

Skills and competences development and innovative pedagogy

Detailed analyses

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0701 ANTICIPATION OF SKILL NEEDS: GENERAL BACKGROUND

Anticipation of skills need does not have a long tradition in the Czech Republic, except during the period of centrally planned economy before 1990, which also included directive, fife-year and long-term planning of workforce with qualifications defined according to the requirements of the plans for manufacture and services. Individual companies also planned requirements for workforce qualifications. Admission to individual types of school was adjusted to comply with these requirements, as well as the number of graduates. Although these quantitative proportions were binding on both companies and schools, various structural disproportions occurred even in this directive system. Since it took some time for the changes in the requirements for qualification to occur, it was not necessary for people to change their qualifications during their job carriers. They did not have to respond to any new and/or future requirements of their jobs by participating in retraining. As a result, new qualifications came to the economy with new school-leavers and graduates.

After 1990 the education process was made democratic, and the choice of education was no longer restricted by any administrative injunction. Decision-making mechanisms were amended and more power and responsibilities were granted to schools. At the same time, new funding methods (per capita funding) were introduced. Under the new conditions, schools adjusted their supply to the demand on the part of students and their parents. However, what was neglected was the demand on the part of employers. There was only a minimum link to the then requirements of the market and hardly any possibility to influence the process of education with respect to the requirements of the future labour market. That insufficiency contributed to structural unemployment when the demand for labour in certain sectors remained unsatisfied despite the rising total unemployment of school-leavers and graduates and despite foreign workers arriving in the country to fill in the vacancies.

Gradually, the need arose for creating an information background to summarise qualification requirements for workforce in both the short and long terms, which could be used to orient both the education system and young people who wanted to study. However, no uniform concept was adopted by the government to satisfy that need. Late in the 1990s, separate projects started to emerge, more or less oriented to the need described above, which were conducted by research institutes, specialised institutes of the Ministry of Education and the Ministry of Labour and funded from both the state budgets allocated to those two Ministries and the funds of the European Union. A certain informational value with respect to the nearest future may be attached to reports on the development on the labour market prepared every six months by the Employment Services Administration of the Ministry of Labour and Social Affairs and the job centres. These reports, however, are only focused on a not-too-distant future, as they cover the expected future development of the labour market during the next six to twelve months.

070101 Policy development on anticipation of skill needs

Major issues addressed by current national policy priorities and initiatives on the anticipation of skill needs

Insufficient provision of information needed for the orientation of the contents of the education and the development of workforce to the needs of the labour market in the medium and long terms was reflected in some strategic documents adopted by the government. The most imperative description of this issue was included in the Strategy for the Development of Human Resources, adopted by the government in 2003. Besides, the issue was mentioned in a number of other government documents, such as the Long-Term Concept for the Education

and the Development of the Education System in the Czech Republic, 2003; the National Action Plan for Employment, 2004-2006; the Economic Growth Strategy, 2005; and the National Lisbon Programme, 2005. Influence from the policy of the European Union starts to be noticeable here, which puts great emphasis on the requirement for timely identification of the need for skilled work. Yet, a huge gap remains to be closed between identification of the issues and practical solutions. So far, no negotiations have taken place at the government level to deal with the opportunities to provide for the capacities necessary to anticipate the need for skilled work and the funding and the institutional infrastructure to be provided to satisfy the need. In that context, the establishment of field groups by the Ministry of Education (cf. 70102 and 70103) is only of marginal importance.

A positive impact may also be achieved with some system-wide projects, currently being cofinanced by EU Structural Funds. The approved operating programmes regarding the development of human resources and training also focus on anticipating the need for retraining. An example of this may be the system-wide project called the *Labour Market Institute*, initiated early in 2007 and co-funded with the ESF. The final recipient of the project is the Ministry of Labour and Social Affairs. The project focuses on the creation of an employment services support system, with one part of the project dedicated to the implementation of a system for regular processing of sectoral studies of the future skills needs in the next 5 to 10 years as a minimum. Moreover, methodology is being developed and measures are being adopted to ensure the organisation of the project and the funding and sustainability of the sectoral studies, once the project is completed.

Initiated in 2005, another system-wide project called VIP Career also included the aspect of the need for skills on the future labour market. The project is co-funded with the ESF and its final recipient is the Ministry of Education, Youth and Sports. It aims, among other things, at the provision of information support for career consulting at schools. As part of the project, an Information System on the Labour Market Success of School-Leavers (referred to as "ISA" in Czech) will be created to provide everyone interested in training with information about both the courses offered by schools and the branches in which school-leavers and graduates have a good chance of finding a job (the information will be available on the web portal at the end of 2007). The summaries will be based mainly on various types of examinations and data gathered from business, job agencies, job centres and ads, and will cover just a short-term skill needs.

The ISA system is the only project closer oriented to specified target groups (school-leavers and graduates). Other projects are focused generally on the future need for skills on the labour market.

Strengths and weaknesses

- It is positive that anticipation of the need for skilled work has started to develop in the Czech Republic, even if it is only supported by individual projects for the moment. Bottom-up initiatives for new projects emerge, coming mainly from experts and research teams, with specialised research infrastructure being put in place.
- The Ministry of Labour and the Ministry of Education start to realise the need for gathering information about the future skills requirement of the labour market, playing a passive role by collecting and incorporating suggestions in their own projects rather than preparing strategic concepts for the creation of a system designed for regular anticipation of skill needs with a support from the government and continuous funding.
- In that context, it is negative that the Government Council for the Development of Human Resources, appointed in 2003, ceased to exist with the appointment of the new

government after the parliament elections in 2006, as the Council could have supported the creation of an anticipation system. The Regional Councils for the Development of Human Resources still exist, but they are only of minor importance for the creation of a national skill need anticipation system.

- Negative is also the fact that the results of the existing reports and studies on the anticipation of the skill needs in the long term have not yet been implemented in practice. The only information that may be found a practical use for is that obtained from individual projects in the form of pilot investigations and studies.

070102 Legal, administrative and institutional framework

Legal regulations

No complex mechanism for anticipating skill needs is in place in the Czech Republic. This is why no legal regulations have been adopted to that effect.

Institutional framework for anticipating skill needs

Initiatives have been developing in the Czech Republic for several years, aimed at creating a permanent system of timely identification of skill needs. Their purpose is to establish projections as a regular activity with its dedicated institutional and financial background. These initiatives are more typical of experts and research institutions than the government (see also 70101). They exist in the form of separate projects that are not linked with each other. Typically, their results do not serve as a regular and reliable source of information that could be used by users at different levels. This is also reflected in the fact that no legal, administrative and institutional framework has yet been implemented to support the anticipation of the need for skilled work.

The arrangement of what is referred to as "Field Groups" (cf. 070103 and 070104) may be considered a partial system. The Field Groups have a wide activity profile, dealing only to a limited extent with anticipating the future skill needs.

- The national or country-wide level is represented by the Concept Group of the Ministry of Education, Youth and Sports ("MoE"), appointed by the MoE and consisting of over forty representatives of various ministries, regional councils and social partners who are members of the Council for Economic and Social Agreement, representatives of organisations controlled directly by the MoE, and the Czech School Inspection.
- The sectoral level is represented by nearly 300 of external researchers.
- The local level is represented by working groups created whenever need arises for supporting the work done by a Field Group. They consist of representatives of local businesses, entrepreneurs, regional and local councils, advisory boards at schools, and other experts.

070103 Methods, approaches, practices and tools used

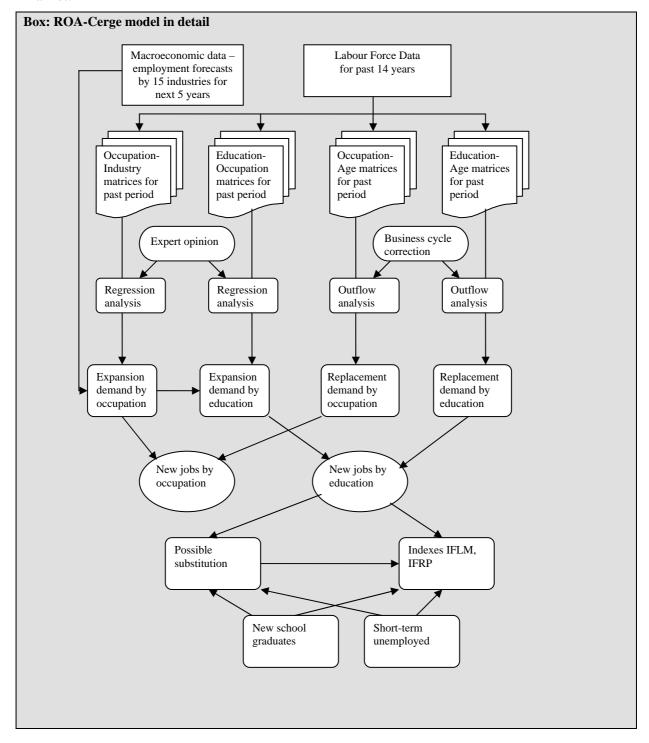
Methods and approaches used for the anticipation of skill needs

As part of the activities related to the anticipation of skill needs, a number of methodological approaches may be identified, which are applied by various institutions in their own projects sponsored mainly by the Ministry of Labour and Social Affairs and the Ministry of Education, Youth and Sports.

Quantitative methods

ROA-Cerge model

Since 1999, work has been done on a macroeconomic mathematical model. The model is now used in a project sponsored by the Ministry of Labour. The **quantitative model**, focused on the national level, has been adapted from the Dutch Centre for Education and the Labour Market (ROA) model by the Centre for Economic Research and Graduate Education of Charles University (CERGE – EI) in Prague. This model called "ROA-Cerge" forecasts the demand and supply side of the labour market separately for any given educational and occupational group, matches them and indicates future shortages and surpluses at the labour market.



Classification and data sources

Educational level classification is based on the ISCED scale, and the field of study is coded by the unique Czech Statistical Office classification.

Macroeconomic data: The model assumes knowledge of the forecasting of employment in 15 main economic sectors classified according to the NACE classification. At present, there is no regular updated macroeconomic forecast available in the Czech Republic, suitable for the model. Therefore, ad-hoc expert forecasting and/or other data sources for estimating the future employment demand need to be provided.

The most important statistical data source available is the quarterly Labour Force Sample Survey (LFS) compiled by the Czech Statistical Office.

Information on the number of short-term unemployed people (those unemployed for less than one year) by educational category is derived from the LFS data.

• Demand side structure

The total demand is made up of three parts:

Replacement demand is a part of the total demand concerning mainly the replacement of retired employees. A job position is still available for a new employee.

Expansion demand describes a change in the employment level of a given occupation or educational cluster over a defined period of time.

Substitution demand is the additional demand for people with a given educational profile who can fill vacant job positions requiring a different type of education. Only substitution between educations that have a similar occupational structure is possible.

The aggregate of replacement demand, expansion demand and substitution demand makes up the total demand for each occupational or educational cluster.

• Supply side structure

The supply side consists of the inflow of school leavers plus an appropriate portion of short-term unemployed people.

Initially, the model computes the frequency for 32 occupational clusters as well as their predicted development using a macroeconomic employment prediction of the relevant industries. Subsequently, a prediction for 27 educational clusters is computed.

Output of the forecast

The main result of the model is a set of key labour market indicators. Indicators are defined as a ratio of the total supply over the total demand in an educational cluster over the estimated period of time. The "Indicator of Future Labour Market Prospects" shows the labour market situation from the supply side, that is, from the point of view of individuals looking for a job. It provides information about the chance of finding a job according to the person's education. The "Indicator of Future Recruitment Prospects", on the other hand, shows the labour market situation from the demand side. It shows the possibility for a company to recruit workers with certain education.

Information System on the Labour Market Success of School-Leavers

Again, it is mostly the quantitative approach that has been applied in the project called **Information System on the Labour Market Success of School-Leavers** (ISA; cf. 70101), implemented by the Ministry of Education. The project focuses mainly on finding jobs in the labour market by school-leavers with medium education level, with the identification of the skill needs in the future market being only a partial activity. As part of the work done on the project, data and information is analysed to explain significant characteristics and links between education and the labour market. By analysing educational programmes, the project also monitors the preparedness of school-leaver. Analyses of short-term needs of the labour market are carried out based on the input obtained from the investigation into the opinions and needs of the employees, research done at job centres and job agencies, and data collected from job advertisements in dailies and on the Internet. In addition, development trends in the

workforce structure are analysed and compared to those in the EU. Data is analysed to understand why some school-leavers enter the labour market, while others continue with tertiary education. A useful information input is derived from these analyses and used for career consulting at secondary and even elementary schools, as well as for improving the preparedness of the school-leavers to enter the labour market or continue with tertiary education, as the case may be.

Long-term monitoring the structure of the economically active population in terms of the numbers and ratios of the employed is related to an analysis of trends both in terms of professions and education levels. In addition, compliance of the achieved education level and the job done is determined, and the trends identified are compared with the development in the structure of school-leavers. Changes in the educational, qualification and sectoral characteristics of the Czech Republic's labour market are analysed and compared to those occurring in other EU countries, with the aim of finding out how the structural changes in the country's economy, productivity and technological level are reflected in the ever changing requirements for education and qualifications in the labour market. In that context, both a short-term and a mid-term projection will be performed as part of the ISA project to estimate the further development of skill needs of the labour market until 2009 and 2014, respectively.

The Regional Information System on the Labour Market Success of School-Leavers (RISA) is a regional modification of the ISA project referred to above. Completed in the Region of Moravia and Silesia in 2004, the project gathers, processes and analyses information describing the development of the supply and the demand in the regional labour market, the needs of the regional employers, and the education options offered by schools and other educational institutions in the region. Currently, a similar regional system is being implemented in the Region of Liberec, where it is expected to be put into operation during 2007.

Outlines prepared by the Ministry of Labour and Social Affairs

To a certain extent, the outlines prepared by the Ministry of Labour and Social Affairs since the early 1990s also focus on the skill needs of the labour market. The outlines are based on the monitoring of the situation in businesses, performed by job centres, and the information about professional and qualification characteristics of the registered unemployed and the reported vacancies. They focus on finding solutions to current unemployment issues and the related need for retraining rather than being one of the sources of information used to influence the overall orientation of the educational system in the long term.

Qualitative methods

Field Groups

Qualitative changes in the contents of skilled work are monitored and analysed by **Field Groups** established by the Ministry of Education. Members of the Field Groups are experts in the creation of vocational education programmes, representatives of vocational schools and employers. Trends in the development are monitored based on the sources of information available about the development in the respective sector. Currently, 25 Field Groups exist, covering a wide range of job opportunities for school leavers.

The Field Groups also prepare sectoral forecasts describing the expected development of skill requirements for professions for which pupils are trained in the respective educational programmes, such as electrical engineering, agriculture and others. In 2006 and 2007, a qualitative examination is being performed, based primarily on experts' opinions, with the aim of updating the outputs of the previous project called *Monitoring of the Development of Skill Requirements in Groups of Related Jobs*, carried out from 1998 until 2000. Some 15 or

even more partial studies are expected to be prepared and published on the web sites of the National Institute of Technical and Vocational Education at www.nuov.cz (in the section dealing with the activities of the Field Groups).

Besides the partial, sectoral studies, a summary synthetic publication was compiled in 2006, focusing on the expected development of skill requirements in the selected sectors of the economy.

Specific sectoral approaches and new trends

Currently, the methods used in the Czech Republic to develop (and anticipate and forecast) new qualifications and job profiles are undergoing major changes, as they are being replaced with methods based on team work. These changes are due to the progressive establishment of **Sectoral Councils**, as described hereinafter, mainly in chapters 070203 and 070104.

Another type of qualitative studies conducted as part of the projects implemented by the Ministry of Labour are **sectoral studies of the need for skilled work**, focusing on the analysis of detailed conditions and future requirements for skilled work in sectors or otherwise defined areas in the mid term and in the long term (5 to 10 years, or even more, depending on the type of the sector). So far, pilot research studies have been conducted, while its methodology of data processing and the structure of its contents have not yet been defined exactly and are still under development. Currently, studies for tourism, car industry and energy generation are available. The examples contained in those studies are used for the further development of the methodology. The studies include:

- an overall specification of the sector (production characteristics, relations to other sectors, involvement in foreign trade, and others);
- a detailed analysis of human resources in the sector in terms of the structure of professions and skills and other characteristics related to the provision of the future outputs of the sector by workforce;
- information about the status of the educational system (both initial and further education) related to the sector; and
- future trends in the development and requirements for human resources in the sector (technological development and global trends, strategic and political aspects), and others.

The purpose of the studies is to bring information about future job opportunities in the sector and propose measures to ensure long-term development of the sector by workforce.

070104 Building partnerships and raising awareness

Partnerships as mechanisms to anticipate skill needs

The present activities focusing directly on the anticipation of the need for skilled work do not have any fixed institutional structures, and so cooperation with partners typically applies to separate projects. As a result, it is often difficult to maintain and continue with the activities once the project is completed, due to the lack of further funding.

Field Groups

An example of relatively firm partnerships is the partnerships established as part of the **Field Groups** (cf. 70102 and 70103) since 1998. However, their work is only related to the anticipation of skilled work to a limited extent. Established by the Ministry of Education, Youth and Sports, the Field Groups work at the National Institute of Technical and Vocational Education. Their elementary task is to support, maintain and develop efficient communication between the authors of educational programmes for technical and vocational education in the

Czech Republic and the relevant partners. As partnerships, the Field Groups have at least three dimensions:

- The national or country-wide level is represented by the Concept Group of the Ministry of Education, Youth and Sports. The task of this group is to comment on how the Field Groups resolve their tasks with regard to the development of a technical and vocational education concept for the Czech Republic. It was appointed by the MoE and consists of over forty representatives of various ministries, regional councils and social partners who are members of the Council for Economic and Social Agreement, representatives of organisations controlled directly by the Ministry of Education, Youth and Sports and the Czech School Inspection.
- The sectoral level of the project is represented by the Field Groups. They are appointed in a manner so as to cover the issues of various groups of jobs for which pupils are trained in secondary and higher technical and vocational education programmes. There are a total of 25 Field Groups, consisting of nearly three-hundred external experts.
- The local level of the project was added by the recent amendment to the statutes providing for the appointment of working groups. The working groups are appointed to support work done by an experienced member of a Field Group. They consist of representatives of local businesses, entrepreneurs, regional and local authorities, advisory boards at schools, etc.

Sectoral councils

A completely new type of partnership at the country-wide level, which is most likely to have a considerable impact in the future on the overall development and definition of jobs and skills in the Czech Republic and, as a consequence, its component focused on the anticipation of the need for new competences and skills, is the partnership established as part of the **sectoral councils**. It is quite a new phenomenon in the area of skills, with a good chance of further development. The current situation may be summarised as follows:

- The concept of the sectoral councils has been derived partially from the successful UK project of "Sector Skills Councils".
- Members of the partnerships related to the concept of sectoral councils include representatives of social partners (professional associations, ministries, and leading businesses in the sector).
- The sectoral councils are supposed to play an important role in issues concerning the description of jobs and skills as the relevant representative of the labour world.
- In the Czech Republic, sectoral councils have so far been appointed in selected sectors of the economy, such as forestry and energy generation. Their work is supported by the system-wide project called the National Qualifications Framework (Ministry of Education, Youth and Sports, 2005-2008).
- Initiation of a project focused on the development of the National Career Framework (Ministry of Labour and Social Affairs, 2007-2008) is of major importance for the concept of sectoral councils.

International partnerships

Various approaches to the identification and specification of the need for "qualitatively new skills" may be a major source of inspiration for international partnerships established as part of global projects.

Another form of international cooperation, in which experts and individuals interested in the anticipation of skill needs in the Czech Republic, is the participation in the Skillsnet network supported by Cedefop.

070105 Financing the anticipation of skill needs (incl. statistics)

There is no information or statistics available for this section.

Data on the funding of projects dealing primarily with the anticipation of skill needs is not available. Moreover, projects involving the anticipation also contain other activities which are not directly related to the future need for skilled work, and so the data would be distorted.

Pilot projects are funded from public national funds, with a number of them being co-funded with the European Social Fund.

0702 DEVELOPING QUALIFICATIONS: GENERAL BACKGROUND

Definition of "qualifications" in the Czech Republic

In the Czech Republic, qualifications are defined in two acts:

Act no. 179/2006 Coll. defines:

- **complete qualifications** as professional qualifications of a natural person to duly perform all work activities pertaining to a relevant profession; and
- **partial qualifications** professional qualifications of a natural person to duly perform a certain work activity or a set of work activities in a relevant profession or in two or more professions respectively, in the scope defined in a qualification standard.

Act no. 18/2004 Coll. defines professional qualifications as the individual's ability to perform a regulated activity, attested by evidence of formal qualifications, an attestation of competence and/or professional experience.

Tradition of qualifications and job profiles development

There is a long tradition of the development of qualifications and job profiles in the Czech Republic, with a detailed theoretical background.

Previously (before 1998), a sophisticated system of the "analysis of profession fields" was in place in the Czech Republic. The typical feature of the system was that it was managed by the technical and vocational schools themselves. One of its parts also produced requirements for new qualifications.

Newly developed qualifications and job profiles were reflected mainly in the periodically issued catalogues of qualifications, applicable countrywide. They were used to derive further detailed specifications applicable to the regional and mainly the local levels.

After 1998, the role of the catalogues of qualifications was assumed and/or complemented by the Integrated System of Standard Positions (ISTP), which is described in detail in chapter 070201, Policy development on developing qualifications.

With respect to the local tradition in the Czech Republic, the development of new qualifications in the labour world was always supplemented with the development related directly to the technical and vocational education. See chapter 070201, Policy development on developing qualifications, for details of the underlying ideas and the main features of this strategic approach.

Since 2005, prerequisites (especially legislative and developmental - determined by the start of MŠMT system projects) are being created to ensure that the decisive position in the development of new qualifications at the central level is assumed by the National Qualifications Framework of the Czech Republic. See chapter 070205, Financing the development of new qualifications, for details of the orientation and the most important support and related projects.

070201 Policy development on developing qualifications

Traditionally, the policy of developing new qualifications and job profiles in the Czech Republic has rested on several pillars. There are two of them that are still of major importance:

• New qualifications and job profiles are developed at the national (country-wide) level primarily in the "labour world", that is, under major influence of the Ministry of Labour and Social Affairs and other social partners, mainly the employers.

- o Before 1998, newly developed qualifications and job profiles were reflected mainly in the periodically issued catalogues of qualifications, applicable countrywide. They were used to derive further detailed specifications applicable to the regional and mainly the local levels.
- O After 1998¹, the role of the catalogues of qualifications was assumed by the Integrated System of Standard Positions (ISTP). Currently, the ISTP has a sophisticated form with the following typical features:

It was created and is being maintained with the support from the Ministry of Labour and Social Affairs.

- Associations of employers (such as the Confederation of Industry of the Czech Republic, the Economic Chamber and the Union of Employers' Associations) and employees (such as Czech-Moravian Confederation of Trade Unions), relevant at the country level, are involved in the creation and the maintenance of the system.
- The creation of the system is also supported by the Ministry of Education, Youth and Sports and the National Institute of Technical and Vocational Education, for which the data gathered in the ISTP is an important source of information from the labour world (skill needs) used to prepare education programmes.
- The system is opened for public access via the Internet at www.istp.cz.
- The system is based on what is referred to as a card index of standard positions, while the standard positions are generalised representations of real job positions created and existing in practice.
- The system is configured to allow its administrators to enter requests for the description of new standard positions/qualifications. The requests are processed by the relevant experts. The final outcome may be addition of the new position to the system.
- As the ISTP is not "protected" by legal provisions, it must be of top quality and user-friendly to stand the competition. Its quality has been confirmed by the results of international contents audits, and the system has been taken over and implemented by another EU member country, the Slovak Republic.
- Another source of development of new qualifications is the education, mainly technical and vocational education. The development of education programmes for initial technical and vocational education at the secondary school level is the most formalised of the systems in place, allowing the countrywide response to initiatives and requests:
 - o generated at the regional or local levels (that is, the opportunity for schools to propose their own programmes taking into account the requirements for skills existing in their surroundings); and
 - o generated as a result of a targeted development of education programmes, taking into account the requirements for skills defined at the central level with the aim of obtaining a demand from the labour world for the education programmes (the formal result of the activities of the National Institute of Technical and Vocational Education, previously based mainly on the activities performed by the Field Groups and currently supplemented with some other tools, is the definition of profession profiles and/or qualification standards). See www.nuov.cz, Education in the Czech Republic Field Groups, for details.

Another stage of the national/countrywide approach to the development of new qualifications (and job profiles) in the Czech Republic is the definition of qualifications based on competences. This has been the predominant approach recently.

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¹ The development of this system started in the Czech Republic in 1998.

First, it gained ground in technical and vocational education where it is linked with the long-prepared, progressive curriculum reform involving:

- a two-stage definition of the technical and vocational education curriculum, with framework education programmes (see the National Institute of Technical and Vocational Education, www.nuov.cz, for details) as the central level from which school education programmes will be derived and prepared by schools at the regional and local levels; and
- consensually defined outcomes of the education and target competences approved at the central level for each field of education, which have a dominant position and are of decisive importance, as they define the professional profiles (the original tool) and the qualification standards (the current and future tool).

Later, the competence-based approach was also adopted for the creation and further development of the Integrated System of Standard Positions, referred to above. It will also be applied in the creation of the National Career Framework, initiated in 2007.

Since 2005, prerequisites are being created to ensure that the decisive position in the development of new qualifications at the central level is assumed by the National Qualifications Framework of the Czech Republic. Visit www.nsk.nuov.cz for details of the most important support project. The new system will have the following elementary features:

- It will be provided for in a new act in effect from August 2007, defining qualification and assessing standards as the main components of the system (visit www.msmt.cz for the complete wording of the Act, also translated into English).
- It will serve as a common system framework for initial and further education and recognition of education results.
- Work on it is being done in cooperation with all relevant stakeholders.
- It will be a bridge between the labour world and the education.
- It will contain qualifications (qualification standards) classified (grouped) in various levels. The qualifications will be easy to compare with each other and have a clear link to the European Qualifications Framework (EQF).

The newly prepared National Career Framework will supplement the Integrated System of Standard Positions for the creation of job profiles.

The policies described above have a number of strengths, including:

- approaches enough flexible to collect initiatives from the local level and mechanisms in place for processing and using the initiatives;
- involvement of social partners and growing interest from employers in the related activities; and
- implementation and initiation of large system projects co-funded with the European Social Fund to accelerate the processes necessary for the application of new approaches.

Weaknesses of the above described policy are linked with the time consumption of particular processes which complicates the usage of feedback information gained when implementing individual parts of the system which is being developed.

The adoption of the new approaches and the newly created tools, mainly the National Qualifications Framework, will have direct consequences for the economically active population. Since its initiation, the new system has been designed with special considerations for those who need to complete, change or extend their qualifications. This is mainly the case of individuals with low education and qualification levels. Another "disadvantaged group" which could be helped by the new opportunities (new ways to acquire complete or partial

qualifications) under the Verification and Recognition of Further Education Results Act includes handicapped individuals.

New approaches and developed tools have a nation-wide impact. At the same time, the application at regional and local levels will be derived from the application at national level.

070202 Legal, administrative and institutional framework

The legal framework defining the orientation and the mechanisms necessary for developing new and changing qualifications and job profiles consists of three key acts and a number of other statutory instruments. For example, regulated professions are governed by nearly a hundred valid legal regulations based on laws.

In compliance with the European concept of lifelong learning, three types of standards are already provided for in the Czech legal regulations²:

Chart 1: Types of standards in legal regulations supporting Lifelong Learning

Occupational standards	Education/training standards	Assessment standards
In the form of qualification	In the form of framework	In the form of framework
standards, as defined by the	education programmes	education programmes defining
Act no. 179/2006 Coll.	defining curriculum standards,	curriculum standards, as
	as provided for in the	provided for in the Education
	Education Act ³ .	Act^4 .

In the target condition⁵, the National Qualifications Framework will be playing the decisive role. The Framework will contain both the qualification and the assessment standards for partial and complete qualifications. It will be derived from the currently prepared National Career Framework and the data on the existing standard positions, collected in the Integrated System of Standard Positions.

Along with the introduction and implementation of the National Qualifications Framework, the existing education fields and their systems will be revised. New fields of education will be created, maintained and modified in a manner so as to make sure that educational (curriculum) standards exist for the related complete qualifications, based on the respective qualification and assessment standards describing in terms of competences (abilities) the results of learning to be achieved in the fields of education concerned.

The third Act governs the development of qualifications and professional profiles in the area of regulated professions. It is the Act no. 18/2004 Coll. providing for recognition of professional qualifications.

In the target condition, which is to be achieved progressively, the institutional framework for the development of qualifications in the Czech Republic will be derived from the Recognition of Further Education Results Act no. 179/2006 Coll. The following table summarises the basic information.

³ Act no. 561/2004 Coll. providing for Pre-school, Basic, Secondary, Tertiary Professional and Other Education (Education Act)

² The basic classification adopted from Colardyn and Bjørnåvold, 2003

⁴ Act no. 561/2004 Coll. providing for Pre-school, Basic, Secondary, Tertiary Professional and Other Education (Education Act)

⁵ It should be pointed out here that this is a **description of the target condition**, as the National Qualifications Framework is being built in the Czech Republic since 2005 and the National Career Framework since 2007. 2007 is also the year when the new Act no. 179/2005 Coll. providing for the recognition of further education results will come into effect (in August, to be more specific).

Table 1: Institutional framework for the development of qualifications

Institutions and associations involved	Their role and responsibilities
Ministry of Education, Youth and Sports Authorising bodies, as defined in the Act no. 179/2006 Coll. (central administrative authorities, mainly ministries) Individuals and legal entities — authorised persons (such as schools, professional associations, businesses, companies, providers of further education — both public educational institutions and private profit-based	 Coordinates the activities of the central administrative authorities (ministries) performed according to the Recognition of Further Education Results Act. Approves, amends, cancels and issues a list of complete and partial qualifications (that is, it approves the contents and the form of the National Qualifications Framework), including the contents of the qualification and assessment standards. Provides the necessary funds for the operation of the National Board for Qualifications. Grant authorisations to individuals and legal entities, subject to their meeting the requirements stipulated by the Act. Extend and withdraw authorisations. See that the conditions for the assessment are met. Record data required by law and transfer such data to the central database kept by the National Institute for Technical and Vocational Education. Participate in the preparation of qualification and assessment standards and their changes. Assess the results of further education based authorisations granted to them.
providers of education, etc.) Ministry of Education, Youth and Sports, National Institute of Technical and Vocational Education, Ministry of Labour and Social Affairs, National Board for Qualifications	Propose qualification standards.
Chambers of employers, professional chambers, interest and professional associations, specialist companies, associations of legal entities carrying out activities of schools included in the Register of Schools and School Facilities, and higher education institutions	Cooperate in the preparation of qualification and assessment standards.
National Board for Qualifications	Operates as an advisory body to advise the Ministry of Education, Youth and Sports on qualifications: - discusses matters concerning the preparation of the National Register of Qualifications and its application in practice; and - assesses further issues concerning qualifications or further education which are submitted by the Ministry of Education, Youth and Sports, and delivers its opinions.

070203 Methods, approaches, practices and tools used

The approaches used to identify and describe new qualifications and job profiles were traditionally based on the qualified response from a pre-defined group of experts to an initiative derived from the needs of the labour market. The response usually consisted in a review of the initiative, whose result could be a proposal for addition to the then existing registers of qualification/professional profiles. The methods used relied upon the statements of the experts in the existing networks.

Currently, methods used to develop new qualifications and job profiles are undergoing a major change, with new methods based on team work appearing. They are accompanied by the progressive establishment of **sectoral councils**. These are newly established, sectororiented structures consisting of experts appointed by employers and their associations in close cooperation with the central administrative authorities within the meaning of the future authorising bodies, as defined in the Recognition of Further Education Results Act no. 179/2006 Coll.

Sectoral councils are actively involved in more than a third of sectors, such as:

- agriculture;
- electrical engineering;
- building industry;

The interest in the appointment of the sectoral councils, as shown by the central administrative authorities (the ministries) and the relevant associations of both employers and employees throughout the country, as well as the approval and initiation of some major support projects create realistic prerequisites for the application and propagation of this tool to a majority of sectors as widely as possible.

In the target condition, sectoral councils should be able to review and verify the current job descriptions and qualification standards and participate in the development of new ones.

Consequently, we now see the overall approach to the description and development of qualifications shifting from an expert (based on opinions of experts) to a "collective" or consensually accepted point of view (adopted in sectoral councils).

Sectoral councils will work as a tool of employers. They will help put through interest of sectors in the area of human resources in relation to the state administration and educational institutions, especially in the context of the law on recognition of continuing education results (Law no. 179/2006 Coll.).

In this context, it is necessary to pay attention to the following tasks:

- to monitor labour market and identify its development trends and changes;
- to specify the needs of the sector, especially in the field of HRD;
- to support actively education and development of key vocational skills in the sector;
- to communicate with state and educational institutions arose their interest in putting through the sector needs;
- to carry out service activities for the field of continuing education and lifelong learning in the sector and out of the sector.

070204 Building partnerships and raising awareness

Involvement of social partners plays an important role in the creation and development of new qualification profiles in practice and in technical and educational training. At **national level**, social partners participate in drafting of and commenting on legal regulations, government documents and concepts regarding both the practice and the education through the **Council**

for Economic and Social Agreement. To that end, a special working team for education and human resources has been appointed.

An important role in the support for a holistic approach to the development of human resources was played by the *Government's Council for Human Resources Development*, which, however, was dissolved. It had a tripartite structure and its aim was to cooperate in the preparation of strategic national documents and decisions combining the issues of employment, technical and vocational education, qualifications and support for entrepreneurs. Similar bodies involved in the strategic management of human resources development were appointed at the regional level in most regions of the country. They still work, even after the national Council was dissolved.

At **regional level**, social partners are members of the regional Councils for Economic and Social Agreement and the regional Councils for Human Resources Development, whereas the actual situation is different in each region. In practice, social partners usually participate in reviewing proposals for optimisation of the school network and modification of the structure of fields of education as part of the offer of technical and vocational education and training.

At **sectoral level**, a number of examples of excellent cooperation can be found in widely established partnerships initiated by technical and vocational schools or the newly created networks of schools. The cooperation is subject to and influenced by the importance of the respective sector in the region.

Building partnerships is a significant common feature of all large system projects focused on qualifications and technical and vocational education, implemented since 2005. Thanks to other projects supplementing the two elementary projects aimed at the creation of a

- National Qualifications Framework (initiated in 2005, supported by the Ministry of Education, Youth and Sports); and a
- National Career Framework (initiated in 2007, supported by the Ministry of Labour and Social Affairs), the social partners have the opportunity to be involved in all parts of the chain:

Figure 1: Qualification development process

1. CAREER	2. QUALIFICATIONS	3. EDUCATION	4. TESTS AND
FRAMEWORK	NETWORK	PROGRAMMES	ASSESSMENTS

The figure shows the strategy of approaching the solution to the need for linking the development of new qualifications and job profiles and employers' needs to education and technical and vocational training.

- In the target condition, qualification standards will be defined in the National Qualifications Framework, matching the requirements for the jobs described in the National Career Framework.
- To a certain extent, qualification standards will become orders from the employers to which framework educational programmes (in initial education) and further educational programmes will respond.
- The top of the pyramid, whose base contains the job descriptions, consists of a system for the assessment and certification of professional qualifications, confirming and recognising the education results with the related certificates, regardless of how the results were achieved. This will be made possible due to the assessment standards for both complete and partial qualifications which are being defined in cooperation with social partners as part of the National Qualifications System.

Before the target condition is achieved, as described above, the Field Groups contribute to establishing efficient links to the needs of the labour market.

The Field Groups, as conceived at present, operate at the National Institute of Technical and Vocational Education with permanent support from the Ministry of Education, Youth and Sports since 1997. Its elementary task consists in supporting, maintaining and developing efficient communication between the authors of technical and vocational educational programmes in the Czech Republic and the relevant partners.

The Field Groups are appointed in a manner so as to cover the issues of various groups of jobs for which pupils are trained in secondary and higher technical and vocational education programmes. There are a total of 25 Field Groups, consisting of nearly three-hundred external experts. They include experts who have detailed knowledge of and continuously monitor the developments in the labour world, as well as experts who are experienced in preparing technical and vocational educational programmes.

To raise awareness of the existing and new approaches and methods for the development of qualification and job profiles, a wide range of methods is applied, as follows:

- The standard method includes leaflets, printed information materials and information published in the form of articles in specialised magazines and the daily press.
- A special role is attributed to workshops arranged frequently for stakeholders, mainly those with expert knowledge.
- A dissemination role is attributed to conferences held at the national (a total of four conferences in 2006) and regional (2 conferences in 2006) levels.

Information made available on web sites is of key importance for the end users:

Table 1: List of web sites on qualification development

http://www.msmt.cz/	Information provided by the Ministry of Education, Youth and Sports,	
	containing, among other things, full wordings of acts providing for	
	education, recognition of qualifications and recognition of education	
	results.	
http://www.mpsv.cz/	Information provided by the Ministry of Labour and Social Affairs,	
	containing details of the National Career Framework, retraining,	
	consulting and job opportunities.	
http://www.nuov.cz/	Information about activities of the National Institute of Technical and	
	Vocational Education, such as framework educational programmes,	
	work done by the Field Groups, recognition of qualifications, projects	
	focused on the development of the National Qualifications Framework,	
	and assessment and recognition of education results.	
http://www.istp.cz/	Details of the Integrated System of Standard Positions, including the	
	Card Index of Standard Positions containing details of qualification	
	requirements and generalised job positions.	
http://www.nsk.nuov.cz/	Details of objectives, procedures and the present developments of the	
	system project implemented by the Ministry of Education, Youth and	
	Sports concerning the development of the National Qualifications	
	Framework in the Czech Republic.	
http://www.univ.nuov.cz/	Details of objectives, procedures and the present developments of the	
	system project implemented by the Ministry of Education, Youth and	
	Sports concerning the proposal and the practical implementation of	
	methodology for the recognition of the results of informal learning and	
	non-formal education.	

070205 Financing the development of new qualifications (incl. statistics)

The development of qualifications has so far been financed from public funds allocated in the state budget of the Czech Republic to the support of the related activities. As a result, the development of qualifications was funded by the respective ministries using part of the money originally allocated to the funding of:

- the development and maintenance of the Integrated System of Standard Positions (Ministry of Labour and Social Affairs);
- the development and maintenance of educational programmes for initial education (Ministry of Education, Youth and Sports); and
- the activities performed by the Field Groups (Ministry of Education, Youth and Sports).

To a limited extent, private funds have been used, such as for:

- processing proposals for changes in or additions to (by any person) the Integrated System of Standard Positions;
- processing proposals for changes in or additions to the process of developing technical and vocational education programmes; and
- conducting sectoral research and analyses focused on describing the current and forecasting the future developments in the sectors and fields (and the related qualification requirements) by various persons and entities, such as employers' associations.

Funds obtained for the development of qualifications from international bodies or in direct context with international projects have also played an increasingly important role. The source of such funds includes the following types of activities with direct involvement of Czech partners:

• Major international projects

An example may be the OECD project called the "Role of National Qualification Systems in Promoting Lifelong Learning", implemented from 2000 until 2005. By participating in the project, the Czech Republic had a unique and very inspiring opportunity to compare solutions to similar issues adopted in various countries. Involvement in the project also resulted in acceleration of the processes leading to the development of a qualifications framework in the Czech Republic, with the subsequent preparations for a system project called the Development of the National Qualifications System.

• Involvement in standard European projects

Examples include some pilot projects (such as EPANIL focused on recognition of education results, VQTS focused on the transfer of work-related competences, and QF-Embodiment focused on the verification of the links between national qualifications frameworks and the European Qualifications Framework), as well as a number of mobility projects (such as the Mobility for European Qualifications) implemented as part of the European programme called Leonardo da Vinci.

• Bilateral international projects

Examples include a number of international projects initiated by the Netherlands (such as the project called Qualifying for Europe), which have already been completed and in which the Czech Republic participated before its entry in the EU.

The opportunity to use money from the European Social Fund provided for certain projects combined with money from the state budget of the Czech Republic increased funding of the development of new qualifications and accelerated the related processes.

Table 1: The most important projects supporting qualification development

Project title	Ministry / partnership involved in the project	Project objectives
National Qualifications Framework to support the links between initial and further education	Ministry of Education, Youth and Sports / National Institute of Technical and Vocational Education	To create a system environment in support of: - comparability of learning outcomes achieved through various forms of learning and education; - recognition of real knowledge and competences independently of how they were acquired; - transfer of the requirements from the labour world into education and training; - public awareness of all national-wide recognized qualifications; and - comparability of qualification levels in the Czech Republic and in the EU.
National Occupations System	Ministry of Labour and Social Affairs / a consortium of partners	 Fundamentals of the National Occupations System in the Czech Republic. Proposals for and implementation of mechanisms needed to ensure and support a network of sectoral councils and their operations in support of the National Occupations System and the National Qualifications Framework.
Recognition of the results of informal learning and non-formal education by networks of schools providing education service for adults	Ministry of Education, Youth and Sports / National Institute of Technical and Vocational Education	 Suggest and describe how the results of non-formal educational and informal learning may be verified. Introduce and implement the proposed mechanisms in the networks of schools providing education services for adults
To develop the system of external monitoring and assessment (KVALITA I)	Ministry of Education, Youth and Sports, National Institute of Technical and Vocational Education – a partner for the final examination reform	 To standardise the content of final examinations with apprenticeship certificates in the individual fields of education, increase their transparency and their comparability with other schools To link examination assignments to respective qualification requirements and use for this purpose assessment standards developed by experts on the part of employers; To verify standardised assignments in pilot schools and develop the concept of the final examination on the basis of gained results

One of the common features of all system projects mentioned above is that due to their target orientation, they all include specific financial tools and financial stimuli to building partnerships for the development of qualifications.

Statistic data on the funds provided for the development of qualifications

With respect to the nature of the mechanisms used for the development of qualifications in the Czech Republic, as described above, it is impossible to obtain and report any relevant data for a clear and reliable picture of to what extent the projects are funded from public money allocated in the state budget to the respective ministries (mainly the Ministry of Education, Youth and Sports and the Ministry of Labour and Social Affairs).

0703 INNOVATIVE PEDAGOGIES: GENERAL BACKGROUND

Definition of "innovative pedagogies" and the country's tradition on innovative pedagogies in VET

In the CR, the term innovative pedagogies refers to non-traditional educational methods and non-traditional organizational forms of learning – particularly those that focus on activating pupils' active perception of learning and adapting teaching to individual needs – for further details see below. As far as the tradition of innovative pedagogies in the CR is concerned, it must be pointed out that the education system in this country was influenced by the concept of education held by the Habsburg empire, of which the CR was a part until 1918. This heavily inclined towards theories of material learning (H.Spencer), which regarded its primary goal as providing pupils with the largest possible quantities of encyclopaedic facts. The formal education theory (Herbart, Dörpfeld), which aimed to develop different aspects of pupils' personalities, was not promoted here to nearly the same extent. Despite this, the first traces of innovative pedagogies were already to be found in the CR before the Second World War when the influences of educational reform movements (such as Kerschensteiner, Dewey or Kilpatrick) and advanced pedagogical concepts (the Dalton plan, Winnetka plan, Jena plan, Waldorf schools, Biefeld schools, etc.) penetrated into the then Czechoslovakia. Under the influence of the concepts referred to above, experimental schools were established in pre-war CR. These experimental schools attempted to introduce ideological, didactic and methodical approaches primarily for pragmatic reasons. These changes were systematically brought into practice and always concerned the teaching profession as a whole. Already at that time, the objective of these experimental schools was to produce active and enterprising individuals. This required the development of new teaching methods and led to frequent experimentation. Probably the most important experimental schools were the Zlín experimental schools (Vrána, Velinský), where hundreds of teachers from all over the country attended classes, discussions and lectures in teaching units during the nineteen thirties and forties. Teachers from the Zlín experimental schools were also involved in writing, publishing dozens of papers which discussed teaching reforms and methods and different forms of teaching structure.

After the Second World War, the Czech educational system underwent a number of reforms. The curricular reform that is currently underway (since 1990) is heavily focused on support for innovative pedagogies and covers the vocational teaching curriculum both in its normative (i.e. expressed in the documentation) as well as in its practical form (i.e. as practised in vocational schools).

In the field of initial vocational education, requirements for the introduction of innovative pedagogical methods (project-based teaching methods, group training, cooperative teaching) were incorporated into the curriculum established in the Vocational Education Secondary School Standard⁶ (hereinafter referred to as the VE Secondary School Standard). connection with an educational concept that focused on developing competences, requirements were expressed for the in-depth introduction of an occupational concept of education into vocational establishments, activating pupils to learn, adapting teaching to individual needs and adapting the teaching structure to the true practical needs of occupations. When the VE Secondary School Standard was subsequently brought into practice in

⁶ Vocational Education Secondary School Standard. Basic curriculum for secondary vocational education. Goals and content. Approved by the MŠMT ČR on November 18th 1997, no. 34221/97-23, coming into force on January 1st 1998. Prague, VÚOŠ 1997.

secondary vocational schools, detailed methodological materials⁷ containing recommendations for the application of project-based teaching and other non-traditional methods and forms of teaching to teaching practice were created and provided to schools. The basic teaching documentation for schools also included, for example, samples of proposals for pupil projects, which showed how project-based teaching could be applied in school.

Definition of "curriculum" and the country's tradition as regards reforming/ renewing/ modernising VET curricula

The latest definition of the term curriculum appears in the Pedagogical Dictionary⁸. Of the three definitions given for this term (1. teaching programme, project or plan; 2. course of studies and its content; 3. the scope of all the experiences pupils receive at school and during school-related activities, their planning and evaluation), it is the third meaning that is preferred by Czech teaching professionals. This means that our understanding of the curriculum takes in the widest possible meaning of the word, in terms of its planning, implementation in the school environment, adoption by pupils, etc.

After 2001, during the curricular reforms that followed the recommendations of the White $Book^9$, demands relating to the introduction of innovative pedagogical methods and forms of school work in vocational training were incorporated into new VE curricular documents, which were issued both at the Government level – as framework educational programmes for occupational education institutions, and also at the school level – as school educational programmes. RVP for each area of education set out not only the professional competences required to perform an occupation, but also key competences. In the RVP for each area, emphasis on developing competences is expressly associated with a move towards an activitybased concept of education, focusing not only on the development of professional, but also of key competences. Schools are continuously provided with methodological materials providing information on innovations in educational and learning methods and strategies as a means of targeting and systematically developing pupils' competences. Autodidactic teaching methods are used principally (i.e. teaching pupils techniques that enable them to learn and work by themselves) - in particular, this involves them undertaking more complex independent projects, learning in real-life situations, problem-solving, team work; sociocommunicative aspects of teaching and learning (i.e. dialogue word methods) - which comprises discussions, panel discussions, brainstorming, brainwriting; methods of activityfocused teaching – such as practical work of an applicable or heuristic kind (i.e. learning by observation and discovery). Strong emphasis is placed on motivating factors – the inclusion of games, competitions, simulation and situational methods – such as conflict simulation and resolution, sociodramas, public presentations of pupils' work, etc. Schools make their own decision as to which methods to adopt on the basis of their own specific academic situation, they evaluate their effectiveness and can then modify them on the basis of their teaching experiences. Information on how they are applied can be found in each school's ŠVP. The ŠVP will also contain information on how teaching is organized in the school. This is based on recommendations set out in the RVP and emphasizes the need to include organizational

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⁷ The use of the Vocational Education Secondary School Standard in the development of teaching documents. The use of new elements when applying the Vocational Education Secondary School Standard. Technical news and methodological perspectives for secondary industrial schools, <u>39</u>, 1998, special edition A and special edition B, Prague, VÚOŠ 1998.

⁸ Průcha J., Walterová E., Mareš J.: Pedagogical Dictionary – 2nd expanded and amended edition. Prague. Portál, 1998. s.117.

⁹ The White Book. NATIONAL PROGRAMME ON EDUCATION POLICY IN THE CZECH REPUBLIC. MŠMT ČR, Prague 2001.

forms of teaching that take place during school hours, but outside the normal (face-to-face) classes. This might include organizational forms of teaching that are integrated into the teaching programme – cumulated theory, cumulated practice, teaching blocks, teaching in different environments, courses, excursions, cooperative and team learning, individualized teaching. Attention is also paid to the methods of implementing teaching projects – i.e. holding project weeks, excursions, competitions and other learning events and school activities that relate to the educational programme set out in any specific ŠVP.

The term innovative pedagogy is already used on a regular basis in the CR in undergraduate teacher training at teaching faculties, where seminars on innovative pedagogies are held. This training is based on student visits to what are known as innovative schools, in which the modern forms and methods of schooling we have outlined above are in routine practice.

070301 Policy development on innovative pedagogies

Major issues in current national policy priorities and initiatives on introducing innovative pedagogies in VET

At a **national level** the priority for education policies in the area of IVET is curricular reform and the introduction of two-stage educational programmes. The principal activities include the introduction of ICT to schools and improving teaching of foreign languages. In the area of CVET, educational policies focus on the creation of a system of continuing education.

The legislative framework for the introduction of new forms of education is set out in the Education Act, while the introduction of ICT is grounded in the State ICT Policy in Education Programme (SIPVZ).

The Education Act enables teaching to be carried out not only on the basis of school attendance, but also during evenings (up to 18 hours a week), through remote learning (based on regular consultation for 110 hours each year and home study), distance learning (using ICT), combined, part-time studies to acquire further qualifications, and modules can be used in further studies for teaching graduates who wish to obtain a ISCED 3A qualification.

The objective of the IVET curricular reforms is to improve the quality of education, to support the modernization of education and to increase the mobility and flexibility of graduates in the labour market. The framework educational programmes focus teaching on the results (required competences), while the content of education (the curriculum) is seen as a means of enabling the graduate to attain the required competences. They set out objectives, the teaching content in individual occupational education institutions and essential conditions regulating the teaching process. The educational goals are defined in the form of graduate 's competences, which are broken down into key competences, civic competences and professional competences. Professional competences are formulated on the basis of the qualification requirements of individual occupations, and these are set out as professional profiles or qualification standards. The curriculum also includes general education, which allows school-leavers to move more easily into further education. ¹⁰ Genereal education includes communication in foreign language,ICT teaching has recently been included in general education (at the application level, it is also included in professional education) as has basic economic education, including financial literacy and business skills. Education in ICT is provided in all fields of education.

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¹⁰ The maximum percentage of general education in graduating subjects (ISCED 3A) is 45% and in apprenticeship subjects (ISCED 3C) 35%.

The framework education programmes act as an education standard, because they form a mandatory basis for the school educational programmes.

In CVET, the systemic project of the MŠMT, the UNIV¹¹ (RRIL) project :"RRIL – Recognition of the results of informal learning and non-formal education by networks of schools providing an adult education service", which is being carried out with the support of the ESF in the period of 2005-2008, is being used to create a regional continuing education network, creating a range of further educational programmes for schools and laying down standards and methods of verifying the results of non-formal education and informal learning. Emphasis is laid on competences and educational results.

The regional authorities, as founders of most secondary schools, provide the basic financial backing for the operation and modernization of education. Through the provision of grants and other projects, they support the introduction of innovative pedagogies to schools and the modernization of the school curriculum. The UNIV project contributes to the implementation of CVET and to building regional centres for continuing education.

At a **local level,** the introduction of innovative pedagogies is enabled through the schools and their pedagogical work. The use of ICT in teaching practice is progressing, particularly in specialist subjects. Attention is also being paid to key competences, despite the fact that there is a lack of teachers with the necessary pedagogical background to implement and evaluate them. The use of project-based teaching and the acquisition of practical experience by the establishment of fictive companies and other student enterprises is also a positive move.

The introduction of a two-stage system to establish teaching programmes reinforces the autonomy of schools in education. On the basis of the framework educational programmes, schools will create their own educational programmes, which should help them better to respond to their teaching conditions and also to labour market changes in their region. School educational programmes can be created in modular form, and linked to further education programmes. The School Act introduces distance education based on e-learning as one of the possible forms of initial education. Schools themselves decide on its introduction.

A number of schools also offer further education programmes and are preparing to use the UNIV project to help them implement CVET.

Strengths and weaknesses of national policy on introducing innovative pedagogies

One positive feature of the education policy lies in the field of ICT, because we have been able to establish conditions that will enable all pupils to acquire the required proficiency, including the use of the Internet.

The problems lie in the preparation for the introduction of curricular reforms, where there is no coordination between primary and secondary schools concerning their implementation and

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¹¹ The project aspires to involve secondary and tertiary technical schools in a greater extent in providing further education. That is why a network of schools providing besides initial education further education programme will be established in six regions. There are already similar networks of schools in two regions. They will verify recognition of previous learning results i.e. knowledge, skills and competences which an individual has acquired in various courses, by self-study, leisure activities (non-formal education) or when performing working activities (informal learning). Assessment standards (20 fields of study) will be developed for recognition of previous learning results. Based on them previous learning results they will be verified.

The educational programmes are designed in modular form. This system of continuing education has currently been adopted by nine of the fourteen regions in the Czech Republic. In the long run, it should involve all regions (this is also the objective of the UNIV project of which continuation is being prepared). Secondary technical and tertiary technical schools will be used for its implementation. The project is implemented in a close cooperation with employers and regional administrative bodies (a great range of programmes, which are being developed, has been ordered by companies for training of employees). www.univ.nuov.cz.

in preparing schools for reform. The introduction of a new graduation examination has also been postponed.

Focusing policy initiatives on introducing innovative pedagogies in VET on specific target groups

The activities we have described in the area of innovative pedagogy and the IVET curriculum are aimed at the entire population of VET students. The individual school educational programmes must provide for specific teaching of pupils with special educational needs and extremely intelligent pupils. Only some of the educational programmes prioritize pupils with lower learning expectations, those who require special teaching, or handicapped pupils. Educational programmes focused on support of specific target groups (e.g. children early quitting schools, women on maternity leave, unemployed) are based on the projects announced by the Ministry of Education, Youth and Sports, Ministry of Labour and Social Affairs, projects Equal and the like. Their objective is to develop prerequisites for labour market success of these target groups (if need be their return to education). Various educational institutions or non-profit organisations offer these educational programmes.

070302 Legal, administrative and institutional framework

Legal regulations or mechanisms for introducing innovative pedagogies in VET and for modernising VET curricula

The final approval stage of the current framework educational programmes (RVP) for individual occupational education institutions, which provide a binding framework for individual sections of the curricula of the school educational programmes (ŠVPs), will apply particular pressure to speed up curricular modernization. The RVP place strong emphasis on the followings:

- applying modern and innovative conception of information and communication technologies, through defining key competences in the areas of ICT use
- working with information, devising cross-sectional themes for ICT
- providing an actual framework for ICT teaching, while appealing for higher hourly rates and the use of ICT in less traditional subjects.

On April 10th 2000, the Czech Government adopted Resolution no. 351, which approved the State ICT Policy in Education (SIPVZ). The Ministry of Education, Youth and Sport (MŠMT) was appointed as the administrator of the Policy. The partners in the implementation of SIPVZ are the Ministry of Labour and Social Affairs, the Ministry of Culture and the Ministry of Informatics.

Under the terms of the Resolution referred to above, the MŠMT has been assigned to prepare and to annually update the timetable for the implementation of the SIPVZ concept, broken down into individual programmes supporting.

Government Resolution no. 244/2001 established targets for the 1st stage of SIPVZ implementation in 2001 – 2003, such as the creation of conditions for the effective introduction of information and communication technologies (ICT) to school teaching, equipping 70% of schools with at least one computer room connected to the Internet by the end of 2001, to make ICT into a teacher's working tool for 75% of teachers by the end of 2005 and to create conditions enabling schools to be connected to a lifelong learning system by the end of 2005.

Government Resolution no. 992/2003 on the updated plan for the 2nd stage of SIPVZ implementation from September 2001 assigns additional tasks to the SIPVZ administrator and

partners for the period from 2004 – 2006, leading on from the chronological, financial, technical and economic parameters which are to be achieved in the SIPVZ by 31.12.2006 in accordance with the annex to Government Resolution no. 402 dated April 28th 2004 on eliminating certain programmes from the programme financing system (ISPROFIN).

The implementation of SIPVZ is progressing in accordance with the approved goals. The Czech government receives regular reports such as the Summary of Progress of Monitored Indicators for the State ICT Policy in Education and the Position and Implementation Plan for the Education Portal, including the SIPVZ budget for the years 2005 and 2006.

The SIPVZ objectives for 31.12.2006 have been affected by the publication of Act no. 561/2004 Coll., on Act on pre-school, primary and secondary education, tertiary professional education and further training (the Education Act).

It is forecast that the government will continue to provide financial support for the creation and evaluation of electronic educational materials and communication services for schools and educational facilities even after 2006. When the Concept for financing information and communication services in schools after 2005 was approved by Government Resolution no. 792/2004, the State promised annual funding of 1 billion CZK (35.5 million EUR) for the period from 2007 - 2010.

The main goals of the SIPVZ for the period from 2007 – 2010 are to develop the creation, standardized recording and evaluation of teaching content, to phase in and finance standards of communication services based on Internet use, to support the introduction of ICT into the teaching of non-IT subjects, taking account of the special needs of vocational training, to support the creation of e-learning courses, to establish standard systemic processes for the use of ICT services in schools within the framework of the implementation of the ŠVP, and to use the advantages of multilicencing agreements.

The modernization of the VET curriculum is defined in the Education Act. The Education Act introduces a two-stage development of the IVET curriculum, where framework educational programmes are issued on a national (central) level, and the schools then use these as a basis for their individual school education programmes.

Institutional framework, roles and responsibilities of institutions and bodies involved

The MŠMT entrusted the modernization of the VET curriculum and the creation of framework education programmes to the National Institute of Technical and Vocational Education (NUOV). Schools and social partners were also involved in developing the framework educational programmes through the professional groups of NUOV. The framework educational programmes are approved by the MŠMT after agreement with the appropriate ministries, unions and representatives of employer organizations.

The development of school educational programmes falls under the authority of the head of the school.

Institution	Role in modernizing the curriculum	
MŠMT	Approves and issues curricular documents	
NUOV	Develops and innovates curricular documents, responsible for drawing up the framework educational programmes (RVP)	
Relevant ministry	Comments on the framework educational programmes	
Schools	Develop school educational programmes based on the RVP	

Legislation

Act no. 561/2004 Coll., on Act on pre-school, primary and secondary education, tertiary professional education and further training (the Education Act) as amended

070303 Practices of innovative pedagogies

Innovative pedagogies in VET

Waldorf Schools

Secondary vocational Waldorf schools apply the principles of Waldorf pedagogy in their teaching practice and, in this sense, carry on from the Waldorf primary schools. However, they are open to applicants from other schools. Waldorf secondary schools cover the whole scope of secondary technical and vocational education. They provide both secondary vocational education completed by an apprenticeship certificate, especially in civil engineering fields and secondary technical education completed by the Maturita, e.g. business academies. First of all, an independent filed – the Waldorf Lyceum is taught in these schools. It contains both the preparation for tertiary courses and vocational training in technical and economic fields.

Training system for Waldorf teachers

To ensure the quality of growth of the Waldorf movement, particularly in terms of its pedagogy, a separate educational system of special post-graduate studies was organized from the very beginning. A number of graduates from these seminars are now working in Waldorf schools in the Czech Republic, as well as those who have followed the Waldorf training courses abroad. Teachers attend continuing education seminars in Semily.

List of secondary Waldorf schools

Name	E-mail	Website
SOŠ Ostrava	lyceum@waldorfostrava.cz	http://www.waldorfostrava.cz/ss/
Waldorf school Prague 5	lyceum@wspj.cz	http://www.wspj.cz/lyceum/cz/
Waldorf school Příbram	waldorf@waldorf.pb.cz	http://www.waldorf.pb.cz/stredni/stredni.htm
Waldorf school Semily	lyceum@waldorf.semily.cz	http://www.waldorf.semily.cz/

Dalton Schools

Only Dalton plan blocks are taught in Czech schools, for example one lesson three times each week. The block is generally dedicated to practising and repeating subjects. The children choose which subject to study during each particular block and then perform certain tasks (required, optional and what are known as extra tasks) from the respective list of tasks. They can refer to the literature, and if they are unable to solve the problem, they can ask their schoolmates for help. Completed tasks are presented in the class so they can be easily checked and the work carried out by the children is recorded on a chart, which enables the teacher to monitor how much, and what type of work, children still have to perform.

Elementary schools and multi-year gymnasia teach Dalton plan blocks. This school year Dalton teaching elements have also appeared in secondary technical and vocational schools which have already involved these elements in their own school educational programmes.

Community Education

Community schools are schools that offer other extra-curricular activities in addition to the traditional education provided by a given founder. One of the **fundamental missions** of these schools is to attract as many people as possible and to create an environment conducive to generational, cultural, community and social dialogue and a space for relaxation, learning and socializing. Any school that is prepared and willing to open itself to activities that are outside its normal range of activities and to provide a fast and quality response to the needs of the residents of its district, town or municipality can become a community school. Common activities include teaching the unemployed, out-of-school activities for children, teaching people who are disadvantaged in the labour market in a certain way (mothers on maternity leave, the physically handicapped, members of ethnic minorities etc.) and increasing their level of qualification (http://www.komunitnivzdelavani.cz/).

All these aforementioned activities should increase vocational qualification at the secondary level and that is why fall within the filed of lifelong vocational education.

Project-based teaching

Project-based teaching is teaching based on the project method, where the problem is dealt with in context, globally. In secondary vocational schools, project-based teaching is mainly carried out in the form of individual and group projects. Distance methods, including virtual classes have been used in many cases.

Specific sectoral approaches to introducing innovative pedagogies and modernising of VET curricula

At the end of the millennium, general vocational **lyceum** type educational programmes were created and introduced at secondary technical schools (technical, economic, natural science, health care and teaching). These are generally educational in nature, while at the same time being adapted for specialized teaching. They are designed for pupils who are interested in studying at universities specializing in technical, economic, natural science, health care and teaching subjects. Interest in lyceum teaching is rapidly rising. In the 2006/2007 academic year, 11% of students in the first years attending lyceum classes were from the first years of secondary technical schools (ISCED 3A). Given the fact that these school leavers have a good chance of being accepted into universities, the outlook for these programmes appears extremely favourable

No links have been formed between the modular method and the Czech teaching programmes as legislative barriers prevent the curriculum being constructed in modular form, unless this is incorporated into the existing programmes. From 2005 the "National Qualification Framework" project will be launched (complete and partial qualifications have been prepared for the ISCED 3C categories). From August 1st 2007 a decree enabling primary and continuing education, formal and informal teaching to be linked is due to come into effect. The National Institute of Technical and Vocational Education will administer the qualification catalogue.

Business studies have also gradually been introduced into the VET curriculum since the 1990s. A teaching subject entitled "Introduction to the world of work", broken down into thirteen thematic sections, including the concept of work and its characteristic features, the main areas of the world of work, the labour market, private entrepreneurship, establishing a professional career, labour market presentation skills and state support for employment, was introduced. Teaching also often includes the establishment of a fictive company. Employers

contribute to the development of their business expertise by offering the students specialized work.

Students acquire basic information on the labour market through advice provided by the Information Advisory Centres through employment offices. A method for teaching problems concerning an **introduction to the world of work**, including an e-learning programme to train teachers has been developed. The integration of this subject into the teaching programme is not binding on the schools and is entirely the responsibility of the school head. This situation will change once the school educational programmes have been introduced, when the integration of a subject on the topic of "The Individual and the World of Work" will become obligatory.

Impact of introducing innovative pedagogies on curriculum design and development of VET

Approved in 2004, the **Education Act** enshrines the changes in curricular policy in the legislation. At a central level, **Framework Educational Programmes** (RVPs) have been created, reflecting the attempt to move the curriculum to one based on competences, establishing both the teaching content and the final competences required of school-leavers. RVPs also provide a basis for the creation of school educational programmes. By the end of 2006, 63 RVPs had been created, covering around 70% of VET pupils, and pilot studies are and will continue to be carried out to monitor their use. NITVE staff coordinates the creation of RVPs, always in cooperation with a group of professionals for that particular area, whose members both represent the schools and their social partners, particularly employers. The creation of RVPs is a demanding process, including a number of rounds of discussions with all the stakeholders involved (teachers, school associations, social partners, professional associations, regional school bodies) and finally the approval of the MŠMT.

An important part of the RVP are **key competences**, which basically cover the ability to communicate, to work with information, to work as a team, to solve problems and to develop the ability to learn. They have been conceived as transferable skills, which every individual requires in his personal life and at work.

Schools will use the RVP as a base on which to establish their **school educational programmes**. Specific ŠVPs will take account of both the national policy objectives and the aims and requirements for education arising from the concrete environment of the school's social partners and the region in which it is located. Methodological materials to assist the schools in creating the school educational programmes have been developed.

Impact of introducing innovative pedagogies into the learning culture in VET

On the basis of the State Information Policy on Education, which was adopted in 2006, a number of activities concerning development and support for introducing ICT into education were implemented.

The evaluation website was brought into operation in 2003 as a methodological and information tool for teachers and to assist them in selecting and creating educational software applications. In 2005 this was significantly expanded, both in terms of the structure of its records and also as far as its content was concerned. Apart from the standard teaching programmes, additional electronic materials offering direct or indirect teaching support have been gradually introduced (e-learning and e-tutoring support).

All these types of teaching materials are only metadata descriptions referring to a specific document via an internet hyperlink. There are currently over 2,600 records registered on the

evaluation website - teaching software applications from the field of bookkeeping, planning, building construction, production technology, hospitality and tourism development.

In 2005 322 pilot projects were accepted, which primarily focused on the implementation of teaching applications directly into the teaching of non-ICT related subjects, and over 200 information centres were selected to become promoters of modern information trends in their regions. A set of test tasks developed and resolved by computers are a part of apprenticeship exams. They help verify pupils' knowledge in these fields.

Impact of introducing innovative pedagogies on the learning environment in VET

The standard of school computer equipment has gradually improved and the speed of their Internet connections has also increased.

The State ICT Policy in Education (SIPVZ) programme, which was launched in 2000, facilitated massive support for ICT equipment in schools and its use for teaching purposes.

In those **secondary schools** that were monitored, the material and technical teaching conditions improved with priority being given to updating computer equipment. Most schools were adequately equipped with audiovisual technology, but it was not always used effectively. This depended on the interest of the teachers, the influence and level of monitoring carried out by the school management and, very often, on the ability to master the installed equipment (see Annex 070303).

There were an increased number of schools with multimedia labs. Over 90% of teachers are able to use computer labs to teach their subjects to the level required under the regulations. Pupils had more access to computers and to the Internet even outside school hours. Secondary school information systems are now based on the targeted use of information and communication technologies. Schools are more and more frequently using websites, open days and media presentations to provide information to the parents and the public at large. Secondary technical schools specialised in ICT teaching at the secondary level have already used virtual groups and classes in the implementation of student projects. They apply video conferences and other modern communication means.

In the **tertiary professional schools**, fully equipped rooms where students and pedagogues can perform creative and individual work have been set up. Schools have functioning information systems based on the effective use of ICT equipment. Full time education has been replaced by distance education in a wide range of tertiary professional schools. It also involves establishing virtual classes and laboratories focused on bookkeeping, technical drawing teaching etc.

Government Resolution 792/2004, which set out forecasted funding to develop ICT services in education between 2007 and 2010 (4 million euro annually) represents a pledge of future funding. The SIPVZ department of the Ministry of Education, Youth and Sports has submitted documentation to the Government which contains an analysis of the current situation and the ICT needs of Czech schools, calling for this amount to be doubled.

07030301 e-learning in VET (incl. statistics)

E-learning provision in VET

The Czech Republic has a sound telecommunications infrastructure which is in private hands. Private telecommunications companies have a strong backbone network to support operation of IT services for all their customers, including public and educational institutions.

It is not possible to describe the complex problems concerning information and communication technologies (hereinafter referred to as ICT) in the Czech education system

and the influence of e-learning on the education process in our schools. We can, however, state that the development of e-learning is directly dependent on the presence of ICT throughout the Czech school system and on support from public funding.

Role of ICT and e-learning in enhancing innovation and modernising VET

A number of bodies (see the Institutions annex) that are concerned with e-learning are present in the school system and a large number of partial projects to support the use of ICT also exist. The "Internet in School" project was a radical breakthrough (a State Informatics education policy project - SIPVZ www.e-gram.cz), enabling thousands of Czech schools to gain Internet access and also laying a foundation for the future development of e-learning education. Under this project, the Czech Ministry of Education, Youth and Sports (MŠMT, www.msmt.cz) provided Czech schools that had no equipment with computers, peripherals, Internet connections and related internet and intranet services. The Project website www.indos.cz provided information on all important matters to the project users, as well as providing basic information to both the lay and professional public.

The project also ensured standardization of teachers' ICT competences and a new trend was the application of a DVPP standard for school management and ICT and ŠVP coordinators. ICT has therefore become a teaching tool, supporting teachers in their work.

Bodies participating in the support, development and use of e-learning in VET (IVET and CVET)

Public bodies:

Czech Ministry of Education, Youth and Sports

- funding of contributory organizations
- responsible for the quality of classroom and distance teaching
- awarding accreditations for distance learning courses
- organizing ESF projects

NÚOV - National Institute of Vocational Education

VIP career system project

The National Institute of Vocational Education prepared the eKariéra e-learning course as part of the VIP career system project, which is supported by the European Social Fund. The content of the e-learning course is broken down into ten inter-related study modules, which deal with career decision-making, communications with career advisers as well as orientation within the educational system and the choice of schools. Another topic deals with access to the job market, industrial relations and social concerns and sources of career advisory information. These courses provide teachers with information and knowledge on careers advice and enables them better to help their pupils in deciding on their field of study and therefore, also, on their future career. This new knowledge will also help to improve the quality of the teaching of topics such as "Education for Career Choice" and "Introduction to the World of Work". Participation in e-learning forms of continuing education provides teachers with a unique opportunity to study on an individual basis and without charge. They can study at times that best suit them and without being absent from their work. An important side-product of the e-learning form of education is an improvement in the computer literacy of those participating.

Regions

- funding for distance learning and e-learning
- own range of e-learning courses available to the public

Olomouc region (http://webvzdelani.olportal.cz/)

The Olomouc region education portal provides an Internet environment for free access to teaching texts, trial examinations and teaching applications in the field of information technologies. The general public, but primarily teachers and students, can participate in its drafting, preparation implementation, testing and development.

Schools (see the Schools to the SIPVZ annex)

- developing teaching programmes
- training teachers in ICT use
- using modern didactic methods

Non-profit making companies

- supporting the use of ICT in teaching
- developing e-learning content
- participating in the use of e-learning systems.

The Březen měsíc internetu association (March, the Internet month).

The BMI Association is a non-government non-profit making organization whose mission is to support the development of the Internet as a means for global communications, central to an information society, as well as the use of modern technology in the interests of developing a civil society. A range of educational, promotional and popular activities both in the Czech Republic and in projects aimed at international cooperation are used to help them achieve these goals.

Junior Internet

The Junior Internet event has been running for eight years now, run by the Březen měsíc internetu association (www.brezen.cz) and is aimed at all young people under the age of 18 who do not use the Internet simply as a source of entertainment. They can enter their web pages, designs or reports on the Internet in internet competitions. Competition participants are invited to a conference on the internet, full of lectures, presentations, discussions and Internet competitions. During the conference, they can make valuable contacts, cooperate on Internet projects and gain new information about the Internet.

Private companies (see the Institutions annex):

- providing learning systems (LMS Learning Management System for schools
- developing the content of e-learning courses for educational institutions
- advising on the introduction of ICT into the school curriculum
- developing topical content
- organizing specialized courses, soft skills

Specialized school portals

http://www.e-gram.cz/

see Annex Schools offering e-learning courses as part of the State ICT Policy in Education

http://portal.skolaonline.cz/

Portal specialized for school public. This portal provides information on e-learning.

http://www.ceskaskola.cz/ICTveskole/

Specialized portal for school public provides information on use of ICT in teachers' and students' education. It offers also school documentation in electronic form.

E-learning at universities

http://vsportal.osu.cz

Information portal of the University of Ostrava providing comprehensive information, designed especially for education of university employees in the field of new educational methods.

http://elearning.cesnet.cz

This information portal of CESNET (CESNET is a long-time Czech academic network operator and participant of corresponding international projects) is designed especially for academic public and assembles data on e-learning.

http://cit.osu.cz

Joint project of a virtual university of three universities in the Moravskoslezsky region- of the University in Ostrava, Faculty of Economics of the VSB-Technical University of Ostrava and School of Business Administration in Karvina of the Silesian University in Opava.

http://telmae.karlov.mff.cuni.cz

Educational portal TELMAE was developed as a supportive environment for online learning. In online journal TELMAE are published scientific papers focusing 1.online learning,

2. Information and Communication Technologies (ICT)

In the Czech Republic, e-learning is not formally included in individual school curricula and has no organized support from State institutions. In the same way, with the exception of the accreditation of pedagogical staff for further education, no quality standards exist for e-learning. This areas are due to be resolved in the future, for example by the ESF programme during the period from 2007 - 2013.

From the point of view of didactic methods, e-learning can be applied to individual educational activities. It is of particular help in distributing specialized content to those involved in learning, or in communicating between teachers and students. At the present time, educators are learning to use the methodological aspect of these technologies through their teaching activities.

Comments on statistical data in Annex II

Table 1: Percentage of enterprises using e-learning applications for training and education of employees, by size of enterprise (2004 – 2006)

The data will grow in the future especially in large enterprises, having means, resources and possibilities to shift their own educational activities towards e-learning.

Unless the pricing policy of e-learning producers and prices of consequent services change, small enterprises will not be able to buy individual e-learning applications, perhaps only as externally ensured and time-limited purchase of educational licences to specific topic or in the framework of the ESF funding.

Table 2: Percentage of individuals having used the Internet in relation to training and education within the last 3 months, by purpose and age groups (2004 – 2006)

In all mentioned areas there is a year-on- year growth, **caused by the low starting position!!!**, or by constantly low penetration, diminishing prices for duties and considerable competition on the telecommunication market.

Table 3: Percentage of individuals having accessed the Internet in the last 3 months, by place of access and by age groups (2004 - 2006)

Despite the severe decrease in 2005, it is possible to take into account the growth in accessing the Internet from home in all age groups. Reasons are the same with Table 2. Age group 16-24 will increase in individual accessibility at school.

07030302 Barriers to implementation

Major obstacles to introducing innovative pedagogies

It is paradoxical that the main barrier to the wider use of innovative pedagogical methods is the well functioning system of traditional education. Czech education's long tradition and the extremely good results obtained in the past in vocational training have not provoked an immediate need for change and this has preserved the classic teaching method – face-to-face teaching. These factors have also contributed to the stagnation of pedagogical research, which is now almost inexistent in the area of vocational education.

- The existing valid teaching documents (accredited national teaching programmes) for occupational education institutions in initial vocational education are primarily based on teaching content, i.e. what topic the teacher has to go over with the pupils. Verification of the results of the learning process is limited to testing and assessing pupils with no subsequent evaluation. This method tends to lead to the assumption that the subject matter has been treated and does not place enough pressure on changing the teaching method itself.
- Secondary and tertiary vocational education involves day-time, evening, remote, distance and combined forms of teaching ¹². As a teaching method, e-learning is a necessary part of distance learning, which is mainly used for teaching adults in initial education (shortened studies for school-leavers from occupational education institutions providing secondary education with a graduation exam¹³). It is the lack of experience with preparing e-learning teaching programmes, the inadequacy of the methodological materials for the development of teaching programmes, etc., that prevents the wider application of e-learning methods in initial vocational education. The introduction of these methods is also prevented by the demands on ICT equipment from all those involved in education.
- Teaching based on the use of ICT assumes a certain level of computer literacy on the part of both pupils and teachers. The State Information Policy in Education¹⁴ concept was adopted in 2000 to improve computer literacy. The 1st stage of implementation (by 2005) aimed to create conditions that would enable the targeted introduction of ICT to schools and the use of ICT as a standard teaching tool by 75% of teachers. ICT learning is part of the teaching programmes for all levels of initial education, and the active use of ICT in teaching at vocational schools is dependent on the financial accessibility of SW applications (particularly for technical subjects) and the professional competence of the teachers.

¹⁴ Concept for State ICT Policy in Education, Prague: MŠMT, 2000.

¹² Act no. 561/2004 Coll. on pre-school, primary, secondary education, tertiary professional education, and further training.

¹³ Sections 84, 85 of Act no. 561/2004 Coll. (Education Act).

Adopted solutions

- The adoption of the Education Act created the legislative framework for the
 development of RVPs, which represent a major step towards a competence-based
 curriculum. In 2006, the NÚOV completed the development of the first group of
 framework educational programmes (31 RVP for ISCED 3C education areas, 32 RVP
 for ISCED 3A education areas).
- The Education Act imposes an obligation on schools to perform their own evaluation 15.
- Since 2005, under the Human Resources Development Operational Programme, projects have been implemented with co-financing from the European Social Fund and the Czech state budget, which focus on improving the quality of teaching in schools and educational institutions and developing support systems in education.

070304 Building partnerships and raising awareness

Existing partnerships that operate as mechanisms to define/introduce innovative pedagogies and modernise VET curricula

The involvement of social partners in vocational education is voluntary, although their interest in influencing vocational education continues to grow. This particularly affects the VET system, systems regulating occupational education institutions and teaching content in individual occupational education institutions (particularly the area of workers training) as concerns its compliance with the requirements of the labour market. Social partnership does not affect the introduction of innovative pedagogies in the area of teaching forms, methods and strategies and in the area of general teaching of pupils and students. The pedagogical side of education falls under the authority of the school system, in other words schools and teachers. The introduction of ICT to schools also falls under the competence of the school system.

At a **national level**, partnerships are developed through the Council for Economic and Social Agreement¹⁶. The Ministry of Education, Youth and Sports regularly brings up current problems of education policy for discussion with the regional authorities.

The part played by the social partners in introducing innovative pedagogies to the curriculum for initial vocational teaching is enshrined in the Education Act. ¹⁷ Under the provisions of the Education Act, the social partners comment on the framework educational programmes and attend exams in occupational education institutions providing secondary education with an apprenticeship certificate which train workers. They have an important influence on the system of occupational education and are represented in the MŠMT accreditation committee which approves the teaching programmes for tertiary professional schools.

The participation of social partners in the development of continuing education is enshrined in the Act on Continuing Education. ¹⁸

¹⁶ The Council of Economic and Social Agreement is a voluntary body of the Czech government and trade unions and employers for tripartite negotiations. One of its work teams is also the HRD team.

¹⁵ Section12, para. (2) of Act no. 561/2004 Coll. (Education Act).

¹⁷ Act no. 561/2004 Coll., on pre-school, primary and secondary education, tertiary professional education and further training (Education Act) as amended.

¹⁸ Act no. 179/2006, on verifying and recognizing the results of continuing education and on amendments to some laws (Act on recognizing the educational results).

One tool used to encourage the participation of social partners in the development and modernization of the VET curriculum and in the introduction of further innovations into education are what are referred to as professional groups under the National Institute of Technical and Vocational Education, the founding of which was empowered by the MŠMT in 1998, and which are now established by Sector Councils, in which social partners are also represented. 23 Professional Groups are currently in operation, which participate in formulating occupational trends, goals and the content of vocational training and in modernizing the vocational training system.

Social partners are also involved in developing the national qualification framework, which also strongly impacts the VET curriculum. They also participate in creating tools to assess the results of vocational training in occupational education institutions providing secondary education and issuing an apprenticeship certificate (training workers)¹⁹ and attend the schools' final examinations. In this way, they can influence the quality of education at a national and local (school) level.

At a **regional level**, social partners are represented in the regional authority school committees, in regional Councils for Economic and Social Agreement or in regional Councils for Human Resources Development. These bodies contribute to the development of strategic documents and plans for long-term development in the area of employment and the regional vocational school system, however they cannot influence the development of the curriculum or the introduction of innovative pedagogies into vocational training (the development of the curriculum is not under the authority of the regional bodies).

The area of life-long learning allows greater scope for the development of social partnership at a regional level and connections between the domain of work and that of education. Social partners working together with regional bodies to create a system of continuing education can also provide support by introducing suitable tools of innovative pedagogy into continuing education. ²⁰

At a **local level**, social partnership can develop through direct cooperation between schools and businesses (by creating offers of education, by incorporating labour market needs into school educational programmes, implementing education, etc.; social partners are also members of school councils), or between schools and selected sectors (such as the electrical industry, the hotel and tourism industry or trades). The scope and effectiveness of this partnership is obviously extremely varied. On the other hand, certain types of school have problems finding social partners because this collaboration is voluntary and carries no financial remuneration. Additional benefits of this collaboration involve the practical training of pupils under real-life conditions, in the provision of material teaching supports that reflect current technologies and in the continuing training of teachers of vocational subjects.

Collaboration between schools and social partners in the area of further education is beginning to make positive progress and a number of further education programmes are created according to direct requests from business.

All the levels and forms described above are combined through sectoral partnership.

¹⁹ The National Qualification Framework has been created through the ESF and MŠMT "National System of Qualifications" project. Assessment of education in given occupational categories is carried out through the ESF and MŠMT project.

[&]quot;Quality – a single graduation exam" (2005-2008).

²⁰ The creation of a life-long learning system for VET is carried out under the ESF and MŠMT "Recognition of the results of non-formal education and informal learning - UNIV" project (2005 - 2008). 9 regions out of 14 have now created life-long learning systems at regional level.

International cooperation takes place on the basis of projects falling under various programmes, in particular the Leonardo da Vinci programme. It makes an important contribution to the implementation of innovative pedagogies in the area of the curriculum and in educational methods and forms.

Role of innovative approaches (use of ICT) in building partnerships between education and training institutions and the labour market

Innovative pedagogies, such as the use of ICT, play no significant role in building partnerships between education and training institutions and the labour market.

Projects implemented through SIPVZ funding, such as the Educational portal, which has been created by the Institute for Information on Education, an organization that is run directly from the MŠMT, the Evaluation website, which is part of the E-gram project, can be perceived as tools for the application of innovative approaches in the use of ICT to support partnerships between education and training institutions and the labour market. However, they are not the main reason (just like using ICT) for the development of partnership between the sphere of education and the labour market. The E-gram project was created as the SIPVZ programme official website and provides information through its web pages. It also includes the Evaluation website, whose primary task is to provide information on suitable software to support training, as well as professional reviews and shared experiences. The primary goal of the Educational portal, which was launched in January 2006, is to create a unified and comprehensive information system providing data on schools, education and training and to serve as a support for pedagogical staff in selecting suitable pedagogical methods and aids and, finally, to inform the general public of the condition and results of education and training in society. Another example of good practice is the DesignTech.cz portal, which was created through cooperation between schools and businesses and supported by SIPVZ, and which focuses on the use of ICT in heavy engineering.

Dissemination of information about innovative pedagogies

Increasing awareness of innovative pedagogies and support for their dissemination is related to the introduction of curricular reforms and the two-stage development of curricula, the creation of a national qualification framework and a system of continuing education. A range of national and professional conferences are used for this purpose (such as regular conferences on the first years of vocational training, the TT-net conference, system projects, occupational groups, in order to develop tertiary professional education), specialist publications and magazines and the Internet. System projects and other programmes that receive funding from the ESF and the state budget are beneficial for the implementation of innovative pedagogies. They provide a framework for seminars and workshops for teachers that create connections between schools and social partners, regional and national conferences for the teaching public, social partners and the relevant public authorities.

Seminars, workshop and conferences on innovative pedagogies in the field of education strategies, teaching methods and forms and the introduction of curricular reforms are organized by different bodies (institutes of further education for pedagogical staff, universities, secondary school associations, non-profit making and other organizations). They are designed for pedagogical staff, and in particular for teachers of general subjects, less so for teachers of vocational subjects.

070305 Financing innovative pedagogies (incl. statistics)

Financing of innovative pedagogies and curriculum developments, bodies contributing financially

For the purposes of this chapter, innovative pedagogy means the process of applying any type of methods, teaching forms, ideas, concepts, or creating teaching systems that are new to the school (the teachers, school management, etc.)²¹:

- At a national level, innovative pedagogical activities are financed from MŠMT funds dedicated to priority "projects" designated by the MŠMT. The MŠMT generally empowers an organization under its direct authority to implement them (such as the NÚOV). In 2005 the "Help Schools to Teach Differently (POSUN)" project was implemented in this way. (The main goal of the task was to verify the meaningfulness and practicability of the RVP and then to verify the adequacy of the ŠVP and the effectiveness of the teaching that followed the ŠVP.). In 2005 one of the projects "EU small enterprises in secondary school education", which focused on the exchange of experiences of various aspects relating to the existence and operation of student businesses in secondary school education. Another project in 2005 and 2006 was to fund the activities of 25 professional groups that participated in developing the RVP.
- The CR has drawn down educational funding through the Human Resources Development Operational Programme from the European Social Fund since 2005. The MŠMT empowered the NÚOV to implement 4 national projects relating to innovative pedagogy in initial and continuing vocational education and training (the development and testing of pilot school educational programmes at selected secondary technical schools and secondary vocational schools – PILOT S; the development of a system of external monitoring and assessment, including establishing a Centre to research educational results (including the provision of information and advisory activities) – Kvalita I; the development of a National Qualification Framework to support connections between initial and continuing training – NSK; recognition of the results of non-formal education and informal learning in a network of schools providing adult Funds are also drawn down from the Human Resources education - UNIV). Development Operational Programme for individual projects involving schools and networks of schools that implement innovative pedagogies in practice. This includes projects such as that to "Support the effectiveness of learning in the Moravia-Silesia region" which aims to develop self-evaluation and the external assessment of schools.
- A pedagogical research project, which involves 9 university pedagogical faculties and departments of faculties teaching the humanities (such as Philosophy or the Social Sciences), deals with individual innovative pedagogical activities that do not only concern vocational training. Funding for these activities is obtained through participation in international projects (such as EU funding through the Socrates agency), grants from the Czech Science Foundation, which supports basic scientific research in the CR and grants from individual universities, etc.
- Various non-governmental non-profit making organizations, which acquire grant or foundation funding for their activities, are concerned with the application of innovative pedagogical activities. Other stakeholders in this area are associations or groups of schools (such as the Association of Czech Secondary Industrial Schools; the Association of Heads of Secondary Health Care Schools in Bohemia, Moravia and Silesia; the Association of Commercial Academies; the Federation of Vocational

²¹ Funding of innovative pedagogies can only be described in general (see below) because there is no evidence (statistical data, summaries, etc.) of funding of innovative pedagogical activities.

Schools; the Association of Secondary and Tertiary Graphic and Applied Arts Vocational Schools; the Association of Private Schools in Bohemia, Moravia and Silesia; the Association of Heads of Secondary Health Care Schools in Bohemia, Moravia and Silesia; the Association of Secondary Pedagogical Schools; the Association of Power Engineering and Electro-technical Training). The associations listed above finance their activities from the schools' membership fees.

- The application of innovative pedagogical activities is obviously not possible without the active participation of teachers, school management staff and those that provide vocational training in general. For this reason, if any activity that is associated with the application of any type of methods, teaching forms, ideas, or concepts that are new to the school (teachers, school management, etc) it is also financed from normal direct teaching costs, i.e. salary and related costs, teaching aids, operating costs, etc.
- Finally, many innovative initiatives involve investment into new equipment, funding for information and communication technologies, investments such as reconstructing existing buildings or constructing new buildings for the educational establishment. These investment activities are mainly financed from the founders' budgets.

Public-private joint ventures and their involvement in defining or introducing innovative pedagogies in VET

If "**joint venture**" type organizations are understood to be companies where a consortium of public and private entities has been created, no activities by this type of group to assist in defining or introducing innovative pedagogies in the Czech vocational education programme have yet been recorded.

Nonetheless, in **initial vocational education and training** in the CR, associations, unions, or federations of schools do exist (such as the Association of Commercial Academies; the Association of Vocational Schools; the Federation of Private Schools of Bohemia, Moravia and Silesia), and do resolve questions relating to amendments to education legislation, progress in schools, defending the interests of schools, etc. The Union of School Associations of the CR - CZESHA with 19 members is the umbrella organisation for educational professionals and interest organizations which defend the interests of teachers and pupils and comments on matters concerning the school system and its operation.

Voluntary non-government or international associations participate in developing and coordinating adult education (continuing education and training), such as.:

- The Association of Adult Education Institutions in the Czech Republic, founded in 1997; whose goal is to promote the common interests and needs of its members, to ensure the professionalism of its members and the services they provide and to cooperate with state bodies in preparing and introducing legislative measures in these areas. It has 130 collective members.
- The Association of Third Age Universities, founded in 1993, which initiates the establishment of third age universities and coordinates their activities. It has over 40 members universities or their faculties.
- The National Centre for Distance Learning, which has been in existence since 1995. Its task is to support the development of distance learning and the use of technologies in learning.
- The National Educational Fund, which was founded in 1994 with aid from the PHARE programme to reinforce and improve methods to cultivate and develop human resources, fulfils an important function. Its activities include analyzing the current position of education and its individual segments, with emphasis on vocational training, supporting and developing management training programmes, training aimed

at the quality of the public administration, creating a specific system to support human resources development and assessing the effectiveness of a variety of activities.

Funding instruments and financial incentives used to support partnership-building on innovative pedagogies and curriculum development

No national system of financial incentives has been created in vocational education and training that might be used to support partnership-building to develop innovative pedagogies or to reform/renew/modernize the VET curriculum, unless we understand the system of grants provided by the European Social Fund, or other international funds and foundations as comprising such a system.

On a regional level, should the regions, as founder, so decide, they may create a system of incentives and **financial instruments** for schools.

Several vocational schools have a number of sources of funding – they receive funding from their founder, from commercial side-activities, from grants, from their participation in projects, including major projects and grant schemes financed by the EU (projects under the Leonardo da Vinci programme or projects financed from the ESF) etc. This approach could be described as a type of stimulus or financial incentive, because proactive schools achieve additional financing to pay their high-quality and active employees.

Statistical data:

The relevant statistical data on the level of investment into ICT (public and private investment in ICT provision in VET) are not available. The most recent research tends to pay more attention to the level of ICT equipment in schools (and does not distinguish between different types of school, meaning that the research covers pre-school, primary and secondary schools) or to Internet access.

Annex: Financing of the IVET in the Czech Republic

0704 INNOVATIONS IN TEACHER TRAINING

In initial vocational education and training, or in the context of formal education, teachers are almost always present. A special category of educators in initial vocational education and training are known as vocational training instructors, participating in initial vocational education and training of pupils from secondary vocational schools in the work environment, although they are neither pedagogical staff nor school employees (an instructor is not an occupation but a specialized worker).

Actions, measures and reforms implemented in the Czech Republic

From around the time of the social changes in the system of government in 1989, there was a gradual change in the demands made by society on the content, form and quality of teaching. This development followed on from the ideas of the Czech pedagogue, Comenius, the pedagogical reform movement of the nineteen twenties and thirties, which had a significant impact on the Czech lands, and from modern pedagogical research. Taken in this historical context, the current demands on the competence of teachers are far less in qualitative terms. New demands on teachers are still clearly set out in all the government and regional strategic documentation. Educational reform is currently underway at all levels in the CR and a redesigned teaching profession is one of the pillars of these reforms. A newly formulated requirement for teaching is consensual; it significantly changes the concept of the profession and is very gradually changing the work of teachers itself.

Teachers are perceived as bringers of change. They are not supposed to simply implement the curriculum, but should participate in its creation, its design. The state, employers of teachers, parents and social partners of schools demands that teachers should apply the following pedagogical approaches and methods in their work:

- approaches aimed at creating team solutions to real life problems,
- approaches that develop critical appraisal,
- approaches that take account of the individual needs of pupils,
- holistic approaches,
- approaches that revise profession reflection and self-reflection,
- project approaches,
- approaches that take account of the requirements of the labour market,
- motivating approaches, that develop the ability for lifelong learning,
- approaches supporting social cohesion.

Measures adopted by the state and in particular the Ministry of Education:

- The new "Education Act" codifies the reform in initial education and training which is, among other things, based on communication between the business world and the world of education. The mainstay of this two-stage curriculum is the respect paid by the world of education to the needs of employers. This reform is also picking up speed in VET. Institutions that train IVET teachers will therefore have an important starting point for projecting educational programmes for IVET teachers in the form of the framework educational programmes.
- The state is co-financing a number of educational projects (particularly in the context of the ESF and community programmes), which are dealing with the problems of innovation in the training of IVET teachers.
- The new "law on verifying and recognizing the results of continuing education" will provide a starting point for projecting educational programmes for IVET teachers, particularly in the form of the National Qualification Framework. This starting point

- is the qualification and assessment standards, which are based on a system of competences.
- The state funds equipment for institutions that train IVET teachers through the State ICT Policy in Education programme.

Measures adopted by institutions providing initial training of IVET teachers:

- Educators renew the content and methods of programmes for initial training of IVET teachers to a very varied extent. Their starting point is:
 - o direct communication with the graduates' customers, which means the vocational schools,
 - o research results.
 - o emerging framework educational programmes for VET.

Innovative pedagogies used for the training of VET teachers and trainers

Initial training for a career as an IVET teacher generally takes place at university, in both accredited and non-accredited training programmes. To a lesser extend, initial training for IVET teachers may take place through courses provided by various non-university educational establishments. Preparation for the role of an IVET instructor is not regulated by the legislation, is more or less voluntary, is not monitored and therefore is not dealt with in this paper.

The need to innovate training of IVET teachers to reflect the changing demands on graduates of vocational education and training is reflected on, discussed and reverberates through all the strategic documents. This need is reflected by all the parties involved and, to different extents, they are taking steps to support innovation in the training of IVET teachers.

Examples of innovation in the initial training of IVET teachers

- the use of the Moodle eLearning environment
- the publication of study supports on the websites of departments training IVET teachers
- the introduction of study topics supporting ICT skills, such as "Communication technology", "Pedagogical software", "The use of the computer in learning", or "Didactic technology",
- at certain universities, assistance mechanisms for studies abroad are available, such as foreign study centres
- the introduction of elements of training skills into study programmes

Innovation in the context of continuing vocational training of teachers working in initial vocational education and training

The continuing vocational training of IVET of teachers most frequently takes place through various courses held by non-university educational establishments. To a lesser extent, continuing vocational training of IVET of teachers takes place in non-accredited courses held by universities.

Measures to support innovation adopted by the state, particularly the Ministry of Education, Youth and Sports:

- The state supports the acquisition of skills by teachers by funding courses aimed at the application of ICT in teaching.
- The state co-finances a number of educational projects (particularly within the framework of the ESF and community programmes), that deal with the problems of innovation in the continuing vocational training of IVET teachers.

Innovations adopted by institutions providing IVET to teachers of continuing vocational training:

Specific training programmes for IVET teachers almost never appear in offers for educators. However, IVET teachers have the opportunity of attending courses dealing with the use of ICT in teaching, in the use of project and cooperative teaching methods. Educational programmes encouraging the development of competences in the area of project learning are also starting to appear.

Informal learning plays the most important role in the continuing vocational growth of IVET teachers, particular in the context of learning from experience and self-learning. Teachers currently have a large quantity of professional literature available, which focuses on innovations in the area of pedagogy and didactics.

Innovation in the education of educators, trainers, etc, working in CVET

The most frequent practitioner who teaches adults in the context of CVET, is referred to as an *educator*. Other frequent appearances are also made by professionals referred to as *trainers*, *instructors and* supervisors. Alongside these generally known positions are other, more or less specialized positions such as *facilitators*, *coaches and supervisors*, which are based on the use of particular specialized methods supporting adult education.

Innovation in the initial training of educators, trainers, etc. in continuing vocational education and training

The initial training of educators, trainers etc. is implicitly offered by a very few universities. To an incomparably greater extent, the initial training of educators, trainers, etc. is provided by non-university educational establishments, which are most often commercial in nature. The potential for innovation is most clear in this non-academic environment, particularly because of its close links to real-life requirements.

Progressive educational programmes focus on developing the following skills in CVET educators, trainers, etc.:

- the skill to facilitate the professional development of employees,
- the skill to use modern assessment methods in a professional manner,
- the skill to make effective use of ICT in teaching,
- the skill to manage the learning process in an intercultural environment,
- the skill to reflect on their performance,
- the skill to coach and supervise employees,
- the skill to motivate employees to further education.

Innovation in the continuing vocational education and training of educators and instructors working in CVET

The most important innovative role in the continuing vocational education and training of educators is played by commercial training institutions that offer a wide range of specialized and development courses. The vast majority of these courses focus on training educators to fill specific roles within the context of CVET. These are mainly the roles of training facilitator, assessor, supervisor, coach, mentor or eLearning tutor.

Informal learning plays the most important role in the continuing vocational growth of CVET educators, particular in the context of learning from experience and self-learning. Educators currently have a large quantity of professional literature available, which focuses on innovations in the area of pedagogy and didactics.

The role of the state in supporting innovation in the training of educators is rather marginal. It is confined to issuing announcements and to co-financing projects aimed at developing the skills of educators, particularly through the ESF and community programmes. The real engine for innovation in this area is the market.

0705 INNOVATIONS IN ASSESSMENT

Assessing the competences needed and trends for the development of new qualifications (see more details in chapter 0701).

Policies for adapting assessment practices and certification/ accreditation processes to the reformed curricula in VET

A basic approach to assessment

is determined by the valid legislation: Act no.561/2004 on preschool, basic, secondary, tertiary technical and other education. The data on the course and results of education at schools are a part of compulsory documentation of schools - school registers. As far as VET is concerned the ways of continuous and final assessment of students are determined by regulation no. 47/2005 Coll. on secondary education and education in conservatoires and regulation no. 47/2005 on the completion of education in secondary schools by the final examination and the completion of conservatoires. Besides marking pupils' knowledge on the traditional assessment scale - 1 (excellent), 2 (very good), 3 (good), 4 (satisfactory), 5 (fail), schools have an opportunity to use a verbal assessment. In case of a verbal assessment the results of students knowledge must be described in such a way as to specify clearly achieved results in relation to determined objectives and the educational prerequisites for students. Student's behaviour is assessed as well. In full-time courses, it is assessed as follows: 1 (very good), 2 (satisfactory), 3 (fail). The overall learning outcomes included in a school report is expressed as follows: passed with honours (results in individual subjects are not worse than 2 and average results in compulsory subjects reaches maximally 1.5), passed, failed (if the results in some of the compulsory subject are marked by 5). Assessment details are based on the requirements which are determined in RVP and ŠVP

Accreditation and certification procedures in vocational adult education and training

In adult education a distinction of certification must be made between teaching that takes place in schools and educational establishments and teaching carried out outside the school environment.

School system

The accreditation and certification of adult teaching carried out in the formal school system is regulated by the Education Act (Act no. 561/2004 Coll.).

Out-of-school environment

In-company courses, foreign language courses or ICT courses can be offered out of the school system by various providers. This training is based on regulation no. 524/2004 Coll. On the accreditation of educational facilities for retraining of applicants for a job.

Development of new assessment methods, such as self-evaluation and PC evaluation IVET

A wide range of assessment tools for **initial education**, including electronic tests and self-evaluation questionnaires are provided to primary and secondary schools, and, to a lesser extent, to secondary professional schools through the Kalibro project, which has been running in the CR since 1995. This focuses on the creation and distribution of various assessment tools to improve teachers' performance: these include proficiency tests for pairs of pupils, which contain various types of open-ended tasks and detailed rules for objective evaluation, questionnaires for pupils, parents and school heads aimed at different areas of the school's work, etc. The questions are based on things people pay attention to at school during self-evaluation in comparable developed countries.

New assessment methods in adult education are mainly used for career advisory purposes, both in public (state) and private sector.

Adoption of Act no. 435/2004 Coll.²², imposes an obligation on Czech employment offices (hereinafter referred to as ÚP) to provide advisory, information and other employment-related services to their clients. ÚP advisors in the CR use various personality tests (often constructed on the base of life balance diagnostics) and specific tests that aim to evaluate an individual's predisposition to a particular profession. They also use new consulting methods based on self-evaluation by job seekers. An important tool is an analysis of the client's individual potential (AIP)²³ where client together with advisor are using the Jobtip Internet application- a programme that was developed while creating the Integrated system of standard positions (MPSV ČR) enables job seekers to put together the characteristics of their own personality and to create their own personal profile. This not only provides the consultant with formal data concerning the client, but also information on his informally acquired competences, individual needs and wishes. Consultants can use this information for giving advice to client when choosing a profession, showing them specific opportunities available in the labour market, and also offering suitable retraining courses or further qualifications. Within the framework of the participation of the National Institute of Technical and Vocational Education in the SELF-EVALUATION²⁴ project, an analysis of individual potential was used to create a more simply oriented personality questionnaire used for basic self-evaluation.

The questionnaire is targeted for clients with lower levels of education and is exclusively based on mutual cooperation between and the employment office advisor.

Private sector

Different non-governmental workers and training agencies use often their own methods and tools. Among the most important from the field of work diagnostic is, for example, the Republikové centrum vzdělávání, s.r.o²⁵, which carries out MŠMT accredited courses within the context of the implementation of the "Šance" programme. Republikové centrum vzdělávání performs tests using the COMDI computer diagnostics software. Again, the goal is for the client to perform his own self-evaluation, mapping out his personality in terms of his potential future professional orientation.

Impact of introducing innovative pedagogies on the development of VET qualifications standards and profiles

In the CR the impact of globalization on demands for qualifications (standards) in various professions and occupations is becoming ever stronger. This is also reflected in the results of investigations into research development trends in occupations²⁶, in which various aspects of this phenomenon are frequently mentioned and interpreted, such as the globalization of the economy, the internationalization of businesses and firms, the development of major technologies, the automation of routine tasks, etc.

The impact that can be expected provokes a need for the development of following skills.

- Language skills
- Ability to learn and be well versed in labour market information

²² Act no. 435/2004 Coll. of May 13th 2004 on employment

²³ http://aip.istp.cz

²⁴ LdV SELF-EVALUATION project – International methods and models of self-evaluation of non-formal $personal\ competences\ 2002-2005,\ www.guidance-research.org/self_eval$ http://www.rcv.cz

²⁶ Kadlec M., Blažícková J., Konopásková A.: Professional requirements by sector and by branch. Analytic report. Working text for the "Employment of school-leavers: analysis and outlook" 2/2000. UIV, VÚOŠ, CSVŠ. Prague 2000

- Information (using ICT)
- Ability to behave in an environmentally friendly manner
- Ability to get ahead, to concentrate and stress resistance ability
- Employee flexibility and the ability to work in a team

Changes in the nature of professions - profile broadening

As far as competences associated with specific occupations are concerned, general traits can be drawn, which obscure the distinctions between previously separate occupations and the overall need for an expanded profile.

From comments by individual experts, few proposals are made for the creation of new occupational (qualification or professional profiles), but proposals were raised to change the characteristics of some of the existing ones. This trend reflects the objectives of the ESF NSK system project (see Chapter 0702), in which qualification standards are developed and a national qualification framework created.²⁷

Projection into IVET curriculum

The above-mentioned facts are projected into the reform of the initial vocational education curriculum. Into recently creating curricular documents – Framework education programmes for educational fields are incorporated as follows:

- <u>Language skills</u>: these requirements are explicitly based in the model of key-competences (see chapter 070701) as a need to develop communication competences. They are broken down in detail into all the other areas of education. Requirements for the development of pupils' cultural awareness is also linked with foreign language acquisition leading to a knowledge and recognition of various European and other cultures
- work with ICT and information is also counted into the key-competences. The RVP also contains a, so-called, cross-sectional topic, which highlights the need to pay increased attention to ICT training in all educational subjects (i.e. including theoretical and practical vocational subjects) and in other school activities (competitions, participation in various projects, interesting activities, etc.)
- <u>Shaping of the lifelong learning acceptance</u> is required when aiming at the generation of key competence model as support for development learning competences based on the correct motivation of pupils and an understanding of its importance in terms of the overall success of the personal and working life of each individual and shaping a suitable learning strategy on an individual basis
- <u>Shaping of ecological awareness</u> and its development are dealt with in the RVP both as key competences and as specific professional competences and through the cross-sectional theme of the Individual and the Environment
- Development of the necessary personal qualities and attitudes (schopnost prosadit se, pracovat v týmu apod.) is emphasized in the frame of personal and civic competences. Requirements highlighting flexibility, entrepreneurship are also taken into account as work performance competences. The ability to deal with labour market problems and work performance are emphasized here, and this is also the subject of one of the cross-sectional themes the Individual and the World of Work.

The RVP pays particular attention to schooling forms and methods, where the application of learning methods and organization forms of learning, which are included in the area of innovative pedagogies, are generally demanded.

 27 COLLECTIVE: Proposed concepts, structures and processes of the National Qualification Framework. Written by the NSK project team, NÚOV Prague. 2007

Although the elements outlined above appear in all RVP for professional education (at the present time mainly ISCED 3C and ISCED 3A), it is clear that curricular documents in their new form generally give strong support for including the requirements for scientific and technical development and all the major trends of social development into initial vocational education for all vocational qualifications.

National assessment and accreditation standards for certifying qualifications in VET

New assessment tools and certification and accreditation processes in close relation to the creation of the NSK - National Qualification Framework28 - are underway in the Czech Republic.

The adoption of Act no. 179/2006 Coll. on verifying the outcome of further education was an important milestone. This Act stipulates the content of the NSK, how it should be structured and in what way and with what it should be created and approved. It also sets out in detail how and by whom the recognition of qualifications should take place. The reason for creating a NSK is mainly to make the recognition of qualifications more transparent and to enable the recognition of the competence that people have actually achieved in practice, even though this has been achieved outside the formal school system. It also moves towards creating links between the system of initial vocational education and the system of lifelong learning.

The NSK distinguishes between two types of qualification:

- 1. the complete qualification, i.e.the ability to work in a specific occupation and tends to be acquired after attending a certain professional training (e.g.cook ISCED 3C).
- 2. the partial qualification, i.e. the ability to perform only a part of any specific occupation (a task or a group of tasks), which make the person employable (for example cold meals production of delicacy).

NSK Basic tools are qualification and assessment standards

Qualification standards

For each of the qualifications in the NSK, in association with the MŠMT, MPSV and social partners²⁹ qualification standards, which determine the knowledge that is needed to acquire a particular qualification are developed. They determine what is necessary to know for acquiring a particular qualification and stipulate a set of competences that are needed for the performance of the particular occupation.

Assessment standards

Assessment standards are developed simultaneously with qualification standards and create a set of criteria, procedures, instructions and conditions for verification of competences gained from qualification standards. The aim is to determine how to assess whether a person really fulfils the requirements of the qualification standard.

Application of assessment and qualification standards

IVET

Qualification and assessment standards for complete qualifications are currently used in initial vocational education for the final educational evaluation in teaching professions with an apprenticeship certificate (ISCED 3C) within the framework of the system project Quality I – the new final examination³⁰. It is assumed that assessment standards (HS) will -in the future

²⁹ Mainly MPSV, Trexima, spol. s.r.o

30 www.kvalita.1.nuov.cz

51

www.nsk.nuov.cz nsk.esf@msmt.cz

be used during the final assessment in professions with a graduation exam (ISCED 3A) – particularly when developing the profiles for the graduation exam. ³¹

Continuing education

Qualification and assessment standards for partial qualifications are very important, particularly for the recognition of the non-formal acquired competences. Every citizen who wishes to acquire a certificate for a partial qualification, an exam will have to be taken on the basis of the assessment standard for this partial qualification.

Accreditation processes

Testing and the award of certificates will be carried out by authorized persons who will receive their authorization after fulfilling the prescribed requirements³². These authorizations will be awarded by the ministries under which the relevant professions belong, known as the authorizing bodies. In the best case, complete certification can be achieved by acquiring all the partial qualifications needed for the performance of a particular occupation, without having to attend school.

Annex Quality I.

070501 Innovations in evaluation and quality monitoring

Quality-monitoring mechanisms for evaluation of the processes of anticipating skill needs and developing new qualifications and job profiles in the labour market

National level

- Tools used to monitor dynamically evolving qualification requirements for jobs play an important role in improving the relation between technical and vocational education programmes and the requirements of the labour market. These tools include both the existing standard tools (such as the Integrated System of Standard Positions http://www.istp.cz), managed by the Ministry of Labour and Social Affairs and prepared in cooperation with social partners, mainly the employers, and newly designed tools, such as the National Career Framework and the National Qualifications Framework www.nsk.nuov.cz (Ministry of Education, Youth and Sports and the National Institute for Technical and Vocational Education.
- The process of projecting the ascertained requirements to the prepared educational programmes plays an equally important role. Besides experts and specialists, the Field Groups are involved in it, established at the National Institute for Technical and Vocational Education in 1998 by virtue of the Ministry of Education, Youth and Sports. Members of the Field Groups include representatives of employers' associations, trade unions, professional and trade associations, and school associations. As part of the Field Groups, the Concept Group of the Ministry of Education, Youth and Sports has been appointed, consisting of representatives of ministries, regional authorities and social partners. At the regional level, regional working groups may be appointed, in which representatives of local firms, entrepreneurs, regional and local councils etc. are involved. The social partners may use the Field Group as a platform for influencing the creation of framework educational programmes, on which the current curriculum reform is based. At the regional level, they may participate directly in discussions and preparations of educational programmes for schools. Currently, 25 Field Groups are appointed, structured according to the sectors of the

³¹ Section 79 of Act no. 561/2004 Coll.

³² Act no. 179/2006 Coll., on the verification and recognition of the results of further education and on amendments to some laws (Act on the recognition of the results of further education).

national economy and covering the whole range of job opportunities for individuals leaving secondary and higher technical schools.

Regional level

- The Czech Republic's labour market has a distinctive regional nature. Different geographic, demographic, historical, social and mainly economical conditions in the regions have a substantial impact on employment as a whole. They also determine to a considerable extent the professional and sectoral structure and, consequently, the unemployment rates in the regional labour markets. Even recruitment conditions vary, as well as the job opportunities for school-leavers.
- A decisive factor at the regional level is the long-term projects formulated by the regions based on the long-term projects of the Czech Republic, as prepared by the Ministry of Education, Youth and Sports every two years. It is the regions with their delegated powers and some other regional institutions focused on education and training that play an important role in implementing the projects. In the preparation of the long-term projects of education and development of the educational system for the 14 regions of the country (at the regional level), information is used about school-leavers with secondary technical education finding jobs in the labour market of the respective region, taking into account the employment and the relation between the educational system and the demand in the labour market.
 - O Public technical schools are established by Departments of Education at the Regional Authorities, which act in compliance with the Region's Long-Term Project, that is, the information about school-leavers with secondary technical education finding jobs in the local market, when managing the educational system of their region.

Evaluation process of innovative pedagogies applied in VET

Final evaluations

• Studies at secondary schools may be completed with either a final examination in the subjects of secondary education and secondary education with a certificate of apprenticeship and in subjects of shortened secondary education with a certificate of apprenticeship, or an upper-secondary school leaving examination (maturita) in subjects of secondary education with a leaving examination and in subjects of follow-up studies and shortened secondary education with a leaving examination. Studies at conservatories are usually completed with a graduate or an upper-secondary school leaving examination. All of these examinations certify that the pupils have achieved the educational objectives in their subjects, attesting mainly the level of the pupils' key knowledge, skills and attitudes, which are important for their further education or jobs, or special activities, as the case may be.

Technical and vocational education – other branches of studies

- Studies in secondary education branches are completed with a final examination. By passing the final examination, the pupils achieve the secondary education level (ISCED 2C or 3C, as the case may be). The pupils may take the final examination if they have successfully completed the last year of their studies, within 5 years of completion of their studies.
- The topics, the content, the form, the concept and the date of the final examination taken in secondary education branches are to be determined by the headmaster in compliance with the study documents. The examination consists of a practical examination in special subjects and a theoretical examination in special subjects.
- The theoretical examination is an oral one. The headmaster selects 20 to 30 topics, from which the pupils draw one. Depending on the curriculum, the theoretical

- examination in special subjects may be divided into two examinations graded separately. The preparation for the examination takes at least 15 minutes, and the examination itself no more than 15 minutes. The examination may also include a written or graphical solution to a task.
- The practical examination in special subjects is taken by the pupils before the theoretical examination in special subjects. The headmaster selects 3 to 5 topics, from which one is drawn for a group of pupils appointed by the headmaster. The examination takes no more than 240 minutes.

Quality-monitoring mechanisms in use

External evaluation

• External evaluation takes place in both the public administration and the pedagogical areas. It is the Czech School Inspection that performs the external evaluation of schools at all levels (only post-secondary schools and facilities at the tertiary level) once in three to five years in compliance with the Education Act. Schools and educational facilities may also be evaluated by their founders according to previously published criteria.

Forms of learning outcomes used to set criteria for quality assurance and evaluation of courses/institutions

- The forms of learning outcomes used to set criteria for quality assurance and evaluation of courses/institutions are defined in the Framework Educational Programmes. Chapter 3 of the Reform Educational Programme, called "School-Leaver's Competences", defines the requirements for the profile of school-leavers in the respective branches of studies, that is, their civic, key and expert competences. The competences are then the starting point for the schools to be described in detail in their school educational programmes and achieved subsequently.
- Under the Reform Educational Programme, competences are considered to be a set of knowledge, skills, attitudes, habits and other qualities of the school-leaver's personality, which are to be supported by the education. As opposed to the general objectives of education, the competences are described not from the teacher's point of view but from that of the pupil. In other words, they define what the pupils are supposed to know (what skills or knowledge they are supposed to have), how they are supposed to behave, and what activities they are supposed to be able to perform. This definition corresponds to the focus on learning outcomes, while the content or the curriculum is deemed to be the means for attaining the results.
- While the Reform Educational Programme defines competences, it does not include any definition of the quality (level) to be achieved, as it depends on the pupils' learning and personality prerequisites and other terms and conditions for the education.
- Chapter 6 of the Reform Educational Programme, called "Curriculum frameworks for the fields of education", contains a description of results and curricula, underlining the importance of the focus on learning outcomes. The expected learning outcomes are described in greater detail than the curricula themselves, although it was the intention of the authors of the Reform Educational Programme to make it as generally as possible to describe the fundamentals of the education level required, with further details to be added in each school's educational programme. The learning outcomes, as defined in the Reform Educational Programme, are target, not evaluation requirements.

0706 INNOVATIONS IN GUIDANCE AND COUNSELLING

The challenge that every society has to face with its education policy is the creation of an educational environment eliminating the risk for individuals of being excluded from education, while maximising the change for all members of the society to have their educational needs satisfied during their whole life in compliance with their abilities and the changing life circumstances. An efficient guidance and counselling system, which contributes to a system of education open to everybody regardless of their socidemographic, sociocultural and socio-economic qualities and specific needs is one of the load-bearing pillars of a strategy whose aim is to prevent individuals from leaving education early, contribute to the preparedness for making qualified, career-related decisions, and support individuals in finding their way in the increasingly diversified world of labour and education.

Innovative pedagogies in training of guidance and counselling practitioners

In 2005, regulations providing for further education for pedagogical staff were amended to also include school counsellors working at elementary, secondary and post-secondary schools, as they too are considered pedagogical staff. Further education for pedagogical staff was already defined in the Pedagogical Staff Act no. 563/2004 Coll., providing for the pedagogical staff's duty to further educate themselves and renew, strengthen and supplement their qualifications for up to 12 work days in a school year. The pedagogical staff is entitled to compensation for the twelve days off. Further education for pedagogical staff is provided by a number of educational institutions that were certified for further education. Standards for the certification of further education courses valid since 2005 also include standards of studies for school counsellors. The studies must take four semesters, include 2,000 hours of direct and indirect courses, and 50 hours of practical training in certified school counselling centres.

An important initiative aimed at raising the standards of counselling services for schools is the system project called *Development and Improvement of an Integrated Diagnostic Information and Counselling System for Education and Job Selection (Education – Information – Counselling – VIP Career*), co-funded with the ESF (initiated in 2005). The project's primary objectives are to raise the standards of pedagogical, psychological and career advisory and counselling at schools, contribute to the prevention of failure at school and early leaving of the education, as well as improve the counselling and information support for career decisions and link the career advisory services to career education. Thus, the project also helps to meet the targets of the **National Policy for the Development of Career Counselling (2004)**. **The following three activities** are in place to meet the objectives of the above-mentioned project:

1. School counselling centres

The main purpose of the School Counselling Centres is to provide psychological and specialised pedagogical services to schools, prepare and verify school counselling strategies, models of school counselling centres, and a system of coordination of the centres with the services provided by specialised counselling centres. The activities performed by the School Counselling Centres are based on close cooperation with the school/specialist teacher, the education counsellor, the prevention methodologist, and the advisory team consisting of other teachers, mainly class teachers, teachers of civics, physical education and arts, teaching methodologists, and assistants to teachers. The primary objective is to get the counselling services provided by psychologists and specialist teachers to the pupils, their parents and other teachers and members of the teaching staff, as well as to support the integration of pupils with special educational needs, create a system of timely identification of problematic behaviour patterns at schools, reduce failure and early leaving of schools, and raise the

standard of career counselling at schools. The results of the project are supposed to help other schools in establishing their own school counselling centres and providing services as part of pedagogical, psychological and career counselling.

2. Information System on the Labour Market Success of School-Leavers (ISA)

The purpose of the ISA system is to collect key information needed for the selection of a job and entry in the labour market, facilitate access to high-quality information necessary for making career decisions, and provide individual solutions to the needs of pupils at risk of leaving the education early. The ISA system, that will be in full operation in mid 2007, will offer detailed information about the educational offer of schools, as well as information about branches of studies (a list of all secondary and post-secondary technical and vocational schools, including contact details, a list of curricula in the next school year, details of the entrance procedure, conditions for handicapped pupils, options for further education studies, specification of the branches of studies at vocational schools and secondary and post-secondary technical schools, and a lot of other useful details). The ISA system will also offer a number of analyses examining the potential of the school-leavers for finding a job in the job market.

Information gathered in the ISA system will be derived from detailed analyses of unemployment of school-leavers, determination of compliance between the education level achieved and the job taken, opinions of employers and experts from job centres on the potential of school-leavers to find a job, transfer of school-leavers to the practice or the tertiary education, their preparedness for the practice, etc. The ISA system will also incorporate a multimedia assistant showing the pupils in an attractive and user-friendly form round various workplaces, explaining to them the specifics of various jobs, and helping them to make a career decision.

The ISA system is also expected to be used in the education preparing individuals for making career decisions and improving their potential in the job market. The framework educational programmes, which serve as the basis for the preparation of individual educational programmes at schools, also includes a cross-section topic called *People and the World of Jobs*, whose aim is to develop the pupils' competences necessary for them to retain their lifelong potential for finding a job. This cross-section topic is dealt with using mainly the curriculum of the *Introduction to the World of Jobs*. The schools are encouraged to consistently implement the topics included in the *Introduction to the World of Jobs* as an important aspect in the preparation of future school-leavers for their smooth entry and participation in the job market.

Career education and career counselling should be combined into an interlinked whole, supplementing each other and providing complex support for making career decisions. Harmonising career education and career counselling services at the level of schools and providing for cooperation between schools and specialised counselling centres are the most important prerequisites for efficient preparations to be done in this area.

3. Impelementation of further education of pedagogical staff.

The main purpose of further education for pedagogical staff is to help improve the teachers' readiness to support the pupils in making their future career decisions in compliance with the requirements for the career decision-making process. Further education of this kind has the form of either **full-time studies** or **e-learning**. **Full-time studies** consist in a system of educational programmes aimed at improving the teachers' competences in career, pedagogical and psychological counselling and their approach to special educational needs, while respecting equal opportunities. The content of the educational programmes focuses primarily

on preparation and implementation of strategies for pedagogical, psychological and career counselling at schools, working with new psychodiagnostic tools and tools for pedagogical diagnostics, the specifics of counselling and education of pupils with special educational needs, techniques of teaching strategies, cooperation of psychologists with the teaching staff and the school viewed as a system, mediation approaches, etc. **E-learning studies**, referred to as **E-Career**, give education counsellors and other teachers the opportunity to study the issues related to career counselling via the Internet. The purpose of the e-learning studies is to provide the teachers with knowledge and skills that help them assist their pupils in making decisions on their further studies and career, making the right choices from the offer of education and training, entering in the job market, and finding their way in the dynamically evolving offer of information in this area. The courses consist of a number of modules dealing primarily with career and making career decisions, understanding the job market and responding to the job requirements, industrial relations, entering the job market, communicating, using sources of information in career counselling, and a number of other issues.

New initiatives

Special attention is paid to the **support for pupils with special educational needs**, mainly pupils with disabilities or medical impairment and pupils with a social and/or cultural handicap, and the prevention of sociopathic behaviour. Priority issues, which are also related to the support for the development of counselling services, include the raising of the standard of education of pupils with special educational needs and the improvement of the conditions for individual integration of these pupils in mainstream education.

In 2005, the *Concept of Counselling Services Provided at Schools* was issued, focusing on improving the social climate at schools. It defined a number of new diagnostic tools for various issues related to schools and education. Along with the Association of Counsellors of Special Pedagogic Centres, the *Concept of Care for Heavily Disabled Children and Pupils* was formulated.

A wide range of courses, seminars and methodological aids is prepared and offered every year to experts from the school counselling system and other teaching staff. Targeted intervention services related to the prevention of and dealing with sociopathic behaviour are available for groups of pupils/teachers.

In 2005, the government adopted the Concept of Roma Integration and the Concept of Timely Care for Children from a Socially and/or Culturally Handicapping Environment. In 2006, two system projects co-funded with the ESF were initiated. They are both aimed at supporting children, pupils and students from a socially handicapping environment and include the provision of counselling services. It is the project called Development of Counselling, Education and Supporting Services for Socially Handicapped Pupils – SIM (Centres for Minority Integration), and the project Prevention of Leaving and Support for Secondary Education in Socially and/or Culturally Handicapped Pupils and Students – PROPOS (prevention of leaving and support for studies).

Also, the annual programmes of subsidies granted by the Ministry of Education, Youth and Sports in this area are worth mentioning. They cover:

- education in languages spoken by ethnic minorities and multicultural education;
- integration of the Roma community and Roma pupils at secondary schools, including provision of funds for assistants to teachers; and

• activities related to the integration of foreigners, including integration of children of asylum seekers, participants in the asylum proceedings and EU foreigners in elementary education.

Initiatives focused on the prevention of sociopathic behaviour include the Action Plan of Primary Prevention for 2005 and 2006, based on the National Strategy for the Anti-Drug Policy from 2005 until 2009 and the related Action Plan. In the same year, the Strategy for the Prevention of Sociopathic Behaviour in Children and Young People was adopted by the Ministry of Education, Youth and Sports for the period from 2005 until 2008. In 2005, the Standards of Professional Competences were approved for the providers of primary addiction prevention programmes, followed by the introduction of a certification process for primary prevention programmes.

Further education measures also include the implementation of the system-wide project referred to as UNIV (Recognition of the results of informal learning and non-formal education by networks of schools providing the education service for adults), initiated in 2005. The project seeks to support further education in the Czech Republic by encouraging the secondary schools and higher professional schools in providing further education and extend the offer of further education by procedures enabling the recognition of results of informal learning and non-formal education. The project activities also include support for career counselling at schools providing further education to adults. The main purpose of this activity is to extend the offer, availability and quality of information and counselling services for the target group, integrate the necessary information and the counselling services for adults in the career decision-making process, further education and recognition of learning results.

A new source of information for career counselling and job selection will be the results of projects implemented by the Ministry of Labour. Those projects focus on the anticipation of the need for skilled work in the future labour market (see 70103 for details). Information about jobs with good prospects and requirements for education will also be used by the Information and Counselling Centres of the job centres for providing advisory and counselling services.

0707 THE EUROPEAN AND INTERNATIONAL DIMENSION

Collaboration of the Czech Republic at EU and international level on the development of mechanisms for anticipation of skill needs /development of new qualifications and innovative pedagogies

Since the late 1990s, a number of projects have been initiated, focusing on the development of mechanisms for timely identification of skill needs in the job market. The projects have been implemented by independent research institutes and institutes of the Ministry of Education and the Ministry of Labour, and funded from the budgets of the two Ministries, with some of them co-funded with the European Union. The policy adopted by the European Union has played an important role, as much attention is paid in the EU to the requirement for timely identification of the need for skilled work. However, a large gap still remains between the identification of the issues and adoption of practical solutions. No negotiations at governmental level have yet been held to discuss the options for the provision of capacities that may be necessary for anticipating the need for skilled work, and the related funds and institutions.

A positive impact may be expected from some ongoing system-wide projects co-funded with the EU Structural Funds. The operating programmes, which have been approved so far, focus on the development of human resources and education, including anticipation of the need for qualifications. An example may be the system project called *Institute of the Job Market*, initiated early in 2007. It is co-funded with the ESF and focuses on the creation of a supporting system of employment services.

Another system project initiated in 2005, which also includes the aspect of the future need for qualifications in the job market, is the project called *VIP Career*. Again, it is co-funded with the ESF, and its primary objective is to provide for information support to career counselling at schools (see 0701 for details).

Experts and those interested in the anticipation of the need for qualifications are also involved in the Skillsnet international network supported by Cedefop.

As part of the Czech Republic's participation in the OECD project called "Review of Career Guidance Policies", an extensive national analytical report on the situation in career counselling was prepared. During the implementation of the project called Career Counselling in the Czech Republic, sponsored by the Ministry of Education, Youth and Sports, numerous examinations were performed to map the provision of career counselling services at elementary and secondary schools, pedagogical and psychological advisory centres and information and advisory centres of the job centres, including evaluation of clients' satisfaction with the standard of such services. Conclusions of the examinations were used as input for the preparation of the National Policy for the Development of Career Counselling in the Czech Republic.

As concerns the National Qualifications Framework, the Czech Republic responded to the EU initiative by appointing a team of experts for the support to the development of the National Qualifications Framework. Members of the team are representatives of employers' associations, trade unions, ministries, regional institutions and the National Institute for Technical and Vocational Education. A number of projects are being implemented in the Czech Republic, dealing with the introduction of innovative pedagogies for VET with respect to the specific target groups. In 2006, like in the previous years, the Government of the Czech Republic provided financial support to projects focused on increasing tolerance and understanding between ethnic minorities and the majority living in one state, such as the

Tolerance Project, which was part of the Government's Campaign against Racism. Category I assignments include the National Educational and Public Enlightment Activities under the Community Action Programme to Combat Discrimination. Projects derived from the primary objectives of the EQUAL Community Initiative in the Czech Republic focus on the implementation of innovative tools for dealing with problematic issues related to discrimination of specific groups.

The Czech Republic also participates in the TTnet European initiative coordinated by Cedefop. TTnet Czech Republic is a partner network of trainers of vocational teachers and trainers, trainers of instructors in factories, and trainers of teachers in further vocational/professional education. The purpose of the TTnet is to support the development of professionalism of the trainers who prepare vocational teachers and trainers, instructors and lecturers for pedagogical/andragogical work.

The Czech Republic is also involved in the European Network on Quality Assurance in VET (ENQA-VET), participating in a number of thematic groups. At the national level, a group of experts started its activities in 2006, focused on supporting high quality of technical and vocational education in the Czech Republic. The group deals in detail with some specific issues related to the quality of vocational education and training. The following issues were selected for 2007: (a) Relations between framework educational programmes and the National Qualifications Framework; (b) Relations between internal evaluation performed by schools and external evaluation; and (c) Relevant quality indicators for vocational education.

Contribution of EU-level initiatives to shaping the policies in the Czech Republic on skills and competences development and innovative pedagogy

Due to the rapid pace of the development of the EQF, the Czech Republic is one of the countries that have already begun with the creation of the National Qualifications Framework. All the preparatory work is being done as part of a project sponsored by the Ministry of Education, Youth and Sports and funded by the ESF and the Czech Republic's state budget. The legal framework for the National Qualifications Framework is provided in the Act no. 179/2006 Coll. providing for verification and recognition of further education results. The team of experts in the support for the development of the National Qualifications Framework participates in other EU activities related to the preparation of a final draft of the EQF.

Issues related to ECVET are paid much attention to in the Czech Republic, and the Czech Republic actively participates in the consulting process. The National Institute for Technical and Vocational Education also participates in the LdV project called VQTS, coordinated by the Austrian company 3s, and plans to participate in other projects contributing to the development of ECVET in the Czech Republic.

Much attention is put to the improvement of information literacy. In 2000, a concept for the State Information Policy in Education was adopted, with the primary objective to provide the necessary funds and other forms of support for the shift of the Czech educational system, in the broad sense of the word, to a knowledge society. The target group of the State Information Policy in Education includes teachers (mainly those at elementary and secondary schools) of all specialisations, pupils and ICT coordinators. As concerns the development of ICT skills, pupils at a number of schools, especially the vocational ones, may take the ECDL examination. However, no statistics are available for this activity. It is unknown how many schools offer the examination, as it only depends on the headmaster's decision.

EU employment guidelines related to education are reflected in the curriculum documents (the cross-section topic *People and the World of Jobs* as part of the framework educational programmes, and the curriculum *Introduction to the World of Jobs*), mainly in the support for

the development of business competences as one of the key factors for finding a job. The primary objective of the introduction of this issue in the educational programmes at secondary schools is to provide the pupils with the most important knowledge and skills that should help them make decisions for their future career and/or studies, enter the job market, and exercise their rights as employees. The curriculum of the *Introduction to the World of Jobs* should be implemented in close cooperation with the career counselling services at schools.

070701 Europeanization of VET curricula

European and international dimension in VET curricula

One of the major changes in the Czech VET curricula taking into account the current European trends was the adoption of the principle of activity-focused learning, reflected as "orientation to the development of competences". An important role in this process was played by the **key competences**, whose thought principles and elementary concepts had been incorporated in the VET curricula in the Czech Republic since 1993, using knowledge obtained from international research projects.

The Ministry of Education, Youth and Sports supports the European and international dimensions in the curricula at all levels and in all sub-systems of education in the Czech Republic, **including the VET**. An extensive programme is being implemented in **multicultural education**. It is designed as education to respect human diversity and human values, with emphasis placed on the respect for life and its protection, observation of human rights, freedoms and principles of equity. Multicultural education projects focus on the relations to minorities, such as the Roma, the Vietnamese and the Jews. Besides multicultural education, one of the Government's priorities in the Czech Republic is also the **gender equality**.

The **European and international dimensions** are reflected in the valid curricula for secondary vocational and apprentice training schools. For example, history is taught as a combination of global, European and national history. The Literature curriculum includes both Czech literature and the most important works by international authors, mainly those European. The Geography curriculum prefers human geography. The curricula of foreign languages include life, institutions and culture of the countries where the respective language is spoken.

Textbooks are prepared in compliance with the valid teaching documents, thus containing both the international and the European dimensions. Yet, the ratio between the national and the European elements still varies for different subjects.

New values in educational content due to innovation and technological progress

Recently, much attention has been put to the development of computer literacy in pupils of secondary vocational and apprentice training schools. The curricula designed for technical and vocational schools also include a new element, which is media education fostering the pupils' media literacy.

Schools are equipped with advanced information and communication technology that serves as a useful aid in classes and a tool for raising the standard of education.

0708 BIBLIOGRAPHICAL REFERENCE AND WEB SITES

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LIST OF ACRONYMS

AIP ČR Asociace invačního podnikání ČR (Association of Innovative Entrepreneurship in the Czech Republic)

CVET další odborné vzdělávání (continuing vocational education and training)

CZESHA Unie školských asociací ČR (Union of School Associations of the Czech Republic)

ČR Česká republika (Czech Republic)

DV další vzdělávání (continuing education and training)

DVU další vzdělávání učitelů (Further education of paedagogical staff)

ECVET Evropský systém přenosu kreditů ve středním odborném vzdělávání (European credit transfer system in VET)

EK Evropská komise (European Commission)

EPANIL Společné evropské principy pro identifikaci, hodnocení a uznávání výsledků neformálního vzdělávání a informálního učení v rámci celoživotního učení (European Common Principles for the Accreditation of Non-formal and Informal Learning)

EQF Evropský kvalifikační rámec (European Qualification Framework)

ESF Evropský sociální fond (European Social Fund)

EU Evropská unie (European Union)

HS hodnotící standardy (assessment standards)

ICT informační a komunikační technologie (information and communication technology)

ISA Informační systém o uplatnění absolventů škol na trhu práce (Information System on the Labour Market Success of School-Leavers)

ISCED Mezinárodní standardní klasifikace vzdělávání (International Standard Classification of Education)

ISTP Integrovaný systém typových pozic (IntegratedSsystem of Standard Positions)

IVET Počáteční odborné vzdělávání (Initial vocational education and training)

JZZZ Jednotná zadání závěrečných zkoušek (Uniform Assignments for Final Examinations)

LFS Labour force sample (Výběrové šetření pracovních sil)

MPSV Ministerstvo práce a sociálních věcí (Ministry of Labour and Social Affairs)

MŠMT Ministerstvo školství, mládeže a tělovýchovy (Ministry of Education, Youth and Sports)

NACE Statistická klasifikace ekonomických činností (Classification of economic activities in the European Community)

NSK Národní soustava kvalifikací (National Qualifications Framework)

NSP Národní soustava povolání (National Career Framework)

NUOV- Národní ústav odborného vzdělávání (National Institute of Technical and Vocational Education)

OECD Organizace pro hospodářskou spolupráci a rozvoj (Organisation for Economic Co-Operation and Development)

OV Odborné vzdělávání (vocational education)

RVP Rámcový vzdělávací program (Framework Educational Programm)

SIPVZ Státní informační politika ve vzdělávání (State ICT Policy in Education)

SOŠ střední odborné školy (secondary technical schools)

SOU střední odborná učiliště (secondary vocational schools)

ŠPP Školní poradenská pracoviště (School Counselling Centres)

ŠVP Školní vzdělávací program (School educational programme)

ÚIV Ústav pro informace ve vzdělávání (Institute for Information on Education)

UNIV Uznávání výsledků neformálního vzdělávání a informálního učení v sítích škol poskytujících vzdělávací služby pro dospělé (Recognition of the results of informal learning and non-formal education by networks of schools providing education services for adults)

VET Odborné vzdělávání a příprava (Vocational education and training)

VOŠ vyšší odborné školy (tertiary professional schools)

VQTS Systém přenosu odborných kvalifikací (Vocational qualification transfer system)

ZZ závěrečná zkouška (final examination)

ANNEX

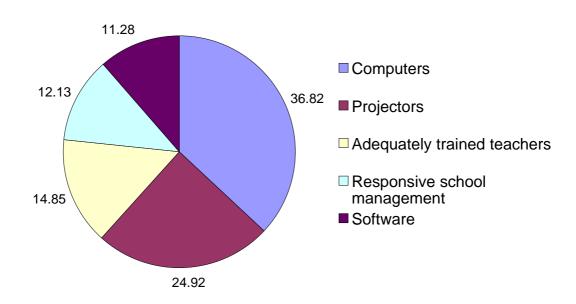
Annex 070303

Frequency of usage of ICT means during classes, as reported by teachers (research done by the Czech School Inspection)

Activities focused on:	%
revision and practice	31
tests and evaluation	16
explanation of a new subject matter	37
creation of projects and presentations by pupils	16

Type of activity	%
Work with education programs	40
Work with the Internet	30
Work with various editors	15
Email communication	11
Playing computer games	4

What are the schools missing?



Example of a server used throughout the Czech Republic to support teachers at elementary and secondary schools

Učitelský spomocník (Teacher's Assistant)

Teacher's Assistant is a web information server designed for future and current teachers, administered at the Faculty of Education of Charles University, Prague.

The server helps our teachers to improve their ability to use modern technology in the correct and most efficient manner. It works as a gateway with the content determined by the teachers themselves, offering involvement in common projects, such as project-based teaching, as well as a number of methodological materials and links to them, discussion forums for teachers, a regularly updated calendar of events for teachers, and a lot of interesting information from the EU. http://www.spomocnik.cz

Annex 07030301 Schools offering e-learning courses as part of the State ICT Policy in Education

Year	Project number	Project title	Implemented by
2006	<u>0019P2006</u>	Digital television broadcasting in the Czech Republic and digitalisation of audio-video data – e-learning support for teachers II	Secondary School of Electrotechnical Engineering and Higher Electrotechnical School
			(Olomouc)
2006	<u>0021P2006</u>	Watch out, Granma, a mouse!	Elementary School, Prague 3, Lupáčova 1/1200
			(Prague 3)
2006	<u>0030P2006</u>	DOMINO school educational programme and strategy for using teaching objects in practice	Elementary School, Prague 3, Lupáčova 1/1200
			(Praha 3)
2006	<u>0047P2006</u>	Lifelong training in ICT technology in regions with high unemployment	Higher Technical College, Secondary Pedagogic School and Business Academy in Most, Zd. Fibicha 2778
			(Most)
2006	<u>0101P2006</u>	Interactive Blackboard	ANGEL Elementary and Nursery School, Prague 12
			(Prague 4 - Modřany)
2006	<u>0107P2006</u>	Training for parents of pupils, members of teachers' families and handicapped groups of the population, with online support	Grammar School and Secondary Vocational School in Orlová - Lutyně
			(Orlová - Lutyně)
2006	<u>0108P2006</u>	Interactive Reading Room	Sokolov Grammar School
			(Sokolov)
2006	<u>0281P2006</u>	Don't be afraid of your computer – lifelong training for those interested in ICT in regions with high unemployment rates	Higher Technical College, Secondary Pedagogic School and Business Academy in Most, Zd. Fibicha 2778
			(Most)

technology in machinery Carrier Carrier Carrier	2006	<u>0378P2006</u>	A concept for the transfer of educational information between the school and the parents	Střední škola cestovního ruchu, s. r. o. (Secondary School of Tourism)
technology in machinery Carrier and Sázavou)				(Rožnov pod Radhoštěm)
Scoope	2006	<u>0446P2006</u>	technology in	Higher Professional and Secondary Technical School
of special medical and veterinary subjects Compared to the co				,
Online course for handicapped groups of population Pelhřimov Commercial Secondary of population Pelhřimov Commercial Secondary of population	2006	<u>0500P2006</u>	of special medical and veterinary	Higher and Secondary Medical School, Hradec Králové, Komenského 234
handicapped groups of population Composition Composition				,
Interactive Blackboard and alternative devices Blackboard and alternative devices Blackboard and alternative devices (Brno)	2006	<u>0650P2006</u>	handicapped groups	Pelhřimov Commercial Secondary School
Blackboard and alternative devices Business, Brno, Pionýrská 2				(Pelhřimov)
Implementation of elearning in the teaching of automation technology (Písek)	2006	<u>0694P2006</u>	Blackboard and	Secondary School of Business and Higher School of Business, Brno, Pionýrská 23
learning in the teaching of automation technology 2006 0981P2006 Interactive activities in preschool facilities Practical, Special and Logopaedic E School, Žatec, Dvořákova 24, distric Jazykové gymnázium Pavla Tigrida, Os příspěvková organizace (Language College) 2006 1027P2006 E-learning methodology for the fundamentals of optics and metropolitan optical networks in Czech and English 2006 1345P2006 ICT in Factitious Businesses courses, a training course for teachers at secondary technical Secondary Technology, Brno, Čichnova				` /
Interactive activities in preschool facilities Practical, Special and Logopaedic E School, Žatec, Dvořákova 24, distric	2006	<u>0862P2006</u>	learning in the teaching of automation	Secondary School of Engineering
in preschool facilities School, Žatec, Dvořákova 24, distric				(Písek)
Using ICT in the teaching of civics and science 1003P2006	2006	<u>0981P2006</u>	in preschool	Practical, Special and Logopaedic Elementary School, Žatec, Dvořákova 24, district of Louny
teaching of civics and science Canguage College				(Žatec)
E-learning methodology for the fundamentals of optics and metropolitan optical networks in Czech and English Colomouc) ICT in Factitious Businesses courses, a training course for teachers at secondary technical Secondary School of Electrotechnical and Higher Electrotechnical and Higher Electrotechnical and Higher Electrotechnical School of Electrotechnical and Higher Electrotechnical and Higher Electrotechnical and Higher Electrotechnical School of Electrotechnical and Higher Electrotechnical School of Electrotechnical and Higher Electrotechnical and Hi	2006	<u>1003P2006</u>	teaching of civics	(Language College)
methodology for the fundamentals of optics and metropolitan optical networks in Czech and English COlomouc) ICT in Factitious Businesses courses, a training course for teachers at secondary technical Technology, Brno, Čichnova				
2006 ICT in Factitious Businesses courses, a training course for teachers at secondary technical Secondary Technical and Vocational Informatics and Communicat Technology, Brno, Čichnova	2006	<u>1027P2006</u>	methodology for the fundamentals of optics and metropolitan optical networks in Czech	Secondary School of Electrotechnical Engineering and Higher Electrotechnical School
2006 ICT in Factitious Businesses courses, a training course for teachers at secondary technical Secondary Technical and Vocational Informatics and Communicat Technology, Brno, Čichnova				
schools, not only about e-shops (Brno)	2006	<u>1345P2006</u>	Businesses courses, a training course for teachers at secondary technical schools, not only	Secondary Technical and Vocational School of Informatics and Communication Technology, Brno, Čichnova 23

	1251D2006	Haina ICT in	Hatal and Wasstianal Casandam, Calcal of Catarina
2006	<u>1351P2006</u>	Using ICT in restaurant and hotel	Hotel and Vocational Secondary School of Catering, Prague
		management and	Frague
		tourism	
		tourism	(Praha 9 - Klánovice)
2006	1279D2006	Support for ICT	Cheb Grammar School
2000	<u>1378P2006</u>	Support for ICT coordinators	Cheo Grammar School
		Coordinators	
			(Cheb)
2006	1460P2006	E-learning didactic	Centre of Services for Schools in the Region of Zlín,
		course in modern	Institute for Further Education of Teachers
		English for teachers	
			(Uherské Hradiště)
2006	<u>1517P2006</u>	Complex approach	Centre of Services for Schools in the Region of Zlín,
		to media education	Institute for Further Education of Teachers
		in the Region of Zlín	
			(Uherské Hradiště)
2006	<u>1593P2006</u>	Electronic office for	Secondary Technical School of Business and Services
		seniors	and Secondary Vocational School
			/TY-1-7¥\
			(Třebíč)
2006	<u>1993P2006</u>	ICT for students in	Secondary School of Civil Engineering, Plzeň
2006	1993P2006	ICT for students in civil engineering	
2006	<u>1993P2006</u>	civil engineering	
2006	1993P2006 2062P2006	civil engineering Digitalisation – how	Secondary School of Civil Engineering, Plzeň
		Digitalisation – how to rescue aging	Secondary School of Civil Engineering, Plzeň (Plzeň)
		Digitalisation – how to rescue aging analogue records in	Secondary School of Civil Engineering, Plzeň (Plzeň)
		Digitalisation – how to rescue aging	Secondary School of Civil Engineering, Plzeň (Plzeň)
		Digitalisation – how to rescue aging analogue records in	Secondary School of Civil Engineering, Plzeň (Plzeň) Grammar School (Vrchlabí)
		Digitalisation – how to rescue aging analogue records in schools Modular system of	Secondary School of Civil Engineering, Plzeň (Plzeň) Grammar School
2006	<u>2062P2006</u>	Digitalisation – how to rescue aging analogue records in schools	Secondary School of Civil Engineering, Plzeň (Plzeň) Grammar School (Vrchlabí)

Institutions and their offer of e-learning courses

Institutions and their offer of e-learning courses

Virtual University of Three Faculties of Universities in the Region of Moravia and Silesia

Virtual University of Three Faculties of Universities in the Region of Moravia and Silesia

http://www.virtuniv.cz/

University of Ostrava

Faculty of Science, University of Ostrava, http://www.virtuniv.cz/

Technical University of Ostrava

Faculty of Economics, Technical University of Ostrava, http://www.virtuniv.cz/

http://www.ekf.vsb.cz/studium/dokumenty/univerzita.html

Silesian University in Opava

School of Business and Administration, Silesian University in Opava, http://www.virtuniv.cz/

http://www.virtuniv.cz/

Czech Technical University in Prague

Online support for courses at the Faculty of Electrical Engineering, Czech Technical University in Prague

http://www.comtel.cz/

Charles University, Prague

Online and combined courses at the Faculty of Mathematics and Physics, Charles University, Prague

http://telmae.karlov.mff.cuni.cz/OnlineInfo/courses.nsf

Net-University, s. r. o.

E-learning courses

http://www.net-university.cz

<u>eLabyrint</u>

eLabyrint, a database of e-learning courses, is a project aimed at providing support for education in the Czech Republic. Currently, there are over 150 courses in the database.

http://www.elabyrint.cz/databaze/index1.php

Computer Help

Computer Help offers its customers a wide range of services related to information technology. Its main activities include computer training (full-time and e-learning courses), certification, business services, IT support, and programming.

Details of the electronic courses offered by the company are available on the company's web page. Registered users may view samples of selected courses on the eLearning web pages.

http://www.computerhelp.cz/ekurzy/

GOPAS Computer School

Gopas Computer School offers a number of electronic self-study courses. A sample of a course may be viewed on the company's web page.

http://e-learning.gopas.cz

Hewlett-Packard

HP offers its partners and customers a complex range of services related to electronic education, expert services related to the implementation of e-learning in the company's environment, supplies of e-courses and development of customer-tailored e-courses, services of the HPVC virtual classroom, delivery of the CentraOne virtual classroom, installation of e-learning gateways, and other complex services.

A link to a site with e-learning courses for free (for registered users)

http://www.hp.cz/e-learning/index.php

IBM

IBM is one of the world's leading companies in learning, including both standard teaching in classrooms and state-of-the-art e-learning trends.

The site displays information about complex solutions, individual courses and technology used.

http://www.ibm.com/cz/education

Kontis

Kontis is the exclusive representative of SumTotal, offering its products and services for e-Learning.

The site contains a large amount of free samples of courses.

http://www.e-learn.cz/

PVT Learning Centre

PVT Learning Centre

PVT Learning Centre offers an integrated system of learning consisting of a number of components and modules supporting each other, combined into a complex, highly efficient means for user education. The system consists of electronic online courses, electronic testing, full-time courses and tutored distance learning courses. Due to the integration of various types of courses, a wide range of requirements for learning are covered in an efficient manner.

http://skoleni.pvt.cz/

Sun Microsystems

Details of complex solutions and training courses.

http://www.sun.com/training/

Oracle

Oracle offers complex solutions to the corporate information infrastructure – databases, middleware, business intelligence, corporate applications and corporate cooperation tools, allowing the companies to achieve better results based on reliable information.

www.oracle.cz

Rentel

Rentel provides solutions to a wide spectrum of requirements for distance learning courses using Internet-based and Intranet-based technology, ranging from offering courses via communication networks to a corporate university using communication networks.

www.rentel.cz

Oxygen solutions

As part of its long-term strategy, the company develops products and services focused on the support for elearning of staff.

www.oxygen.cz

Financing of innovative pedagogies

Financing of IVET in the Czech Republic

Regional schools are financed from the central state budget and the founders' budget, i.e. in the case of secondary and tertiary professional schools, from the regional budget and in the case of private and church schools, from the budgets of the private or church founders.

Investment costs and non-investment costs that are not teaching costs are paid from the founders' budgets. This ensures equal conditions for all founders. Direct teaching costs, i.e. salaries and related expenditure, teaching aids, further training for pedagogical staff and activities related to the development of the schools are paid from the schools chapter of the state budget for all schools and educational establishments. The Ministry of Education, Youth and Sports (MŠMT) itemizes the costs and allocates funds to the regional authorities. These then allocate them to those schools that are under their authority and to schools founded by the municipalities.

The MŠMT provides funding to the regions as a product of the number of pupils in individual age brackets and the national norm. Each regional authority establishes and publishes its own collection of standardized non-investment unit costs (i.e. child, pupil, food, accommodation etc.) for individual academic and educational professions, the types and sorts and forms of study in the schools and educational establishments under its authority in accordance with the principles and indicators laid down by the MŠMT. This is based on the long-term strategy of the region. It then allocates finances to the individual schools as a product of the number of pupils and the applicable regional norm.

Church schools and educational establishments are directly financed by the Ministry according to the same principles and to the same extent as schools founded by the Ministry, although the grants do not include financing for the maintenance of buildings that are owned by the founder. The Ministry distributes this money to individual schools and it is transferred each quarter from the ministerial account to the regional authorities, which in turn allocate it to the schools.

Education in public sector secondary schools (initial vocational education and training) is provided free of charge. Families only contribute to tertiary professional training (fees range between 2,500 and 5,000 CZK, depending on the subject).

The system project QUALITY I- the new final examination

The overall intent of the project is to reform the final examination (ZZ), to unify its application in individual occupational educational institutions and to include in it actual requirements from the labour market, with the help of experts from the field. When creating a unified set final examination (JZZZ) for specific occupational education institutions, the team responsible used the assessment standards for complete qualifications. They use this to monitor the links between the content of the ZZ and the qualification requirements for specific vocational qualifications. Before creating a proposed JZZZ, they judge whether the most important competences for the acquisition of a qualification as set out in the assessment standard can be verified under the conditions of the ZZ and establish the manner by which they can be included in some of the individual exams – whether written, practical or oral. To ensure the complexity of the assessment, the final phase of the evaluation (i.e. the ZZ) must relate to the continual evaluation. The proposed new ZZ in ISCED 3C type occupations assumes that those competences that fall under the assessment standards but cannot be verified during the ZZ will be recorded in a pupil portfolio of competences where its acquisition will be confirmed during the course of the training.

Final evaluation of educational results

Technical and vocational education – branches of study completed with an uppersecondary leaving examination

- Studies in special fields of secondary education with a leaving examination and in branches of post-secondary studies and shortened studies for secondary education with a leaving examination are completed with an upper-secondary leaving examination. Pupils who pass the upper-secondary leaving examination achieve the secondary education level with a leaving examination (ISCED 3A or ISCED 4A in the branches of post-secondary education). Pupils may take the upper-secondary leaving examination if they have successfully completed the last year of their studies, within 5 years of completion of their studies (pupils at conservatories may take the leaving examination not earlier than after four years of their studies; those who study dance not earlier than after eight years of their studies).
- The leaving examination is a prerequisite for the pupils being admitted to a university or a post-secondary school. To be admitted to an arts university, pupils only have to pass a graduate examination. After successfully passing these examinations, pupils obtain certificates showing grades, a total assessment of the examination, and a clause confirming the education level achieved. Pupils studying branches of studies completed with a certificate of apprenticeship also obtain a certificate of apprenticeship. No other subjects have so far participated in final, leaving and graduate examinations. However, the amended Education Act provides for two sections of the leaving examination, a common one (government-prescribed) and a profile one (school-based). The school year 2007/2008 will be the first for the pupils to complete their studies with the new type of the leaving examination. In future, final examinations in branches of secondary education with a certificate of apprenticeship should also have a government-prescribed section.

Technical and vocational education – branches of study completed with a certificate of apprenticeship

- Studies in branches of secondary education with a certificate of apprenticeship and in shortened studies for secondary education with a certificate of apprenticeship are completed with a final examination. By passing the final examination, pupils achieve the secondary education level with a certificate of apprenticeship (ISCED 3C or ISCED 4C in post-secondary education). Pupils may take the final examination if they have successfully completed the last year of their studies, within 5 years of completion of their studies.
- With the Quality I Project co-funded with the European Social Fund, new final examinations are introduced in the Czech Republic for three-year curricula. They are based on uniform assignments for a higher quality level and improved comparability of the results. In cooperation with employers, the contents of the examinations should come as close as possible to the needs of the practice.
- A change in the final examinations is urgently needed because the current practice is no longer satisfactory. The schools themselves determine the contents of the examinations, and that is why the demands vary considerably. Therefore, a major change should occur in vocational curricula equal to that occurring in curricula completed with a leaving examination. As a matter of fact, it is individuals with a certificate of apprenticeship who are more frequently affected by unemployment than school-leavers from any other type of secondary school. To a large extent, those

- individuals also do a job that is completely different from the one they were preparing for. Also, the number of pupils leaving elementary schools who want to study a vocational curriculum is gradually declining.
- In the school year 2006/2007, examinations based on uniform assignments will be taken at 207 schools and in 41 curricula. Teachers, employers and experts from the National Institute of Technical and Vocational Education participate in the preparation of the new type of final examination. The latter also provide for the methodological management of the entire project sponsored by the Ministry of Education, Youth and Sports.
- In cooperation with employers, the contents of the final examination should come much closer to the needs of the practice. After the uniform assignments are introduced, there should no longer be pupils leaving the school without having the elementary knowledge and skills in their respective branches, which are necessary for the job. With a more demanding final examination, weak schools will be forced to improve their quality and technical background in order to make sure that their pupils have a better chance of finding a good job.

Uniform examination assignment in practice

- What the schools where the uniform examination assignment was tested in the last school year appreciated the most was higher objectiveness and the possibility to compare their pupils' results with other schools. According the schools, uniform assignments also covered the branch of studies in a more complex manner. The examinations also included questions from the labour world, thus making sure that the pupils were better prepared for the practice. In addition, the schools appreciated that the final examinations were extended by a special practical project in which the pupils had to learn to work with various sources of information. This would lead to the pupils' increased interest and responsibility. Some schools stated that uniform assignments made them update their equipment, while others were considering further education programmes for their teachers. These are exactly the consequences that introduction of uniform assignments is supposed to bring.
- Experts from the practice usually recommended that cooperation between schools and local businesses should be improved. In their opinion, practical training should be taking place in real shops and plants, and the pupils should spend even more hours on it. On the other hands, the teachers were pointing out that curricula with a certificate of apprenticeship were not supposed to prepare the pupils for just a single job. Rather, the pupils should obtain an overall image of their branch of studies to be able to find a job with different employers and to be ready to respond to modernisation and changes taking place in the job market.

Reform of fields of education required

• The preparation of uniform assignments for the final examinations is taking place in a coordinated manner along with the preparation of framework educational programmes (referred to as reform educational programmes, to be introduced gradually to all Czech schools of all types). Besides, the number of curricula has been dramatically reduced. Discussions on the need for a reform have held for years now. Their result should be the definition of 60 more broadly oriented three-year curricula completed with a certificate of apprenticeship. For example, there should only be one curriculum and one framework educational programme for the preparation of electricians, replacing the current curricula for heavy-current electricians and light-current electricians. Similarly, the current curricula for cooks and cooks-waiters for hotel and restaurant services should be replaced by a single curriculum. A single curriculum should also be

- introduced for shop assistants. Teams dealing with these issues have to make sure that the new educational programmes contain all the essential details of the originally separate curricula.
- Due to the personal interconnections among the teams, the principles of the contemplated reform are being implemented even in the preparation of the uniform assignments for the new final examinations. In the following two years, the number of schools and branches of studies will be increasing where the new final examination will be tested. Then it should be prepared for being introduced in all branches of studies providing the secondary education level with a certificate of apprenticeship.

Czech School Inspection

- obtains and analyses information about the education of children, pupils and students, the activities performed by schools and educational facilities entered in the Register of Schools, monitors and assesses the efficiency of the educational system;
- ascertains and evaluates the terms and conditions, the course and the result of education in accordance with the respective educational programmes;
- ascertains and evaluates the performance of the educational programmes and their compliance with legal regulations and the framework educational programme;
- supervises the compliance with the legal regulations applicable to the provision of education and related school services in accordance with a special legal regulation;
- supervises the use of public funds from the state budget in terms of public administration.

Internal school evaluation

Since 2005, the schools are required to perform their own assessment (referred to as "internal evaluation") for one or two schools years.

• Headmasters at elementary, secondary and post-secondary schools have to prepare annual reports on the school's activities during the previous school year. The annual reports are to be submitted to the School Council for approval by 15 October. Once approved, they are to be sent to the founder of the school within 14 days and published on a site at the school that is easy to access.

The school's annual report should always contain the following details:

- the school's identification data (such as the name of the school, its seat, description and founder, details of the school management, its address for remote access, and details of its school council);
- a list of branches in which the school teaches pupils, as entered in the Register of Schools:
- a list of the school staff;
- details of the entrance procedure or registration for compulsory education and the following admission to the school;
- details of the pupils' education results according to the targets defined by the school's
 educational programmes and, depending on the education level provided, the results of
 the final, GCSE and/or graduate examinations;
- details of further education for the pedagogical staff;
- details of the school's activities and presentation in the public;
- detailed results of inspections made by the Czech School Inspection; and
- the elementary details of the school's financial situation and accounting.

The annual reports should be based on the school's internal evaluation. There is a duty to perform the internal evaluation under the Education Act. A regulation then defined a framework structure, the criteria, rules and dates for the internal evaluation.

The internal evaluation should focus on:

- the targets defined by the school itself;
- the assessment to what extent the school manages to meet its targets;
- the school's strengths and weaknesses, including proposed corrective measures; and
- the efficiency of the measures adopted.

The following are the main areas of the internal evaluation:

- conditions for the education:
- the course of the education;
- the support provided by the school to pupils and students, cooperation with parents, and the impact of the relations among the school, the pupils, the parents and other individuals on the education;
- the pupils and students' education results;
- the school's management, the quality of its human resources management, the quality of further training for its pedagogical staff; and
- the level of results achieved by the school, mainly with respect to the conditions for the education and the economic sources available.

The internal evaluation should be the result of a long-term, systematic evaluation and assessment in the areas listed above, rather than a one-off survey of the situation at the school. This is why it may take the whole school year for the schools to conduct their internal evaluation (from discussions on the structure of the internal evaluation in September until the discussion of the report in next October). Virtually all members of the school's pedagogical staff are expected to be involved in the internal evaluation of their own school.