

Background Material for the Preparation of the 2010 Joint Report on the Implementation of the Education and Training 2010 Work Programme

QUESTION No. 1

In what specific ways has your country developed the provision of key competences since 2006? Has it been interconnected with the strategy for life-long learning? Which actors joined in? How have you made use of the European framework and the work of the key competences group? (If possible give specific examples.)

Forms of key competences development since 2006

Requirements for the development of key competences are explicitly formulated in the strategic and curricular documents of the Czech Republic adopted in recent years. We would like to draw attention to the Long Term Intention of Education and the Education System in the Czech Republic¹, which sets out orientation towards the development of key competences as one of the strategic directions of curriculum reform underway. In January 2005 the new Education Act came into effect², introducing a two stage creation of curriculum based on the creation of framework education programmes (FEP) for all types and stages of initial education, and school education programmes (SEP). Similarly as in the FEP for preschool, basic and secondary general education, the concept of key competences is defined in the common part of the FEP of initial training.

FEPs for initial vocational education (at the ISCED 3 C and ISCED 3A levels), are drafted for individual vocational subjects (courses) incorporated in the new system of vocational education courses (subjects). To each subject (course) one FEP is assigned (For each course (subject) there is one FEP). In the years 2007-2008 143 FEPs were created in the Czech Republic by specialists from the National Institute of Vocational Training (NÚOV), representatives of social partners from the labour field (associations, employers' unions, the Economic Chamber of the CR) and representatives of technical and vocational schools within the framework of activities of the National Institute of Vocational Education (NIVE) field groups.

Interconnectedness of Requirements for the Development of Key Competences with the Strategy of Lifelong Learning.

In 2007 the Ministry of Education, Youth and Sports of the Czech Republic (MEYS) issued a document entitled the Strategy of Lifelong Learning in the Czech Republic.³ It is a strategic document, a comprehensive concept of lifelong learning in the area of initial, general and vocational education and training, as well as in tertiary and further education. In accordance

¹ Long-term Intention of Education and the Development of the Education System of the Czech Republic (Ministry of Education Youth and Sport of the Czech Republic – MEYS, 2007).

² Act No.561/2004 Coll. on pre-primary, basic, secondary, higher vocational and further education (the Education Act).

³ Strategy of Lifelong Learning, MEYS, CR, Prague 2007.

with the objectives of the EU Lisbon Strategy, it aims to protect initiatives targeted at the development of lifelong learning in the Czech Republic in the period of 2007-2015. Requirements for the development of key competences in initial education, as an inseparable part of lifelong learning, are laid down in the main strategic direction of lifelong learning - "functional literacy".

Proposed measures in this sphere include the following points targeted at key competences development:

"To support curricular reform with an emphasis on increasing pupils' functional literacy

– to provide material and methodological assistance to schools and teachers in the creation of new school educational programmes oriented towards disseminating innovative teaching strategies (e.g. project teaching, mock companies, student companies etc.) which would develop motivation for lifelong learning and provide opportunities for pupils to develop key competences (communication, team work, problem solving) thus enabling them to act adequately and efficiently in various real-life situations ;

- to support the establishment and development of an effective system of monitoring and ascertaining learning outcomes with a focus on key competences, which would enable both teachers and students to get feed-back about the quality of their work;

- to ensure that teachers receive support services facilitating this type of instruction and assistance with its implementation (e.g. teaching aids);

- to reform initial and support further education of teachers, which would help to change teachers' instruction stereotypes so that they would be able to work with groups of young and adult students motivated or gifted to a different degree;

- to support curricular reform politically and through the media ;

- to support pupils' and teachers' education in ICT and foreign languages in line with the concept of key competences, meaning with an emphasis on practical utilization, including support for building necessary infrastructure" ⁴

To follow up this document the Ministry of Education, Sports and Youth, in collaboration with the Economic Chamber, representatives of employers, employees and educational experts drafted the Implementation Plan of Lifelong Learning Strategy ⁵, You can find more about this Plan under Question No. 9 on page 17.??

Making use of the European Reference Framework for Key Competences in Lifelong Learning – a Specific Example

In connection with the origin of the Recommendations of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning ⁶, which include the European Reference Framework of Key Competences for Lifelong Learning (European Framework), the National Institute of Vocational Education (NIVE) reviewed the existing

⁴ Strategy of Lifelong Learning , MEYS CR , Prague 2007, p. 58

⁵ Implementation Plan of Lifelong Learning Strategy , MEYS CR, Prague2008.

⁶ Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning, 2006/962/EC

concept of key competences in the FEP of initial (secondary) vocational education and innovated it. With this innovation the NIVE intended to bring the concept of key competences with its definition in the European reference framework into greater harmony and also to achieve a higher degree of interconnectedness with its definition in the FEP of basic education.

As of 2007 the concept of key competences in the FEP for secondary vocational education ⁷ (ISCED 3C a ISCED 3A) includes a formal breakdown of competences into 8 domains: learning to learn competences, problem solving competences, communication competences, personal and social competences, civic and cultural awareness, sense of initiative (fulfilment in the labour market) and entrepreneurship competences, mathematical competences, competences to use ICT and work with information. In their content these competences, are also similar to the domains of competences defined in the European framework.

To support the orientation of education towards key competences, several ESF projects (Pilot Z, Pilot G, Methodology I) have been implemented. Additionally, more are being implemented now – Curriculum G, Methodology II – and there are projects under preparation: Teacher’s support–Key. All these projects have been and are being conducted by the Pedagogical Research Institute. The fact that the Czech Republic participated in the work group of the European Commission Cluster B “Key Competences and Curriculum Reform” influenced the orientation of the latter project to a great extent.

Question No. 2

Describe briefly how each of the eight key competences (communication in the mother tongue, communication in foreign languages, mathematical competence and basic competences in science and technology, digital competence, social and civic competences, learning to learn, sense of initiative and cultural awareness and expression) are incorporated i) into the national framework syllabi (or an equivalent document, e.g at regional level) for general education and ii) for vocational education and training.

The Way in which Key Competences are Incorporated into the FEP of Initial Vocational Education

1. The Overall Concept of the FEP

The overall concept of education in the FEP, oriented towards acquiring competences as expected learning outcomes, is markedly activity-based. It represents a major shift from the traditional concept of reproductive learning based primarily on memorizing a quantity of mostly encyclopaedically oriented knowledge imparted to pupils through common frontal instruction. In school educational programmes, schools consequently state in which specific ways key competences will be developed (through schools’ joint educational strategies, innovative methods and forms of instruction, interest activities, school-wide activities implemented e.g. within the framework of various projects or study stays and cooperation with employers). From the perspective of key competences development it is essential that the overall FEP concept of initial (secondary) vocational education emphasizes the

⁷ The first group of framework educational programmes for the educational area of secondary vocational education and training was issued by the MEYS on 28 June 2007, Ref. No, 12 698/2007-23.

significance of general education for pupils and its preparatory function for vocational training. General education is a significant part of the FEP and its promotion throughout the whole course of study forms a solid basis for lifelong learning and for pupils' adaptability to changing life and work conditions. From here the concept of educational content in the FEP unfolds; it is divided not according to subjects but according to the following educational areas: language education and communication, social science education, natural sciences education, mathematical education, aesthetical education, ICT education, economic education and vocational education. While working on their school educational programmes, schools can functionally interconnect general and vocational education content in the syllabi of educational subjects or educational modules. Each FEP also includes cross-curriculum topics, whose incorporation into education (again mainly through innovative educational methods and other educational activities) is oriented towards the development of such competences as are expressed in the framework of key competences. These include the following cross-curriculum themes: the Citizen in a democratic society (e.g social and personal competences, civic competences and cultural awareness), Man and the environment (e.g problem solving competences), Man and the world of work (e.g work fulfilment competences and entrepreneurship activities), information and communication technologies (e.g. competences to use ICT and work with information).

General education and its functional interconnectedness with vocational education, as well as requirements for implementing cross-curriculum topics, are oriented towards a systematic development of key competences.

2. Incorporation of Individual Key Competences into the FEP of Initial Vocational Education (table)

Individual competences blend and overlap. They can be developed through general and vocational education, and in theoretical and practical instruction, but also through various other activities that complement instruction in which pupils actively participate. This concept of key competences implies that each competence can be basically developed in all designated educational areas when cross-curriculum topics are implemented and especially when innovative educational methods are applied. The table only tentatively states (through underlining) which of the educational areas stipulated in the FEP are related directly to the development of the given key competence; other areas and elements which are significantly related to it are marked with *italics*.

Key Competence	General Education (basic, lower and general higher secondary education)	Vocational Education and Training
Communication in the Mother Tongue	Czech language is one of the obligatory educational areas in basic and secondary education. Emphasis is put not only on understanding language structure but mainly on its practical usage in various situations. Developing reading literacy plays an important role. Curriculum also includes key	<u>Education and communication in the Czech language</u> <u>Vocational education – interconnectedness between theory and practice</u> <i>Social Science Education</i> <i>Aesthetical Education</i> <i>Health Education</i> ICT Education Implementation of Cross-

	communication competences which also figure as key skills. To achieve them a good knowledge of the mother tongue is essential.	<i>Curriculum Topics</i> <i>Innovative Methods and Forms of Education</i>
Communication in Foreign Languages	Foreign language is one of the obligatory subjects in basic and secondary education. The European Reference Framework is consistently followed. At the minimum two foreign languages are to be gradually introduced in instruction. Curriculum also includes key communication competences which additionally figure as goal objectives and a good knowledge of a foreign language is essential for their achievement.	<u>Education in Foreign Languages</u> ⁸ <u>Vocational Education – Interconnectedness between Theory and Practice</u> <i>Education in ICT</i> <i>Implementation of Cross-curriculum Themes</i> <i>Innovative Methods and Forms of Education</i>
Mathematical Competence and Competences in the Fields of Science and Technology	Mathematics is one of the obligatory subjects in basic and secondary education. In basic and secondary education science and technology are represented as individual subjects: physics, chemistry, natural history (biology), geography, (geology), ICT. We strive to teach these subjects with an emphasis on their applicability and we would like to reinforce this trend in the future and make mathematics and natural sciences more activity- and experiment- based, targeting them more practically and shifting them from the subject	<u>Mathematical Education</u> <u>Vocational Education – Interconnectedness Between Theory and Practice</u> <i>Education in Natural Sciences</i> <i>Economic Education</i> <i>Implementation of Cross-curriculum themes</i> <i>Innovative Methods and Forms of Education</i>

⁸ Framework requirements for foreign language instruction for individual educational levels were defined with the use of the Common European Reference Framework for Languages

	<p>concept to the competence concept. At present the curriculum for basic and secondary general education contains independent “Key Problem-solving Competences” and the documents concurrently appeal to users to orient instruction in mathematics and natural sciences towards these competences at all stages of the preparation of school curricula.</p>	
Digital Competences	<p>“Information and Communications Technology” is one of the obligatory subjects in basic and secondary education. It is either an independent subject incorporated in basic and secondary school education or its educational content is integrated into the educational contents of other subjects or into key competences. The manner and extent of integration depends on an individual school. At the same time schools can include work with other digital apparatuses (such as cameras and others) in the subject: Man and the Working World</p>	<p><u>Education in Information and Communication Technologies Vocational Education – Interconnectedness between Theory and Practice</u></p> <p><i>All educational areas</i></p> <p><u>Implementaion of Cross-curriculum themes</u></p> <p><i>Innovative Methods and Forms of Education</i></p>
Learning to Learn	<p>Curricula for basic and secondary education define independent key competences – “Learning to learn”. We strive to equip pupils with specific skills which would facilitate each individual’s learning.</p>	<p><u>All educational areas – Modernization and Innovation of Instruction</u></p>

<p>Social and Civic Competences</p>		<p>Social Science Education</p> <p>Vocational Education</p> <p>Aesthetical Education</p> <p>Health Education</p> <p><i><u>Implementaion of Cross-curriculum themes</u></i></p> <p><i><u>Innovative Methods and Forms of Education</u></i></p>
<p>Sense for Initiative and Entrepreneurship kavost</p>	<p>Curriculum for basic education develops entrepreneurship on the basis of the general development of pupils' activity. It relates specifically to "competence at work" and some themes of Education towards Citizenship. Curriculum for grammar schools contains an independent section devoted to "Competences for entrepreneurship."</p>	<p><u>Economic education</u></p> <p><u>Vocational education</u></p> <p><i>Mathematical educatopní</i></p> <p><i>Implementaion of cross-curricular themes</i></p> <p><i>Innovative methods and forms of education</i></p>
<p>Cultural awareness and expression</p>	<p>Cultural awareness and expression blends with basic and secondary general education in many subjects "Art and Culture", "History", "Education towards Citizenship". The emphasis is not only on knowledge about culture but mainly on practical learning of the history and present condition of culture and cultural relations. An independent cross-curricular theme is incorporated: – „Multicultural Education“. Cross-curricular themes are practically oriented curriculum parts which form thematic frameworks for work with pupils' attitudes and values.</p>	<p><u>Social sciences education</u></p> <p><i>Implementation of cross-curricular themes. Innovative mthods and forms of education.</i></p>

The Recommendation states that the Member States should develop the provision of key competences with the aim to ensure that „initial education and training offers all young people the means to develop the key competences to a level that equips them for adult life, and which forms a basis for further learning and working life“. It also calls for appropriate provision to be made for those young people who, due to educational disadvantages caused by personal, social, cultural or economic circumstances, need particular support to fulfil their educational potential“.

QUESTION No. 3

With what means (e.g study materials or education support) does your country strive to aid schools and teachers in ensuring that *all* young people finishing their initial education and vocational training (including those who are disadvantaged in education) will develop these abilities to the level needed for practical adult life.

In the Further Education for Educators programmes the National Institute for Further Education (NIFE) provides support to teachers at schools of all types and levels. mainly through further education oriented towards the development of each pupil's skills and his/her personality development with regard to his/her individual needs..

Last but not least the NIFE prepares educational programmes with the theme: Work with Children and Pupils from Diverse Socio-Cultural Environments (e.g. educational programmes called "Equality of chances in the education of pre-school and young school-age children" , "Development of Communication Skills of Children Endangered with a Social Cultural Handicap", or "Romany child in Czech school"). A two-semester qualification "Course for Teaching Assistants" plays a significant role in the education of children, pupils and students with special educational needs, especially in the development of their key competences. The graduates of this course attain the qualification of teaching assistants in schools and school establishments. and among other things gain necessary communication skills and knowledge related to the integration of socially disadvantaged pupils and those with health impairment.

Provision of methodological assistance to vocational schools in the creation and implementation of FEPs.

In the field of initial vocational education the creation of school educational programmes is in an early stage because the first FEPs were issued by the MEYS in 2007 and vocational schools are obliged to start education under the respective FEP within two years of its publication⁹

In the period of 2005 to 2008 the incorporation of key competences into school educational programmes had been methodologically supported within the framework of the implementation of the Pilot S Creation systemic project and the verification of pilot school educational programmes in selected secondary vocational schools (SVS) and secondary

⁹ Act No. . 561/2004 Coll.. on pre-primary, basic, secondary, secondary vocational and further education (Education Act).

vocational apprentice schools (SVAS).¹⁰ In the course of the project the pilot schools were provided with direct methodological assistance from the National Institute of Vocational Education (NIVE) workers which was oriented among other things towards clarifying key competences issues, elaborating them in FEPs, formulating schools' educational strategies oriented towards the development of key competences. and incorporating them into the syllabi of individual subjects or educational modules. Experience from the given areas was published in the Methodology of the Creation of School Educational Programmes for SVS and SVAS (NIVE, 2007).¹¹ Other methodological materials include the Handbook of Good Practices¹² by ??(for) teachers from secondary vocational schools and secondary vocational apprentice schools joined in the Pilot S project (NIVE 2008), which includes among others examples of non-traditional methods and forms used directly in instruction or activities complementing instruction and directed at the development of key competences.

QUESTION No. 4

What progress has been made by your country in regard to ensuring opportunities for all adults to develop and update their key competences?

At present preparations of the projects which will clearly influence the development of key competences of the Czech adult population have started. These are the following:

1. Schools' transformation into centres of lifelong learning

In view of an expected decrease in pupil numbers it is necessary to transform schools into local centres of lifelong learning. Their mission is to offer counselling services connected with increasing or enhancing citizens' qualifications and key competences. One of the basic goals is to teach adults to learn all life long. Meeting these tasks will be one of the key activities of the UNIV 2 project (Recognition of Non-Formal and Informal Learning Outcomes Project) implemented within: the Education for Competitiveness Operational Programme (OP VK), which will also support the system of validation and recognition (e.g. publicity campaigns, preparation of educational programmes etc.

.2. Support of citizens' individual education – SCIE

Support of the development of lifelong learning in the Czech Republic will be implemented in the Support of Citizens' Individual Education – SCIE (over 4 billion Czech crowns from OP VK. This project creates the infrastructure of funds allocation?? in the form of citizens' nonreturnable financial contribution. It is aimed at supporting demand for further education in the CR in the form of support for individual further learning in the field of general and vocational competences especially in the field of language skills, ICT and support of entrepreneurship skills. The project will enhance the quality of key competences of Czech citizens and reinforce individuals' active attitude to and motivation for further education. It is expected to be launched in 2009

¹⁰ Creation and verification of pilot SEP in selected SVAS and SVS – PILOT S, a MEYS Systemic Project implemented within the framework of the Development of human resources provision. The project was co-financed by the EU and the Czech government. Implementation in the period: May 2005 to November 2008.

¹¹ Methodology of the creation of school educational programmes SVS and SVAS. NIVE, Prague 2007.

¹² Handbook of good practices, NIVE, Prague 2008.

Question No. 4 a)

Are there specific target groups of adults at the present time, if so, which are they? Have any special measures been introduced for them, if so, which are they?

From the perspective of further learning increased attention is paid nowadays to several specific target groups. In the first place these are the unemployed and people with low qualifications who can take and complete a requalification course. Retraining is financed from the state budget from the so-called Active Employability Policy aimed at increasing competitiveness in the labour market and achieving better employability. Other groups with particular focus on are people threatened by poverty i.e. specific target groups – minority social groups, people threatened with losing their jobs, people and social groups threatened with social exclusion, marginalization etc. These are the social groups that share many common attributes with the above mentioned group. To support this group a number of measures related to further learning were formulated within the framework of the European Year of Struggle against Poverty and Social exclusion (2010). Other special measures are devoted to older people (especially those of prior- retirement age) within the framework of the National Programme of the Preparation for Aging for the years 2008 to 2012. Even in this case emphasis is put on key competences development from the perspective of increasing older people's employability but also the quality of their personal lives.

Question No. 4.b

What data related to the participation of adults (and of any target groups of adults identified as priorities) in the education designed to develop their key competences are available at national level?

The key indicator for the field of further learning in the CR is represented by the rate participation of the adult population in this type of education. At the present time the situation in the CR is not fully satisfactory when compared with other EU Member States. The only regular indicator of the rate of adults' participation in further education is the EU "Lifelong Learning – Percentage of the population aged 25-64 participating in education and training" survey. Lifelong learning is related to adult individuals aged 25-64 who stated that they had participated in education and training in the course of four weeks prior the EU Labour Force Survey. This is also the source of the collected data on any education or training related or not related to the respondent's contemporary or future job (employment).

Last year (2008) the Eurostat (and in the Czech Republic the Czech Statistical Office, with the support of the MEYS) undertook the so-called Adult Education Survey (AES): a large-scale survey mapping the situation in adult education, including the development of key competences. The data have already been processed and after their approval by the Eurostat they will be available for the public in the second half of 2009.

Question No. 4.c

How do representatives of other fields of political life, social partners and other stakeholders cooperate in the creation of the adult education concept?

Cooperation is conducted at inter-ministry level. As for the field of further education (the key competences field) the most significant cooperation is with the Ministry of Labour and Social Affairs. Last December an inter-ministry work group was set up with the aim to resolve the definition of competences and the level of cooperation between the two ministries. It focused on identifying possibly overlapping as well as not entirely covered areas of further learning, distribution in the field of further education and the definition of purview for individual activities, which also means activities related to the key competences area. The MEYS also cooperates with other social partners. This cooperation is mainly established with Sector Councils that share in the content implementation of the National Qualifications System. Representatives of social partners are also members of the MEYS advisory body, the National Council for Qualifications and its work groups, where the Ministry's conceptual intentions in the field of further education are dealt with.

QUESTION No. 5

How did the syllabi, definition of requirements for teachers' skills or equivalent instructions for a) initial education and b) ongoing professional training of teachers develop with regard to the aim to ensure that teachers are equipped to implement a skills-based approach (i.e. the teacher as a the co-author or mediator of learning, team instruction, cooperation between teachers and parents, participation in a school's development, techniques of formative evaluation and independently managed professional development)? Have any specific measures concerning teachers and trainers in vocational education and training been accepted?

During the course of their pedagogical profession educators are obliged to undergo further education through which they renew, strengthen and complement their qualifications. They can also participate in further education to enhance their qualifications. Increasing qualifications is also understood as obtaining or expanding them. Further education of educators is organized by the school's principal according to the plan of further education and takes place at universities, at teachers' further education establishments and other establishments accredited by the Ministry of Education, Youth and Sports. Educators can also educate themselves through self-study. For this type of education the educator is entitled to 12 working days off in a school year.

The MEYS accredits educational programmes focused on further education of educators. So far it has accredited 90 educational programmes with key competences content.

At the present time the MEYS is working on the teaching profession's quality standards and the OECD countries have also been searching for a properly formulated standard, which would serve as an instrument for evaluating the quality of a teacher's performance. The

standard should more clearly define requirements for teachers' education at colleges (universities), create a functional system for their further education and also make it possible to base a teacher's salary more closely on the quality of his/her work (renumeration through bonuses, incentive payment etc.-).

The standard should serve to clarify how the concept of the profession should change (in respect of a teacher's role and key professional competences), and how teachers should be educated to master the requirements connected with a substantial change in goals, content and methods of schooling. All of this therefore equates to the high-quality performance of the teaching profession from the perspective of present-day and prospective requirements, not only in the domestic but also the international context. It aids in understanding how the concept of a teacher's quality changes within the professional community, among politicians and the broad public. This is a competence model defining, for example, interpersonal, pedagogical, didactic, organizational, team, environmental and evaluation competences.

The MEYS has already drafted the standard's framework, and has submitted it for wider expert, public discussion on its website. The standard should be completed in a binding form (i.e. also as legislation) within two years.

One of the most significant educational activities is the "Coordinator of SEP" qualification study, preparing graduates for a new role in school - as coordinators of joint conceptual work on educational content based on the defined FEP and the school's and community's specific conditions. With around 250 hours of instruction, this course teaches coordinators how to intersect individual themes, helps them complete practice and exchange experience, and provides methodological support for their work in the creation, management and development of sustainability of SEPs.

Within the projects of the ESF Education for Competitiveness operational programme, the NIVE shares in implementing the Coordinator S1 individual national project, which responds to introducing curricular reform into secondary vocational schools. It is aimed at underpinning competences of supervisors and coordinators and preparing them to introduce SEP in SVS and SAS (secondary apprentice schools). A significant educational programme supporting the creation and introduction of SEP in SVS and SAS is represented by the "Key Competences in Vocational Education and their Implementation in Schools" methodological seminar.

QUESTION No. 6

What approaches (including new ways of organizing learning) are applied in your country with the aim of supporting the acquisition of cross-curricular key competences in general education (basic, lower and general higher secondary education), in vocational education and training, in adult education and teachers' training (this relates especially to the learning to learn ability, social and civic competences, sense for initiative and entrepreneurship and cultural awareness and expression)? You may refer to question 2 related to the syllabi.

An initiative has been developed to impart new knowledge and skills in the given key competences to teachers in the form of further training, consultations with experienced teachers in schools, through the methodological portal etc. However, no approach has yet been monitored or developed on a large scale nationwide. Even the Czech School Inspectorate in their scrutiny has up to now paid attention to the formal aspect of drafting new school

curricula, rather than to the process aspect of instruction - namely, to what is happening in classes.

The NIVE has been also preparing educational programmes that equip educators with skills that will aid in forming pupils' key competences as defined in the individual FEP in all subjects taught. Equally they acquire skills to teach the basics of collaboration, e.g in project instruction.

General Education in Secondary Schools

To support the acquisition of cross-curricular key competences in general education, an initiative is being developed to impart new knowledge and skills in the given key competences to teachers in the form of further training, consultations with experienced teachers in schools, through the methodological portal, etc. However, teachers' training colleges do not support their students – future teachers – sufficiently enough.

Vocational Education in Secondary Schools

1. Innovative Educational and Training Methods

These are autodidactic methods of instruction, (meaning teaching pupils self-directed learning and work techniques). These include pupils undertaking more demanding, independent work, learning in real-life situations, problem learning, team work, social communicative aspects of learning and instruction (namely verbal methods based on dialogue) – these particularly include discussions, panel discussions brainstorming, brainwriting – methods of activity-based instruction, such as pupils' practical work of an application and a heuristic type (which means learning based on individual observation and discovery). Great emphasis is put on motivation factors, including plays, contests and simulation and situation methods in instruction, such as conflict simulation and resolution, sociodrama, public presentation of pupils' work etc.

2. New Ways to Organize Learning

Recommendations set out in the FEP also emphasize the need to incorporate those organizational forms of instruction which are outside common (frontal) instruction in the system of instructional lessons. These include for example integrated teaching units – cumulative theory, cumulative practice, teaching blocks, teaching in various environments, courses, field-trips, cooperative small-group instruction and individualized instruction. There is also a focus on the manner of implementing project-based instruction, which means project weeks, field-trips, contests and other educational activities and school activities related to education based on a given FEP.

With regard to autonomous education, schools choose methodological approaches and organizational forms of education at their discretion, evaluate their efficiency and consequently modify them on the basis of their teachers' experience. It is assumed that information about the approaches taken by schools in developing pupils' key competences will be introduced in each vocational school's SEP within the process of its creation and implementation.

3. The Overall Character of the School's Work

The school's orientation towards developing key competences is also reflected in the overall character of the school's work and in the various initiatives which should be presented in the characteristics of the SEP. This concerns, for example:

- creating a favourable and stimulative school atmosphere, applying common educational approaches to pupils ,
- opening up schools: promoting various fields of cooperation between schools and social partners – especially employers – in mediating work experiences for students in companies, collaborating with employment agencies in finding jobs for graduates, collaborating with students' parents, collaborating with other schools (e.g. abroad)
- ensuring teaching materials and technological equipment for schools (such as ICT equipment and its availability for students, materials for foreign language instruction and for the implementation of hands-on training),
- developing further school activities, establishing mock or other student companies, implementing a wide range of interest activities, participating in various projects, national and international contests etc.

In general we can say that the formulation of key competences is included in the FEPs and just like all the programmes, was continuously discussed with representatives of employers from those qualification fields which the individual FEPs relate to. The above-mentioned competences are correspondingly developed in the field of adult education. Some of these competences can be developed in independent courses (communication competences – courses on foreign languages, the mother tongue, development of communication skills, work with ICT; courses targeted at developing basic personal computer skills or at passing one of the modules of the ECDL test.) In the requalification field there are so-called non-specific requalifications aimed at supporting the development of the participant's personal and social competences, as well as at enhancing civic competences, cultural awareness and competences in job search skills and entrepreneurship. In a number of cases, however, the development of cross-curricular key competences is part of the courses primarily targeted at the acquisition or updating of certain professional skills and knowledge. Adult education courses held at schools also comprise elective modules to support the development of some competences (such as ICT, communication, mathematical competences and others).

Higher Vocational Education in Higher Vocational Schools (HVS)

In HVS, cross-curriculum key competences are acquired through various didactic methods and approaches. These are, among others, self-directed learning, e-learning, correspondence and distance learning courses.

QUESTION No. 7

How are summative and formative assessments used¹³ to help pupils/students to acquire key competences including “cross-curriculum” competences? Describe the current approach applied in your country¹⁴.

In the CR basic and grammar schools still prefer summative assessment. The pupils' academic results are mainly assessed in individual subjects, at mid-term and at the end of the school year. However, the trend to use assessment to motivate students and encourage their activity has been growing. Verbal assessment, student self-assessment, feedback assessment, work with personal student portfolios etc. have been expanding. Key competences represent quite a new element in general education in the CR. Most schools are only now learning to develop and assess key competences.

Basic approaches to assessment are set out in valid legislation: Act No. 561/2004 Coll. on pre-primary, basic, secondary, higher vocational and further education. Data on the course and results of school education are part of schools' obligatory documentation – the school register. As to the field of vocational education, methods of continuous and final assessment of pupils/students are stipulated by implementary regulations: Decree No. 13/2005 Coll. on secondary education and education in conservatories, Decree No. 47/2005 Coll. on completing education in conservatories. Within the framework of meeting the education reform objectives, schools are also offered the possibility to use verbal assessment in addition to the traditional assessment on a five-point grading scale a) 1 – excellent, b) 2- above average, c) 3 – average, d) 4 – minimum passing grade, e) 5 – failing grade. When verbal assessment is used the pupil's learning outcomes are described in such a way that the level of his/her educational achievement in relation to the set educational goals, personality characteristics and educational prerequisites should be obvious. The pupil's conduct is also assessed, that is in day classes, by grades a) 1- very good, b) 2- satisfactory, c) 3 – unsatisfactory. The pupil's overall assessment is expressed on a school report by grades a) passed with first class honours (if academic achievement in individual subjects is not worse than than grade 2 and average achievement in obligatory subjects is up to 1.5), b) passed, c) failed (if he/she is assessed in one of the obligatory subjects as grade 5).

As to formative assessment related to the development of students' key competences, under the ESF Pilot S systemic project a new material Evaluation of SEP for secondary vocational schools 15 (NIVE, 2006) was created with methodological recommendations to apply formative assessment. The material is available on the NIVE website. Vocational schools can now make use of a broad scale of standardized tests (cca 80-90) created by relevant experts. They are accessible to schools through the Psychodiagnostika Bratislava joint-stock company.

¹³ Summative assessment is generally given at the end of a certain stage of study or after its completion. It summarizes pupils' development at a particular point in time. Summative assessment is also described as „learning outcomes assessment“ Formative assessment is understood (meant) to be the assessment of progression the student achieves in the course of study. Its main aim is to ascertain educational needs and adjust instruction and learning to them. Formative assessment is described as „assessment for the sake of learning“.

¹⁴ We emphasize that?? Eurydice has been collecting information for the study „National Testing of Pupils in Europe at ISCED Levels 1 and 2“ through your national Eurydice units <http://eacea.ec.europa.eu/portal/page/portal/Eurydice/ContactUs>. In the answer to the question No. 7 focus please on your approaches and policies or give reference to information provided by Eurydice.

The tests are of various types and some of them are indirectly connected to key competences assessment as they support assessment and self-assessment individualization processes. They are targeted either at the pupil as an individual (his/her performance, personality, self-assessment), or at the class as a whole, or the school environment and so on. Their selection is mostly dependent on the intended purpose and on the school psychologist's individual decision. For example, they have the form of a sociometric rating questionnaire, a self-assessment of one's own abilities, skills and interests questionnaire and questionnaires targeted at diagnosing classroom relationships, such as Questionnaires B3 and B4 (Braun) etc.

Projects targeted at evaluation were part of the Human Resources Development Operational Programme that has been implemented in the Czech Republic. At present the benefits of the implemented projects are being evaluated and other projects are expected to continue in the Operational Programme: Education for Competitiveness. .

In the field of secondary education, within the framework of summative assessment, major activities are being conducted in relation to implementing the lower-secondary final exam and upper-secondary school-leaving exam. In the field of basic education, preparations are continuing on projects related to assessment in the 5th and 9th grades. It is expected that in the forthcoming period summative assessment outcomes (both from basic and secondary education) can be used as part of the admission procedure.

QUESTION No. 8

How does your country evaluate – at national and/or regional level – education and training system outcomes from the perspective of key competences? How are the data utilized in policy development?

To objectively assess the existing level of key competences among pupils of general, initial education, the Czech Republic has at its disposal the results of some international comparative surveys:

Since 1995 the CR has been a member of the IEA – International Association for the Evaluation of Educational Achievement. Under its leadership several international surveys have been conducted in this country (e.g. RLS, TIMSS, CivEd, Sites, PIRLS). Only in recent years have surveys shifted to a great extent from assessment targeted at pupils' knowledge corresponding to the school syllabi, to the concept of broader competences and skills for life, corresponding to the concept of key competences.

Indicators used in the development of educational policy are principally acquired within the framework implementing the OECD Programme for International Student Assessment. (PISA) PISA surveys, repeated in three-year cycles, explore the level of reading, mathematical and scientific literacy of 15-year-old students. The first cycle was conducted in 2000, while the last cycle, which mainly focused on scientific literacy, was conducted in 2006.

As to the other major domain of the PISA survey – mathematical literacy – it is a relatively specific and narrower competence than reading literacy; the Czech students' results in this domain/discipline were above the international average in 2003. Another 2006 survey presents learning outcomes in natural science literacy.

State and public administration bodies have at their disposal aggregate outcomes of summative assessment of students in a given region compared with average outcomes of

students in the Czech Republic. Part of the analysis results is the discovery and evaluation of factors that can influence students' achievement. The results of the education survey are also used in the preparation of conceptual materials especially the Long-Term Intention of Education and the Development of the Education System in the Czech Republic and the Strategy of Lifelong Learning that offer measures targeted at improving key competences in initial and further learning.

QUESTION No. 9

What progress has been achieved by your country in the development and implementation of a cohesive and coherent strategy of life-long learning (including the development of national qualifications frameworks interconnected with the European qualifications framework and systems for the validation of non-formal and informal learning, as well as approaches based on learning outcomes)?

In its resolution No. 761/2007 the government of the Czech Republic approved the Strategy of Lifelong Learning document, aimed at ensuring initiatives targeted at the development of lifelong learning in the years 2007-2015 in accordance with the objectives of the EU Lisbon Strategy. Strategy of Lifelong Learning in the Czech Republic is a fundamental document for other cross-curriculum and partial concepts and policies in this field and represents a coherent concept of lifelong learning. The ambition is to set goals which should be achieved gradually and which could be supported, among others, by European funding. The benefits of the Strategy of Lifelong Learning in the Czech Republic lie mainly in interconnecting partial aspects mentioned in individual documents into a coherent concept of lifelong learning and then in striving to interconnect the efforts of all stakeholders in the implementation of the lifelong learning concept. Based on an analysis of the present condition of lifelong learning development in the CR and its individual segments (initial general and vocational, tertiary and further education) its basic strategic developmental directions are defined to be primarily supported. Furthermore, the strategic directions take the form of specific measures with a view to the relevant ESF operational programmes.

With its resolution No. 8/2009 the Czech government approved the Implementation Plan of this document that transposed general objectives of this "Strategy" into the specific measures that need to be undertaken, including a framework timetable for solutions and individual ministries' competences for the given implemented measures. The umbrella administrator of this implementation plan is the MEYS.

At present (April 2009) the MEYS has undertaken steps leading to the Implementation Plan's actual realization. Individual partial steps undertaken: :

- a) setting up management bodies of the Implementation Plan and their organizational structure (including the inter-ministerial bodies)
- b) definitive redistribution of work teams for the implementation of each specific measure that is at the level of individual departments and other organizations under the direct purview of the MEYS,
- c) timetable for solutions to individual measures,
- d) establishing control mechanisms for the Implementation Plan's realization,
- e) implementation of some measures has been initiated.

The “Implementation Plan of the Strategy of Lifelong Learning” represents the approach, organization, accountability, timetable and funding for works leading to the implementation of the Strategy of Lifelong Learning. Most of the proposed measures are expected to be funded from the ESF operational programmes; the most significant role in this respect is played by the Education for Competitiveness Operational Programme (MEYS). It is envisaged that minor costs for some measures, which are not part of the projects covered from ESF, will be funded through the state budget. **The NQS (National Qualifications System) Project** supporting interconnectedness between initial and further education was implemented in the years 2005-08 from ESF funds and the state budget of the Czech Republic within the framework of the Development of Human Resources OP. It was based on broad cooperation between the education sphere and the world of work, especially in relation to the concept of the whole NQS architecture, meeting the NQS for the level of lower qualifications (up to the level corresponding to secondary education with apprenticeship certificate, ISCED 3C) and the NQS information system. All project objectives have been fulfilled through the following conceptual, methodological and implementation outputs:

Main conceptual outputs:

- Proposal of the NQS concept, structure and processes,
- Proposal of the vocational abilities evaluation system,
- Model of sector councils,
- Study on problems of credit transferability in relation to the NQF.

Main methodological outputs:

- Methodology for defining and creating qualification standards, including the specific version just for partial qualifications designed for external authors,??
- Methodology for creating assessment standards including the specific version designed for external authors,
- Methodology for creating educational modules for partial qualifications (created in cooperation with the RNIL (Recognition of Non-Formal and Informal Learning) systemic project).

Main implementation outputs:

- 115 qualification standards for complete qualifications (vocational education subjects of category H – more demanding worker occupations and category E – less demanding worker occupations),
- 339 qualification standards for partial qualifications recognizable in the labour market,
- 339 assessment standards for partial qualifications,
- 32 educational modules applicable for further education targeted at achieving partial qualifications in the NQS,
- the NQS information system available on the internet .

Another added value (besides the project’s planned goals) is the establishment and practical application of processes of negotiation, evaluation and adjustment of standards in sector councils including cooperation in setting up the first sector councils (on 1 January 2007 the competence to set up sector councils was transferred from the NQS project to the National System of Occupations, publicly procured by the Ministry of Labour and Social Affairs).

Thus standards processes have become more complex than originally planned, but this path ensures that qualifications correspond to employers' requirements and are accepted by employers' representatives. Concurrently, a viable system with the given rules and the necessary institutional basis vital for the project's sustainability is being created. *All the outputs mentioned above are available on the NQS (NSK) website www.nsk.nuov.cz in the "outputs" section („výstupy“). The NQS (NSK) information system can be found at www.narodni-kvalifikace.cz.*

Intensive preparations for assigning the Czech qualification system levels to the EQF were carried out in 2008. Under this process the key role will be played by the national coordination centre – **the ELF Coordination Centre**, established on the basis of a proposal approved by the MEYS. The centre is fully functional and consists of the following components:

1. NIVE work group
2. Advisory group
3. National Council for Qualifications Group

The **NIVE** group comprises workers selected from the institute.

The **Advisory group** targeted at consultation, methodology and assessment activities produces significant work outputs of the ELF Coordination Centre and comprises experts representing the Centre for the Higher Education System Study, the Czech Trade Union Confederation, the Economic Chamber of the Czech Republic, the Regional Office Ústí nad Labem/the Ústí nad Labem Regional Office, Masaryk University, the Ministry of Labour and Social Affairs, the National Institute of Vocational Training in Prague, the Union of Trade and Tourism and the Union of Industry and Transport of the Czech Republic. The group intended to complete the process of meeting the requirements contained in the material approved by the European Parliament and by the Council was set up (by decision of the MEYS) as a **National Council for Qualifications work group**. The fact that this work group is directly linked to the National Council for Qualifications also makes it most representative in regard to the representation of social partners.

The RNIL (Recognition of Non-Formal and Informal Learning) Project in the network of adult education schools was implemented in the years 2005-08. It was financed by the ESF and from the state budget of the Czech Republic, within the framework of the Development of Human Resources OP. This project continuously followed up on the National Qualification System project which was implemented in secondary, particularly secondary vocational, schools in 6 regions of the Czech Republic, with two general goals that functionally complemented each other: The project

- pilots validation of prior learning recognition processes,
- develops further education in schools that participate in the project.

Prior learning recognition processes were enabled in the Czech Republic by Act No. 179/2006 Coll. on Validation and Recognition of Further Education Outcomes and by amendments to some acts (Act on recognition of further education outcomes). These were entirely new procedures whose functionality and validity, including the standards created within the NQS framework, had to be verified before being put into practice. On the whole, 54 partial qualifications relating to 33 complete qualifications have been recognized in 32 schools with 208 candidates participating, and only 8 failed. All qualifications corresponded to the ISCED 3H level, which means the EQF 3. Under this project recognition was implemented

according to standards that were in various stages of preparation. The outcomes obtained were therefore passed on to the NQS project where they were further processed after the standards had been adjusted and completed.

In the field of support for the development of further education, the intention was to teach schools to draft programmes of further education based on learning outcomes. This has proven to be a very demanding requirement for a number of schools but over the course of time they have managed to meet it. Schools have proven themselves able to create further education programmes based on learning outcomes. It was important to target part of the prepared programmes at qualifications that were included in pilot validation and recognition, thus giving rise to opportunities for those candidates who failed to obtain qualifications recognition to acquire missing competences.

QUESTION No. 10

What progress has been achieved by your country in enhancing the attractiveness of vocational education and training programmes and their significance for the labour market?

The Czech Republic realizes the significance of enhancing the attractiveness of vocational education, not only on the grounds of acquiring a sufficient number of qualified workers, reducing unemployment or attracting new investors and employers, but also on the basis of enhancing the public image of vocational occupations and training. Therefore the Czech Republic promotes vocational education, especially by increasing public awareness of opportunities to develop one's individual abilities and skills. A broad range of vocational courses is offered. It is emphasized that the acquired qualifications can give one the skills appropriate for finding a good job in the labour market. Employers are becoming increasingly interested in participating in vocational education and the social status of individual trades has been improving. To enhance the attractiveness of vocational education, schools and their guidance counselling services, together with businesses, the EU, the Czech state, regions and municipalities act as initiators, coordinators and sponsors of individual activities and projects.

In the field of career counselling the Czech Republic has been striving in the long term to improve the quality of counselling services in schools and career counselling in general. Even in basic and secondary schools, pupils have to be advised on their future career options and informed about a wide variety of opportunities for choosing further education. The aim is to help them gain a realistic picture of work content and the working environment in individual trades, to help to reduce the number of school-leavers dissatisfied with the chosen subject area. In recent times, /Recently, these problems have been dealt with in the MEYS systemic project co-financed by the European Social Fund and entitled the "Development and Enhancement of the Integrated Diagnostic, Information and Career Counselling System", or, in its abbreviated form, "EIC Career" (Education-Information-Counselling Career). This project covered three basic spheres of activities. One of them was setting up the integrated information system to collect information essential for counselling services, focused on opportunities in the field of vocational education and appropriate career choices. This EIC Career project resulted in the **Information System on School Leavers' Successful Entry into the Labour Market** – implemented by the National Institute of Vocational Training) available at www.infoabsolvent.cz. This information system contains detailed information about nation-wide offers of initial and further vocational education, thus providing access for applicants to vocational schools to the required information – and not only through the internet but also through CD's sent to schools.

Text and audio-visual information about individual occupations, along with film spots from a variety of workplaces, aid in making individual occupations and their pre-requisites more familiar. The multimedia guide through the career choice process, supplemented with a quiz, makes the student think about his/her interests and the prerequisites for performing various occupations and consider the information and factors most significant for making career choices. The system also provides information about present-day labour market trends and requirements, offering analytical studies on various specific problems of school-leavers entering the labour market (school-leavers' employability and unemployability, employers' needs and school-leavers' preparedness to enter the labour market). A supporting information counselling module designed primarily for secondary school students was created as part of the project. Those who have all kinds of study problems or are threatened with early school-leaving can find information, advice and recommendations here. By assembling and publishing all the information in one place, users were provided with broad information and counselling support in their decision-making on their educational and career path, in solving early secondary school-leaving problems and given instruction on such thematic spheres as: "An Introduction into the World of Work" and "Guidance on Making a Career Choice". Another significant part of the EIC Career project was represented by the distance education of educators in the form of e-learning: **eCareer** (NIVE). The educational programme module is available at <http://ekariera.nuov.cz>. The distance education of educators contributed to strengthening guidance and counselling services related to choosing a future educational and career path. As regards the issue of the attractiveness of vocational education, it is also important to find the best way to efficiently approach children and young people. In 2008 the School Information Channel (SIC) project was launched under the auspices of the MEYS and other ministries with the aim to approach the broadest group of young people through video spots of a preventive, educational and informative character. At selected basic and secondary schools all over the Czech Republic, large screens were placed in the most frequented places. The SIC project ensures a continuous, high-quality supply of requested information. Among other things, the project focuses on introducing opportunities in education for pupils and students. Some video spots target the problems of choosing a field of study and career. The project is aimed at teaching young people how to search for information independently, aids them in dealing with offers in vocational subject areas, familiarizes them with the trades attractive in the Czech job market and thus contributes indirectly to preventing Czech school-leavers' unemployment. Video spots from the field of education are jointly created by the NIVE and CERMAT (the Czech abbreviation for the Centre for Ascertaining Education Outcomes). One of the priorities of the Czech Republic in this field is to involve employers in the vocational education process and increase students' awareness of opportunities for successfully entering the job market. Throughout the Czech Republic centres for hands-on vocational training are being established on school premises. A number of projects are implemented with a focus on modernizing technological and didactic equipment, supporting modern forms of teaching vocational subjects, developing and enhancing duality of education with an emphasis on vocational practice directly in relevant companies (if possible). Great attention is paid to developing cooperation between schools and employers, which takes various forms. To a great extent, the level of the country's education system predetermines the development prospects of a given region. Therefore vocational training is promoted not only by individual schools but also by regions as self-governing territorial units (NUTS 2) and by founders of public secondary schools in cooperation with businesses and employers. Information about supply and demand in the labour market has gained in significance and applicants for vocational schools and their parents are increasingly aware of this.

Recently several media campaigns have been conducted that give information about job opportunities in technical occupations. The Regional Development Agency and the Moravian - Silesian region, in cooperation with education and human resources experts, have been implementing a major project entitled **ForTech** (www.povolaniprozivot.cz) with the aim of evoking greater interest among pupils, students, teachers and parents in vocational schools that ensure the education and training needed for occupations in demand among strategic industrial companies in a given region. The main goal is to attract young people to technical subject areas (specifically to construction, engineering, electrotechnology and informatics) and increase the prestige of technical occupations.

According to a marketing survey 88 percent of guidance counsellors and teachers in the region saw an increased interest in such subject areas as engineering, electrotechnology, informatics and construction. 30 percent of parents took note of the ForTech project activities. Some 44 per cent of counsellors say that interest in technical subjects has increased and 90 per cent say that children discuss the possibility of studying technical subjects. The so-called TechDays, during which teachers and guidance counsellors visited industrial enterprises in their regions, was a rather successful event of the first stage of ForTech/event in ForTech's first stage.

A similar project called **TECHyes** (www.techyes.info) was implemented in the Liberec region. The server presenting its results provides in an interesting, comprehensible and clear form information about opportunities that pupils of basic schools are provided with for further learning. Here pupils can find an overview of individual technical subjects, and where and what they can study. All this is aimed at **supporting the study of technical subjects**. Major regional projects also include Prague City Hall's **Trades Are Alive!** promotional event <http://www.remeslozije.cz/> aimed at strengthening the prestige of apprenticeship subject areas and showing their prospects.

Entrepreneurship motivation factors are another effective means of increasing interest in vocational education. Employers themselves (especially large companies) come up with a number of initiatives when they need a sufficient number of qualified and able workers. Forms of motivation differ, ranging from contributions towards textbooks, learning aids and students' commuting to schools, to recruitment benefits amounting to tens of thousands crowns provided even during the course of their studies. We can give you the example of the **Cars Are Fun** campaign (www.autanasbavi.cz/bude-vas-to-bavit) financed by the Car-Making Industry Association. It is aimed at presenting the attractiveness of technical subject areas to potential applicants. Car-making industry employers offer on-the-job training, hands-on training stays in companies, student grants and other benefits. The Car-Making Industry Association also collaborates with regions (e.g. the Moravian-Silesian Region, the Central Bohemian Region) on the **IQ Auto** project which is based on cooperation between schools, employers and employment offices. Its aim is to change the system of training pupils and students in secondary and higher vocational schools, to meet the requirements of regional employers in this industry. Furthermore, the project focuses on promoting secondary and higher vocational education, positively influencing the future career decision-making of 9th grade pupils (the final grade in basic school) and their parents in favour of studying at vocational schools, developing the secondary and higher vocational education system and turning partnership schools into institutions of lifelong learning. Individual towns are also making efforts to improve the quality of vocational training. We can present the example of the collaborative project between the town of Sokolov and the Sokolov Integrated Secondary Vocational and Economic School (ISVES). **The Project to Revitalize the ISVES Sokolov**

Centre of Education is aimed at building a modern facility for vocational education including specialized classrooms for practical instruction and specialized training. **Employers' increased activity in recent years has resulted in pupils' resurgent interest in these apprenticeship and technical courses. In an effort to recruit new employees among school-leavers employers, started to promote the given trades and job opportunities in technical occupations and decided to provide their prospective employees with stipends.** However, the critical time has arrived. On the one hand we have seen a decrease in the population of 15-year-olds (in the next few years it is estimated to drop by some 10% each year), on the other hand we will feel the impacts of the financial crisis, which can abruptly chill employers' interest in school leavers). Especially for employers, it will be a great challenge to not to let down the young people who were promised some support during their studies and in employment. A loss of confidence can back-fire when the crisis is over and demand for workers increases again

QUESTION No. 11

What progress has been made by your country in the field of modernization of higher education in regard to: - plans/measures for diversification of revenue sources for higher-education institutions?

- plans/ ideas to support also opening higher education institutions to participants in lifelong learning?

Plans and measures to diversify higher education revenue sources

The field of higher education funding is determined by Act No. 111/1998 Coll. which sets out individual budget items to be dealt with by higher education institutions. Higher education institutions' revenues are generated from the schools' main and subsidiary activities. The main activity is understood to be education, science and research, which are funded by appropriations and subsidies from the state budget. The subsidiary activities of higher education institutions are focused, for example, on cooperation with the economic sphere.

The System of Tertiary Education Funding is based on four pillars:

- a) normative public funding of education ;
- b) financial support of students from public sources ;
- c) private sources of individuals and companies ;
- d) public funding of research .

Normative funding allocates a major part of public sources to tertiary education and is the most widely used financial mechanism in the OECD countries, including the Czech Republic.

In 2008 higher education institutions had at their disposal public funds amounting to 32 068 876 000 Kč (Czech crowns), out of which :

- Non-investment expenses funds for educational activity (only for public higher education institutions) totalled 19 630 805 000 Kč ,
- foreign development aid and other donations from chapter 333 not stated elsewhere 343 695 000 Kč,
- investments in programme funding and others 4 521 559 000 Kč,
- research and development (capital and current expenses) 5 456 757 000 Kč,
- funds for private higher education institutions 57 978 000 Kč.

Out of the overall revenue of higher education institutions amounting to 10 925 917 000 Kč, the ratio of the main and subsidiary activity of higher education institutions was as follows: :

- revenues from the main activity reached 7 398 389 000 Kč.
- revenues from the subsidiary activity reached the sum of 3 527 528 000 Kč.

(Source: Overview of higher education institutions funds in the years 2000-2008, MEYS internal document)

Development strategy in the field of higher education

The government's long-term efforts in the field of higher education are directed at diversifying resources designated for funding higher education institutions, namely at increasing resources from the private spheres and reinforcing the state budget development component (development programmes, bonuses for graduates). Reform steps needed to push forth this intention are formulated in the White Paper which the government dealt with in January 2009.

In this respect the White Paper is a conceptual and strategic document, setting out the development direction of tertiary education in the Czech Republic in the forthcoming ten or twenty years. This material provides a conceptual basis for legislative changes that will make it possible to meet the needs of society and all stakeholders and concurrently will provide expert support for political decisions related to a gradual reform of tertiary education. **The planned reform particularly focuses on the following changes:**

- Transferring indirect forms of study support to direct ones, such as *study grants, student loans and targeted social stipends*. This direct government financial support should be accessible to students regardless of their economic situation or their parents' willingness to support their studies financially. In the long-term horizon, introducing general direct financial support to students in the form of loans will enable the involvement of private resources in the form of suspended tuition fees, without reducing access to higher education.
- Public financial support based on normatives (hereinafter referred to as "*educational grant*") should not only continue to reflect different costs in various programmes but should also take into account the existence of positive externalities, namely social gains from education, which individuals do not take into consideration when making their further education and career decisions. Technically, the state should continue to send normative funds (appropriations), and student educational grants directly to educational institutions. The following adjustments are envisaged:
 - implementing transparent and functional mechanisms of assigning cost coefficients to newly originated programmes,

- reinforcing the weight of outputs (graduates) in the normative system with the quality of accreditations guaranteed through internal and external quality assurance,
- an educational grant should be provided to a citizen of the Czech Republic only for the standard length of study at each tier and that is only once in a lifetime (after introducing a unified credit system it is possible to tie educational grants to the number of credits),
- an educational grant should be provided regardless of the form/s of study and in instances of longer study time (combined and distance form of study) the student grant amount should be proportionately reduced with a view that space for greater diversification during the course of study will be created. This is needed to support educational opportunities for older and employed citizens (lifelong learning),
- setting the proper ratio between normative standards on bachelor- (especially professionally oriented) and master-degree study programmes to promote real diversification in the downward direction, which means to professionally profile bachelor graduates,
- reducing the number of inputs in the normative part of funding for doctoral study such as student numbers and increasing the weight of PhD graduates; however, primarily providing larger funds than today to programmes based on the results of research, development and innovation according to quality assessment carried out by the provider (the MEYS). Changes in funding must not in any case lead to reducing subsidies volume better targeting should enable a substantial increase in funds designated for doctoral students in those institutions which efficiently educate high-quality PhD graduates.

- It is desirable to substantially reduce the volume of public funds allocated in a non-normative way and transfer them into the chapter of normatively allocated funds. In the future, funds should be allocated to schools non-normatively only in strictly justified cases. A dominant part of the current subchapter of investment resources should be integrated into the normative subchapter in the future. Thus the distribution of investment funds will become more transparent and will better reflect study demand. At the same time one of the instruments for implementing particular political interests in public higher education institutions will be removed. The responsibility for implementing investment intentions will thus be transferred to the level of schools which have the best and objective information about their own possibilities and local conditions. It is desirable to implement the transfer of the investment subchapter to the chapter of normative financing within a several-year transition period and only an amount needed to resolve unexpected crisis situations should be left in the reserves of the Ministry of Education, Youth and Sports.

- From the perspective of schools, the provision of educational grants should gain a character of *contract financing*. Schools should be certain that the value of educational grants will not decrease in real terms in future years. Changes in the real amount of education grants should be implemented only in cases of newly-admitted students. Elements of contractual financing are essential for schools in creating their mid-term or long-term development plans and they are also important in connection with the credit financing of school investment projects.

- Increasing the number of financed (contracted) normative students against the previous year should more than ever reflect substantial differences in demand in various schools. The increase should be based on the situation in the preceding period, such as schools' ability to achieve the contracted number of students who will pay tuition fees close to the thresholds along with securing adequate university or college completion rates. Thus the existing principle of *numerus clausus*, which insufficiently reflects disproportion between university and college schools' supply and the applicants' demand, will be weakened. The

growth of educational offers will be preferentially directed where demand will markedly increase supply.

- Competition between schools in attracting the interest of applicants should contribute to rationally forming the schools' educational offers: diversification, adjusting study content to reflect changing external conditions, more flexible forms of educational offers, and pressure on schools' strategic planning.

- The issue of tuition represents one sphere within the framework of the long-term horizon of educational policy concepts. On the one hand, the White Paper focuses on the so-called suspended tuition fee, which should be included in the legislative framework immediately in the first stage of reforms but with thresholds set at zero. Tuition fees could be efficiently introduced only in the second stage of reforms by increasing thresholds, after the first reform steps will have been successfully conducted (i.e. introducing basic student grants, basic student loans for living expenses and an instalment mechanism, a study savings system, and the reinforcement of the normative finance mechanism). Tuition fees should be introduced only for newly founded bachelor and master programmes.

- In connection with changes in and diversification of resources designated for financing higher education institutes, a new institutional arrangement is envisaged with the aim of achieving maximum efficiency and functionality. There is a possibility to associate most of the agendas into a new institution called the *Administration Centre for Funding Tertiary Education* if a legal framework for it can be created in the Czech Republic. Quite a different alternative is to divide the agendas among existing institutions (the Ministry of Education, Youth and Sports, the Ministry of Finance, the Czech-Moravian Guarantee and Development Bank and the Czech Taxation Administration.) There is also a variant under which agendas of normative financing and non-financial activities would stay at the MEYS level and only those financial agendas which cannot be carried out by the Ministry due to legislative or technical reasons (such as student loans and instalments) would be separated.

- The proposed funding system envisages introducing an integrated information system which will include not only the current matrix of study programmes but also the agenda of financial support (basic student loans for living expenses and tuition, and special student loans) and loan instalments on the planned suspended tuition fee. Information from the integrated system will make it possible, among other things, to generate and publish aggregate indicators about the salary success/achievements of graduates from individual schools and programmes.

European programmes make up an independent resource area of funding the development of higher education institutions, especially in the years 2007-2013. The Education for Competitiveness Operational Programme (OP EC), Science and Research for Innovation Operational Programme (S and SFI) are being implemented. These projects are co-financed from the state budget.

Stimulations and Plans to Support also Opening Institutions of Higher Education to Participants in Lifelong Learning: The Implementation Plan of the Strategy of Lifelong Learning, which further elaborated and specified measures formulated in the Strategy of Lifelong Learning was drafted for the tertiary education field in accordance with the White Paper on Tertiary Education that represents a starting point for tertiary education reform. Thus a real foundation for securing these measures was created (including a timetable and organizational back-up). These are the following measures:

A. Strengthening the development of bachelor study programmes focused on practice (hands-on experience) directly interconnected with the current development of knowledge and changing needs of employers – especially industrial enterprises – and the services of higher

education institutes and higher vocational schools in preparing and implementing study programmes.

B. Purposefully and systematically supporting the development of quality and efficient forms of education, and alternatives to day classes, which will enable adult individuals to study while fully economically and socially active and with family obligations.

C. Through efficient measures, providing support to overcome barriers in access to higher vocational and higher education over the whole lifetime.

D. Enhancing higher education institutions' quality and their educational activity.

E. Reinforcing the possibilities of permeability in the tertiary education sector and recognizing prior education.

F. Supporting cooperation between higher education institutions, especially the efficient interconnectedness of higher vocational schools with higher education institutions, and creating common study programs for higher education institutions of similar orientation, especially further education programmes for adults.

G. Reinforcing the instructional capacity of higher education institutions for education of adults employed in a specific industry. Distance and combined forms of study require not only different pedagogical competences, but also a higher number of tutors who can ensure high-quality support --on a one-to-one basis for students of directed self-study courses.

H. Supporting multi-resource financing of the tertiary education sector, including permanent pressure on increasing public funds at least up to the average level of European countries. Seeking means of legislative support, considering tax instruments, possibilities for participating in funding regional companies and other employers of graduates etc.

The Implementation plan of the Strategy of Lifelong Learning is based, /is partially based on the premise that lifelong learning has a long-standing tradition in the context of tertiary education: universities and colleges have always offered a variety of programmes for graduates (to expand their knowledge and skills in the context of new scientific findings) as well as for the broad public. Therefore the Implementation Plan of the Strategy of Lifelong Learning in the field of tertiary education should mainly support institutions of higher education in continuing to implement these programmes. The strategy should thus contribute to strengthening the variety of higher education courses on offer, enhancing connections between universities, colleges and other institutions of tertiary education, and between higher education institutions and vocational practice. All this should be done while high quality is maintained, corresponding to the demands of tertiary education.

It is necessary to take a number of steps leading to systemic changes in the field of tertiary education in order to develop and implement lifelong learning within individual levels of education structures. Therefore the Implementation Plan of the Strategy of Lifelong Learning is based on the White Paper of tertiary education and is, on the whole, interconnected with tertiary education reform.