Pupils follow practical training in a company for four days *per* week and take additional courses in training centres for one day *per* week. The Apprenticeship usually takes three years but a shorter duration is possible depending on the student's age and pre-education. An apprenticeship contract specifies the termination date. By signing, an employer/tutor commits to training the pupil and a pupil commits to following the training under the tutor's guidance and undertaking the relevant theoretical courses. In the **French and German communities** apprenticeship contracts are designed to provide training for a specific occupation and cannot be considered as an employment contract. Apprenticeship contracts specify: • the rights and duties of the contracting parties; • the duration of the apprenticeship (typically 3 years); • conditions for cancellation of the contract; • older regulations; and • special provisions.
Cyprus:	The apprenticeship contract is signed by the employer, the apprentice, and the parent or guardian of the latter. The employer commits to providing practical experience and allowing the apprentice to attend sessions at a technical school twice a week. Wages for the two days at school are subsidised by the Human Resource Development Authority. Contracts are standardised for all sectors.
Czech Republic:	Not applicable.
Denmark:	Contracts are signed between the company and the trainee, and last 3.5 years on average. Standard contracts are available from the relevant trade committee. Salaries are a proportion of full salaries and vary from trade to trade. Companies receive a reimbursement of their costs by the Employers' Reimbursement Scheme (to which they contribute).
Estonia:	Apprentices sign a study and work contract at the beginning of studies.
Finland:	The apprenticeship contract is signed between the employer and the trainee and lasts between 1 and 3 years. Employers receive a subsidy for the wages paid to the trainee. Wages are generally around 80 *per cent* of the wages for skilled workers and do not cover time spent at educational institutions.
France:	The legal regime of apprenticeship contracts is set by the Labour Code. In order to be valid, the contracts must comply with a number of procedural conditions:

	• the employer's declaration with a view toward taking on apprentices; • the administrative registration of an apprenticeship contract; • the mandatory provisions in work contracts. The contract must be in written form and the declaration must be handed in, with proof of the professional skills claimed by the apprenticeship master(s). The employer must provide guarantees related to the enterprise's ability to provide high quality training. Employers are required to provide all proof required by labour or apprenticeship inspectors to show that they are abiding by the terms set out in their declaration. Apprenticeships vary in length from 1 to 3 years, with more than half being for 2 years. The duration of the apprenticeship can depend on the young person's level of qualification. Apprentices are considered employees and are protected by labour legislation.
Germany:	The trainee enters into a training contract with a company, the duration of which (usually three to four years) is determined in the training regulation for the respective occupation. The Vocational Training Act determines that the employer will conclude an initial training contract with the trainee. The contract document specifies the details of the training to be provided and terms and conditions of employment with the company. The contract is signed by company, the apprentices, and the apprentices' statutory representatives.
Greece:	A contract is signed at the beginning of the practical work experience. The contract is signed by the employer, the student and the Technical Vocational School (TEE). Details in the contract include the commencement and expiry dates for the work experience, and the terms of collaboration. The contract terms are common for all students.
Hungary:	An apprenticeship contract may be initiated by the student or by the enterprise, and the latter has to indicate its intention of training the student to the level of competence required by the local chamber of commerce and the vocational training school which provides theoretical education to the student. Apprenticeship contracts are concluded between the student of a vocational training school and the enterprise. Apprentices maintain their legal status as students and are entitled to regular monthly payments and social security benefits. The time spent in apprenticeship also counts towards the individual's pension. Typically, the economic organisations providing student contract-based training are Hungarian enterprises that are sufficiently large to make use of tax allowances associated with apprenticeship training and to apply for the reimbursement of their expenses.
Iceland:	Two contracts are signed for apprenticeship programmes, one between the school and the employer and the other between the student and the employer. Contracts are standardised across the country and comply with regulations issued by the Ministry of Education, Science and Culture and labour agreements.
Ireland:	Apprentices have a contract with their employer but there is no contract of apprenticeship. The employer must register the apprentice with FÁS, and

	must abide by that organisation's rules for apprenticeship training. The organisation must allow the apprentice to attend off-the-job training modules when requested to do so, and must keep a record of the apprentice's activities.
Italy:	This is a mixed contract where the employer is responsible for ensuring that the skills and techniques required to become qualified are passed on to the apprentice. It can last for a maximum of six years and must not be less than two. The contract is a written document with a training plan, requiring the qualification to be obtained *via* on-the-job and off-the-job training. Each Region is responsible for regulating the contract and its duration.
Latvia:	The responsibilities of the apprentice and master are outlined in the contract between the two partners. Contracts are drafted according to a standard template provided by the Chamber of Crafts.
Lithuania:	Not applicable
Netherlands:	A learning agreement is concluded (signed) between the student, company and the educational institution. The contract sets out the rights and obligations of each party, including the number of hours of training, supervision arrangements, exit qualifications and assessment methods. Companies providing training are registered at the national expertise centres for vocational education, training and the labour market. Companies must meet specific criteria to become registered.
Norway:	The apprenticeship contract is signed by the enterprise, the manager of the training company, the appointed training manager, and a representative from the Vocational Training Committee. The apprentice has the rights and duties of an employee and is entitled to a salary corresponding to the productive work conducted. This salary increases throughout the two-year apprenticeship period, as productivity increases and training decreases.
Poland:	The contract is signed by the trainee and the employer. A draft of the contract is provided by the Association of Polish Crafts. The wages, type of training, duration, location and manner of instruction are specified in the contract.
Portugal:	The apprenticeship contract is signed between the trainee and the training provider (the Apprenticeship Coordinator and the Apprentice Support Entity). The contract does not cover working relations and ends when the training is completed.
Slovakia:	Not applicable.
Slovenia:	According to the Law on Vocational and Professional Education, the apprenticeship contract is signed between the employer and the apprentice (in some cases parental consent is necessary) and it cannot last more than four years. The apprenticeship contract is standardised and so it does not vary according to sector. To provide apprenticeship training, employers have to be involved in activities relevant to the apprentice's education, provide access to suitable facilities and equipment, and employ at least one person qualified as a master craftsman.
Spain:	Collective industrial agreements at a national or local level determine the

	number of apprenticeships in a company, the jobs involved, and the associated wages. Contracts may last between six months and two years, although, in some cases involving disabled individuals, these may last up to three years.
Sweden:	Contracts are signed between the school, the student and the local employer. The contract describes what the apprentice is expected to achieve during the 3 years of training.
United Kingdom:	Most apprentices have a contract of employment with an employer. The contract will often indicate that the employee's status is as trainee, and state the requirement that she/he undergoes the necessary training. Pay is likely to be at a lower level than for a qualified worker and the level of pay must be stated in the contract. Apprentices in the Apprenticeship framework are exempt from the UK's minimum wage legislation. Those trainees who follow a course with a training provider, but who are not employed (i.e. do not receive pay from an employer) are entitled to a training allowance. Although in some sectors such as engineering the Apprenticeship lasts for some 3.5 years, the duration varies from industry to industry, from company to company and from one trainee to another.

04040102 Promoting participation

Description:

How people are encouraged to take part in apprenticeships.

Synthesis:

The general Governments have sought to increase the number of apprentices because it is recognised as providing outputs for which there is demand in the labour market. Participation is promoted in two ways:

i. campaigns by the social partners to emphasise the benefits to the individual – and the employer – from completing an apprenticeship; and

ii. providing incentives – many of which are long-standing – to cover some of the employers costs from engaging in apprenticeships (such as the apprentice's wages whilst training).

There have also been moves to increase the upper age at which people are eligible for apprentices thus increasing the stock of people from which apprentices can be recruited.

There encouraging signs of success at the effect of these campaigns in raising both the status of apprenticeships and the number of young people participating.

Country Transversal Summaries:

Austria:	To enrol in an apprenticeship programme, candidates must find an apprenticeship placement. The Public Labour Market Service and other institutions provide assistance in finding a workplace in which to train. A number of initiatives have been put in place to address the current decline of apprenticeship training uptake: • increased vertical mobility within the education system; • pedagogical and financial support for students; and • alternative opportunities for young people with learning difficulties.
Belgium:	In **Flanders** sectoral bodies and training centres for part-time education have been given more financial means and resources for alternating learning (15-25 year olds). Recent measures include: • the Chemical sector agreement 2006 which is committed to more training and apprenticeships; • making young people more entrepreneurial through attractive training materials with SABIEN (Successful Apprenticeship Building on ICT and Entrepreneurial Needs). In the **French and German communities** block-release training is recognised and may result in the award of a certificate of equivalent to the one obtained at the end of full-time schooling. Apprenticeships lead to 'vocational aptitude' certificates and/or certificates of apprenticeship. Transparency of qualifications is guaranteed by the fact that they are in line with the lists of skills (training profiles) drawn up by the Community Commission for Progression and Qualifications (CCPQ).
Cyprus:	Apprenticeship programmes are advertised in newspapers and magazines and information is sent to schools. To promote participation, the Human Resource Development Authority subsidises apprentices' wages for the two days per week spent at technical schools. Apprentices can apply to Apprenticeship System Inspectors to discuss problems that may arise during their placement in industry. Apprentices receive support in finding employment through the District Labour Offices that match candidates with interested employers in consultation with the Inspectors.
Czech Republic	Not applicable.
Denmark:	Social partners, VET colleges and the Ministry of Education have taken measures to reduce the number of trainees undertaking school based training (who are at a higher risk of unemployment than those undertaking in-company training). Trainees receive financial support from the Employers' Reimbursement Scheme. Employers also receive a reimbursement of their costs and colleges receive bonuses for every apprenticeship contract signed.
Estonia:	Apprentices receive a wage during enterprise training and study support during theoretical studies at school.

Finland:	A campaign was launched in 2000 to promote VET. A key element of this campaign was a website dedicated to increasing awareness of the programmes on offer. Providing the opportunity of acquiring VET qualifications, based on previous knowledge and experience, is aimed at increasing participation in VET programmes.
France:	To promote participation in apprenticeship : • the State proposes exemptions from certain taxes; • the regional authorities offer grants to the firms hiring apprentices. The French Government launched an information campaign on apprenticeship training in November 2006 (leaflets, posters, messages on radios, *etc*). In January 2007, it also presented a development plan for apprenticeship based on improving guidance, increasing the offer of training, and simplifying administrative procedures.
Germany:	Since the early 1990s the demand for apprenticeships has been greater than the supply. To make VET attractive for high achievers, namely Abitur holders, they are offered exemption from the first year of the course. This target group also has access to additional units/qualifications during or immediately following regular training to enrich and further expand their capacities. Most effort is put into promoting access to IVET for the low achievers (disadvantaged young people). These measures are primarily designed to support young people who did not gain access to the dual system training or who need extra support during their course of training.
Greece:	For students that fulfil the relevant conditions, housing and other benefits are provided.
Hungary:	Students, enterprises and vocational training schools are encouraged by various financial incentives to favour this form of practical training. In the first term of the first IVET grade, students are entitled to a salary that is 15 *per cent* of the compulsory minimum. Students are also entitled to wage increments of at least 10 *per cent* in subsequent grades. Enterprises can apply for the reimbursement of their expenses not covered by their vocational training contribution to the training sub-fund of the Labour Market Fund. Furthermore, there is a network of advisors set up by the Hungarian Chamber of Commerce and Industry and the Hungarian Chamber of Agriculture aimed at promoting student contracts and providing information to both enterprises and students.
Iceland:	Besides the measures in place to promote access and participation to upper secondary VET, students with previous relevant work experience can receive credits for this experience, which may shorten the duration of their apprenticeship training.
Ireland:	The apprenticeship system has been under review, such that access might be granted to non-typical entrants in order to engage older people, women, and actively promote diversity. In order to boost participation, the number of designated trades is being increased, and FÁS offers a bursary to employers to take on female apprentices. In addition, disabled people are provided with special assistance to find an apprenticeship.

Italy:	There has been a large campaign both nationally and in the Regions to promote awareness of apprenticeships amongst employers, would-be apprentices, and the public generally.
Latvia:	Apprenticeship is not a popular educational option and each year approximately 80 apprentices enrol in apprenticeship training. The Latvian Chamber of Crafts plans to introduce several measures to increase interest in apprenticeship. These measures include providing more information to VET schools and improving the network of craft masters interested in training apprentices.
Lithuania:	Not applicable.
Netherlands:	The same guidance and counselling procedures as mentioned previously are available with respect to apprenticeships. The closer link between training and practice which is provided through apprenticeships is expected to prevent drop outs and ensure better transition of students into the labour market.
Norway:	To achieve the goal of increasing the uptake of upper secondary VET (including apprenticeship training) to 50 *per cent*, school counsellors, social partners and the county authorities organise campaigns to increase awareness of the choices available for lower secondary school graduates. The education authorities and the employers' and employees' organisations collaborate to increase the number of enterprises involved in apprenticeship training, and to strengthen the training offered. Enterprises, as well as the Training Offices owned and run by local groups of enterprises, receive public funding for training apprentices.
Poland:	The Chambers of Crafts and Crafts Guilds help to promote participation in apprenticeship training by disseminating information among lower secondary pupils and parents, and by organising events for current or potential apprentices. The Government provides a series of incentives for employers involved in apprenticeship training such as tax relief and reimbursement of wages paid to apprentices.
Portugal:	Information regarding apprenticeship training can be obtained from educational institutions, Vocational Training Centres and enterprises. Apprentices are entitled to benefits including food, transport and housing subsidies, and financial assistance for child (or other dependents') care. Training grants are available for low income families. Further support is available for high priority skills, regions or sectors.
Slovakia:	There are no specific measures to promote participation, but schools predominantly offering training (as opposed to study) have to make special efforts to attract students. These schools may, among other strategies, organise open days or advertise in the media or on the internet.
Slovenia:	Participation in apprenticeship programmes is promoted by schools, the Chamber of Commerce and Industry, and by the Chamber of Crafts. The chambers organise promotional activities in cooperation with schools and employers and schools organise information days once a year. There are also educational programmes to help adults prepare for and enrol in apprenticeship programmes. The legislative framework foresees individualised programmes designed for disabled candidates or those with

	special needs. Apprentices receive assistance from the Chamber of Crafts and the Republic of Slovenia Centre for VET to find a workplace in which to train. Once apprentices successfully complete their education programme, they can become regular employees in their training enterprise. If this is not the case, apprenticeship graduates can register with the employment service.
Spain:	Apprentices receive benefits such as: sick leave, medical care, maternity leave and maternity pay, amongst others. In cases where suitable education centres are not available, distance education centres may provide the training courses appropriate for the training contract. Students participating in School-Workshops and Trade Learning Centres receive further support during the theory stage at the beginning of the programme. This support consists of a grant, plus careers advice and guidance.
Sweden:	Students who choose to enrol in apprenticeship training receive support from a guidance officer at compulsory or upper secondary school for finding a suitable workplace for training. In 2005, there were just 40 apprentices. In the future there are plans to introduce a larger-scale programme.
United Kingdom:	Access to Apprenticeships is limited by the willingness of employers to provide places and the availability of apprenticeships varies across economic sectors. They are well established in engineering and the motor industry, but less so in other sectors. Brokerage services have been established to help employers assess the skill needs of employees aged 19 and over, and advise and source suitable training, as well as piloting financial incentives to encourage employers and young people in employment without training to take up formal training opportunities, such as Apprenticeship. Government advertising campaigns through the national media and the sectors aim to alert employers and young people to the benefits of apprenticeships. Financial incentives are available to employers: the cost of training is subsidised.

040402 Curricula

Description:

The content of training and the means of its delivery.

Synthesis:

Curricula are established to meet industry / occupation standards established by national or regional regulatory bodies. This is typically a mix of national agencies that have a responsibility for all apprenticeships and industry / occupation agencies that establish the detail for a specific apprenticeship. (See 0404 above for a fuller description of the apprenticeship system). Social partnership is writ large through the process of curricula development. In general, curricula are designed to:

- • provide a theoretical grounding in the subject matter;
- • provision of general education (selected countries only);
- • practical experience of applying theory.

The essential features of apprenticeship are:

- • workplace based training designed to give practical experience of carrying out the job; and
- • time spent off-the-job at training school where practical and theoretical knowledge of the subject.

Employers, where they engaged in apprenticeship are obliged by regulation to carry out training in-house, keep a record of training and the apprentice's development, and make the apprentice available for off-the-job training when required to do so. Individuals are required to keep a record of their training activities and achievements as well.

Curricula vary across Europe. On the one hand there is the German dual system, for instance, that combines rigorous academic and vocational education provided in vocational schools, with workplace based training. On the other hand, there is the UK system that limits general education to that required to carry out the job the apprenticeship will eventually leads to.

What is less evident in the country summaries is the extent to which new means of learning, such as distance learning, self-directed learning, and such like, are able to substitute for the traditional activity of attending vocational school. There is some evidence of this taking place in the UK apprenticeship system.

The duration of apprenticeships varies by course of study. In those countries that have moved towards a competency based vocational system – for example the Netherlands and the UK – the apprenticeship lasts as long as it takes for the apprentice to demonstrate the required level of competence. In other instances, apprenticeship is time-based.

Country Transversal Summaries:

Austria:	The teaching part of apprenticeship programmes takes place in vocational schools. The curricula and occupational profiles are coordinated at a federal level, taking labour market needs into account. The Federal Ministry of Economic Affairs and Labour works in close coordination with employers and employees to issue regulations for each apprenticeship trade. There are 255 apprenticeship types.
Belgium:	The Higher Council for Independent Professions delivers advice on training for independent professions in co-operation with the relevant employers in the different sectors. Reform was introduced in 1996 (in Flemish community) and 1997 (in French community) which included: • more modular general education programmes and changes to assessment procedures; • improved assistance for young people.
Cyprus:	Decisions on the occupations for which training is provided are made by the Apprenticeship Board, which includes representatives from the Government, technical schools, employers' and employees' organisations, and the Human Resource Development Authority. The Apprenticeship System is monitored by inter-departmental committees for each specialisation in each district. These committees also submit suggestions to the Apprenticeship Board concerning the revision of the curricula.
Czech Republic:	Not applicable.
Denmark:	Subjects, assessment procedures, and other details of IVET programmes are set out by executive orders prepared by the Ministry of Education, the Vocational Education Council and the relevant trade committees. The latter are strongly involved in reviewing and amending executive orders. Two thirds of the apprenticeship is company based.
Estonia:	The aim is to achieve a balance between practical and theoretical training such that 1/3 of the training will be concerned with vocational theory, and 2/3 practical training in an enterprise. Apprenticeship training is relatively new to Estonia – established in 2006 – such that apprenticeships are still in a process of establishment.
Finland:	Core curricula are prepared by representatives of employers, employees, teachers and students, and are approved by the National Board of Education. Students' individual learning programmes are prepared in accordance with the national core curriculum guidelines, taking the needs of the workplace into account. The student, the employer and the local administrative authorities cooperate in its preparation and the programme is appended to the apprenticeship contract.
France:	Apprenticeship training prepares young people for all diplomas or vocational certificates listed in the national vocational certification register. Job profiles and curricula for each diploma are designed, adjusted or eliminated by the Ministry in charge of education or agriculture, with input from the social partners, which are represented on advisory vocational commissions. Curricula are generally reviewed every five

	years.
Germany:	Apprenticeship training is based on the Vocational Training Act. The Act states that apprenticeship training has to follow training regulations, which specify goals, content and duration of in-company training as well as the examination requirements, and the skeleton curriculum, which describes the occupational learning goals and the content of vocational school education. Corresponding to the goal of acquiring a broad range of professional skills, trainees shall have the opportunity to work in different specialised departments and fields of activity during their training. There are currently (2005) c. 350 recognised training occupations.
Greece:	The curricula for Apprenticeship in the Technical Vocational Schools (TEEs) are determined by the Ministry of Education and Religious Affairs (Pedagogic Institute) and the Ministry of Labour. Curricula are under continuous revision with respect to contents and vocational sectors. OAED implements the recommendations from the above institutions in terms of curricula content, vocational sectors, learning objectives and processes, with the aim of updating apprenticeship training. The knowledge and skills acquired during the practical work experience are recorded in students' individual Career Registers. The main elements of the curricula are: • courses of general education; • vocational courses; • practical exercises underpinned by theoretical knowledge; and • practical experience in a business.
Hungary:	Curricula of the IVET grades of vocational training schools are known as 'professional programmes' and are developed by the schools in accordance with the professional and examination requirements of the vocational qualification offered and the recommendations of the framework curricula. The local programme of practical training, which specifies the training plan and schedule, can be developed by the enterprise but is in fact often based on the professional programme of the school, or is simply an adapted version of the central curriculum issued by the relevant ministry.
Iceland:	Apprenticeship training is regulated by the National Curriculum Guidelines. Workplace instruction must be supervised by a master craftsman and is regulated by a contract. Students document their progress in a personal journal. The curricula for non-certified trades is designed by the schools offering courses , based on the general curricula as issued by the Ministry of Education, Science and Culture.
Ireland:	Apprenticeship curricula are based on rules and industry standards. They are written by subject matter experts nominated by the social partners. A review process was established in 2002, with submissions invited from a range of interested parties. The NAAC recommends that each apprenticeship is reviewed on a three yearly cycle. Fáilte Ireland has responsibility for the curricula in tourism, catering and related trades.
Italy:	The curricula are based around on-the-job and off-the-job training. With reference to the latter, apprentices receive 120 hours a year and, if they are under 18 years of age, a supplementary module of a further 120 hours.

Latvia:	Apprenticeship programmes are drafted by corresponding craft professional associations and approved by the Craft Council of the Chamber of Crafts. But it needs to be borne in mind that there are few apprentices, and the apprenticeship system tends not be linked to the formal IVET system (as described in 0405).
Lithuania:	Not applicable.
Netherlands:	See curricula in school-based IVT (section 040302). A minimum of 60 *per cent* of learning occurs in the workplace. The learning agreement outlines the material and assessment procedures. It is not likely that all requirements can be met by one single company, so a student may change practical training place as necessary during the overall educational course. Sometimes skills that cannot be learned in a company are taught at school or in a simulated environment.
Norway:	Curricula standards for upper secondary VET, including apprenticeship training, are developed by the relevant social partners and industries through the Vocational Training Councils and the National Council for Vocational Training. Decisions on how the curricula are structured and delivered are made by the county authorities. There are 220 trades in which an apprenticeship can be taken.
Poland:	Apprenticeship training is available for occupations listed in the Classification of Occupations for Vocational Schooling. This follows curricula approved by the Ministry of National Education and Sports. Training for non-school (non-listed) occupations follow curricula prepared by the craftsman in charge of the training, taking into account the requirements of the apprenticeship examination.
Portugal:	Theoretical and practical components of the training are organised by the Apprenticeship Coordinator. Practical and workplace training are responsibility of the Apprenticeship Support Entity, who can be any person endorsed by the Institute for Employment and Vocational Training. Apprenticeship courses last between 1 and 4 years and include socio-cultural, scientific and technological, as well as practical components. Practical training takes up a minimum of 30 *per cent* of the total training, and is complemented by workplace training.
Slovakia:	Not applicable.
Slovenia:	Curricula are based on professional standards written by the Republic of Slovenia Centre for VET in accordance with the needs of the labour market and school requirements. Professional standards are approved by a board of 14 VET experts appointed by the Ministry of Education and Sport (two members), other Ministries (three members), the Chamber of Commerce and Industry/Chamber of Crafts (five members), and the trade unions (four members). Enterprises and other social partners influence the curricula through this process. Depending on the programme, enterprises and schools/training centres on the regional level define 20 per cent of the curricula. Curricula are revised every 5-10 years.
Spain:	In the case of Workshop Schools and Trade Learning Centres, the student-workers receive an initial theory training stage during which, in addition to the content specific to their training modules, they receive guidance,

	advice, vocational information and business training. In the second stage, they are hired by participating entities under the terms of training contracts.
Sweden:	The National Agency for Education develops curricula objectives and guidelines; curricula are defined by the municipalities and schools. The goals and objectives of the apprenticeship period are decided by the enterprises and the upper secondary schools.
United Kingdom:	All apprenticeships follow the following pattern: • an NVQ / SVQ at the level of the Apprenticeship (level 2 or 3) - an NVQ requires demonstration of competence in the workplace; • acquisition of key Skills as appropriate; key skills are communication, application of number and Information and Communications Technology (ICT), together with the 'wider' key skills of 'Working with others', 'Improving own learning and performance' and 'Problem solving'; • a 'technical certificate', which is a vocationally related qualification (usually also available to non-Apprentices), often offered by a college or private training provider and intended to ensure that the apprentice acquires an adequate understanding of theory and underpinning knowledge relevant to the apprenticeship. The different aspects of the Apprenticeship are established by different bodies, but in general they are established by the curriculum authority in each of the four nations and the SSCs for the sector in which the Apprenticeship is situated.

04040201 Content and delivery

Description:

The main components and skills foreseen in the curricula.

Synthesis:

The basic model is theoretical training and practical experience of putting theoretical knowledge into practice, usually in a workplace. Where there is a work placement this typically accounts for at least half of the time spent as an apprenticeship. (see 0404 above for a fuller description of the apprenticeship system). Theoretical knowledge is acquired in vocational schools.

Country Transversal Summaries:

Austria:	During the school year, apprentices attend sessions as part time students in vocational schools once or twice a week. The rest of the time they participate in work based training. The content of the latter is based on the requirements of the occupation, as established in the occupational profiles and apprenticeship training regulations. Completion takes 2-4 years. 80 *per cent* of time is spent in the company.
Belgium:	In **Flanders,** apprenticeships give pupils a basic education, training in a profession, and preparation for entrepreneurial training. It includes theoretical training (120 teaching periods *per* year and 120 supplementary periods for 15 year olds) and vocational courses (120 teaching periods *per* year). General education course are usually included as are vocational training courses. Courses are usually given for 1 or 1 ½ days each week while for the remainder of the time apprentices are trained in the enterprise with which they have a contract. In the **French community** the apprenticeship includes general education courses and vocational training courses. Courses are usually given for 1 or 1 ½ days each week while for the remainder of the time apprentices are trained in the enterprise with which they have a contract.
Cyprus:	Apprenticeship programmes provide work-based training three days *per* week and theoretical training twice a week. Theoretical training takes place at technical schools and includes general education subjects combined with technological and workshop subjects. To encourage the participation of enterprises, the Human Resource Development Agency subsidises apprentices' wages for the days spent at technical schools. Apprenticeships last for around 2 years; 2 days a week are spent at school.
Czech Republic:	Not applicable.
Denmark:	The programmes start with a basic level of training followed by a main level. Basic training last between 10 and 60 weeks and give students insight into their chosen field. Main programmes last 3.5 years and it is at this level that in-company training takes place.
Estonia:	Students learn their profession by performing actual work tasks. Additional theoretical and practical courses are provided by the VET institution.
Finland:	Around 70-80 *per cent* of the time is dedicated to workplace training. Theoretical education takes place at vocational institutions or vocational education centres.
France:	The theoretical parts of the curricula are administered in apprentice training centres and account for 25 to 35 *per cent* of the total working time, depending on the diploma. For the remainder, apprentices work in enterprises. Emphasis is placed on specialisation, but broad occupational skills are also included in the curricula. Apprenticeship programmes are run mainly by the regions, industrial partners, the State and its decentralised departments, and the chambers of commerce and industry.

Germany:	In-company training takes place according to the requirements of the training regulations (*Ausbildungsrahmenplan)*, school courses are carried out according to the skeleton curriculum (*Rahmenlehrplan*) and - if applicable – *Land*-specific curricula. The school curriculum makes up for 20-40 *per cent* of the time frame of the full programme. Training regulation and skeleton curriculum prescribe the goals of training. They are implemented mainly by the companies providing training and the vocational schools. Both documents stipulate minimum requirements. Companies can also impart knowledge and know-how not prescribed in the training regulation but necessary and useful for working in the company.
Greece:	The first year consists exclusively of school-based courses, while in the 2nd and 3rd years, students are in enterprises for 30 hours *per* week and in school units for 17 hours. Where attendance at the Technical Vocational School (TEE) is wholly school based, the curriculum is otherwise the same as for the Apprenticeship mode of study. The aim is to provide practical experience underpinned by theoretical knowledge. In the first year general education courses make up 43 *per cent* of instruction while vocational and laboratorial or practical courses each account for 28.5 *per cent* of courses. In the second year, 29 *per cent* of courses are in general education, 24 *per cent* are vocational courses and 47 *per cent* are practical courses. In the third year, general education makes up 29 *per cent* of courses, vocational courses account for 47 *per cent* and practical courses account for 24 *per cent*.
Hungary:	Typically, during the school year, provision of theoretical instruction and enterprise-based practical training alternate on a weekly basis. Cooperation between enterprises and vocational training schools is ensured by use of the following: • the central documents defining the content, structure and learning outcome requirements of the qualification pursued which serve as the basis of the local curricula of both the school and the enterprise; • the 'work log' in which the enterprise registers the weekly/monthly practical assignments and the time allocated, as well as the evaluation of students; and • the 'student work log' provided by the school to the student who must keep it up to date and have it certified by the practical training provider at least once a month.
Iceland:	Apprenticeships consist of work based training, following a period of school-based learning. The content of work-based learning varies depending on the programme.
Ireland:	The FÁS apprenticeship has seven phases: • Phase 1 – introduction to apprenticeship; • Phases 2, 4 and 6 – off-the-job training, with each phase at a single institution to ensure integration of practical training with the

	necessary theory and education (a total of 40 weeks). FÁS schedules and makes arrangements for the training, and it is compulsory for the apprentice to attend; • Phases 3, 5 and 7 – on-the-job training. Fáilte Ireland provides day/block release for craft and management apprentices in hotels, catering and tourism. The apprenticeship lasts three years, with day release taking place over 26 weeks and four weeks of full time block attendance.
Italy:	Education delivered to apprentices must be both general and occupation specific. The content of training in some sectors has been designed by sector experts, and a range of other Governmental and non-Governmental bodies. In the supplementary module, apprentices need to acquire numeracy and literacy skills to a given standard, and IT skills, as well as vocational guidance and citizenship.
Latvia:	Apprenticeship training may be organised in two ways: • the apprentice works with a crafts master and looks for theoretical training in vocational schools; • an apprentice is a student in a vocational school and during practical placement works with a crafts master. Furthermore, theoretical training for journeyman and master qualifications is offered by the Chamber of Crafts.
Lithuania:	Not applicable.
Netherlands:	Typically, 4 days *per* week are spent in the workplace and 1 day is spent learning in the classroom/school.
Norway:	The apprenticeship training aspect of upper secondary VET consists mainly of trade-specific elements. Training is conducted following the inductive principle of "learning by observation, doing and explanation". Explanations are complemented by theoretical sessions delivered by the company, a training office or an upper secondary school. Apprenticeship training is delivered by individual enterprises or groups of enterprises that cooperate through a local training office. To be approved as a training provider an enterprise or public institution must be able to meet the curricula requirements for the occupation concerned.
Poland:	Apprenticeship training for occupations listed in the Classification of Occupations for Vocational Schooling follows curricula approved by the Ministry of National Education and Sports. Training for non-school (non-listed) occupations follow curricula prepared by the craftsman in charge of the training, taking into account the requirements of the apprenticeship examination. Practical training in the work-place lasts for 80 days in the first year, and up to 100 days in the second and third years.
Portugal:	Vocational Training Centres, Employment Centres and Accredited External Bodies may all function as Apprenticeship Coordinators. Practical and workplace training are the responsibility of the Apprenticeship Support Entity, who can be any person endorsed by the Institute for Employment and Vocational Training.

Slovakia:	Not applicable.
Slovenia:	The theoretical part of apprenticeship training is school-based and is assessed by school teachers. Practical and theoretical training should last no longer than eight hours a day and should not exceed the weekly quota fixed by law. The apprentice who is trained more than nine months a year is entitled to eight weeks of holiday that year. The cooperation between all social partners is guaranteed through the National Expert Council for VET Programmes.
Spain:	Theoretical training must take place outside the workplace and may be delivered by the network of public centres, the network of centres run by the social partners, or by approved private centres. Apprenticeships include a module on Information and Communications Technology lasting at least 30 hours. Special programmes are available for student workers taking part in School Workshops, Trade Learning Centres and Employment Workshops who have not met the objectives of Compulsory Basic Education. The aim of these programmes is to encourage students to join the labour market or pursue further studies.
Sweden:	Apprenticeships are part of the upper secondary school system and the theoretical part of the training takes place at an upper secondary school. Seventy five *per cent* of training is work based.
United Kingdom:	The content of each Apprenticeship is designed by SSCs, sector bodies and their employers in accordance with the design principles of the Apprenticeship Blueprint (England and Wales). The Blueprint provides the specification for Apprenticeship and is used by SSCs to design and revise Apprenticeship frameworks. The emphasis in apprenticeships is on preparation for employment and each Apprenticeship is specific to an occupational area. Although regulations are flexible, a common pattern in Apprenticeships is for practical training and experience to take place in the workplace on four days per week and study of the underpinning knowledge for the Technical Certificate to take place in college one day a week.

04040202 Assessment

Description:

The criteria/ways according to which assessment is carried out and the bodies responsible for assessment.

Synthesis:

Assessment is carried the vocational schools and by assessors within the workplace. Standards are set by the organisations that are responsible for apprenticeship training in each country. This varies between the State, and organisations responsible for a particular occupation/profession. The emphasis is upon practical demonstration of competence but examinations are common in the school based part of the apprenticeship programme.

In general, assessment is carried out by:

- an examination testing theoretical knowledge;
- a practical demonstration of the theoretical knowledge; plus
- assessment of capability within the workplace (usually carried out by an expert in the trade or profession).

Country Transversal Summaries:

Austria:	Assessment of the school based part of the apprenticeship programme is undertaken according to VET schools' assessment systems. Students receive certificates for successful annual performance at school and these must be presented to the training master. The assessment of the work based part of the programme consists of masters and instructors providing feedback to the apprentice. The Apprenticeship Leaving Examination assesses general performance, which includes both theoretical and practical elements. The exam takes place in front of an examination board.
Belgium:	In **Flanders** during apprenticeship training, students take transition exams and a final exam but are also assessed on the basis of interim evaluations related to performance at the company. Interim evaluations evaluate the functioning within the company and progress in the training centre. The transition exam takes place at the end of the first and second years. The final exam takes place in the last year of the apprenticeship and consists of an integrated practical test. In the **French community** evaluation of practical in-company training comprises continuous assessment and annual evaluation. The annual evaluation of an apprentice's general knowledge and occupational skills consists of day-to-day evaluation and a written examination. Evaluation at the end of the apprenticeship covers general knowledge (30 *per cent* of marks), occupational knowledge (30 *per cent*), and practical training (40 *per cent*).
Cyprus:	The assessment of the school based part of the apprenticeship is consistent with that of technical schools and consists of continuous assessments and final examinations. In industry, apprentices are given a grade by their supervisor and this appears in the professional certificate issued by the Ministry of Labour and Social Insurance.
Czech Republic:	Not applicable.
Denmark:	Subjects, assessment procedures, and other details of IVET programmes are set out by executive orders prepared by the Ministry of Education, the Vocational Education Council and the relevant trade committees. The latter are strongly involved in reviewing and amending executive orders. Two thirds of the apprenticeship is company based.
Estonia:	Workplace-supervisors give feedback to the VET institution on the progress of apprentices.
Finland:	Apprentices are guided and supervised by an instructor assigned by the workplace. The assessment of apprenticeship training is made by the employer and the provider of theoretical studies. The combination of these two assessments is written in the certificate of the student.
France:	The examination panel is composed of an equal number of instructors and professionals. Apprentices are evaluated based on written, oral and practical examinations. Certification guidelines are set out at the national level. Each school district or region sets out the contents of examinations.
Germany:	Assessment is made according to:

	• intermediate examinations (in all recognised occupations): there must be at least one intermediate examination. It usually takes place midway through training and serves as an assessment of training progress; • final examinations –admission is dependent upon completion of the duration of traineeship, a correctly maintained report portfolio from the company and the participation in the intermediate examination. The training regulations stipulate in detail the goal, time, scope, content, structure, form and duration of the examination. Competences are often examined in writing, whereas skills are either tested verbally (in the case of commercial and administrative occupations), or as part of practical activity.
Greece:	The system of assessment is uniform and takes the form of advancement examinations (taken at the end of the school year in order to proceed to the next grade) and final examinations.
Hungary:	Vocational practical training provided either in a school workshop or at a workplace may be assessed by the training provider through an examination in the 11th or 12th grade. The vocational examination (leading to a vocational qualification) takes place at the end of a training programme in front of an independent examination board. The board comprises a person nominated by the minister of the relevant field, as well as representatives of the institution organising the examination and the competent local chamber of the economy.
Iceland:	Assessment consists of end of semester examinations and/or continuous assessment. A skilled worker examination is necessary for access to the labour market in a number of certified trades. Examinations for non-certified trades are not co-ordinated at a national level; they are set and administered by each school.
Ireland:	Apprentices are continually assessed on-the-job and in training centres, and are subject to practical and theory tests.
Italy:	Assessment is made by the company tutor, according to rules established in the Region. For those under 18 years of age, there are also standardised tests in relation to certain basic skills.
Latvia:	Assessment involves an examination organised by the Chamber of Crafts. This may consist of a presentation of both practical techniques and theoretical knowledge acquired (in the case of the journeyman qualification) or an exam (in the case of master craftsman).
Lithuania:	Not applicable.
Netherlands:	The within school portion of learning is assessed in the same way as described previously. Assessment of the practical training component takes place in the workplace *via* a practical examination. The educational institution is responsible for examination and the practical trainer also plays a role. Assessment is outlined in the learning agreement and examinations are also monitored by the Quality Centre for Examination following the same national standards. The same standards apply for accreditation of prior learning (APL), but implementation might be

	adjusted *vis a vis* the APL procedures.
Norway:	The trade or skilled worker examination is a practical test that requires students to demonstrate their skills. The context of the test is defined by the county Vocational Training Committee which also appoints an Examination Board of experts to organise and conduct the examination.
Poland:	Apprenticeship training is assessed by the Apprenticeship Examination, leading to the apprenticeship qualification. The exam is organised and conducted by the Examination Commission of the Chamber of Crafts. To take the examination, candidates must have received vocational training at a crafts establishment and completed theoretical training in or outside of school. Alternatively, they must fulfil the criteria on previous experience and vocational qualifications. The Apprenticeship Examination consists of practical and theoretical elements.
Portugal:	Regular assessments of the training are conducted throughout the academic year. An overall evaluation is provided at the end of each year. Monitoring and evaluation of workplace training are conducted by a tutor of the Apprenticeship Support Entity in coordination with the Course Coordinator. Courses end with a final examination organised by a Regional Panel and in front of representatives from the Ministry of Education, employers' associations and trade unions.
Slovakia:	Not applicable.
Slovenia:	Apprentices' theoretical knowledge is assessed continuously (at least twice every grading period) by the teacher, who awards marks on a scale from 1 to 5. The education program defines compulsory oral and written methods for grading knowledge. The workplace supervisors assess apprentices' working skills and knowledge in each individual's diary. The Law on Vocational Education and Training also prescribes one mid-term practical exam. At the end of their apprenticeship training, apprentices take a school leaving examination before a board of examiners composed of teachers and experts proposed by the appropriate chamber of employers. The examination consists of a theoretical and a practical component. The latter consists of an explanation by the candidate of a product or service. The aim of this explanation is to prove the connection between candidate's technical and theoretical knowledge and their practical skills.
Spain:	Practical training takes place "... under the guidance of a worker or employer with suitable qualifications or work experience". A certificate is issued by the employer within a month of completing the instruction, specifying the level of training acquired and the theoretical training undertaken.
Sweden:	Written assessment takes place once a year. The workplace instructor and the school teacher liaise to discuss matters related to the student's development.
United Kingdom:	The NVQ is at the centre of the Apprenticeship and is the method used to assess the occupational competence of the candidate. The broad assessment arrangements for each NVQ are determined by the relevant SSC in the form of an 'assessment strategy'. The majority of assessment

	takes place in the workplace and involves practical competence on the job, often with oral questioning and with 'evidence' such as completed pieces of work (where the task is a practical one) or records of work undertaken. The Technical Certificate provides the underpinning knowledge and understanding for the NVQ and is normally delivered outside the workplace, for example by a Further Education college or training provider. The assessment arrangements for Technical Certificates differ, according to the nature of the occupation, but must include provision for 'external quality control'. This normally takes the form of an external written test or assignment, which is combined with external monitoring (through visiting verifiers) of practical and other assessments undertaken by the centre. In relation to key skills candidates are required to complete both externally set tests, which are the same for all sectors (and may be taken on computer) and a portfolio of relevant work, assessed by the centre and monitored by the awarding body.

04040203 Quality assurance

Description:

The mechanisms and criteria adopted for quality assurance.

Synthesis:

Each country has an inspectorate to ensure that training is delivered according to the specification in the apprenticeship contract, and that it meets the standards set by the curriculum authority. (See 0404 above for a fuller description of the apprenticeship system). It is part of the apprenticeship contract with employers that they abide by the rules and regulations regarding the delivery of training within the workplace and making the apprentice available for school training.

Country Transversal Summaries:

Austria:	The Apprenticeship Offices of the Economic Chambers and the Offices for the Protection of Apprentices of the Chamber of Labours, ensure that training providers offer adequate conditions of work and appropriate training. Provincial school boards and their vocational inspectors supervise the implementation of federal curricula and educational regulations. Recent developments include initiatives to encourage schools to take measures to ensure quality and foster improvement.
Belgium:	The Higher Council for Independent Profession gives advice on training for independent professions in co-operation with the relevant employers of the different sectors. The head of the enterprise involved in the apprenticeship (training company) is expected to give 'moral and social' patronage.
Cyprus:	Apprenticeship System Inspectors appointed by the Ministry of Labour and Social Insurance monitor apprentices' learning progress in industry and assist industry instructors in the implementation of the curricula. Inter-departmental committees for each specialisation supervise the implementation of the apprenticeship system. These committees are also in charge of revising the curricula.
Czech Republic:	Not applicable.
Denmark:	Company appointments last between two and four years and may be withdrawn by the relevant trade committee if the company fails to meet its obligations.
Estonia:	Enterprises taking on apprentices are supervised to ensure that they have the required human resources and equipment to provide suitable training.
Finland:	Enterprises taking on apprentices are supervised to ensure that they have the required human resources and equipment to provide suitable training.
France:	Apprenticeship is evaluated by specific "apprenticeship inspectorates", reporting directly to their regional authority. These inspectors oversee management, educational methods and funding. The quality of working conditions in enterprises is ensured by labour inspectors, reporting to the ministry in charge of labour. Surveys related to apprentice employment status 6 months and more after completion are also carried out by school, regional authorities, or by the CEREQ.
Germany:	Regulation – relating to the training contract, curricula, and exam content - is used as the main means of assuring quality. In addition, at the company level, there is recurrent assessment of the learning progress of the apprentices. The development of procedures for the external evaluation of quality assurance mechanisms will be in place within the next few years.
Greece:	The practical exercise is supervised by the OAED's experienced educational personnel, with regular monitoring in the places of work to ensure that training plans are adhered to and working conditions are satisfactory.
Hungary:	The quality assurance mechanisms for curricula delivery and assessment for school-based and alternance training apply to apprenticeship training as

	well. In addition to this, the Hungarian Chamber of Commerce and Industry has developed a two-level system of monitoring enterprise-based practical training. At one level, it ensures that the enterprise is suitably equipped in terms of human and physical resources to provide training. At another level, it inspects the quality of training and the effectiveness of the educational and pedagogical work. The Chamber provides professional counselling services, organises conferences and publishes handbooks and reports to help improve the conditions and quality of training provided by enterprises.
Iceland:	It is the responsibility of craftsmen to ensure that proper work-place training takes place. No other procedures are in place. To participate in apprenticeship programmes, employers must be approved by the Ministry of Education, Science and Culture.
Ireland:	FÁS has a Curriculum and Quality Assurance Department which addresses the assessment specifications.
Italy:	The Regions have a monitoring database that captures information about the number of apprentices, their location and financial information. However, only in a few cases do they monitor the training activity. There is some outcome based evaluation and there are also a number of actions underway to ensure the quality of the delivery system. Nationally, Isfol carries out research studies looking at the quality of the system from a number of perspectives.
Latvia:	The Chamber of Crafts – a professional self governed organisation – is responsible for the quality assurance of the apprenticeship programmes.
Lithuania:	Not applicable
Netherlands:	As described in previous sections (04040202). For the practical training part, the role of the national expertise centres for vocational education, training and the labour market is also important with respect to quality assurance.
Norway:	Each county Secretariat for the Vocational Training Committee recruits and approves enterprises for apprenticeship training and conducts inspections on the conditions of work for trainees and their activities. The regional Training Offices for the various trades, established and owned by the industry, collaborate with the Secretariat to supervise training enterprises.
Poland:	Craft organisations supervise apprenticeship training to ensure that it is conducted according to the curricula and in proper conditions. They also provide support to businesses in conducting their training tasks. To provide training, employers must be able to provide sufficiently adequate training and their staff must be qualified to provide training.
Portugal:	The Apprenticeship System is monitored by Institute for Employment and Vocational Training (IEFP). There is an assessment of the knowledge acquired in the workplace through a final exam.
Slovakia:	Not applicable
Slovenia:	The quality of curricula delivery and assessment is regulated by the National Expert Council for VET Programmes, the Republic of Slovenia

	Centre for VET, the service for education of the appropriate chamber, and by the Council for Evaluation at the Ministry of Education and Sport. The role of the Republic of Slovenia Centre for VET is crucial as it ensures coherence between the learning content in enterprises and school/training centres.
Spain:	Recognised centres for theoretical training submit, quarterly, two types of reports to the National Public Employment Service. The first report includes details on new or completed working contracts and the second provides information of the trainees' progress. The School-Workshops, Trade Learning Centres and Employment Workshop programmes provide an annual report that includes a measure of the success in finding employment as a measure of quality.
Sweden:	Local authorities follow students' development at the workplace. Local authorities and educational institutions are subject to inspection.
United kingdom:	The Inspectorate (in each of the four nations) is responsible for inspecting and reporting periodically on the quality of teaching, learning and management of individual colleges, private training providers and other learning providers. The reports of the Inspectorate are used to monitor the quality of provision, to provide 'benchmarks' against which providers can judge their own performance (by enabling comparisons with other providers of similar size and student characteristics), to ensure that action is taken where providers are failing and to provide examples of good practice. The LSC also ensures the quality of learning provision through its FE sector financial stream arrangements.

040403 Learning outcomes

Description:

What happens to apprentices once they have completed their training.

Synthesis:

In all countries completion of the apprenticeship allows immediate entry to the labour market – this qualifies the young person to enter the trade / profession. In some countries (e.g. Hungary) further examination may be required before access to a regulated profession is granted. There is evidence for selected countries that the unemployment rate is higher for apprentices than for those who pursued a comparable route through the school based vocational route.

Apprenticeship whilst giving the status of skilled craftsman or journeyman, allows limited opportunity for progression beyond this level of training. In selected countries – see Section 0406 – there is the possibility of further study to attain "master status", but continuance to this level is on a relatively small scale and not available in every country. Thus there is little opportunity other than to the "master" level to progress beyond the apprenticeship. This is an issue which countries are aware of and are looking at the possibilities of providing some form of learning that will allow a bridge to be developed between apprenticeship and tertiary education.

Country Transversal Summaries:

Austria:	Successful completion of apprenticeship training provides immediate access to the labour market. The situation for apprenticeship graduates is comparable to VET school graduates, as far as working in regulated professions and working independently is concerned.
Belgium:	In **Flanders apprentices** who do not pass the exams for the socio-oriented and/or vocational subjects may sit a second exam in the second year. A second integrated practical test is only possible in the next year. In the **French and German communities** to achieve a pass, the apprentice must obtain 50 *per cent* of the marks awarded for general and occupational knowledge and 60 *per cent* of the marks awarded for practical training.
Cyprus:	Upon successful completion of the two-year apprenticeship programme, students are awarded a professional certificate by the Ministry of Labour and Social Insurance.
Czech Republic:	Not applicable.
Denmark:	The training company issues a final practical statement detailing the training provided. If more than one company is involved, each must issue a separate statement.
Estonia:	The practical skills acquired in enterprises enable the apprentices to enter the labour market.
Finland:	Successful completion of apprenticeship training leads to a qualification comparable to that obtained through upper secondary VET. Further and specialist VET qualifications may also be obtained through apprenticeship training.
France:	Many apprentices find employment in their training workplace of in another company. Alternatively, they can start a new apprenticeship contract to obtain a higher level diploma. In 2004, 66 *per cent* of apprentices were in employment 8 months after completing their apprenticeship.
Germany:	The apprenticeship pathway leads to a recognised qualification as a skilled worker (*Facharbeiter/in, Fachangestellte/r).* Knowledge, skills and competences acquired are documented in the Diploma issued by the "competent body" (*e.g* the Chamber of Industry and Commerce) as well as in two certificates, one issued by the vocational school and one by the training company. Graduates from the dual system are often able to apply their skills across a range of occupations.
Greece:	Apprenticeship-based Technical Vocational Schools (TEE) provide learning leading to the same qualifications as those achieved through school-based TEE. The advantage of work experience is not reflected in the formal qualifications. However, apprenticeship training offers a qualitative comparative advantage in the labour market.
Hungary:	Apprentices are students of the IVET stream of vocational training schools receiving their practical training at an enterprise on the basis of a student

	contract. As such, they are eligible to sit State-recognised vocational qualifications of the National Qualifications Register providing access to regulated as well as unregulated vocations.
Iceland:	Apprentices who are successful in their skilled worker examinations become qualified and acquire the right to work in certified professions. Work experience and advanced studies at a vocational school allow qualified skilled worker to become master craftsmen, conferring the right to supervise apprentices.
Ireland:	Upon successful completion of the apprenticeship the apprentice is awarded the National Craft Certificate. In relation to Fáilte Ireland there is the FETAC National Certificate in Professional Cookery.
Italy:	There are no data available to indicate the destinations of those who have completed their apprenticeships.
Latvia:	The qualifications awarded by apprenticeship programmes are journeyman and master craftsman qualifications; the latter is a higher qualification.
Lithuania:	Not applicable.
Netherlands:	All MBO courses lead to a qualification. A diploma is awarded for fully completing the programme while a certificate may be given for partial completion. Programmes are intended to prepare students for the labour market or further learning.
Norway:	Successful completion of upper secondary VET, including apprenticeship training and passing the final examination, leads to either a skilled worker's or a trade certificate. These certificates refer to different trades but have the same status. They give access to employment as a skilled worker. Students who do not complete their studies may receive a document detailing the subjects and modules completed.
Poland:	Successful completion of the relevant training and passing the Apprenticeship Examination leads to the Apprenticeship Certificate. A Basic Vocational School Leaving Certificate may also be awarded for students who complete the relevant theoretical education.
Portugal:	Level 2 and 3 Vocational Training Certificates are equivalent to a lower or upper secondary certificate, and credits are valid for further education.
Slovakia:	Not applicable.
Slovenia:	Successful completion of apprenticeship training leads to the award of a certificate of school leaving examination.
Spain:	A certificate is issued by the employer within a month after the instruction has been completed, specifying the level of training acquired and the theoretical training undertaken. Qualifications offered by training contracts are formally accredited. Where this is not the case, the qualification will represent the basic level within the company.
Sweden:	Successful completion of the apprenticeship programme leads to a school leaving certificate. This certificate does not give access to higher education; students who wish to go into higher education must study three additional subjects.
United	The apprentice who successfully completes the apprenticeship receives an

Kingdom:	apprenticeship certificate, together with individual certificates for: • National Vocational Qualification. • Technical Certificate. • Key Skills certificate(s).

04040301 Qualifications/certification

Description:

The criteria participants should meet to obtain qualification.

Synthesis:

Apprentices are continually assessed and upon completion are awarded a certificate. An overview of the process of completing an apprenticeship is provided in 040303.

The aim of the qualification is to provide the individual with the credentials to enter their chosen vocation / profession. In general, the award is at ISCED Level 3C (*i.e.* does not allow for progression to tertiary level) or, to a lesser extent, Level 3B (*i.e.* allowing for progression to tertiary education). .There is, however, considerable variation across countries with apprenticeship in some countries more readily allowing progression to qualification at ISCED Level 4 (*e.g.* Germany, Austria, Iceland).

Only France describes the potential for apprenticeship at Level 5.

Country Transversal Summaries:

Austria:	The Apprenticeship Leaving Certificate is awarded once the apprentice has passed the Apprentice Leaving Examination. Details of the holder's results are included in the certificate. Certificates are also awarded for the apprentice's annual performance. Successful completion of all levels leads to a Technical and Vocational Education Certificate or Diploma.
Belgium:	In **Flanders,** apprentices can obtain the following certificates: • certificate of the 2nd stage secondary education; • certificate of the acquired competences for an accomplished unit; • qualification certificate of part-time vocational secondary education; • certificate of business administration basics. In the **French/German-speaking communities** at the end of a three-year contract and after passing the examinations (above), the apprentice receives an apprenticeship certificate officially recognised by the French or German-speaking Community. These certificates are awarded by the Vocational Training Institutes on behalf of the minister responsible for the respective community.
Cyprus:	The professional qualification awarded to those who successfully complete the apprenticeship programme entitles the holder to enter the labour market as a semi-skilled worker in a number of regulated professions. It is not equivalent to the Leaving Certificate awarded upon completion of upper secondary education. The professional certificate does not give access to higher education.
Czech Republic:	Not applicable.
Denmark:	IVET students are awarded a formal qualification that qualifies them as skilled workers and provides access to the labour market.
Estonia:	Studies are completed after passing a professional qualification examination or final school examination
Finland:	Upon completion of apprenticeship training students receive a participation certificate and a qualification certificate. The latter is comparable to the upper secondary vocational qualification and gives the same access to further studies. Vocational qualifications acquired through competence based examinations do not give access to further studies.
France:	Students may obtain several diplomas. Some diplomas grant access to a specific trade (CAP, BEP) while others lead to a broader spectrum of activities. Students must pass theoretical and practical exams held throughout the year or at the end of the year. The work completed during the apprentice training programme with companies also provides examination credits.

Germany:	The *Facharbeiter/in or Fachangestellte/r* qualification recognises "vocational proficiency" in a broad occupational field. As a rule it requires the full duration of the apprenticeship to be completed. A qualification from the dual system is equivalent to a *Realschule* or *Hauptschule* qualification.
Greece:	Apprenticeship-based Technical Vocational Schools (TEE) lead to the same qualifications as school-based TEE supervised by the Ministry of Education. These qualifications are: • Degree of the 1st Circle of TEE (ISCED Level 2); • Degree of the 2nd Circle of TEE (ISCED Level 3). The certification of graduates of Apprenticeship TEE is provided in the school unit, in the same way as for the graduates of school-based TEE.
Hungary:	Apprenticeship training is a form of delivery of the practical training part of a vocational training programme offered in the IVET stream of vocational training schools based of a student contract. It is not a separate pathway in IVET. To obtain a qualification, students have to complete the modules, pass the relevant exam for that level or module, and perform successfully at the state vocational examination.
Iceland:	On completion of a VET course, students are awarded a certificate detailing the subjects taken and the students' level of achievement. This certificate confirms that a certain amount of on-the-job training has been completed. Certificates in non-certified trades do not necessarily give rights to professions, but they often make it easier for students to obtain jobs.
Ireland:	Certification is dependent upon practical and written assessments. Apprentices are accredited generally at Level 6 in the National Qualification Framework (NQF).
Italy:	The Regions certify the external training element of the apprenticeship. The basic skills of apprentices are assessed according to a common national standard.
Latvia:	The journeyman qualification consists of a presentation of work in the corresponding craft and the techniques used, and a presentation of theoretical knowledge related to the craft. The master craftsman qualification is obtained *via* an exam.
Lithuania:	Not applicable
Netherlands:	Attainment targets are the same for school based and practically based, but the methods differ. BOL requires completion of examinations, while the practical oriented training requires assessment in the workplace.
Norway:	Apprenticeship training is offered as an integral part of upper secondary education. Successful completion of upper secondary VET, including apprenticeship training and passing the final examination, leads to either a skilled worker or a trade certificate.

Poland:	The level of qualification acquired is equivalent to that achieved at basic vocational school. The Apprenticeship Certificate is issued by the training enterprise and certifies the acquisition of skills in a particular occupation.
Portugal:	Upon successful completion of apprenticeship training and after passing the final assessment, trainees receive a Level 2 or 3 Vocational Training Certificate. Apprenticeship training provides skills and work experience to help trainees enter the labour market.
Slovakia:	Not applicable
Slovenia:	The certificate of school leaving examination gives access to jobs requiring a professional qualification and enables the holder to gain a craftsman certificate. Graduates can also matriculate on vocational-technical programmes (2 years) and obtain a vocational matura. The latter gives access to post secondary vocational college (lasting 2-3 years) or to professional-type higher education (lasting 3-4 years) leading to a diploma. Vocational matura also give access to one year baccalaureate courses and thereby access to university courses.
Spain:	Apprenticeships provide formal accreditation for professions requiring a level of qualification. The certificate offered by the School-Workshops, Trade Learning Centres and Employment Workshop programmes may be made equivalent to the Vocational Certificate defined in the National Vocational Training and Placing Programme.
Sweden:	The school leaving certificate includes five core subjects, compared to eight for upper secondary education. This certificate does not give access to higher education; students who wish to go into higher education must study three additional subjects.
United Kingdom:	See 040403 above

04040302 Progression and transition (incl. Statistics)

Description:

The main destinations of students who complete apprenticeship.

Synthesis:

In all countries completion of the apprenticeship allows entry to the labour market whilst other pathways are available – including advanced apprenticeships – labour market entry is main outcome at which apprenticeships are aimed. This is addressed in more detail in section 040403 (Learning Outcomes).

Comparable data about successful completion rates and the destinations of apprentices are generally not available so it is difficult to make statements relating to these issues.

Country Transversal Summaries:

Austria:	Unemployment rates for apprenticeship graduates are slightly higher than those of graduates from VET schools and colleges. Apprenticeship graduates have the right to retain their apprentice employment for three months after their training has finished. Close links between employers and the apprenticeship system contribute to 75 *per cent* of the apprentices staying in the training enterprise. Those apprentices requiring a job receive support in finding employment from the Public Labour Market Office. Apprenticeship graduates can access various forms of further education or even higher education; however, a number of requirements apply.
Belgium:	In **Flanders**, the government has taken a number of employment initiatives that are focused on the guidance of young people into the labour market that have an educational component. Examples are the 'Youthwork Guaranteed Plan' *(Jeugdwerkgarantieplan)* in 1994, the 'Bridging Projects' *(Brugprojecten)* and the 'Starting Job Agreement' *(Startbaanovereenkomst)*. The latter is part of the Law of 24th December 1999 for the promotion of employment and it is aimed at young graduates (less than 25 years old). The plan offers them full-time or part-time employment and training opportunities of limited duration of at least one year. Employers are encouraged to hire these people by means of financial incentives but, in the case of a private company with more than 50 employees, employers are obliged to hire 3 per cent of young people completing the "Starting Job Agreement". In a cooperation agreement, approved by the Flemish government on 25th February 2000, it was decided that more jobs would have to be created as follow-ups from these projects. After consultation with the Flemish government, the federal government decided to provide 315 jobs in education for recent graduates completely financed by the latter. Within this framework, two projects have been conceived by the Flemish government. The first project, for the creation of 150 jobs, deals with the 'prevention of anti-social behaviour for schools', and has been initiated under the name 'Schools for youngsters – Youngsters for schools' or 'Yo-Yo' ('Jo-Jo'). The second project 'traffic safety' offers jobs for 165 youngsters.
Cyprus:	Apprentices tend to continue to work with their apprenticeship employer once the programme is complete. Apprentices may contact the District Labour Offices for help in finding employment. Apprenticeships facilitate entry to the labour market in a number of regulated professions such as building contractor and electrician.
Czech Republic:	Not applicable.
Denmark:	The majority of IVET graduates join the labour market upon completion of their courses. Some become permanent workers in their training company, but this is not a legal right. Students that cannot find a training company are offered school-based apprenticeship training.
Estonia:	Not defined yet.

Finland:	It is not uncommon for apprentices to become employed in the company which offers the training. According to statistics, about 5 *per cent* of apprentices are unemployed at the end of the apprenticeship.
France:	Apprentices may become permanent employees in the company providing training. A large number of secondary schools and Apprentice Centres also help young people with their job search, in conjunction with local enterprises. Apprenticeship training, like the vocational track, allows students to work toward all diplomas, from those at European Level 3C(CAP/BEP) to an engineering degree (Level 5A).
Germany:	Successful completion of the apprenticeship allows: • direct entry to the labour market (the qualifications of the apprenticeship system are highly regarded by employers); • continuing study on vocational training programmes; • continuing employment with the company that provided training (around 55 per cent in the former West Germany in 2004). Statistics show that one out of five training contracts are terminated before the planned end of the training. Of those that completed their apprenticeships in 1999/2000, 73 per cent were in employment one year later, 14 per cent were unemployed, and 11 per cent were continuing their studies.
Greece:	Graduates of the Apprenticeship programme have the following options, to: • receive authorisation to enter a profession; • register in a corresponding field of the 2nd circle of study; or • register in the second grade of the *Eniaio Lykeio*. The Career Register was launched from 2002/03 as a supporting mechanism for the integration of apprentices into the labour market.
Hungary:	Qualifications of the National Qualifications Register provide access to regulated as well as unregulated vocations. Since student contract-based training is often provided by enterprises in vocations in short supply in the labour market, and since apprentices have the chance to prove their professional and social skills at the workplace, it is considered that apprenticeship training increases students' chances of accessing the labour market successfully.
Iceland:	Qualified skilled workers have the monopoly of certain jobs, and there has been an increased demand for them since the 1990s. Most skilled workers choose to enter the labour market. Students who wish to continue their studies in higher education may take additional courses in preparation for the matriculation examination. As part of the upper secondary VET system, institutions offer students careers advice. Financial support is also available in the form of low interest financial loans and other financial arrangements.
Ireland:	At present the apprenticeship qualifies an individual to work in their designated craft, but does not offer direct means of continuing their

	education/training. This is a recognised failing of the system, and the NAAC has recommended that the IVET structure be developed to allow progression to further educational programmes and awards. Attention has also been drawn to the need to up-skill and cross-skill apprentices, as well as the idea of introducing a master apprenticeship, which develops business and human resource skills. No statistics are available on outcomes.
Italy:	National laws stress the opportunity of those under 18 years of age to transfer to other streams of education by using the credits they acquire in the apprenticeship system. All apprentices who do not hold an upper secondary certificate can enter the IFTS pathway upon accreditation of their basic skills.
Latvia:	The main destination for those following apprenticeship programmes is the labour market. The qualifications provided by the apprenticeship programmes do not give access to formal education or training, nor do they provide access to regulated professions.
Lithuania:	Not applicable
Netherlands:	People with BBL (practical) qualifications usually find work sooner and tend to find permanent jobs sooner than those who complete the BOL pathway. People completing BBL programmes also tend to earn more during the first years than their BOL counterparts. BBL programmes are more focussed on work and, therefore, it is understandable that people who undertake such study most often tend to move into the labour market, rather than further education. People with BBL qualifications also tend to find jobs more closely linked to their training programmes.
Norway:	Those who possess a trade or skilled worker's certificate may seek employment or establish their own business. Apprentices may be offered a job by their apprenticeship training company. There are no specific mechanisms to assist apprenticeship graduates in finding employment but upper secondary schools and employment offices offer guidance in relation to work and further studies. Students who do not complete their courses are contacted by school counsellors as a standard, compulsory procedure. A trade or skilled worker's certificate does not give direct access to higher education, but students can do a six month bridging course to obtain the right to access education at this level.
Poland:	Those who complete the apprenticeship training and pass the Apprenticeship Examination are prepared to become regular employees, either with the employer who provided the training or elsewhere. Apprenticeship graduates may also continue their studies in supplementary technical or general secondary education leading to the Matura Examination. Another alternative is to participate in other forms of vocational training to upgrade the acquired qualifications or obtain new ones.
Portugal:	Information not available.
Slovakia:	Not applicable

Slovenia:	In general, apprentices who obtain a school leaving examination become employees of their training enterprise. If this is not the case, apprenticeship graduates can register with the employment service. This is the only formal mechanism that assists graduates to enter the labour market. Those who dropped out before completing an apprenticeship program can continue training in the system of adult education and lifelong learning. There are no statistics available on progression and transition.
Spain:	Student workers who have completed compulsory education may enter the labour market. Student workers may remain in the company after completing their training contracts on temporary or indefinite term employment contracts. Facilities are offered for converting training contracts into indefinite term employment contracts.
Sweden:	The progression opportunities after an apprenticeship vary from industry to industry. In the motor industry, for example, there are relatively few opportunities to progress beyond level 3. On the other hand, in industries such as the chemical industry and engineering an apprenticeship at level 3 opens up a variety of progression routes, in terms of technical and managerial posts, and in terms of workplace and higher education qualifications. The UK labour market has few regulated occupations at levels 2 and 3 and completion of an Apprenticeship or an NVQ is rarely required as a licence to practise. An exception is the Care Sector, where a Level 3 NVQ has become a requirement for some supervisory and managerial jobs. It is estimated that at the most some 20 *per cent* or apprenticeship trainees may progress to Level 3 (source: Fifth Report of the House of Lords Select Committee on Economic Affairs).
United Kingdom:	The progression opportunities after an apprenticeship vary from industry to industry. In the motor industry, for example, there are relatively few opportunities to progress beyond level 3. On the other hand, in industries such as the chemical industry and engineering an apprenticeship at level 3 opens up a variety of progression routes, in terms of technical and managerial posts, and in terms of workplace and higher education qualifications. The UK labour market has few regulated occupations at levels 2 and 3 and completion of an Apprenticeship or an NVQ is rarely required as a licence to practise. An exception is the Care Sector, where a Level 3 NVQ has become a requirement for some supervisory and managerial jobs. It is estimated that at the most some 20 *per cent* or apprenticeship trainees may progress to Level 3 (source: Fifth Report of the House of Lords Select Committee on Economic Affairs).

0405 Other youth programmes and alternative pathways (incl. statistics)

Description:

Avenues available to those who have not pursued the other pathways through upper secondary education.

Synthesis:

The general trend across countries is to both improve the level of educational attainment by encouraging young people to stay-on the education system so that their skill levels are raised, and to increase the extent to which people can switch between pathways. There is also recognition that some people fail to achieve a level of educational attainment that will allow them to successfully continue in either the general or vocational stream of education beyond the lower secondary level. In recognition of this programmes have been established that will allow those people – typically people aged under 25 years of age although the programmes are also open to adults – who have failed to successfully complete lower secondary education and acquire the skills that will allow them to participate in the labour market. Not all countries provide this form of assistance as the table below indicates.

Provision of programmes to assist the educationally disadvantaged

	No provision		Provision		Provision
Cyprus	X	Austria	√	Ireland	√
Iceland	X	Sweden	√	Finland	√
Italy	X	Slovakia	√	Denmark	√
Norway	X	Lithuania	√	Portugal	√
Spain	X	Latvia	√	Poland	√
Estonia	X	France	√	Czech Republic	√
Greece	X	Germany	√	Hungary	√
		Netherlands	√	Slovenia	√
		Belgium		UK	√

It must be assumed that where no provision is made that other measures are in place – active labour market policies – that assist those who are educationally disadvantaged in accessing the labour market, but that these measures lie outside of the formal IVET system (see 0406 with respect to Cyprus).

In those countries where alternative measures are provided they refer to programmes designed to assist with those who face disadvantage in the labour market. Programmes are aimed at assisting those who have struggled to successfully complete lower secondary level education to obtain basic skills that will allow them to gain entry to the labour market, or to progress in the IVET system. The emphasis is very much upon the acquisition of basic skills required. These measures are also targeted at minority groups in society: (a) those that do not possess competence in the native language of the host country (b) and those that face problems in participating in the labour market such as the nomadic travelling community in Ireland and the Roma community in Slovakia.

Programmes are, in many respects, active labour market policies designed to assist the unemployed or those at risk of unemployment, and need to be understood in the context of the availability of other forms of social assistance available to young people.

Ultimately the aim of all programmes is to assist young people avoid unemployment by improving their employability. This is most explicit in the Netherlands where special programmes are under the aegis of the Youth Unemployment Task Force that has created new learning and training courses in an effort to combat youth unemployment.

There is recognition that special measures are required to reach these groups. In Ireland, measures directed at the nomadic travelling community are provided close to the community at which they are aimed. There is also recognition that people might join and re-join programmes rather than consume study in one block.

Country Transversal Summaries:

Austria:	Alternative pathways include training programmes – known as JASG courses – to provide vocational education to school leavers unable to find an apprenticeship placement. These programmes are offered in educational institutions with suitable facilities to provide occupational training. The aim of these programmes is to transfer students to regular apprenticeship training. In 2001, there were 2,246 participants in JASG programmes.
Belgium:	At a **Federal level** successive Governments have launched measures to help poorly-skilled young people and the long-term unemployed. Many of these initiatives involve a training component. The latest measure is the "Start-up Bonuses" and "Trainee Bonuses" introduced in 2006. These are targeted at employers and under-18s who are continuing their compulsory education part-time on an alternance training course. The start-up bonus refers to an allowance for under-18s who through an alternance course forming part of their compulsory education undertakes practical training or receives vocational training from an employer. Another measure is the "First-Job Agreement" (2000) which has the objective to measure to offer young people a job and vocational training at the earliest opportunity to prevent them from sinking into unemployment and to round off their educational training with vocational skills essential for successful, lasting labour market integration. In **Flanders** a system of modular learning pathway courses has been established to deal with the problems of the unqualified outflow of pupils from vocational education onto the labour market and the discrepancy between the supply of vocational education and the demand on the labour market. The modularisation experiment gives pupils attending vocationally-oriented training courses (BSO, DBSO, BuSO, OV3) the opportunity to complete a learning pathway in well-defined units or modules. A pupil receives a modular certificate for each module completed. A certificate is issued once training has been successfully completed. The modular structure makes it possible for interim success to be expressed in certificates, thus enhancing students' chances of entering the labour market. In the **French and German-speaking communities** the Institute of Part-time Training, the Self-employed and Small and Medium-sized Enterprises (IFAPME) provides training courses which allow for the acquisition of general and vocational knowledge required to become self-employed. The *Youth Programme* is a part of a Cooperation Agreement between the State, the Communities and the Regions concerning the integration of young job-seekers through first-job contracts. The aim is to prevent long-term unemployment and to enable job seekers under the age of 25 to join the labour market within 3 months of leaving school. The *Professional Transition Programme* is part of a Cooperation Agreement between the Federal State and the Regions. Its objectives are: ▪ to meet collective needs that have not been addressed within the regular labour market system in the non-market sector; ▪ to give people who are poorly qualified or have only average skills

	the opportunity to get a job; and ▪ to encourage the integration of such people into the labour market through professional experience supplemented by vocational training. *Pathways to integration* is part of a scheme fulfilling an ESF requirement aimed at a global concept of the processes of hosting, guidance, advice, monitoring, training, job-seeking and employment. Integration pathways are arranged in stages. The aim of this approach is to offer support to all young people aged under 25 within 3 months of leaving school without upper secondary qualifications. *Part-time education – education given by the Dual Vocational Education and Training Centres*. Secondary qualification education in which the training is done with reference to a training profile. The number of participants in modular education in the Flemish Community increased from 3,989 in 2000/01 to 7,505 in 2005/06. The number of participants in part-time vocational secondary education (DBSO) in the Brussels Capital Region increased from 206 in 2000/01 to 258 in 2003/04. The number of participants in DBSO in Flanders was 5,950 in 2000/01 and 6,342 in 2003/04. The number of students undertaking Social Promotion education in the **French and German** communities increased from 98,894 in 1990/91 to 165,463 in 2003/04.
Cyprus:	There is no VET provided under this category.
Czech Republic:	Vocational skills may also be acquired outside the system of formal education in schools. This education involves "post-*maturita*" language courses and retraining programmes.
Denmark:	Basic Vocational Training and Schools of Production are alternative VET pathways for students that do not enrol in IVET or upper secondary vocational education. The former are aimed at unemployed people aged 17-21 years. There are approximately 110 'production schools' distributed all over the country. This school form was the result of an experiment carried out at the end of the 1970s, which combined education and production. The schools operate as a municipal initiative, in some cases involving two or more municipalities. Schools of Production offer career guidance and training to people under 25 years who have not completed youth education or face difficulties or are undecided about entering the labour market.
Estonia:	Not applicable
Finland:	Workshops providing work related training and guidance are offered to young people and adults. These workshops aim to encourage young people to participate in, and complete, vocational education. They provide training and support for people at risk of social exclusion.
France:	Alternating job/study training programmes have been offered for more than 20 years with the aim of fulfilling three priority objectives: • offering a remedy to unemployment amongst young people with few or no qualifications;

	• fostering their entry into the labour market; and • enhancing their vocational profile (job suitability, access to qualifications). Up until September 2004, three different programmes based on qualification contracts, adaptation contracts and guidance contracts were offered to young people depending on their needs, previous training, experience, etc. Since October 2004, a new contract (the 'professionalisation contract') replaced the three former contracts. In 2003, 146,650 young persons were hired through qualification contracts, adaptation contracts and guidance contracts.
Germany:	There are three main types of "other youth programmes" aimed at (i) Disadvantaged young people who are still subject to compulsory schooling (up to the age of 18) who may undertake a year of pre-vocational training, which prepares them for the requirements of in-company training (ii) young people who have been unable to secure a training place; and (iii) training assistance to young people who are currently undergoing in-company apprenticeship training in institutions outside the dual system. Special on-the-job training programmes (*Ausbildungsprogramme Ost*) have been implemented over the last few years for young people who have been unable to find a vocational training place in the training market due to the economic situation in eastern Germany. Basic vocational education is also available to disabled people. The number of participants in pre-training courses in vocational schools (BVJ) has increased from 66,800 in 1998 to 80,559 in 2004. More than half of participants are male. Participation in pre-training courses run by the Employment Agency has increased from 59,665 participants in 1998 to 88,700 in 2004. The number of participants in vocational training for the disadvantaged (special support for in-company training; external training) increased from 121,553 in 1998 to 130,678 in 2004, however, the highest number of participants in the interim was 142,540 in 2002.
Greece:	Not applicable.
Hungary:	'Catching-up' courses lasting 1 to 2 years prepare students who did not complete their primary education by the age of 16 for VET courses in vocational schools. There are also special and skills-developing special vocational schools for students with mental or other disabilities. Special vocational schools prepare students for the vocational examination or provide skills necessary to enter the labour market and begin an independent life. Other pathways include full-time adult education provided by both types of vocational training schools, where disadvantaged students can obtain a second recognised qualification free of charge. In 2004/05, there were 8,369 students enrolled in special vocational schools.
Iceland:	'Fjölsmiðjan' in is a work-centre for young people (the specific age is not defined) at cross-roads in their lives. The centre offers young people the opportunity to train for the labour market or to prepare for further studies. Participants work for a small salary and are offered breakfast, lunch and

	social support.
Ireland:	YOUTHREACH is the main programme for assisting young people who have less than a Leaving Certificate and face difficulties in the labour market. Its main participants are unemployed, male, individuals aged 15-18 years. YOUTHREACH is managed locally by VES and FÁS so that courses are responsive to the particular needs of people and their communities. There are also Training for Travellers' workshops for Ireland's large nomadic ethnic minority – these are for people of all ages, dealing with problems of poor literacy and numeracy (amongst other things). In 2003, there were a total of 2,653 VEC YOUTHREACH participants. Of these, 1,354 (51 *per cent*) were women. It must be observed, however, that women participation increases with age: 75 *per cent* of the participants aged 19 and over were female, but 63 *per cent* of those aged 16 years old or younger were men. As for senior Travelling Training Centres, there were a total of 981 participants in 2003. Of these, 808 (82 *per cent*) were women and this predominantly female participation can be observed throughout all age groups.
Italy:	Not applicable.
Latvia:	The aim of the 'pedagogical correction programme' for early school leavers and those with a low level of basic knowledge or skills is to integrate youngsters back to the education system and help them acquire basic professional skills. No other Youth Programmes and Alternative Pathways are mentioned.
Lithuania:	Youth Schools are designed to deal with youths (aged 12 – 16 years) who have not adapted to studying at schools of general education, lack motivation or need specific attitude because of their social situation. They provide a basic general education and pre-vocational training. Such schools offer fewer obligatory lessons for compulsory subjects than in the mainstream. They also offer more concentrated programmes. General education is considered more comprehensive than the education provided in youth schools. In 2003 there were 24 youth schools with 2,411 pupils. The number of students attending youth schools has remained constant, with 2,496 students in 1995; 2,601 in 2000; and 2,326 in 2002.
Netherlands:	Institutions are able to devise learning pathways geared to meet the needs of educationally disadvantaged students. "High risk" youngsters in the major cities are being targeted as an extension of local compensatory policy. There are also measures to enhance social infrastructure as part of urban policy. The Youth Unemployment Taskforce (established in November 2003) has developed an action plan to fight youth unemployment that does not create any new learning or training programmes. The Taskforce has achieved one of its most important goals at the end of 2006: thanks to the efforts of the CWI (Centre for Work and Income), MKB Leerbanen (SME Apprenticeships), municipal authorities and other groups, 40,000 more young people have received a youth job placement.

Norway:	There are no other youth programmes or alternative pathways offered. Students who do not complete their courses are contacted by school counsellors as a standard compulsory procedure. Suitable training arrangements, work, or a combination of these are offered to early school-leavers depending on their situation.
Poland:	The Voluntary Labour Corps (OHP) is a voluntary network of centres that provide education and vocational preparation, as well as a wide variety of social, psychological and pedagogical services to under-privileged youths or to disadvantaged young people. Regional divisions of the Corps organise full year employment for unemployed young people, as well as short term employment for upper secondary school students. In 2004, the OHP organised studies, work and recreation for 31,525 young people (including 8,033 girls). Of these, 16,458 participated in various forms of vocational education and training while the remaining 15,067 were completing obligatory general education.
Portugal:	Information not available.
Slovakia:	Programmes such as those offered by vocational schools are aimed at low achievers from basic schools and Roma minority youth from disadvantaged families. Second chance schools offer students the opportunity to complete basic education and continue their studies in secondary education. In contrast to vocational schools, second chance schools are not part of the formal education system as stipulated by law. In 2002/2003 there were 2,681 participants enrolled in youth programmes offered by vocational schools.
Slovenia:	There are three types of programmes aimed at helping young people in the education and training system reach a certain level of qualification. Firstly, vocational technical programmes (2 years) enable 3-year vocational education programme graduates to acquire a vocational matura. Secondly, one-year vocational courses are designed for Gymnasium leavers who would like to pursue vocational education. Lastly, master craftsmen, foremen, and managerial programmes are designed for individuals who would like to start their own business and are open to those who have finished an IVET programme and have three years of work experience, or for those who have finished a four-year IVET programme and have one year of work experience. Another officially recognised educational pathway is offered by the system of special education.
Spain:	Not applicable.
Sweden:	Individual programmes offer study alternatives for students who do not achieve the pass grades in Swedish, English and mathematics during compulsory education and, thus, are not eligible for national programmes. The aim of the programme is to eventually transfer students to national courses. The total number of participants to individual programmes in 2003 was 23,980. Of these, 13,581 were men and 10,399 were women.
United Kingdom:	Government policy encourages young people to participate in school- or college-based education or training once they have reached the end of compulsory schooling in July of the school year when they reach age 16, or to undertake workplace training through an Apprenticeship. There is

	particular concern that some 10 per cent of young people leave education and training at 16 without qualifications and do not enter a job with training, and that a considerable proportion of young people leave full-time post-compulsory courses after one year, thus failing to achieve a full qualification. Beyond this, disengaged young people are given incentives to participate in education and training through active labour market policy: the New Deal for Young People. This designed to move people into work quickly, and provide those who need it with extra help to improve their employability. The New Deal for Young People applies to people aged 18 to 24. According to the Office for National Statistics, 2.97 million people had started on a New Deal programme up to August 2007.

040501 Access requirements

Description:

How do people gain entry to alternative pathways.

Synthesis:

Access is determined, in large, part by ineligibility to enrol in other IVET programmes. There are few entry requirements as the Table below shows that other than age restrictions (usually people have to be aged 25 years or lower) and in Austria, Portugal, Poland, and Denmark to have completed their compulsory education, there are few restrictions on entry to Other Youth Programmes.

Access requirements to Other Youth Programmes

	Access requirements
Austria	At least two years of compulsory schooling and failure to acquire and apprenticeship
Sweden	Based on ineligibility to participate in other IVET programmes
Slovakia	No specific access requirement
Lithuania	12-16 year olds who have failed in lower secondary education and 16-18 year olds looking to improve their skills.
Latvia	No specific access requirement
France	Those aged under 26 without qualifications and the unemployed. Specific access requirements depend upon particular courses.
Belgium	The target group is young people who have ceased participating in training measures and / or are out of work.
Netherlands	No specific access requirement
Ireland	15-18 year olds with less than five Grade D passes in the Junior Certificate
Finland	No specific access requirement
Denmark	Completion of compulsory education
Portugal	Aged over 15 and have completed compulsory education
Poland	15-18 years of age and have competed compulsory education
Czech Republic	Access determined by language schools
Germany	Young people lacking the preparedness to enter the labour market
Hungary	No specific entry requirements
Slovenia	Successful completion of vocational education
UK	Young people lacking the preparedness to enter the labour market

There is also an allocation process to consider. In several countries there is placement process whereby young people are assigned to courses. In Austria, the Public Employment Service assigns young people to the appropriate courses on the JASG Programme, in Lithuania young people may be referred by the Children Rights Protection Agency or Juvenile Affairs Inspection, and in Poland by social services, the police, or school careers advisors. Otherwise the process whereby young people are assigned to programmes is unclear.

Overall, access to Other Youth Programmes is determined by a failure to either secure a place on another IVET programme at the upper-secondary or apprenticeship level, or a failure to

secure sustainable employment. There are exceptions to this. The Czech Republic and Slovenia provide courses that offer a progression from upper secondary IVET (there may well be some overlap here with 0406).

Country Transversal Summaries:

Austria:	To access a JASG programme, students must have completed the last two years of compulsory education and have provided evidence of failed attempts to find an apprenticeship placement. To this end, the applicant must present unsuccessful letters of application. The Public Employment Service is responsible for assigning students to JASG courses.
Belgium:	The **Federal** first job agreement targets public-sector and private-sector employers. Target groups are: young people from 18 to 25 years of age who ceased attending courses or participating in employment integration measures within the preceding six months; job seekers under the age of 25; and job-seekers under age 30. In **Flanders** the conditions for part-time compulsory education can be met through training in recognised part-time training centres. In the **French and German communities** registration in part-time education is open throughout the year. It is available to students from age 15 and over provided that they have regularly attended a second year of full-time secondary education. Those aged more than 18 and under 21 years can enrol as regular pupils in the Dual Vocational Education and Training Centres provided that they have signed an apprenticeship contract for a profession exercised by salaried workers.
Cyprus:	Not applicable.
Czech Republic:	Post-*maturita* language courses require that students have successfully completed secondary school with *maturita* within the same year as beginning the language school and that tuition be paid. Additional criteria can be set by specific language schools. Access to retraining programmes is conditional upon meeting entry requirements for the relevant course. These normally include completion of a level of education and a prior qualification.
Denmark:	Completion of compulsory education is a requirement to access basic vocational training schools and Schools of Production. The latter have an age limit of 25 years.
Estonia:	Not applicable.
Finland:	No access requirements are specified but 60 *per cent* of the workshop participants are young people under 25 years.
France:	Alternating job/study training programmes are targeted at unqualified young people under 26 years of age or long term unemployed people (unemployed for one year or more). Admission criteria vary according to the level of the specific diploma. Places are limited. Some programmes are only available in specific sectors and regions, depending on the economic situation.
Germany:	Following a review of each individual case, and considering the particular requisites for each course, the vocational guidance services of the particular employment office decide whether the individual may attend a preparatory pre-training course, vocational training in external facilities, or courses provided as support for apprentices during training. Particular

	requisites include being under 18 years of age and not yet ready to enter vocational training (for full time year of pre-training courses); and being under 25 years of age with completed compulsory schooling and with learning difficulties or disabilities (for the vocational preparation by the employment agency).
Greece:	Not applicable.
Hungary:	Students can enter adult education at the age of 16 years at the earliest and the access requirements of adult education programmes offered in public education institutions are defined by the head of the school in compliance with the relevant regulations and the requirements of the relevant vocational qualification. There are no special admission requirements in special or skills-developing special vocational schools, except that prospective students of vocational qualifications of the National Qualifications Register have to meet the pre-qualification, career/vocational aptitude or medical requirements defined in the professional and examination requirements of the qualification pursued.
Iceland:	There are no access requirements.
Ireland:	To be eligible, individuals should be aged 15-20 years and have left school with fewer than five Grade D passes in the Junior Certificate. Courses are free, a weekly allowance is paid to participants, and childcare is available.
Italy:	Not applicable.
Latvia:	No access requirements are specified; the correction programme is aimed at early school leavers and those who do not possess basic knowledge or skills.
Lithuania:	Access to youth schools is permitted for 12-16 year olds who have failed to make progress in general schools, lack learning motivation, are socially or pedagogically neglected, and have not finished their basic general education. 16-18 year olds willing to obtain a basic general education are admitted into evening or shift classes. Admission is usually based on the parents' or foster parents' request. There may also be particular school-specific access conditions and some require a recommendation letter from the Children Rights Protection Agency or Juvenile Affairs Inspection.
Netherlands:	Employers set criteria. Special education requires assessment of the students.
Norway:	Not applicable.
Poland:	Young people may attend the Voluntary Labour Corps on their own accord or be recommended by school pedagogues, counselling centres, social workers, the police or other social services. Candidates must be between 15 and 18 years of age, have completed primary school and be fit for vocational training.
Portugal:	Information not available.
Slovakia:	There are no specific requirements to access vocational schools unless explicitly stated by the institution.

Slovenia:	Whether a programme is offered depends on whether there is sufficient demand. Access to vocational technical programmes requires completion of a three-year vocational education course. Vocational courses are open to gymnasium graduates who did not obtain a baccalaureate. Completion of an IVET programme plus 3 years of work experience, or completion of a four-year IVET program and one year of work experience give access to master craftsmen, foremen, and managerial programmes.
Spain:	Not applicable.
Sweden:	Individual programmes offer study alternatives for students who do not achieve the passing grades in Swedish, English and mathematics at compulsory education and, thus, are not eligible for national programmes.
United Kingdom:	Access to training as part of the New Deal for Young People: other than being registered as a jobseeker and meeting the criteria for receiving benefits, access requirements do not in principle apply.

040502 Curricula

Description:

Content of courses provided.

Synthesis:

Common to all countries that provide Other Youth Programmes to young people who are vulnerable in the labour market (see 040501) is the delivery of what might be considered basic skills to individuals that will allow them to participate in the labour market. This reflects the emphasis on providing those skills that will allow the individual to avoid unemployment or economic activity. Although there is this common element to all provision, there are a number of other features worthy of note as well. These are:

- in Finland the provision of assistance that will help young people with particular problems such as substance abuse;
- courses tend not be examined but often lead to a certificate based on attendance;
- provision to facilitate progression – e.g. in Ireland to a "progression" stage in the YOUTHREACH programme;
- courses share a common structure to the first year of Apprenticeship training in Poland and Austria;
- in Denmark programmes have a modular aspect so that completion of one training module can be accredited to other training programmes;
- there is an orientation to the particular needs of the individual in Sweden and Denmark;
- a practical orientation with workplace based training in Poland; and
- an alternative stream to the secondary education in Lithuania.

Despite the variations in provision listed above the emphasis across countries is upon providing the basic literacy, numeracy, and work readiness skills to allow people to function in the labour market.

Country Transversal Summaries:

Austria:	Courses last for ten months and can be extended if the access requirements are met. Practical training amounts to up to 60 *per cent* of the course. Training is organised in a similar way to the first year of apprenticeship training (at a vocational school).
Belgium:	In **Flanders s**chools are free to establish how to meet learning/training objectives. In the **French and German communities'** part-time education is scheduled as 600 50-minute periods *per* year spread over at least 20 weeks. It may be taught outside normal school hours and may be organised in modules. Subjects include both general education and preparation for employment.
Cyprus:	Not applicable.
Czech Republic:	Courses in language schools must be accredited by the MSMT. Most schools offer a choice of one out of two main languages (English and German). There are around 20 hours per week of teaching of the main language. Students may also choose an additional language or other subjects. Two types of retraining have developed: • specific (targeted) – a change in the existing qualification designed to acquire specific theoretical knowledge and practical skills for a new jobs. This is mostly based on specific labour market needs and is often accompanied by a promise of employment; • non-specific – designed to increase employability among mainly graduates of secondary schools and higher education institutions through acquisition of competencies that are commonly and constantly required by the labour market.
Denmark:	Programmes are structured to meet individual needs and there are no set national curricula. Basic vocational training programmes last two years on average and provide theoretical (1/3) and practical (2/3) training. Trainees receive a salary and financial support while at college. Schools of Production provide workshops and activities aimed at helping individuals clarify their career paths. Theoretical training is offered but is not mandatory. No examinations are taken but attendance is required to remain on the course. In 2002 there were a total of 834 participants in basic vocational training. There were 1,422 participants in schools of production in 2002.
Estonia:	Not applicable.
Finland:	Workshops include subsidised employment, practical training, counselling and 'preventive' support for substance abusers. Most workshops are provided by the municipalities and receive funding from the labour administration.
France:	Contracts require employers to provide young people with jobs for a specified period of time and to provide training that will help them earn a recognised vocational qualification. General, vocational and technological courses must account for at least 15 *per cent* of total contract time but this may be adjusted up to 25 *per cent*. Contracts vary from 6 to 24 months.

	The duration of the contract must be determined in accordance with the length of the training period.
Germany:	The curriculum for the pre-training courses in vocational schools (BVJ) includes for the school part 1/3 general subjects (German, civics, sports, religion) and 2/3 special subjects related to the occupational field in question (technology, mathematics, technical drawing, data processing). This is combined with practical work which includes work placements and optional units. In addition to their in-company training and instruction at a vocational school, young people benefiting from support for apprentices in regular training programmes also spend three to eight hours a week (sometimes made possible through leave) attending courses provided as part of this support. • As for vocational training in external facilities, where training is combined with employment, the curriculum is divided up into modules/units that can be acquired in different schemes or over various stages of the individual's life. The modules cover clearly delineated blocks of subject matter from the training curriculum for the respective trade.
Greece:	Not applicable.
Hungary:	Special and skills-developing special vocational schools may prepare students for the vocational examination leading to an ISCED 2C or 3C level State-recognised vocational qualification or provide the skills necessary to enter the labour market and begin an independent life. The structure, duration, curricula, assessment procedure and learning outcome of adult education programmes offering participants a 'second chance' to obtain a formal school certificate or a recognised qualification in vocational training schools are the same as for regular full time education.
Iceland:	There is no formal curricula.
Ireland:	Two years of education are provided and there are two distinct phases: • Foundation: overcoming learning difficulties, instilling self confidence and developing competences to aid further learning; • Progression: providing a range of education, training, and work experience options. The principal focus is at the Foundation level. People may enter and exit YOUTHREACH a number of times.
Italy:	Not applicable.
Latvia:	The programme is aimed at providing students with the necessary basic professional skills.
Lithuania:	Youth schools provide basic general education and primary pre-vocational education. Programmes last 6 (or 7) years and include two blocks of curricula content. Curricula development follows the same procedure as in general education schools and follow nationally approved General Programmes for General Education Schools, Education Standards for General Education Schools and General Education Plans.

Netherlands:	Special education curriculum must include at least 2 subjects taught in ordinary secondary schools. Other aspects vary.
Norway:	Not applicable.
Poland:	Education provided by the Voluntary Training Corps includes training at the workplace, usually in companies within the catchment area where the Corps is located. Education is often combined with apprenticeship training. Theoretical or general education may take place at primary schools, lower secondary schools or basic vocational schools.
Portugal:	Information not available.
Slovakia:	Curricula for vocational schools are derived from the related ISCED 3C training branch by a reduction of theory to a minimum and expansion of practical training. Second chance schools aimed at provision of ISCED 2 level of education for school drop outs are not yet been recognised as a part of education system Curricula are not regulated, it is derived from basic school curricula and developed on experimental basis in co-operation with local authorities and experts.
Slovenia:	Courses are classroom based and may include some workshop elements. The quality of curricula delivery and assessment for vocational technical programmes and vocational courses are regulated by the National Expert Council for VET programmes, the service for education of the appropriate chamber, by the Republic of Slovenia Centre for VET, and the Council for Evaluation at the Ministry of Education and Sport. Master craftsmen, foremen and managerial examination programmes are the responsibility of the chambers (the Chamber of Crafts for master craftsmen examinations, and the Chamber of Commerce and Industry for foremen and managerial examinations).
Spain:	Not applicable.
Sweden:	Individual programmes can be prepared for students who for some reason cannot follow a national programme. They are based on each student's needs and, thus, vary in length and content. Individual programmes may include apprenticeship training. Municipalities can also establish individual programmes to which students may apply.
United Kingdom:	Three programmes exist for those on the New Deal for Young People who do not find jobs. These are: • study towards a qualification through the Full Time Education and Training Option; • work placement either through the Voluntary Sector option; • work experience through the Environment Task Force option.

040503 Learning outcomes

Description:

What happens to those participating in such courses.

Synthesis:

Learning outcomes in all countries are described with reference to provision of qualifications and or certificates, except in Ireland where learning outcomes are defined with reference to the transition to employment, education, or training. It is possible to classify countries as follows:

- those courses leading to a qualification through examination, as in the cases of Latvia, Lithuania, Poland, and Portugal. Where individuals fail to acquire the qualification there tends to be the award of a certificate based on attendance. Gaining a qualification provides access to other IVET programmes at secondary level or apprenticeship;
- countries that rely more on certification rather than examination as in the cases of Ireland, Austria, Denmark, Sweden, and Finland. In Sweden and Denmark the outcome sought from the programmes is the possibility of accessing other IVET programmes;
- programmes that do not necessarily lead to a qualification (e.g. the UK).

Evaluation data is not provided about the extent to which Other Youth Programmes are effective in re-connecting disadvantaged young people access the labour market.

Country Transversal Summaries:

Austria:	Completion of a JASG course leads to a certificate of acquired skills. No qualifications are awarded; the aim is for students to make the transition into regular apprenticeship training.
Belgium:	In **Flanders** each module results in a modular certificate and al modules of a learning path together result in a certificate. One or more certificates combined with final objectives and a complete course duration result in a diploma.
Cyprus:	Not applicable.
Czech Republic:	Upon completion of post-*maturita* language courses, students receive a certificate of completion or may take an examination leading to nationally or internationally recognised certificates. The outcomes of accredited retraining courses are formally recognised. Those who complete such courses obtain a formally recognised certificate of a qualification that is valid nationally but it is not equivalent to certificates achieved in the formal education system. It is not guaranteed that employers will accept retraining certificates.
Denmark:	Each training period on a basic vocational training programme is considered a training element, and may be accredited for other training programmes. On completion of the training period students are awarded a statement detailing their achievements. A certificate is issued at the end of the entire programme. Graduates can enter the labour market in a situation similar to that of IVET graduates. Students completing the School of Production programme are expected to choose a job or enter IVET.
Estonia:	Not applicable.
Finland:	The workshops do not give access to vocational qualifications. Participants take part in practical training and are offered support for enrolling/completing vocational education.
France:	The contract leads to an official certification in the form of any of the following: • vocational studies diploma; • certifications recognised in one of the classifications established in a collective sector agreement; • certificates or diplomas included on a list drawn up by the National Joint Commission on Employment. Each type of qualification is earned in a different manner, such as examinations, jury or regular testing.
Germany:	Assessment is made by examination and / or continual assessment.
Greece:	Not applicable.
Hungary:	Special and skills-developing special vocational schools may award an ISCED 2C or 3C level State-recognised vocational qualification of the National Qualifications Register or a certificate of the completion of education. Participants to adult education programmes offered in public

	education institutions can obtain the same type of learning outcomes as in regular education such as a formal academic certificate, the 'maturity' certificate or a recognised vocational qualification, depending on the school type.
Iceland:	Students tend to leave the programme when they and their teachers/trainers deem them ready. The training they have undertaken may help them find a job or undertake further studies, but formally there are no guarantees.
Ireland:	Just under half of those completing the Foundation element go on to employment and just under three quarters enter employment, education or training. On completing the Progression level, just under half enter employment and just under 80 *per cent* enter employment, education or training.
Italy:	Not applicable.
Latvia:	The aim of the correction programme is to reintegrate early school leavers into the education system. It provides access to vocational education for those who have not successfully completed a basic education. The programme leads to an education certificate and qualification.
Lithuania:	Those who complete youth school and pass exams are awarded a basic school-leaving certificate following the Procedure of Assessment of Basic Education Achievements set by the Ministry of Education and Science. Those who complete a course but do not pass exams receive a Certificate of Education Achievement. A basic school-leaving certificate provides access to upper secondary education, either general or vocational. Graduates of youth schools may enter the labour market or continue their education at general education schools or vocational schools.
Netherlands:	Practical training prepares special education students for jobs below the lowest level of MBO training.
Norway:	Not applicable.
Poland:	Students attending the Voluntary Labour Corps may achieve a lower secondary or basic vocational school leaving qualification. They are also provided with vocational preparations and, most importantly, with physical, psychological and pedagogical support to continue their education or enter the labour market.
Portugal:	Information not available.
Slovakia:	Graduates of the vocational school regular 2 year programme receive an ISCED level 2C certificate after the 2nd year of studies and successful completion of the final examination. This certificate confirms the ability to perform simple tasks.
Slovenia:	Graduates of vocational technical and one year vocational courses achieve a school leaving examination certificate or a vocational matura. These awards are equivalent to those awarded to graduates of school based or dual system based VET programmes. Only certificates obtained through master craftsmen, foremen and managerial examination programmes provide relevant knowledge and skills for high-quality professional work. To obtain these qualifications, students have to pass the programme's final examination; attendance is also a requisite in some cases.

Spain:	Not applicable.
Sweden:	The aim of individual programmes is to provide education to students who are not eligible to apply to national programmes and to allow them to achieve eligibility for national programmes. Another option for those in the individual programme is to engage in apprenticeship training on a very limited scale.
United Kingdom:	According to the Office for National Statistics, "some 1.86 million people have gained a job through the New Deal programme".

0406 Vocational education and training at post-secondary and training at post-secondary (non-tertiary) level (incl. statistics)

Description:

The structure and organisation of vocational education and training at this level.

Synthesis:

IVET at this level is placed between the upper secondary and tertiary levels of education. As post-secondary education it is classified as ISCED level 4: "programmes that straddle the boundary between upper-secondary and post-secondary education from an international point of view, even though they might clearly be considered as upper-secondary or post-secondary programmes in a national context". All countries, except France and Spain, provide IVET at this level.

Primarily, post-secondary education, allows individual students to obtain a greater level of specialisation in their chosen vocational / professional field. This tends to equate with the "master" level, with respect to apprenticeship training and provides the skills / competences to allow people to work independently. In nearly all countries providing post-secondary IVET, students are able to pursue their studies across a range of disciplines / subjects, though in Austria the emphasis is upon health care, and in Lithuania it is towards business and administration.

Whilst the emphasis is upon a greater level of vocational and professional specialisation, in Ireland and Cyprus there is also an element of active labour market policy attached to IVET at this level. In both countries there is an element of provision that is concerned with equipping unemployed people to access the labour market. It is notable that in Cyrprus there are no "Other Youth Programmes" *(see O405 above)* that in other countries are mainly directed at assisting disadvantaged youths to gain access to the labour market.

Courses are mainly provided in upper secondary institutions, except in Austria where courses are also delivered in the tertiary sector, usually lasting for between one and two years. On the whole there is little indication that IVET at ISCED level 4 acts as a bridge to tertiary education, rather it is aimed at assisting people gain entry to the labour market at a level appropriate to their skills. In Denmark, for example, courses are often part-time and delivered to people who have already accessed the labour market but wish to progress their careers.

The general impression is that IVET at this level constitutes a small part of the overall IVET system with participation levels relatively low compared to participation in upper secondary level courses. Overall, it accounts for just over 1 per cent of all enrolments at all ISCED levels in the EU.

Country Transversal Summaries:

Austria:	IVET at this level includes short university courses (up to four semesters), courses provided by schools for healthcare, as well as some other specialist courses. The courses at this level focus on specific areas of VET and there is a considerable variation in their target groups, content and organisation. They represent a small proportion of the country's educational system. In 2001, there were 19,694 enrolments in post-secondary IVET. Women accounted for 62.5 per cent of participants.
Belgium:	**In Flanders:** ▪ *fourth stage of vocational secondary education (years 7, 8 and 9)* originated from complementary vocational secondary education. In 1995, courses were brought together to form this fourth stage. ▪ *Part-time vocational secondary education (DBSO) for 18-25 year olds starting as non-compulsory students* established especially for pupils who have problems in full-time compulsory education and are tired of school. Students work part-time and go to school part-time with adapted curriculum and teaching methods. ▪ *Recognised part-time education* organised by several non-profit organisations which are active in training and youth work. ▪ *Agreement for practical training for 18 year olds* organised by the Flemish Agency for Training in Entrepreneurship. In the **French and German communities** there are a number of post-secondary, non-university education pathways for upper secondary school and college graduates. Vocational education and training at post-secondary level is organised in the transition stream and in the qualification stream. Pupils who leave full-time education at ages 15 or 16 must remain in block release training or undergo apprenticeship training until they reach 18 years of age. A further fourth stage lasting two or three years is provided specifically within the vocational branch of secondary education for studies in decorative arts or nursing. This is regarded as post-compulsory education.
Cyprus:	The Accelerated Training Scheme focuses on occupations with skills shortages. It targets new entrants to the labour market, unemployed secondary school leavers, and persons who need retraining. The Enterprise-based Initial Training Scheme consists of subsidised programmes within enterprises aimed at meeting internal training needs, particularly those of new recruits. There are three new schemes co-financed by the European Social Fund aimed at the unemployed, young secondary school leavers, and economically inactive women.
Czech Republic:	The only form of VET at post-secondary level at the moment is the so-called "follow-up courses" (ISCED 4A). These courses constitute an important element of the education system promoting transferability between educational pathways. The general purpose is to open up a path for graduates of three-year vocational programmes which lead to a vocational certificate and prepare qualified manual workers for the acquisition of a more advanced education facilitating access to tertiary

	education and providing a broader range of employment opportunities. Follow-up courses are completed by *maturita* examination. They may be delivered by secondary schools which provide secondary education with *maturita* in a relevant field. Follow-up studies last for 2 years (full-time).
Denmark:	Education at this level includes short duration courses that are directly relevant to particular occupations. Most students have a job and are enrolled on a part-time basis. Studies take place at labour market training centres. The absolute number of participants in continuing VET decreased from 393,594 in 1998 to 329,440 in 2002. Around 8.5 *per cent* of all continuing VET participants in 2002 were aged between 17 and 24 years.
Estonia:	Most VET institutions offer post-secondary (non-tertiary) VET. The aim of this level of VET is to prepare students to work independently in professions involving 'complicated skilled work' and requiring an understanding of technological processes. More women than men study at this level and this is partly attributed to the nature of the courses on offer. The number of private institutions offering these courses has increased and so has the number of students enrolled. In 1995/96, there were 2,540 people participating in vocational education and training at the post-secondary (non-tertiary) level and in 2003/04 there were 10,787 participants.
Finland:	Competence based vocational qualifications are obtained by demonstrating vocational skills in specific tests, regardless of how the skills were acquired. There are three categories of competence based qualifications: upper secondary, further and specialist vocational qualifications. The first two are considered upper secondary level qualifications, whereas specialist vocational qualifications are considered as post-secondary (non-tertiary) level. In 2004, there were 51,564 people taking part in competence-based tests. More than half of participants were female.
France:	Not applicable.
Germany:	IVET at this level provides the opportunity to develop further the skills obtained at upper secondary level leading to a double higher level qualification. There are two types of double qualifications at post-secondary level: i. a combination of a vocational qualification with a Higher Education entrance qualification, or vice versa; ii. a combination of two vocational qualifications; in most cases a qualification from a full-time vocational school followed by an apprenticeship. Where people obtained these qualifications they are trained for highly demanding occupations (e.g. IT, banking, health). After training, there is the possibility of entering Higher Education with respect to type (i). In addition, individuals can continue their studies by gaining additional qualfications. *Zusatzqualifikationen* are defined as qualifications that are provided by employers, vocational schools, chambers and other private educational providers in parallel with initial vocational education and training or directly after completion of training. *Zusatzqualifikationen* are at a higher level than the standard qualification or concern knowledge and

	skills other than those prescribed by the standard qualification. Since additional qualifications aim to deepen and broaden qualifications horizontally and vertically. In 2004, a total of 413,476 students in a programme with a vocational/prevocational orientation undertook consecutive double qualification while 64,322 students in programmes with a general orientation did so. Around 50 *per cent* of those who graduate from full time vocational school continue with an apprenticeship.
Greece:	Vocational education and training at the post-secondary (non-tertiary) level is provided by the Institutes of Vocational Training (IEK). These providers may be public or private organisations (supervised by the Organisation for Vocational Education and Training – OEEK). The aim of IEK is the provision of all kinds of initial or additional training to students through scientific, technical, vocational and practical knowledge and skills. In 2003, there were 34,543 students enrolled in IEK. Around 58 *per cent* of these students attended the public IEK which are provided by the OEEK.
Hungary:	Secondary vocational schools offer VET leading to ISCED level 4C vocational qualifications of the National Qualification Register in the 13th and possibly higher grades. The general characteristics of these vocational education and training programmes are the same as those typical in IVET offered in vocational schools awarding ISCED level 2C and 3C qualifications. After passing the maturity examination organised at the end of the 12th grade, secondary vocational school students can choose to continue studying in the IVET stream of their school or move onto higher education. The absolute number of participants in IVET at post-secondary (non-tertiary) level increased from 75,730 in 2001/02 to 80,010 in 2004/05.
Iceland:	Post-secondary (no tertiary) VET is growing. It provides further professional specialisation but in only a limited number of fields and provides access to the labour market in recognised professions. It is offered at various public institutions. Around two thirds of the students are men. In 2002, there were 299 students taking part in post-secondary, non-tertiary IVET. Of these, 239 (80 *per cent*) were aged 25 years or over.
Ireland:	There are three main forms of provision: • Post-Leaving Certificate (PLC) – designed to assist people gain the necessary skills/qualifications to enter employment or third level education. This is a DES programme (with 3226 participants in 2002); • Specific skills courses - offered by FÁS to meet the needs of unemployed jobseekers (with around 7000 participants in 2002); • FÁS traineeships – which provide training outside the apprenticeship designated occupations, combining off-the-job training and workplace based training (with around 1400 participants in 2002). There are also sectoral courses provided in: catering and tourism; fisheries; and agriculture, horticulture and agri-food. There are also occupation

	specific training courses (*e.g.* nursing, police).
Italy:	There are two routes: i. the occupationally specific, post-qualification training courses run by the Regions; ii. the Higher Technical Education and Training (IFTS) that vocationally prepares senior technicians. In 2002, there were 108 thousand people participating in IFTS and occupation specific training.
Latvia:	Post-secondary VET comprises theoretical and practical preparation for a specific profession and prepares students to perform qualified work independently. It is equivalent in level to secondary vocational education. This is defined as Vocational Secondary Education (ISCED levels 3A/3B). Vocational continuing or in-service training programmes can also be accessed upon completion of general secondary or vocational education and training institutions (duration 1-2 years) or vocational upgrading/ development programmes (duration not less than 160 study hours, which may be considered as a part of the qualification). These programmes are focused on mastering purely professional skills and knowledge in line with the requirements of the respective qualification level. The study process and assessment of achievements are organised in a similar manner as in vocational secondary education and training programmes. In 2004/2005, there were 3,934 students enrolled in post-secondary VET programmes, accounting for 8.81 *per cent* of the students at VET institutions.
Lithuania:	Individuals who complete an upper secondary programme graduate with the 'matura qualification' which can be used to access higher education. Such graduates do no not receive any vocational qualifications and therefore IVET is available at Level 4 at post-secondary, non-tertiary level. Level 4 results in a qualified worker qualification and such programmes vary from 1 to 2 years depending on the profession. The majority of Level 4 programmes are in Business and Administration fields. Level 4 often leads to the same qualifications as in Level 3 and the only difference is in the way by which the qualification is acquired. In Level 3, general and vocational training are integrated, while Level 4 programmes are specifically for vocational training. Statistics suggest that the number of students undertaking Level 4 VET programmes is increasing. During the school year 2003/2004, there were around 9,000 students in Level 4 VET programmes in vocational schools. In the same year, there were around 5,800 students were entering these programmes. In 2002, the number of students in Level 4 programmes was around 6,700, and 4,100 students were admitted that same year.
Netherlands:	The most prevalent and most formal form of training at post-secondary, non-tertiary level is specialist training. This level provides further vocational specialisation (ISCED 4), on top of the highest qualification structure for senior secondary vocational education (MBO). Specialist training prepares students to carry out tasks completely independently, combined with the ability to perform at a specialist level in a particular field. Training takes place in ROCs.

Norway:	No IVET programmes are offered at this level, but technical schools provide continuous or further VET for those who have already completed IVET.
Poland:	Education at this level is provided at post-secondary schools and lasts up to two and a half years, depending on previous training. Post-secondary schools provide specialised training for a specific set of professional/occupational activities. The aim is to prepare students for entry into the labour market. The post-secondary school sector has rapidly developed in the recent years (a more than threefold increase, from 893 schools in 1990/1991 to 3,171 schools in 2003/2004. In the 2003/2004 school year, post-secondary schools for young people (excluding special needs schools) had altogether 90,237 pupils, including 59,853 women.
Portugal:	Technological Specialisation Courses (CETs) are aimed at strengthening the knowledge and skills acquired in a particular area and to qualify trainees to enter the labour market or access further studies. In the academic year 200/2003, there were 506 students participating in CETs.
Slovakia:	Post-secondary programmes are offered by secondary schools. They include: • follow-up studies for secondary school graduates wishing to obtain an ISCED 3A 'maturita' leaving certificate; and • post-*maturita* studies for secondary school graduates with an ISCED level 3A certificate who wish to complement their studies.
Slovenia:	VET is not provided at this level.
Spain:	Not applicable.
Sweden:	Not applicable.
United Kingdom:	The National Qualifications Framework (NQF) for England, Wales and Northern Ireland and the Scottish Credit and Qualifications Framework (SCQF) contain a series of levels, but do not make a distinction between non-tertiary and tertiary education and training at the post-upper secondary level. Nevertheless, some firms and professional associations and institutions do provide their own initial training schemes – for example in a range of occupations linked to finance and accountancy.

40601 Access requirements

Description:

How individuals gain access to this form of IVET.

Synthesis:

The general requirement for access is successful completion of upper secondary level education, but there is a degree of flexibility:

- experience will give access to some courses / institutions;
- being in employment or in need of additional skills to gain access to employment will grant entry in countries(such as Denmark Sweden, and Italy);
- Where people do not have the skills / qualifications / experience required training is available to assist with entry (in Portugal).

In general, demand often outstrips supply so candidates need to demonstrate not only that they are able to satisfy entry requirements but have the capability to benefit from the training provision on offer.

Country Transversal Summaries:

Austria:	A school leaving diploma (or equivalent certificate) is required to access short university courses; professional experience and physical ability may also be required in some cases. Schools for healthcare require successful completion of a certain level of schooling and a minimum age may apply. Specialist courses require candidates to prove previous education in the field. Due to the limited number of places, schools may apply internal selection criteria. Distance and e-learning opportunities are available in some cases.
Belgium:	In **Flanders:** ▪ *Fourth stage of vocational secondary education (years 7, 8 and 9):* holders of an Upper-Secondary Education Certificate may be admitted as regular students. ▪ *Part-time vocational secondary education (DBSO) for 18-25 year olds starting as non-compulsory students:* established especially for pupils who have problems in full-time compulsory education and are tired of school. The centres are linked to secondary schools that offer full-time technical and vocational education. ▪ *Recognised part-time education:* these cannot be associated with courses of study and are not composed of separate subjects however there are conditions for entry. ▪ *Agreement for practical training for 18 year olds:* individuals can sign an agreement for practical training from age 18. In the **French/German-speaking communities** holders of an Upper-Secondary Education Certificate may be admitted as regular students to the 7th preparatory year of tertiary education.
Cyprus:	For the Accelerated Training Scheme candidates must be at least 16 years of age and must attend a selection interview. The number of spaces is limited and candidates' knowledge, abilities, socio-economic status and commitment are used as selection criteria. The Enterprise-Based Initial Training Scheme is aimed at newly recruited employees with no previous experience. Enterprises make decisions on the trainees and programmes offered and then apply for funding. The schemes co-financed by the European Social Fund are aimed at specific groups. Access is limited to unemployed people aged 15-24 and economically inactive women. In 2004, there were a total of 158 participants in Accelerated Initial Training programmes and 14 participants in the Enterprise-Based Initial Training Scheme. The target for total participation in 2004-06 in the three new schemes co-financed by the ESF was 2,050.
Czech Republic:	The primary requirement for entry is the completion of a three-year vocational programme and acquisition of secondary education with a vocational certificate. The school director may also require an entrance examination. Admission also requires that the vocational programme previously completed by the applicant is in the same or a related field as the follow-up course.

Denmark:	Previous practical experience is the only access requirement. Courses are offered to both skilled and unskilled workers.
Estonia:	Upper secondary general or vocational education gives access to post-secondary (non-tertiary) education. Demand for places is slightly higher than provision and in 2003 there were 1.4 applicants per study place.
Finland:	Competence based qualifications are not based on prior education or training, but awarded on the basis of previous experience. Although no formal preparation is required, those interested in taking the competence tests usually take part in preparatory training.
France:	Not applicable.
Germany:	In principle, *Zusatzqualifikationen* are not subject to general State legislation. 75 per cent of the courses offered by the chambers of industry and commerce are open to all trainees and only 25 per cent are specifically aimed at *Abitur* holders, in the case of the chambers of craft trades, 70 per cent of the courses require students to have passed the *Abitur*. For those courses run by the State education ministries, 80 per cent of additional qualifications are offered to particularly talented or high-achieving young people (with or without *Abitur*).
Greece:	Graduates from all types of upper secondary level education are accepted into Institutes of Vocational Training (IEKs). Some vocational fields may accept lower secondary education graduates as well. Students select their field of study, subject to it being available at the specific IEK. The fields offered are determined by the OEEK. As admission is competitive, there are selection criteria. These criteria relate to level of qualification, age, previous experience, and family size.
Hungary:	Access to the IVET stream of secondary vocational schools requires the 'maturity' certificate or completion of the last (12th) general education grade in a secondary vocational school or a grammar school. Other career/vocational aptitude or medical requirements may also apply as defined in the professional and examination requirements of the vocational qualification pursued. Schools may define further requirements and have the right to decide on the recognition of prior formal vocational studies, including the vocational preparatory programmes offered in secondary vocational schools. Mechanisms in place to overcome obstacles to access education at this level include the opportunity to participate in full or part time adult education programmes which have the same structure, outcome requirements and learning outcomes as in regular full time education.
Iceland:	Access requirements vary according to the profession. Upper secondary level courses (completed in full or, in some cases, partially completed) give access to some courses at this level. Industrial technicians need to have completed at least half of an upper secondary education in science. Assistance nurses for the elderly must have completed assistance nurse training at upper-secondary level. Tour guide students are required to have obtained their Matriculation Certificate and certain language competences. Masters' programmes in certified trades require a journeyman's certificate. Higher levels in marine programmes depend on lower examination and sea-time. In agricultural programmes the matriculation exam is not a

	access requirements, even though students how have the exams are preferred.
Ireland:	The PLC applicants should have a Leaving Certificate, work experience relevant to their course or a particular aptitude for a course. Applicants for Specific Skills Training (SST) or Traineeships should have a Junior Certificate (most have a Leaving Certificate), work experience relevant to their course or a particular aptitude for a course.
Italy:	The occupationally specific training courses requires an upper secondary certificate, relevant experience, being unemployed, or the need for a vocational qualification to make the transition into work. Access to the IFTS requires an upper secondary certificate or whether the individual to those who can demonstrate that they have achieved the necessary standard through education, training, and/or work.
Latvia:	To access to Vocational Secondary Education at ISCED levels 3A/3B, students are required to have completed general or basic vocational education. There are two qualification systems used: ISCED and professional qualifications. The Law on Vocational Education (revised in 2001) defines five levels of professional qualifications: • Level 1 (ISCED 2) - theoretical and practical training that prepares students for performing simple tasks in a certain area of practical activity (assistant cook, carpenter etc.); • Level 2 (ISCED 3) - theoretical and practical background that allows the holder to perform qualified work independently (carpenter, hairdresser, cook, welder etc.); • Level 3 (ISCED 3) - advanced theoretical and professional background which enables the holder to fulfil certain tasks, including planning and organising work (various technicians, car mechanics, hotel service specialist etc.); • Level 4 (ISCED 5) - theoretical and practical background that enables the holder to perform complicated tasks as well as to organise and manage others in their work; and • Level 5 (ISCED 5) - the highest qualification of a specialist in a field that enables the holder to plan and perform research and scientific work in the field. According to the Cabinet Regulations Nr. 267 'Regulations on Education Classification of Latvia', vocational post-secondary education and training belong to ISCED 4B; and according to the Law on Vocational Education (revised in 2001) – to professional qualification level 3.
Lithuania:	Entrants into Level 4 VET programmes are required to have completed an upper secondary level maturity certificate. There are no age limits with regards to access and applicants are free to apply for any programme of interest. All courses are full time and there are limits on enrolment numbers. Many programmes at this level are not available in every county.
Netherlands:	Completion of the advanced training course (Level 3 of the qualification

	structure for MBO). Previous training should be in the same occupational group or sector as the intended specialist training. Not all schools offer specialist programmes.
Norway:	Access requirements for VET at this level requires a trade or skilled worker certificate, plus work experience in the relevant occupation.
Poland:	Successful completion of upper secondary education from most types of schools (except basic vocation schools) gives access to post-secondary education. The Matura Certificate is not mandatory to access education at this level. Post-secondary education institutions may conduct entry examinations, interviews or apply other selection criteria, such as marks obtained in specific subjects.
Portugal:	Technological Specialisation Courses are open to: • people who have successfully completed a secondary-education course or a recognised equivalent course (for example, apprenticeship courses or vocational courses); • people who have completed all disciplines in Years 10 and 11 or have started but failed to complete Year 12 of a secondary-education course or a recognised equivalent course; • people who have a Level 3 vocational qualification; • those who hold a diploma in specialised technology or a tertiary education degree or diploma, and wish to qualify in another area. Technological Specialisation Courses in tertiary education establishments are also open to people aged 23 or over who are recognised as having acquired through experience the skills and abilities they need to be eligible for the course in question.
Slovakia:	To access follow-up studies, candidates must have achieved an ICED level 3C certificate. Those wishing to access post-maturita studies must have achieved an ISCED level 3A certificate (‘maturita’ programme).
Slovenia:	Not applicable.
Spain:	Not applicable.
Sweden:	Not applicable.
United Kingdom:	There is no distinction between VET at post-secondary (non-tertiary) and tertiary levels.

040602 Curricula

Description:

What is delivered in courses at this level.

Synthesis:

Institutions providing IVET at this level tend to have a degree of autonomy with respect to the content and delivery of training. A number of points can be made:

- courses, on average, tend to last for one to two years;
- attendance is usually full-time, but part-time provision is available in those countries where being in employment is a pre-requisite for entry (e.g. Denmark and Sweden);
- where institutions develop their own courses these are generally subject to approval by national authorities, and where the course is designed to provide access to a trade or profession there is also the involvement of employers (either nationally or locally) in the design of courses;
- courses provide a mix of theoretical and practical training and, sometimes, work based training.

Provision and curricula are heterogeneous as they are determined in large part by the specific needs of the vocation / profession in which greater specialization is being sought.

Country Transversal Summaries:

Austria:	Short university courses last up to four semesters (longer courses may be considered as part of tertiary level education). Courses include practical and theoretical elements. Assessment takes place at regular intervals plus a final examination. Courses provided by schools for healthcare last 1-2 years. Practical training and internships take place at hospitals. A leaving examination, held by a board of examiners, is taken at the end of the course.
Belgium:	In **Flanders**: ▪ *Fourth stage of vocational secondary education (years 7, 8 and 9):* Three courses of study are offered in the fourth stage within three areas of study (decoration techniques, fashion, and caring). The fourth stage always consists of two years (except Nursing which is three years). No core curriculum is imposed. ▪ *Part-time vocational secondary education (DBSO) for 18-25 year olds starting as non-compulsory students:* this is provided for 40 weeks each year with 15 weekly periods of 50 minutes each. Part-time employment linked to training in the centre is also included. Provided by 47 Centres for Part-time Vocational Education which are linked to secondary schools. ▪ *Recognised part-time education:* the programme is to consist of a minimum of 360 or 240 periods per year depending on the age of entry. ▪ *Agreement for practical training for 18 year olds:* students receive practical training in a company for four days per week and additional courses for one day *per* week. In the **French/German-speaking communities** study options are based on vocational profiles which each correspond to one option. Nine study sectors are offered both in the technical and vocational forms.
Cyprus:	The Accelerated Training Scheme lasts between 12 and 26 weeks and includes sessions at a training institution and training in an enterprise. Curricula are agreed between the training institution and the Human Resource Development Agency. The main instructor of the programme monitors the in-company training and participants keep a logbook of their work. The Enterprise-based Initial Training Scheme programmes last between 4 and 12 weeks and the curricula are tailored to the needs of the enterprise. Programmes have to be approved by the Human Resource Development Agency. Participants keep a logbook of their work. The schemes co-financed by the European Social Fund cover the provision of core skills such as communication, problem solving and foreign languages. They also provide training activities to develop specialised vocational skills and include work-place training.
Czech Republic:	There is a separate curriculum for each field of education. The curriculum in follow-up courses follows on from the curriculum of three-year programmes with a vocational certificate in the relevant field and

	complements it. There is both vocational (55 *per cent*) and general (45 *per cent*) education components. According to the new Schools Act the curricula will be designed by schools as school-based curricula which will be derived from framework curricula adjusted for the relevant programme providing secondary education with *maturita*. The quality of education in follow-up courses is ensured in the same way as in secondary schools. External evaluation is carried out by the CIS and schools conduct self-evaluation.
Denmark:	Curricula are decided by the trade committees and the labour market training centres. The duration, content and delivery of the training are flexible, in order to fit the needs of companies and trainees. Basic and advanced level courses are offered.
Estonia:	Studies at this level last between one and two and a half years (40-100 weeks) and 85 *per cent* of this time is spent on subjects or activities relevant to the profession. Curricula for VET institutions are prepared by each institution in compliance with relevant professional standards. Final examination and state supervisions help regulate the quality of the programmes.
Finland:	Preparatory training for competence based specialist vocational qualifications takes 1.5-2 years or 4-12 months if organised in the form of apprentice training. Duration of studies varies considerably depending on the nature of each individual case. Qualification guidelines are prepared for every new further or specialist vocational qualification that emerges as a result of labour market needs. Details of the qualification, skills requirements and assessment criteria are defined by a group of experts created for a fixed period for this purpose. Qualification committees organise and control qualifications.
France:	Not applicable.
Germany:	There are two main types of *Zusatzqualifikationen*, a task-based one that is centred on the ability to accomplish a wider range of tasks at work, and an exam-based one that is linked to acquiring a higher vocational and/or general education qualification. In terms of subjects taught, foreign languages top the list, well ahead of all other subjects followed by subjects such as more in-depth knowledge of processing and manufacturing methods, management techniques, and information and communications technology.
Greece:	Training in the Institutes of Vocational Training (IEKs) lasts 4 semesters. Each year of training consists of two semesters each, which each last 14 weeks. Trainees follow obligatory theoretical, and mixed courses, which are school based. Studies in IEK include 200 vocational fields, categorised into 14 sectors. Studies aim at direct entry into the labour market and not further education. IEK curricula are more professionally oriented than TEE curricula. The curricula are developed by committees of experts and include courses of general knowledge and vocational specialisation. Both courses and curricula are renewed at regular time intervals, with the aim of adapting to new labour conditions and technological developments. Assessment takes the form of progress examinations during the semesters

	and at the end of the course.
Hungary:	The range of IVET programmes offered in a secondary vocational school is defined by the school and its maintainer (local governments, churches, foundations, etc.). Programmes last between one and three years. These courses are known as 'professional programmes' and are developed by the institutions in accordance with the professional and examination requirements of the relevant qualification and the recommendations of the framework curricula. Labour market needs are therefore taken into account through the established requirements, which are developed in cooperation with the representatives of the economy and the social partners. In contrast to students of vocational schools pursuing ISCED 2C and 3C qualifications, participants of IVET programmes in secondary vocational schools typically receive practical instruction in school workshops during the school year. In the school year 2004/2005, most of the full time students (74 *per cent*) in VET grades of secondary vocational schools received their practical training in a school workshop, 22 *per cent* at an enterprise based on a cooperation agreement, and only 4 *per cent* at an enterprise based on a student contract.
Iceland:	The duration of study varies, depending on the profession, from two semesters to three years. Work based learning is common, but not required for all programmes. There are no formal mechanisms of quality control. The reputation of the school is taken by the general public as an indicator of the quality of the education and training provided.
Ireland:	There are around 1000 courses related to the PLC – mainly in VEC colleges. The courses are one or two years if taken full-time, and they integrate technical knowledge, core skills and work experience. PLC leads to a level 6 qualification certified by FETAC. Specific skills training varies by course, but are held at FÁS or FÁS approved training centres. There are over 800 SST courses. Traineeships are conducted according to the occupational standards established by FÁS and lead to a nationally recognised qualification certified by FETAC. Programmes range in duration from 24 to 40 weeks.
Italy:	Occupationally specific training courses run by the Regions are designed to meet the needs of local employers and generally lasts for one year. The IFTS route lasts 1,200 to 2,400 hours, of which work experience must account for 30 *per cent*. The IFTS route is increasingly being driven according to national standards agreed between the State, Regions, Local Authorities and relevant sectoral committees.
Latvia:	Post-secondary VET provides theoretical and practical training for a specific profession. No general subjects are taught and programmes last for 1 or 2 years. The programmes are drafted by schools and accredited by the Ministry of Education and Science.
Lithuania:	Level 4 VET programmes last either 1, 1.5 or 2 years, depending on the area of study. These programmes are provided mostly in schools, with the exception of 8-15 weeks of practical training in an enterprise or in school based workshops simulating working conditions. Programmes are developed and approved using the same process as at upper secondary Level 3. Vocational subjects comprise the majority of Level 4

	programmes. Quality assurance is implemented through assessment procedures.
Netherlands:	Specialist training takes 1 to 2 years. Sometimes, mixed training courses are offered.
Norway:	Information not available.
Poland:	Post-secondary schools may provide vocational education according to curricula already developed by the Ministry of Education. Alternatively, they may develop their own curricula which can only be used once it has been approved by the Ministry of Education. Post-secondary education finishes with the Vocational Exam which assesses skills and knowledge, and confers vocational qualifications. A modular system is currently being developed for post-secondary education.
Portugal:	Training pathways concerning Technological Specialisation Courses vary, depending on the nature of each project and its participants' profiles, and are based on a highly vocational curriculum that includes general, scientific and technological training as well as practical training in the workplace. This latter component is based on partnership arrangements between the training institution and enterprises, other employing bodies, employers' or socio-professional associations, or other organizations that best match the area of training in question. The functioning of these courses is conditioned by the approval of the Technical Commission for Post-Secundary Technological Vocational Training.
Slovakia:	Curricula are drafted by relevant expert group(s) affiliated to the State Institute of Vocational Education and approved by the Ministry of Education. Courses are offered as: • follow-up studies after completion of ISCED 3C training branches at SOU aimed at achieving ISCED 3A level of education; • post-*maturita* developing studies aimed at improving competences in relation to the earlier studied field (at least 6 months); • post-*maturita* refresher studies aimed at updating earlier acquired knowledge and skills (at least 6 months); • post-*maturita* specialising studies aimed at improving competences with regards to specific activities within an earlier study field (at least 12 months); and • post-*maturita* qualifying studies aimed at achieving a qualification in a study field different from the one studied earlier.
Slovenia:	Not applicable.
Spain:	Not applicable.
Sweden:	Not applicable.
United Kingdom:	There is no distinction between VET at post-secondary (non-tertiary) and tertiary levels.

040603 Learning outcomes

Description:

Outcomes of studying at this level.

Synthesis:

The learning outcomes are as follows:

- a certificate providing proof of course completion and often examination and assessment leading to a qualification with the generic title "Advanced Vocational Qualification";
- courses are aimed mainly at providing access to the labour market at an appropriate level to the qualification;
- in general, the outcome is not designed to grant access to tertiary level education;
- where course provision is very much concerned with the continuation of studies in a selected trade at the upper secondary level – as in Iceland where it is a continuation of the apprenticeship route – access is provided to a profession or trade;
- where courses are not so closely linked to a profession or trade – as in Denmark and Estonia – the certificate or qualification obtained does not grant direct access to a regulated profession or trade.

Cyprus is exceptional with respect to the above in that it is concerned more with the provision of skills to assist people to enter the labour market who might otherwise be at risk of unemployment or inactivity (see 0405 above).

Country Transversal Summaries:

Austria:	Completion of a university course may allow students to use the title of 'academic' or 'master of advanced studies'. Successful completion of courses offered by schools for healthcare (and similar courses) lead to a vocational diploma; this allows the holder to work in the relevant field and hold a professional title.
Belgium:	In **Flanders** BSO pupils can obtain a certificate of business administration basics. In part-time secondary vocational education, pupils can obtain a: • certificate of the 2nd stage secondary education; • certificate of acquired competences for an accomplished unit; • qualification certificate of part-time vocational secondary education; • certificate of business administration basics. In the **French/German-speaking communities** qualification Certificates include: • qualification Certificate for the 6th year of technical, artistic or vocational secondary education; • qualification Certificate for the 7th further development or specialisation year of technical or artistic education; • qualification Certificate for the 7th further development or specialisation year of vocational education. An Upper-Secondary Education Certificate is issued to students who have successfully completed a 7th year of vocational education after having successfully completed a 6th year of studies of vocational secondary education. An Additional Certificate of Managerial Skills is conferred at the end of certain years of qualification stream vocational training. This certificate permits entry to regulated professions.
Cyprus:	Successful completion of the Accelerated Initial Training Scheme leads to a Training Certificate detailing the subjects of specialisation, duration and content of training. The training provided by the Enterprise-based Initial Training Scheme is specific to each enterprise and no certificates or recognised qualifications are awarded. Participants who successfully complete the schemes co-financed by the European Social Fund receive a Certificate of Attendance.
Czech Republic:	Follow-up courses are completed by a *maturita* examination which leads to award of a *maturita* certificate. Most graduates enter the labour markets directly. They may also seek admission to studies at the tertiary level in tertiary school (VOS) or a higher education institution (VS).
Denmark:	Improved vocational abilities and thus increased employability are important outcomes of the course. Upon completion of the course, a certificate is issued detailing the content of the training, the skills and level of achievement. The certificate does not give access to regulated professions.
Estonia:	Successful completion of post-secondary (non-tertiary) education leads to a Certificate of Post-secondary Vocational Education. In most cases, this

	does not give access to regulated professions. In order to work in a regulated profession, students have to pass a professional examination organised by the Estonian Qualification Authority. The professional examination is voluntary. State and general education examinations are only necessary if students wish to continue their studies in a higher education institution.
Finland:	Successful candidates are awarded a qualification certificate. Partial certificates can also be awarded, detailing the skills achieved. Qualifications allow candidates to demonstrate their vocational skills and put them in a better position to find employment. Specialist vocational qualifications alone do not grant access to further studies.
France:	Not applicable.
Germany:	A number of surveys have shown that *Zusatzqualifikationen* are valued in both internal and external labour markets. Studies have proved that they promote the transition from VET into employment, stabilise career paths, and reduce the risk of becoming unemployed.
Greece:	Graduates of the Institutes of Vocational Training (IEKs) are supplied with a Certificate of Vocational Training. This gives the right to participate in the National Accreditation Examinations. The accreditation of IEK graduates takes place through national examinations. Holders of the IEK Diploma of Vocational Training do not have direct access to the tertiary education level and the diploma is aimed more at labour market entry.
Hungary:	Vocational education and training offered in the VET grades of secondary vocational schools may lead to an ISCED level 4C vocational qualification of the National Qualification Register, giving access to the regulated occupations. The criteria for obtaining a recognised qualification are defined in the relevant professional and examination requirements and include the completion of the vocational training programme modules, the relevant level exam (if organised for that qualification), and successful performance at the state vocational examination. The form, parts, and requirements of the vocational examination are specified in the professional and examination requirements issued by the minister of the relevant field, and by the general and procedural regulations of the vocational examination defined by the Minister of Education in cooperation with the relevant minister.
Iceland:	VET at this level includes certified trades as well as non-regulated professions. Completion of studies in a certified trade leads to a legally certified title. Certificates in most professions do not give automatic rights to certain jobs. Students who complete post-secondary VET may access higher education by sitting the matriculation examination. Their post-secondary (non-tertiary) studies, however, are not recognised by higher education institutions.
Ireland:	Around 66 *per cent* of PLC graduates obtain employment. As for traineeships, 72 *per cent* of the graduates find employment and the corresponding figure is 54 *per cent* from the SST.
Italy:	Both occupationally specific training courses run by the Regions and the IFTS are certificated. No data are supplied about the destinations of those

	who have completed either post-qualification or IFTS training.
Latvia:	At the end of the programme, students sit a professional qualification examination on theoretical and practical aspects covered during the course. Students are awarded a Certificate of Vocational Qualification, giving access to the labour market or higher education.
Lithuania:	Level 4 programmes often lead to the same qualifications as Level 3 but the method of delivery differs. There are only a limited number of qualifications that are acquired only after graduation from Level 4. There is only one Level 4 profession of the Ministry of Social Security and Labour list of professions. Completion of a Level 4 programme enables individuals to enter the labour market or to continue on to higher education.
Netherlands:	No detailed information provided.
Norway:	Information not available.
Poland:	Post-secondary school leavers are awarded a leaving certificate upon completion of their studies. In addition to this, they may sit the Vocational Exam which confirms vocational qualifications at an intermediate level.
Portugal:	Successful completion of Technological Specialisation Courses (CETs) leads to a diploma in specialised technology and a Level 4 vocational certificate, and allows trainees to pursue their studies at tertiary education level following a special competition. Each tertiary education establishment is responsible for defining which CETs give access to a particular course. Training received through CETs gives rise to credit units (ECTS) that can be transferred to the tertiary education course to which the CET gives access.
Slovakia:	Successful completion of follow-up studies leads to an ISCED level 3A certificate and a 'maturita' school leaving certificate. Successful completion of post-maturita studies leads to • an ISCED level 3A certificate represented by a maturita school leaving certificate (follow up studies); • an ISCED level 3A certificate represented by a post-maturita exam certificate (post-*maturita* developing studies); • an ISCED level 3A certificate represented by a post-maturita exam certificate (post-*maturita* refreshing studies); • an ISCED level 5B certificate represented by an 'absolutorium' diploma (post-*maturita* specialised studies); and • an ISCED level 4 certificate represented by a maturita school leaving certificate (post-*maturita* qualifying studies).
Slovenia:	Not applicable.
Spain:	Not applicable.
Sweden:	Not applicable.
United Kingdom:	There is no distinction between VET at post-secondary (non-tertiary) and tertiary levels.

0407 Vocational education and training at tertiary level

Description:

Structure of provision of tertiary level vocational education delivered in a range of higher education institutions.

Synthesis:

At tertiary level it is usual to differentiate between academic and vocation streams, though in practice there is a degree of overlap between them. The International Standard Classification of Education (ISCED) classifies 5A programmes as tertiary ones "that are largely theoretically based and are intended to provide sufficient qualifications for gaining entry into advanced research programmes and profession with high skills requirements." More vocationally oriented courses are classified as 5B and "are typically shorter than those in 5A and focus on occupationally specific skills geared for entry into the labour market, although some theoretical foundations may be covered in the respective programme."

Across countries there are two distinct types of provision identified in the table below:

i. those countries where there are distinct institutional arrangements for the delivery of tertiary IVET; and

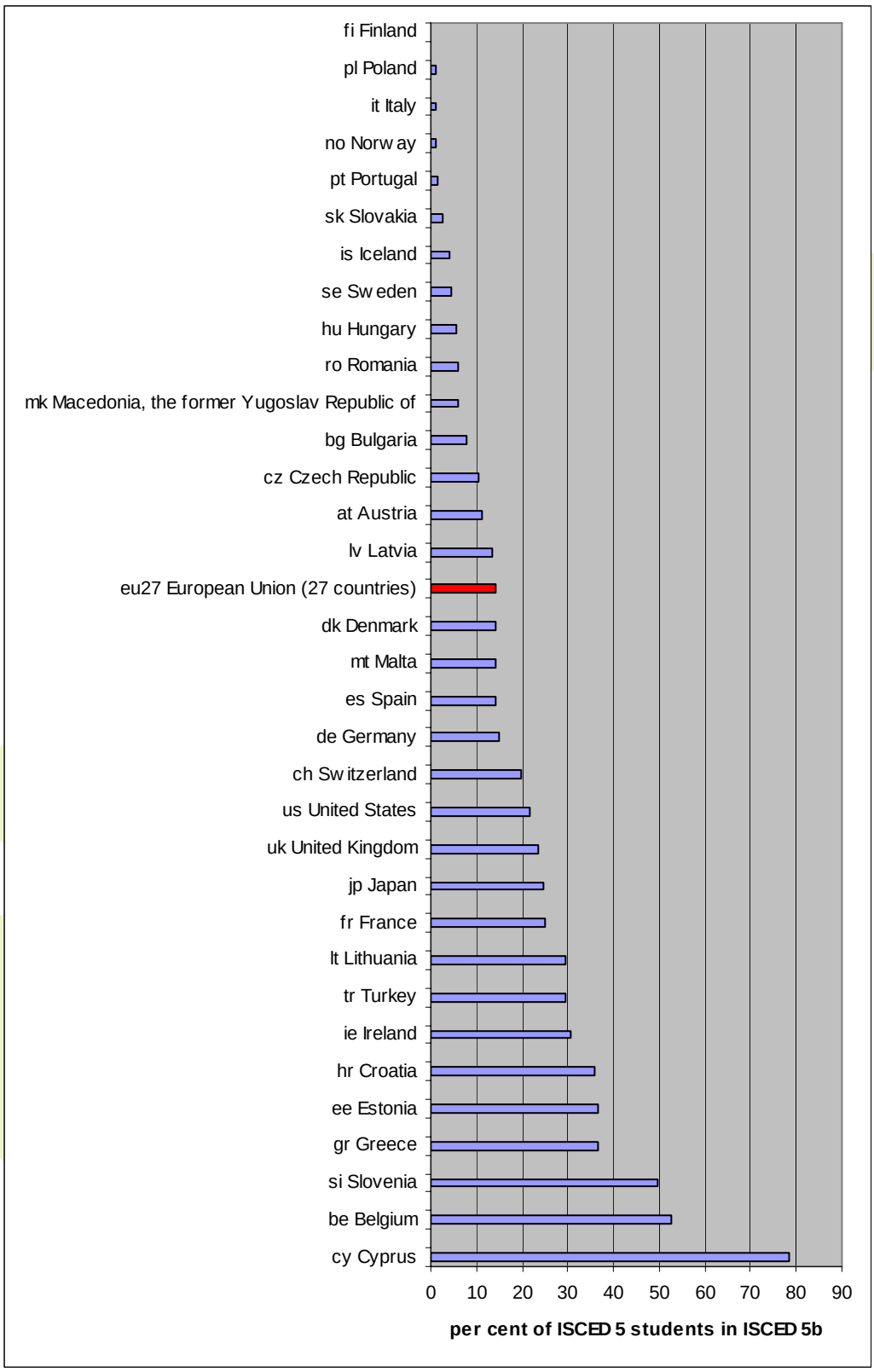
ii. those where there are vocationally oriented courses provided at tertiary level but they are subsumed within the general, academic stream (5A).

Types of provision of tertiary IVET

Distinct institutional arrangements	No distinct arrangements
Lithuania	Greece
Finland	Iceland
Norway	Slovakia
Ireland	Poland
Netherlands	Portugal
Spain	UK
Denmark	Hungary
Latvia	Cyprus
Austria	
Estonia	
Sweden	
Italy	
France	
Slovenia	
Germany	
Belgium	
Czech Republic	

Participation in ISCED5b is relatively small scale accounting for around 2 per cent of all students in 2005 in the EU. The figure below shows this data for each country.

Percentage of all in ISCED 5 students enrolled in ISCED 5b (2005)



Source: Eurostat

Where distinct institutional arrangements are provided education tends to take place in separate institutions from universities, such as in Polytechnics, university colleges, etc., leading to a distinct qualification. Where no distinct arrangements are in place, education tends to refer to more vocationally oriented subjects provided in the general, academic tertiary stream, but which tend otherwise to have the same characteristics as general, academic courses.

In Italy, vocational tertiary education is defined with reference to post-graduate studies and, in this respect, is exceptional.

Country Transversal Summaries:

Austria:	A distinction is made between non-university and university VET at tertiary level. The former comprises courses at ISCED level 5B offered in post-secondary VET colleges and vocational academies. University education is offered at universities and Fachhochshculen; although these correspond to ISCED levels 5A and 6, vocational education is also involved. Fachhochschulen were introduced in 1994 to broaden the academic sector; they provide practical training as well as theoretical education. In 1990, 11.5 per cent of 19 to 25 year olds and 10.8 per cent of 18 to 25 year olds were enrolled in tertiary VET at universities and tertiary VET colleges. These proportions increase to 17.0 per cent for 19 to 25 year olds and to 15.5 per cent for 18 to 25 year olds in 2001.
Belgium:	As of 2003, in Flanders, the higher education system includes: • University colleges providing: o Professional Bachelor's programmes; o Academic Bachelor's programmes in association with a university; o Master's programmes in association with a university; o advanced Bachelor's programmes; and o advanced Master's programmes. • Universities providing: o Academic Bachelor's programmes; o Master's programmes; o advanced Master's programmes; and o Doctoral programmes. Other (private) providers can also offer recognised higher education with recognised degrees if their programmes are accredited. **In the French and German communities** non-university higher education consists of studies known as 'short-type' (3 or 4 years) and 'long-type' (4 or 5 years). Both can be found in institutions known as '*Hautes Ecoles*' and higher art colleges. The study structure will be fully operational as from the academic year 2007/08. There is a first cycle of 3 years leading to a diploma of Bachelor, a second cycle of 1 or 2 years (minimum) leading to a diploma of Master, Medicine (4 years) or Veterinary (3 years), and third cycle of a minimum duration of 3 years leading to a doctorate. The general objective of long-type tertiary education is to provide scientific and technological training geared more directly at practical application. The general objective of short-type tertiary education is to provide technical training designed which leads to occupational skill in a specific field. In **Flanders** and the **Brussels Capital Region**, the number of students enrolled university colleges in BAMA and initial programmes and initial teacher training programmes has increased from 98,536 in 1999/2000 to 101,185 in 2004/05. The absolute number of participants in academic initial teacher training programmes has also increased over this period from 409 to 627. In the **French and German communities** there were

	62,012 participants in short-type higher education and 12,035 in long-type higher education in 2005/06.
Cyprus:	The objective of VET at tertiary level is to satisfy the needs of the country's labour market and VET is provided by institutes and colleges under various ministries. Public tertiary education is free of charge for Cypriot students. Grants are offered for studying in accredited private universities and abroad. In 1990/91, 1.5 *per cent* of 19 to 25 year olds and 2.7 *per cent* of 18 to 25 year olds were participating in VET at tertiary level (gross participation rates). The gross participation rates in 2002/03 were 2.7 *per cent* for those aged 19 to 25 and 2.3 *per cent* for those aged 18 to 25 years.
Czech Republic:	Tertiary education is considered to provide graduates at various levels with the opportunity to enter the labour market or to continue education at another level. Tertiary education is provided by tertiary professional schools (VOS) and higher education institutions (VS). Tertiary professional education is designed to enhance the knowledge and skills of graduates of secondary education with *maturita*. Higher education is provided in university type institutions and non-university type institutions. Both types may be public, state or private.
Denmark:	VET at this level includes short (2 years), medium (3-4 years) and long-cycle (3-5 years) higher VET programmes. Short cycle programmes take place at vocational colleges. Medium cycle programmes take place at specialised institutions and education is research based. Long cycle programmes take place at business schools and higher education institutions. In 2002, there were a total of 17,859 participants in vocational short-cycle programmes, 110,703 in medium-cycle, and 52,078 in long-cycle. Young people, aged 15 to 19 years accounted for 1.2 *per cent* of the total number of participants in vocational education and training at tertiary level.
Estonia:	Higher education offers an academic and an applied branch. The latter corresponds to the first stage of tertiary education and aims to provide students with the necessary competencies to perform in particular professions or to study at the Master's level. Studies last between 3 and 4.5 years and the typical age of students is 15-19. Each academic year lasts for 40 weeks and includes lectures, seminars, workplace training and independent work. The number of students in applied higher education is increasing and so are the number of institutions and the duration of studies. The absolute number of participants in tertiary level vocational education and training has increased significantly since 1995/96. In 1995/96 there were 13,837 participants and in 2003/04 there were 24,401 participants.
Finland:	VET at tertiary level is provided by polytechnics. The development of tertiary level VET started in the 1990s when post-secondary institutions were transformed into polytechnics. The aim of VET at this level is to provide skills and knowledge for professional expert functions to satisfy labour market needs. In 1990, 4.9 *per cent* of 19 to 25 year olds were polytechnic students. This participation rate has increased to 17.1 *per cent* in 2000 and further to 19 *per cent* in 2004.

France:	Vocational training in institutes of higher education includes post-Baccalaureate short term programmes that lead to advanced technician jobs or long-term programmes. The short term degree programmes involved school based education in either a secondary school or a technological university institute. The long term programmes involve school based education either in a university, a Grande Ecole of business or engineering or in a specialised school. These vocational track programmes are highly selective compared to more general degree programmes.
Germany:	There is IVET on tertiary level. In principle, universities, especially the universities for applied sciences (*Fachhochschulen*) can be considered as institutions for initial. But for present purposes only the *Berufsakademien* (professional academies) are considered. There are 35 which are either publicly or privately maintained. They have taken the principle of the dual system of vocational training and applied it to the tertiary sector. The total number of participants in the Berufsakademien was 30,272 in 2002/03 of which around 45 *per cent* were female. The number of participants has been relatively stable for some time.
Greece:	Not applicable.
Hungary:	Tertiary level education is provided by public (state) and private higher education institutions (*i.e.*, colleges and universities) and includes two types of programmes that might be classified as IVET: • higher level VET programmes leading to ISCED level 5B vocational qualifications; and • higher education degree programmes leading to ISCED level 5A qualifications. Higher level IVET is relatively new and is available since the academic year 1998/1999. Although the original objective of higher level IVET was to provide relatively short (usually two-year long), practice-oriented vocational education and training to enable students to enter the labour market, most graduates tend to continue studies in higher education degree programmes. As for higher education degree programmes, these are not considered by law as part of VET but they lead to degrees and qualifications that entitle graduates to enter occupations. The number of students studying at tertiary level has risen considerably in recent years. The number of participants of higher level VET has been rising steadily since the introduction of this pathway in 1997, though their proportion is still not very significant (about 6 *per cent* of all tertiary level education participants). In the academic year 2004/05, 82 *per cent* of students in higher level VET programmes participated in full-time education and the vast majority in state-financed form.
Iceland:	No specific VET is specified at this level. Although some of the courses offered at tertiary level can be classified as vocational (e.g., nursing, industrial engineering), the system does not make any formal distinction between these and academic studies.
Ireland:	State funded third level education consists of the University sector, the Technological sector comprising the Institutes of Technology, and

	Colleges of Education. There are also a number of private sector organisations. Tertiary level vocational education is designed to: • provide technician and technical business skills at Diploma and Certificate levels (33 thousand participants in 2002); • meet skill shortages in the economy (e.g. IT skills) (4,300 students in 2002) through the provision of additional third level places; and • offer post-graduate conversion courses consisting of one-year Diplomas in skill shortage areas (1,750 participants in 2002/3). The number of students enrolled in tertiary vocational education has risen steadily from around 22,000 in 1990, to 30,000 in 1995 and 34,000 in 2000: While the number of women is still lower than the number of men, the gap has closed since 1990 (43 *per cent* were women in 1990; 46 *per cent* in 1995; 47 *per cent* in 2000). The existing gap may be due the 'traditionally' male oriented nature of many of the courses at this level rather than a failure of promotional drives to attract females to these courses.
Italy:	This is undertaken in private and public universities which provide Level I and II masters' courses. These courses are for University graduates who want to pursue their professional development.
Latvia:	Higher education includes both academic and professional programmes. Professional qualifications can be obtained at bachelor and masters level. Master degrees are awarded if a professional qualification or professional bachelor degree is followed by 1 or 2 years of further study with a total duration of at least five years. Another distinction is between first and second level higher vocational education courses. First level higher vocational education (also known as college education) leads to an ISCED level 5B qualification. These programmes were first established in the fields of computer science, business administration, nursing and law. Second level higher vocational education (also known as higher professional education) leads to an ISCED level 5A qualification. These programmes aim to prepare specialists for economic sectors, promote competitiveness, and prepare students for research, pedagogical or creative work within specific professional fields.
Lithuania:	Vocational education and training at tertiary level embraces non-university higher education programmes (ISCED 5B) designed for those having a maturity certificate. Programmes range from 3 – 4 years and are provided in colleges. Participation in these programmes is increasing, but university studies are generally considered more prestigious. The standing of non-university programmes has begun to increase and the share of people choosing colleges is increasing while the share choosing university is declining. In 1995, the participation rate in IVET at tertiary level as a proportion of the total population of young people aged 20-24 was 8.9 *per cent*. This figure increased to 17.3 in 2000, and to 20.4 in 2002.
Netherlands:	Higher professional education, HBO (ISCED 5), provides theoretical and practical training for occupations which require higher vocational qualifications. Such training is provided at universities of professional

	education. Students are 17 years of age or older. There are seven fields with HBO training. Institutions must have at least 700 enrolled students (except for primary school teacher training, where only 250 students are required). HBO courses can also be attended part time, as part of vocational adult education and in dual learning pathways. Demand for HBO diploma holders is expected to increase. Between the 1999/2000 and 2003/2004 academic years, the number of participants in higher professional education rose from 302,500 to 334,500. It is estimated that around 20 *per cent* of participants drop out in their first year. The rate of participation of the 20-30 year old cohort in VET at tertiary level was 8 *per cent* in 1990, 9 *per cent* in 1995, 12 *per cent* in 2000 and 12.4 *per cent* in 2001. The absolute number of participants in this age cohort has increased from 193,300 in 1990 to 258,300 in 2001.
Norway:	Tertiary level VET is mainly provided by university colleges, specialised universities and colleges of art, whereas universities offer more general, academic studies. General and vocational education at tertiary level are considered equivalent in term of status and credits. Credits are awarded according to the European Credit Transfer System (ECTS). The majority of higher education institutions are state owned and they cater for around 83-90 *per cent* of all students at this level.
Poland:	There is no formal distinction between vocational and academic education at this level. VET at this level is provided by academic higher institutions and vocational higher institutions. The main difference between these is that the latter may only offer vocational programmes. Institutions may be public (state-run) or non-public and, in both cases, they are autonomous. Names for higher education institutions are based on tradition rather than legislation and they do not define the type or level of education provided. In 1990 there were 294,925 students enrolled in full-time higher education programmes. This figure increased to 420,260 in 1995; to 547,507 in 2000; and to 957,549 in 2003. The largest number of students can be found in the 19-24 age-bracket.
Portugal:	Information not available.
Slovakia:	There is no official definition of tertiary level VET. There are different opinions as to whether all tertiary education programmes or only those leading to clearly identified profession (e.g., engineering, medicine) belong to VET. Bachelors, masters and doctoral programmes are offered in a three tier system established following the Bologna agreement. The major problem of Slovak tertiary education is the lack of capacities and funding which results in a low share of secondary educated continuing in tertiary education. A comparison of 2000 and 2002 signals a slight increase in the participation rates in higher education, however a more significant increase is desirable. It is worth stressing that about one third of participants in tertiary education are part-time students with in some cases a questionable quality of education and training.

Slovenia:	Higher education programmes (but not institutions) are divided into academic and professionally oriented studies. While professional colleges provide only professionally oriented programmes, university faculties and art academies, as well as single faculties established as private institutions, offer both types of programmes.
Spain:	Higher level VET is known as Higher-level Specific Vocational Schooling and includes a set of modular training courses of variable length within theoretical and practical knowledge areas. Statistics show that the number of students participating in this type of education has been increasing since 1993/1994. During this academic year, 16,187 students took part in Higher Level Specific Vocational Schooling and this figure continually increased until reaching 208,935 in 2001/2002.
Sweden:	Vocational education at tertiary level is offered by universities and university colleges. All courses at this level lead to academic credits, 40 of which comprise a full year of studies. Of the approximately 320,000 students in upper secondary school, 42.6 *per cent* go to higher education. Of these 13.6 *per cent* come from IVET programmes. Post-secondary (tertiary) level education also includes Advanced Vocational Education (AVE) courses, aimed at increasing students' familiarity with an occupation or vocational area. A third of the study time is dedicated to the application of theoretical knowledge at the workplace. AVE courses lead to ISCED level 5B qualifications.
United Kingdom:	There are 91 universities. In addition to the universities, the higher education sector includes colleges of higher education, art, teacher training and agriculture colleges. Increasingly, further education colleges offer a strong element of higher education courses, in association with universities. For England, the Government aims to increase participation in higher education to 50 per cent of 18-30 year olds by 2010. The participation rate for Scotland is based on an earlier start to higher education on this basis. Participation already exceeds 50 per cent in Scotland, but the statistics are not comparable. It is thus accurate to think in terms of the 'massification' of higher education in the UK, which is to say that participation has grown rapidly and is no longer limited to an elite. Key policy issues articulated by the UK government include: Raising participation levels; • widening participation on the part of under-represented social groups; • difficulties of funding the expanding sector; • developing a clear link between HE learning and the skills needed in employment; • the expansion of work-focused foundation degrees. Tertiary general, vocational and professional qualifications are included in the tertiary qualifications framework. A framework exists for England, Wales and Northern Ireland – and a separate framework for Scotland. The framework does not distinguish between general, vocational and

	professional qualifications. Nevertheless, it is probably fair to say that public opinion accords different kinds of courses have different levels of esteem. Thus, traditional academic courses including 'pure' sciences are likely to have more kudos than some more vocationally oriented qualifications. Nevertheless, medicine is often the most competitive subject of all to gain entry in. Without the distinctions being clearly articulated, status distinctions are often made between academic and vocationally oriented higher education qualifications, and also between university qualifications that relate to the traditional elite professions and other vocational qualifications. In any case, it is not possible to abstract IVET from other higher education courses in the UK. Many university entrants now look to achieve a higher education qualification that will give them a clear link to the graduate labour market. Even so, in parts of the labour market, employers still look frequently for graduate recruits with a good degree and a range of attributes, rather than a specific qualification. Employers often expect to train people on the job for their specific roles. Specific higher education qualifications are a pre-requisite for entry into some professions, including medical professions such as medicine, pharmacy and nursing.

040701 Access requirements

Description:

Qualifications and experience required to gain entry to a course / institution at this level.

Synthesis:

Access to vocational tertiary education is dependent upon one or more the following:

- successful completion of upper secondary level education (i.e. possession of the relevant qualification) typically at a relatively high level (i.e. better than average performance in upper secondary education);
- an entry examination;
- relevant experience (especially if an older entrant).

Competition for entry to some courses is strong. In general, demand is greater for entry to the general, academic stream (5A).

Country Transversal Summaries:

Austria:	A school leaving certificate (or an equivalent qualification) is usually required to access VET at this level. Applicants to VET colleges are also required to take an entrance examination. Applicants to academies must take tests to prove individual skills; additionally, they must satisfy certain personal requisites such as integrity and health. Access to university courses and Fachhochschulen usually involves entrance examinations; evidence of previous knowledge or professional experience may also be required.
Belgium:	Entry to a Bachelor's programme **in Flanders** requires a diploma of secondary education or an equivalent diploma or certificate (under law, decree, European directive or other international agreement). Entry tests are to be taken only for a limited number of programmes. Advanced Bachelor's programmes are only open to those with a Bachelor's degree. A Master's programme requires a Bachelor's degree for direct entry or a bridging programme. An Advanced Master's requires a Master's degree, and admission to a Doctoral programme typically requires a Master's degree. In the **French/German-speaking communities** entry requirements for tertiary education in *Hautes Ecoles* differ according to the diplomas held by the applicant. An entrance exam is required in certain fields. Other particular entry requirements can be imposed by each institution. University education entry requirements also differ on the basis of applicants' diplomas. Professional experience and personal learning can be considered for entry. Candidates for admission into higher artistic education must satisfy the general conditions for access to higher education or successfully pass an entrance examination and must pass and entrance exam based on their aptitude for artistic training.
Cyprus:	To access higher education institutions students must possess a school-leaving certificate. The number of places is limited and students are selected on the basis of their results in entrance examinations "for placement in Institutions of Higher Education of Greece and Cyprus". There are a number of places for international students.
Czech Republic:	Tertiary profession schools (VOS) require applicants to have completed secondary education with *maturita*. Admission proceedings are exclusively the responsibility of the school director. The applicant has to meet the relevant admission requirements and show the required capacities, knowledge, interest and health condition. Higher education institutions (VS) require completion of secondary education with *maturita* for access to both Bachelor and "long" Master programmes. Each VS or faculty may set additional entry requirements concerning such things as specific knowledge, capacities, aptitudes, etc. An entry examination is often part of admission proceedings. Admission to a Master programme which follows on from a Bachelor programme is conditional upon completion of a Bachelor study programme.
Denmark:	All higher education programmes require successful completion of upper secondary education. Other admission requirements such as completion of

	specific subjects at secondary education, higher than average marks, or tests may be used to create a balance between the number of entrants and the demands of the labour market.
Estonia:	The Ministry of Education and Research establishes the general requirements to access higher education. A Certificate of Upper secondary Education (general or vocational), or a Certificate of Post-secondary (non-tertiary) Vocational Education, enable students to enter a higher education institution. Universities manage their admission processes and may establish other requirements such as entrance exams, aptitude tests, and interviews.
Finland:	A general or vocational upper secondary qualification, successful completion of the matriculation examination, or a corresponding foreign or international qualification makes candidates eligible for polytechnic studies. Polytechnics may select students based on previous study records, work experience or entrance examinations.
France:	All Baccalaureate holders may enter a university programme. The Baccalaureate is the only condition of entry. However the success rate is higher for those with a General Baccalaureate compared to those with a Technological Baccalaureate. In some programmes, students' application for admission may include interview and testing. Previous studies, job experience and personal achievements may be considered for entry to various training programmes beyond the Baccalaureate, offered by an establishment governed by the Ministry of Agriculture or Higher Education and Research.
Germany:	Applicants for courses at the *Berufsakademien* require a general or subject-related higher education entrance qualification (*Hochschulreife* or *Fachhochschulreife*), depending on the regulations in force in the particular Land, and a training contract with a suitable training establishment. Depending on the Land legislation, applicants with professional qualifications but without the higher education entrance qualification can take an entrance examination.
Greece:	Not applicable.
Hungary:	According to the Constitution of the Republic of Hungary, higher education studies are available to everyone but only in accordance with ability. Access to higher education studies requires the 'maturity' certificate obtainable in upper secondary level grammar schools and secondary vocational schools. Institutions offering higher level IVET programmes may define other access requirements such as pre-vocational qualifications and medical, career and vocational aptitude requirements. Applicants may apply to several programmes in several higher education institutions but can be admitted only to one place in a given year. The form of education may be State-financed or fee-charging, with the admission requirements being somewhat lower in the latter case. Mechanisms available to overcome obstacles to access include fee-charging access courses (organized by higher education institutions, secondary schools or private training companies) and the opportunity to recognize prior formal learning.
Iceland:	Having passed the matriculation examination, or having completed

	equivalent education or training, is usually sufficient to access tertiary level studies. Universities, however, can impose further admission requirements or selection criteria.
Ireland:	The abolition of tuition fees, expansion of the higher education sector and the introduction of the Higher Education Links scheme, eased access for those without the minimum entry requirements and led to a substantial increase in participation. In 1965, there were 18,500 participants in higher education and this had risen to 119,991 by the year 2000 – a six-fold increase. But the increase has not benefited all groups and the widening participation agenda is targeted at those people with disabilities and from disadvantaged backgrounds.
Italy:	Dependent upon obtaining a degree (for access to Level I) or a specialist degree (for Level II).
Latvia:	Every citizen or permanent resident has the right to enter higher education. The Certificate of General Secondary Education and the Certificate of Secondary Vocational Education enable students to be admitted to higher education.
Lithuania:	Entry into these programmes requires a maturity certificate, along with a particular grade point average and completion of entry exams. Places in these programmes are competitive and the majority of programmes are provided in several colleges.
Netherlands:	Entry into a HBO bachelor programme requires the following from its candidates: • senior general secondary education certificate (HAVO); • pre-university education certificate (VWO); • middle management (highest MBO) or specialist training certificate (vocational specification at ISCED 4). If an applicant is over the age of 21, they may be admitted without any of the above certificates after passing an oral entrance exam. This age limit is lower for programmes in fine and performing arts. There are additional entry requirements related to the subjects studied in previous training and there is a quota on the number of entrants on some programmes.
Norway:	Successful completion of 3 years of general upper secondary education gives the right to higher IVET at universities and colleges. Six-month theoretical, bridging courses are available for vocational upper secondary students who wish to access higher education courses. Some courses such as engineering, medical studies and pharmacy have other access requirements. There is a strong competition for places in some higher education courses, both general and vocational. Most students gain access to the course of their choice, although not necessarily in their first choice of university or college. Statistics provided suggest that the number of students participating in tertiary education increased between 1990 and 2002 from around 137,000 to 212,000. Also, there were more women than men in all years and this was also true across institutions. For example, in 2002 there were around 82,000 women and 50,000 men in university colleges. In universities and specialised universities, there were around

	45,000 women and 36,000 men.
Poland:	Upper secondary school leavers who hold the Matura Certificate have the right to access higher education. Detailed admission criteria are determined by the senate of each institution, for each course of study. The maximum number of students to be admitted is determined by the school, except for medical faculties, where the number of students is determined by the Ministry of Health.
Portugal:	Information not available.
Slovakia:	Holders of a 'maturita' leaving certificate have the right to access higher education institutions. Faculties in each institution can establish their own access requirements such as entrance examinations. Some faculties offer preparatory courses to help students meet the access criteria, although this does not guarantee a place.
Slovenia:	Successful completion of a baccalaureate, vocational matura, certificate of school leaving examination, or the general part of the vocational matura exam in combination with the master craftsmen examination give access to tertiary vocational education. Multimedia courses are an exception and candidates are required to pass the examination on exceptional gifts to access these. In cases where the supply of places exceeds the demand, candidates are selected on the basis of their grades in the last two years of secondary education and the final examination.
Spain:	Students may access upper level Specific Vocational Schooling after completing: the Bachillerato (a 2-year upper secondary course); the University Orientation Course or, in the current education system, the second year of Higher Secondary Education; or after sitting an examination. Some occupations require a minimum age and a pass in the university entrance exam.
Sweden:	Access to higher education requires successful completion of upper secondary education (or an equivalent qualification). In addition to this, some programmes may require special qualifications. Access to postgraduate programmes requires successful completion of an undergraduate programme lasting at least 3 years. Grants and loans are available to higher education students who need help to finance their studies. Advanced Vocational Education courses are open to upper secondary school graduates and to those in employment who wish to develop further their skills in a specific area.
United Kingdom:	The universities set their own admission levels for the different courses on offer. In addition, there is considerable flexibility in the higher education system to recognise the potential of people who do not have the traditional qualifications for access. In this respect, institutions such as the Open University (specialising in distance learning and awarding more degree annually than any other UK university) have provided innovative access to higher education. Foundation Degrees are designed for flexibility and can be studied full or part-time and through distance learning. This means that those who are

	already in the workplace have the opportunity to take part in higher education on a more flexible basis to enhance their skills. Entry requirements are set by the institution and alongside more traditional entry through formal qualifications. Foundation Degrees offer opportunities to people with relevant skills and prior experience, which can be accredited. Access to HE Courses, are also designed to help those with no or insufficient qualifications to have the opportunity to benefit from HE. The 1 year full-time (or 2 year part-time) level 3 courses prepare students for HE in specific or general areas. Access students are subsequently widely accepted into HE courses. Schemes to accredit prior learning also provide flexibility of entry to higher education for older learners without traditional entry qualifications. Accreditation of Prior Learning (APL) assists students to gain vocational, academic or continuous professional development recognition or credits for prior learning and experience. This may reduce the number of modules studied in order to gain a qualification, or provide access to a course for people who have learnt through experience, but who lack traditional entry qualifications.

040702 Curricula

Description:

Description of what is delivered in courses at this level.

Synthesis:

The institutions that provide vocational tertiary level education have the following characteristics:

- they are autonomous in establishing their curricula;
- the development of curricula are subject to either guidance laid down by national Ministries of Education and their subsequent approval;
- assessment of students is carried out by the institutions but their standards are also subject to external assessment by national agencies with a responsibility for tertiary education.

Courses vary in length from between one and three years. In Denmark there is a long-cycle of vocational study lasting up to five years but this corresponds with post-graduate study in a university. Attendance tends to be full-time. There is some evidence of modular course being introduced. In Finland, for example, partial awards are available where students have studied a number of elements of the overall programme. Courses are based on the acquisition of practical and theoretical knowledge, but the importance of work experience is not evident in many instances.

The newer Member States of the EU are moving towards implementing the European Credit Transfer System.

Country Transversal Summaries:

Austria:	Post-secondary courses at VET colleges usually last for two years and offer the opportunity to study part time. Academies offer three year courses organised in a similar form to university courses. In both cases, theoretical teaching and practical training are part of the curricula, and most courses include compulsory internships. University courses last between four and nine semesters and are based on a fixed curricula, while Fachhochschulen courses last between six and eight semesters. Fachhochschulen place particular emphasis on practically oriented subjects and usually have good connections with companies.
Belgium:	In **Flanders,** high schools, university colleges and universities are free to draw up their own curricula. Boards within these institutions determine for every programme a training programme. These boards take into account the conditions which regulate the entrance to certain offices or profession in designing programme curricula. Different types of programmes may be offered in higher education: • Basic programmes – including professional and academic Bachelor's programmes and Master's programmes; • Advanced programmes – advanced Bachelor and advanced Master; • Teacher training programmes. University colleges offer all teacher training programmes while Universities only offer initial academic teacher training programme. Training at university colleges focuses on practical aspects and is oriented towards future profession. Practical training on-the-job is an essential part of each one-cycle programme. In the **French/German-speaking communities** each *Haute Ecole* organises its schedule and designs its programmes provided they comply with the curricula and minimum weekly schedule established by law. Depending on the orientation, the common core curriculum in short-type tertiary education can be more or less developed. Each year of study involves a minimum of 700 hours up to a maximum of 1,200 hours of teaching activities. University authorities have considerable autonomy regarding the development of curricula. They develop and organise curricula based on qualifications established by the government. They comply with the conditions established by law, decree or European directive that regulate access to certain jobs or professions. Curricula vary from one institute to another.
Cyprus:	Study programmes may last between one and three years and are taught in English or Greek. Three year studies usually lead to a Higher Diploma; shorter courses may lead to a Diploma. Some courses are organised according to the demand at any given time. Programmes are approved by the relevant ministry but institutions design their own curricula. Courses include theoretical and practical learning, with industrial training at the end of each year.
Czech Republic:	Tertiary professional studies have a strong professional focus. Professional training is complemented by work placements. VOS curricula are either

	traditional or modular. Schools develop curricula based on the relevant field of education and labour market requirements. The draft curriculum is assessed by the Accreditation Commission. The MSMT does not grant accreditation if the draft curriculum does not contain all requisites, if its content is not in line with the objectives and principles in the schools law or if the Commission has submitted a negative report. There are 188 study programmes in 46 fields of education offered through VOS. Quality is assured through external evaluation (CSI) and self-evaluation by schools. Higher education institutions (VS) provide accredited Bachelor, follow-up Master, "long" Master and Doctoral programmes. Study programmes are developed and submitted for accreditation by the relevant VS. Accreditation is awarded by the MSMT in the same manner as for VOS.
Denmark:	The Ministry of Education is responsible for setting the overall framework for higher VET programmes. Short term programmes are school based although students may choose to do work placements in order to specialise; practical training is an integrated part of the course for medium term programmes; and long term programmes are, in general, school based. Work placements in higher education are not mandatory.
Estonia:	Curricula are registered in the Curriculum Register of the Ministry of Education and Research. Higher education institutions are in the process of implementing the European credit transfer system. To operate, higher education institutions and their study programmes must be accredited by the Higher Education Quality Assessment Council. The accreditation process has been in operation since 1997.
Finland:	Polytechnic degrees are organised into degree programmes that consist of different specialisms. Institutions design and organise their curricula autonomously. These are then approved by the Ministry of Education. Degree programmes include basic and professional studies, optional studies, practical training and a diploma project. It takes 3.5-4 years of full time study to complete a polytechnic degree. Personal plans are agreed between the student and the institution to determine how the degree programme will be completed. Polytechnics are responsible for monitoring the quality of the education they provide. External evaluations are conducted as well, and their outcomes are made public. The Higher Education Evaluation Council provides support on evaluation matters.
France:	Higher education programmes are offered by universities or higher schools, both public and private. After the Baccalaureate, students may complete two years of coursework in a secondary school or through an apprenticeship in order to obtain a Higher Technician's Certificate or they may attend a university in order to obtain a University Technological Diploma (DUT) or a University Scientific or Technical Studies Diploma (DEUST). There is a three-year post Baccalaureate Vocational Licence that makes it easier for those with higher education diplomas to enter the job market. The coursework for this licence was designed to include close cooperation

	with the professional world. Vocationally-oriented Master's Programmes allow for a significant role of internships work-experience and the contribution of professionals. Such programmes are open to students on the basis of a selective application process. Specialised schools offer vocational training leading to specific jobs such as nurse, journalist, actor, etc. Some programmes include coursework only in the specialised school while others also require university courses. The Grande Ecoles offer diverse degree programmes including scientific studies, literary and scientific studies over four years, as well as studies in business and management. In the higher education system, a National Evaluation Committee on Public Scientific, Cultural and Vocational Establishments is responsible for examining and assessing all undertakings carried out by the universities, schools and teaching establishments.
Germany:	Training at the *Berufsakademie* is generally divided up into two years of basic studies followed by one year of advanced studies. Each semester is divided into blocks of on-the-job training and a theoretical part of the course at the study institution that lasts between ten and twelve weeks.
Greece:	Not applicable.
Hungary:	The curricula of higher level VET programmes (called vocational education programmes) are developed by the institutions in accordance with the professional and examination requirements of the given vocational qualification published by the minister of the relevant field. Based on an agreement with the relevant ministry, higher education institutions and the professional chambers may develop the professional and examination requirements of a new qualification and initiate its registration in the National Qualifications Register (OKJ). Since the provision of IVET is regulated in a uniform manner for all training programmes awarding OKJ qualification, practical training may be provided as in upper secondary education, i.e., in school-based workshops or enterprise-based training. As for higher education degree programmes, curricula are developed by the institutions in accordance with the qualification requirements of the given programme defined by a government decree. Curricula define the detailed educational and study requirements, including the training phases, the required number of classes and credit points of the subjects of the advanced and final examinations, the mandatory exams, the forms of assessment, and the conditions for the recognition of prior studies. The knowledge and skills to be mastered in each subject are specified in the subject programmes. The assessment of the quality of higher education for every type and delivery mode of training, and the evaluation of the quality development systems to be developed by every higher education institution are the tasks of the Hungarian Higher Education Accreditation Committee.
Iceland:	Not applicable.

Ireland:	There has been a move towards modular curricula in some institutions, but by no means all. ITs tend to be more geared towards vocationally/professionally oriented courses. The HEA and the Universities Quality Board review and monitor quality in third level institutions.
Italy:	Based on compulsory attendance at a university. In some cases the curricula will have been developed by public or private bodies/institutions.
Latvia:	First level higher vocational education comprises study courses that involve both general and vocational education, work placements, and submission of a written thesis. The main aim of the programme is to prepare students to work in specific professions. Second level higher vocational education also involves general and vocational education, work placements, and submission of a written thesis. The main aim of the programme is to prepare specialists for economic sectors, promote competitiveness, and prepare students for research, pedagogical or creative work within specific professional fields.
Lithuania:	Programmes are developed by colleges within the framework of general regulations formulated in the Law on Higher Education. Programmes usually contain 120 credits equivalent to 3 years of full time study. Training is mainly school based and can be delivered on a part time basis during the evening. Practical training constitutes at least a third of total study programme time. This sector is the most advanced in terms of quality assurance. Quality assurance consists of self-assessment, prior to external evaluation for the readiness to provide non-university studies. There is also a cycle of external evaluation.
Netherlands:	HBO programmes contain theoretical knowledge and specific skills. The programmes are linked to occupations and most have a work experience component. As far as teaching is concerned, the Government lays down the framework and it is then the responsibility of the management of the educational institution to expand on this framework. The programmes/qualifications are accredited by the independent Accreditation Organisation of the Netherlands and Flanders (NVAO), which is responsible for external quality assurance.
Norway:	Each higher education institution develops its own curricula, following the guidelines issued by the Ministry of Education and Research. Although the Ministry of Education and Research owns and finances public higher education institutions, these have a high degree of autonomy and the introduction of new programmes takes local and regional conditions and demands into account.
Poland:	The programmes offered are determined by the Ministry of National Education and Sport. Only in some cases universities may offer new programmes, during a probation period in the first instance. Programmes can be undertaken full-time, part-time or as extramural or extension programmes, depending on the amount of time students are required to attend lectures. Individual courses of study are also available, allowing talented students to undertake subjects at other faculties or schools or to complete two programmes at the same time.

	Vocationally oriented programmes include placements which allow students to gain experience at the workplace, but there is no system in place to provide employers with incentives to participate in vocational placements.
Portugal:	Information not available.
Slovakia:	Higher education institutions develop their own curricula. Study programmes are prepared by the 'guarantor' (experienced academic staff able to fulfil requirements of specific procedures) and approved by the faculty self-governing bodies. The Accreditation Commission of the Slovakia Republic Government must also approve the curricula.
Slovenia:	Post-secondary (tertiary) vocational programmes are designed as a special form of tertiary education with a markedly practical character. Practical training represents around 40 per cent of the programme and is carried out within enterprises. Higher education quality assurance is the responsibility of the Council for Higher Education (HE) of the Republic of Slovenia, which is a consultative body and consists of representatives from higher education institutions and other experts. It is authorised to accredit new institutions, evaluate new study programmes, and accredit state-approved programmes. The Council of HE forms commissions and independent groups of experts for individual fields. Among these are the Teacher Education and Training Commission and the Higher Education Quality Assessment Commission (HEQAC). The aim of the latter is to monitor and assess the quality and effectiveness of teaching, research, art and professional activities of higher education institutions and to report once a year to the senates of HE institutions, the Council for HE and to the Council for Research and Technology of the Republic of Slovenia. In 2001, there were two universities (the University of Ljubljana, which consists of 20 faculties, three professional colleges, and three art academies; and the University of Maribor, which consists of nine faculties, and one professional college), and eight single higher education institutions, of which seven are private (two faculties and five professional colleges). Assessment of knowledge in vocational colleges is regulated by special rules (Rules Regulating Assessment of Knowledge, Public Documents, and Student Records in Vocational Colleges). Students' knowledge is assessed by examinations, exercises, and seminar papers.
Spain:	Upper level Specific Vocational Schooling comprises a set of theoretical and practical modules in different occupational fields offered in private or public learning centres. Upper and middle level Specific Vocational Schooling studies are usually offered in the same centres, although some Autonomous Regions are creating special upper level Specific Vocational Schooling institutes.
Sweden:	Higher education institutions determine their instruction and examination methods; the former usually involve lectures and seminars. The language of instruction is Swedish but some institutions offer courses in English. Diplomas include the name of the degree achieved and the subjects taken.

	Advanced Vocational Education (AVE) courses are offered by higher education institutions, upper secondary schools, municipal adult education institutions and companies. Enterprises collaborate with course providers to develop a programme that is in tune with the needs of the labour market. Curricula are developed by the course provider before applying for permission to offer an AVE course. Courses last between 1 and 3 years.
United Kingdom:	The higher education qualifications framework provides a guide as to what students are expected to learn at the different levels. The framework does not inhibit universities from tailoring their courses offered to meet particular needs and target groups.

040703 Learning outcomes

Description:

Description of what qualifications are provided and the outcomes for individuals studying at this level.

Synthesis:

The main outcome is qualification achieved through assessment and examination. Where there are separate institutional arrangements for the delivery of education it leads to a qualification (usually referred to as a Diploma) that is distinct from the Bachelor's award provided in the first stage of the general, academic stream (5A). In theory, obtaining the vocational qualification gives access to universities to study towards a Bachelor level award or a post-graduate qualification, but in practice the main outcome is entry to the labour market.

Across Europe, data reveal that higher the level qualifications are associated with: (a) a greater probability of being in employment; and (b) higher lifetime earnings. What is less clear in relation to vocational tertiary education is:

- the comparative labour market position of vocational tertiary graduates compared to those in the general / academic tertiary stream; and
- the relative rates of return to each (to either the individual or the State).

Overall, data provided by Eurydice / Eurostat shows that participation in vocational tertiary education (ISCED 5B) has grown more slowly than that for general / academic courses (ISCED 5A), which might reflect the relative value young people attach to this form of education.

Assessing the outcomes of vocational tertiary education are complicated by definitional problems attached to this form of vocational preparation (as outlined in 0407).

Country Transversal Summaries:

Austria:	Upon completion of studies at a post-secondary VET college, students take a diploma examination; thus, besides receiving a leaving certificate, graduates also receive a professional qualification. Students from academies are required to take diploma examinations and, in most cases, to write a thesis. Graduates hold the title of 'Diplometier' in their respective fields. Graduates from university courses hold the title of 'Master of Advanced Studies' in their respective fields.
Belgium:	In **Flanders** a Bachelor's or Master's degree is certified after completion of the appropriate programme. The degree of 'Doctor' is conferred after submission and public defence of the thesis. In the **French/German-speaking communities** short-type non-university higher education leads to the academic degree of bachelor in different areas of study. Long-type non-university and university higher education leads to the academic degrees of bachelor and master in various categories.
Cyprus:	Students are evaluated by their course and practical work, the results of their mid-semester and semester examinations, and by their project work and industrial training. Successful completion of the programme leads to a Diploma or a Higher Diploma awarded by each institution. The adoption of the European Credit Transfer System is under discussion.
Czech Republic:	Tertiary professional schools (VOS) – Studies are completed by an *absolutorium* consisting of a theoretical examination in vocational subjects, a foreign language and the defence of a thesis. Graduates are entitled to use the title "specialist with a diploma" (not an academic title). Acquisition of a tertiary professional qualification facilitates direct access to the labour market but graduates may also apply for higher education studies. VOS graduates can enter regulated professions. Tertiary professional studies are not recognised as equivalent to Bachelor studies at VS and *absolutorium* does not give the right to apply for Master studies. Higher education institutions (VS) – Studies in Bachelor and Master programmes are completed by a state final examination, one component of which is the defence of a thesis. Graduates of Bachelor programmes acquire the title of Bachelor or Bachelor of Arts. Graduates of Master programmes acquire various titles. Doctoral studies are completed by a state doctoral examination and the defence of a dissertation. Completion leads to the award of the degree of "doctor" or "Doctor of Theology".
Denmark:	Short cycle higher VET programmes lead to a certificate listing the subjects and marks obtained. Graduates may enter the labour market (usually a traineeship at a company) or pursue a bachelors degree or a diploma. Medium cycle programmes lead to a professional bachelors degree. Graduates may enter the labour market. Long term cycle programmes lead to a bachelors degree after 3 years of study and a masters degree after 5. Graduates may enter relevant regulated professions or academia, or apply for doctoral studies.
Estonia:	During the last stages of their studies, students prepare for a final exam or present and defend a paper. Successful completion of studies leads to a diploma of applied higher education and an academic report is provided in

	Estonian and English. Students may then enter the labour market or continue their studies in a master's programme.
Finland:	Successful completion of studies leads to a polytechnic degree, equivalent to bachelor level higher education degree with a professional emphasis. Partial certificates can also be awarded, detailing the skills achieved. Polytechnic studies provide the knowledge and skills to perform as experts in specific fields, as required by the labour market.
France:	Some vocationally oriented university master degrees give access to regulated occupations. A complementary examination is sometimes required. Exams are generally required for a higher education qualification to be awarded. Some diplomas and certificates may be awarded on the assessment of prior learning. Some graduates of higher education go onto further studies but the majority enter the labour market. Theoretically, higher education graduates are prepared to obtain employment as a technician, engineer or executive. Depending on market conditions, some may take on employment below their level of qualification.
Germany:	Students who successfully complete their Diplom examination are awarded a qualification for entry into a profession (e.g. a Diplom degree in engineering - *Diplom-Ingenieur*, in youth and community work - *Diplom-Sozialpädagoge*, or in business management - *Diplom-Betriebswirt*, to which the abbreviation (BA) for *Berufsakademie* is added). It is often the case that students are taken on at the end of their professional training by the company that trained them. The degrees awarded by *Berufsakademien* are amongst those degrees in tertiary education which are covered by the EU directive on higher education degrees, provided that they satisfy certain criteria. The Standing Conference also recommended that a *Diplom* awarded by these Berufsakademien be regarded as equivalent to a Diplom awarded by a Fachhochschule.
Greece:	Not applicable.
Hungary:	Higher level VET programmes award ISCED level 5B higher vocational qualifications which give access to regulated as well as non-regulated occupations defined in their professional and examination requirements issued by the minister of the relevant field. As for higher education degree programmes, they lead to college or university diplomas certifying a college or university level degree and a qualification. These qualifications correspond to the international BSc/BA and MSc/MA qualifications and enable graduates to access regulated or unregulated occupations and to continue studies at postgraduate level (a university diploma is necessary to access doctoral training).
Iceland:	Not applicable.
Ireland:	About 59 *per cent* of first degree holders go into employment and 32 *per cent* go onto further education and training. Those obtaining a Certificate or Diploma from ITs/DIT tend to go onto further education and training (73 *per cent* of Diploma holders and 64 *per cent* of Certificate holders in 2001) than into employment (24 *per cent* and 32 *per cent* respectively).

	Diplomas and Certificates provide a route to obtaining a first degree and examination by professional bodies.
Italy:	Accreditation processes vary. No data are supplied about the destinations of those acquiring vocationally oriented Masters level qualifications.
Latvia:	First level higher vocational education leads to an ISCED level 5B qualification. Successful candidates receive a Diploma of First Level Higher Professional Education. Second level higher vocational education leads to an ISCED level 5A qualification. Successful candidates receive a Diploma of Higher Professional Education. Both levels prepare candidates for practical performance in their field, including organising and leading the work of other professionals in their field. Second level higher vocational education also prepares candidates to plan and perform research and scientific work.
Lithuania:	Graduation at the tertiary level leads to a higher education diploma (ISCED 5). Graduates may choose to enter the labour market or to continue their studies at university.
Netherlands:	HBO programmes are able to offer official HBO masters degree courses, as well as bachelors level. Students take an interim exam at the end of the first year and a final exam at the end of the fourth year. If students successfully complete the HBO programme, they receive a certificate listing subjects in which they were examined. If students leave before completing the programme they receive a transcript listing subjects and exams taken. Graduates may use the title Bachelor.
Norway:	Since 2001, general and vocational higher education institutions offer programmes on a bachelor-master-PhD structure. Credits are awarded according to European Credit Transfer System (ECTS). With few exceptions, a bachelor degree takes 3 years, a master's degrees two consecutive years, and a PhD takes 3 or more years. Bachelor's degree courses are standardised in terms of the subjects required, making it difficult for students to move between programmes. Graduates from higher education VET programmes tend to be in a stronger position than graduates from general education programmes in terms of finding suitable employment.
Poland:	Successful completion of higher education leads to bachelors, engineering, masters or doctoral degrees. Holding any of these professional degrees gives access to regulated professions, although in some cases additional training and examinations are required. Engineering and bachelor graduates may access masters programmes and holders of masters degrees may access doctoral programmes. Professional degrees are documented by higher education diplomas providing information such as the subjects completed, the number of teaching hours attended, and vocational placements attended.
Portugal:	Information not available.
Slovakia:	Bachelors certificates are awarded upon completion of first level study programmes. Masters and doctoral certificates are awarded upon completion of second and third level studies, respectively. Titles are awarded upon completion of the course and passing the final examination.

	Candidates must also submit and defend a thesis.
Slovenia:	Upon successful completion of professionally oriented courses, graduates obtain the titles of professional graduate or professional graduate engineer. Specialisation post-graduate courses lead to the second professional title of specialist. All tertiary level vocational courses give access to regulated occupations and most graduates enter the labour market upon completion of their studies; few of them stay in high schools or universities as assistants and professors.
Spain:	Successful completion of higher level Specific Vocational Schooling leads to the qualification of 'Higher Technician', allowing the holder to enter the labour market, other specialised or complementary education, or related university studies.
Sweden:	Higher education courses lead to professional and general degrees. The latter prepare students for specific professions and vary in length. General degrees lead to a diploma or certificate, or to a bachelor's, master's or doctoral degree. Successful completion of Advanced Vocational Education (AVE) courses leads to an AVE degree, which is classified as an ISCED level 5B qualification. The AVE degree does not give access to any specific occupation. Eighty *per cent* of the AVE course graduates become employed or start their own business within 6 months of completing their studies.
United Kingdom:	In some cases, higher education qualifications that provide initial VET at tertiary level are a pre-requisite for access to regulated occupations. Higher education teaching qualifications (whether as a first degree or a post-graduate diploma) give access to school teaching in the maintained sector. Entry to a range of medical and para-medical professions that include medicine, pharmacy and nursing require higher education qualifications at graduate level or higher. Engineering, architecture, accountancy and numerous other professions have a degree or higher qualification as a pre-requisite, often associated with the achievement of professional qualifications for access to a professional association or institute. In other cases, a higher education degree may be an advantage for professional entry, but is not a publicly recognised licence to practice. Qualifications in business management, travel and tourism and younger sectors such as ICT can often be categorised this way. HR management has traditionally been a generalist occupation in this way, but qualifications are becoming increasingly recognised through the work of the professional institute working in this field.