

Research Project:

**REFORM OF CURRICULUM IN THE CONTEXT OF
LIFELONG LEARNING**

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European Training Foundation

Research Project: Reform of Curriculum in the Context of Lifelong Learning

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FOREWORD BY THE EUROPEAN TRAINING FOUNDATION

Croatia is facing the challenge of adopting its education system to the changed economic and social requirements. International empirical evidence shows that the economy is highly competitive in particular in those countries where substantial resources are invested in the development of human resources. The education system can meet its challenge of developing the highly skilled workforce of today and tomorrow only if it is closely linked with the labour market and if it provides opportunities for learning throughout lifetime. Increasing the country's competitiveness and the employability of individuals are also the motives behind placing vocational education and training in the centre of European policy and programmes.

The Country Strategy Paper which was drawn up jointly by the European Commission and the Government of Croatia in 2001 states, amongst others, that "the risk of unemployment is closely linked to a lack of education and training, as well as to the restructuring of the economy". One of the elements of the European Community strategy to respond to these problems and to develop social cohesion in Croatia is vocational education and training: "A review of the vocational education and training system, and upgrading of the skills of the labour force, should therefore be part of a response strategy. The objective will be to assist in developing a skilled and flexible workforce in Croatia."

As a European Union agency, the European Training Foundation has been given the specific mandate to support vocational education and training reforms in non-EU Member States.

The present publication is the outcome of a wider initiative funded by the European Training Foundation and managed by the Croatian National Observatory. Work was undertaken by three groups of Croatian experts, focusing on issues of (1) decentralisation/financing, (2) the training of teachers and trainers in vocational education and training and (3) reforms of the vocational education and training curriculum within a lifelong learning context.

Apart from this initiative, the European Training Foundation has carried out, throughout the years 2000 and 2001, its own assessment of the VET system in Croatia. Findings and recommendations related to reforms of the VET curriculum are presented below.

1. Description

The system is highly **centralised** with the Ministry of Education and Sports assuming all responsibility for the review and endorsement of both syllabi and textbooks, as well as for setting and monitoring instructional quality in schools. The Ministry allows for an adjustment of lesson plans to local conditions. However, in the absence of other authorised structures (e.g. professional associations), as well as adequate labour market information mechanisms, these adjustments are done to account for the resources available (or not available) at school.

Secondary education is not compulsory. Some reform steps during the 90s have considerably changed this part of the education system. After the controversial reform attempt of the 80s ("career oriented education") and faced with the challenges of the transition period, the system was in crisis. Now there are three types of secondary schools offering general (4-year '*gimnazija*'), technical (3 and 4-year programmes) and (short) vocational (1 to 2 years; up to one year) education programmes. Starting with the school year 1995/96, the Ministry of Education and Sports and the Ministry of Crafts experimentally introduced the dual system of vocational education and training primarily for crafts trades. Training within this system is implemented in schools and (craft) businesses.

The **network of secondary schools** comprises 381 schools (358 state-run and 23 private). The majority of students (41.5%) enrolled in 4-year technical programmes, 27% in 3-year

vocational programmes, 24.5% in gymnasia, 5% in dual system programmes and 2% in short programmes or those adapted for special needs (mentally or physically handicapped people). Most schools offer one or two different programmes, while 36 schools offer 5 or more programmes. There are 73 gymnasia and 273 technical/vocational schools. Gymnasium programmes have lately attracted a higher interest. 59 technical/vocational schools offer also a gymnasium programme.

The most widespread among the 28 fields of vocational education¹, if assessed by the number of schools, include:

- mechanical engineering (116 schools),
- economy and trade (91),
- electrotechnics (81),
- catering and tourism (58), and
- textiles (43),

while the less widespread fields include:

- food processing (27),
- agriculture (23),
- road transport (19),
- chemical technology (16),
- forestry (7).

If assessed by the number of **enrolments**, the picture changes slightly: in the 1999/2000 academic year most students enrolled in economy and trade (9,587 with the trend still increasing), while 5,908 students enrolled in electrotechnics, 5,808 in mechanical engineering and 4,693 in catering and tourism (decreasing trend). Dual system programmes had attracted approx. 4,000 students per year which is less than planned.

There are 16 higher education institutions (*‘više škole’* which literally means ‘higher schools’), which could broaden the educational offer. However, the concept of ‘higher schools’— introduced as a parallel system to the universities in 1998 – is not quite clear to parents and students yet. It must be analysed more carefully in the forthcoming years.

In **rural areas** the majority of vocational programmes at secondary schools are, as a rule, of a monosectoral type (e.g. connected to agriculture/viticulture). Schools are in need of repair and workshops ill-equipped. As a result, secondary vocational programmes especially in rural areas often train for less demanding agricultural or low technology specialisations.

Distribution of students over the general or vocational streams at the end of the eight-year primary school curriculum is based on performance, with its assessment being left to the arbitrary conditions of schools. Access to the gymnasium is regulated through a numerus clausus. Candidates who fail in the selection procedure have to choose among the less popular programmes of vocational or technical education. **Transfers** from the vocational to the general education stream are, in principle, possible in an early period of secondary schooling (9th grade), but again dependent on good performance and only rarely practiced. Within the vocational education system, the 4-year broader-based technical education programme, as well as the 3-year dual training programme are the only programmes that allow for vertical progression through access to university or “Meister” programmes, respectively.

The current system of 8 + 4 + 4(5) makes it difficult for Croatian students to study abroad or to reintegrate into the Croatian system when they come from abroad.

¹ The National classification of occupations includes 438 specialisations for the majority of which training is provided.

There is a traditional understanding of teaching and learning in vocational education with an emphasis on fixed syllabi within a closed system of instructional courses and a systematic **organisation** of contents around subjects. Prevailing features include an overloaded curriculum (e.g. there is a total of 15-17 compulsory subjects in the gymnasium, leaving room for only 1 to 3 hours of optional subjects per week), as well as an emphasis on factual knowledge and rather teacher-centred lecturing methods. Curricula in technical schools consist of common core programmes (whereby general education subjects are taken from the gymnasium programme), common vocational subjects and an optional part linked to the specialisation chosen. Regular teaching at the secondary level includes 30 to 33 hours at the institution per week. Links to local enterprises or institutions are, except for the dual system programmes, weak and not an integral part of the curriculum.

Despite financial constraints, first attempts have been made in Croatia to equip some schools with a small number of computers. Such endeavours are important to build upon in the future, as modern **information and communication technologies** can be considered an important means to improve relevance and achievements of learning, to broaden access to learning (e.g. through distance learning), to provide opportunities for teacher training, etc.

Attainments of students from gymnasia and 4-year technical schools are (if judged by their final grades) far better (28% excellent and 42% very good) than those from other vocational schools. Gymnasium ends with maturity exams (*matura*) which are prepared and assessed internally by the schools. 4-year technical school programmes, as well as 3-year vocational school programmes finish with special final exams whose preparation and assessment is also left to the schools. In the 1998/1999 academic year 96.1% of students from gymnasia and 4-year programmes passed their *matura* or final exams, while only 90.8% of 3-year programme students passed their final exams.

It is estimated that only 75% of vocational school students complete secondary education. In addition, of the cohort graduating from general secondary school, about one third do not continue on to higher education. There is no systemic monitoring of the **dropout** phenomenon. However, motivation of secondary school students may be especially low if, as a consequence of lower performance, they had not been able to make a deliberate choice of their secondary school programme and job prospects in the given specialisation are bleak.

The state assumes responsibility for an 8-year compulsory education, as well as for the (first-chance) education of young people at secondary and tertiary level up to the first university degree. Second-chance education, **continuous skills upgrading** and retraining are, apart from publicly funded labour market training schemes, left to the initiative of the individual or the company.

Not only is the participation of adults in formal or non-formal education low; adult education is generally not held in a high esteem. According to some non-representational survey², the opportunity for continuing training as a motivational factor driving employees was ranked very low. In the 1998/1999 academic year, 22,702 adult students attended various formal or non-formal school programmes, almost half of them of a short duration. In the past five years, the number of state (public) institutions for adult education diminished drastically (from 104 to 62), while the private sector has not succeeded in developing on a larger scale. Private training providers exist, for instance, in the areas of computer and foreign language skills training.

Some companies, especially bigger ones, do provide training, but the system is not monitored nor are data collected to inform policy-making. **Informal adult education** is not included in

² Cf. National Observatory Croatia – Education and Training Country Report (Draft), p. 4.

any of the portfolio of the Ministry of Education and Sports and any of the current government commissions. Incentives to promote investment in training, as well as other tools to improve the situation are largely absent.

2. Critical policy issues

Modern production concepts and forms of work organisation require broadly skilled and highly competent people who are able to take initiative, act in a self-guided way and continuously upgrade their knowledge and skills. The modern approach to vocational education and training implies a broad and comprehensive occupational preparation, where, besides technical and technological skills, emphasis is put on the development of key social and methodological competencies.

The regulatory, financial and training framework does not provide for incentives for local actors to be involved in decision-making, as well as the design and flexible delivery of curricula in line with new labour market requirements. The **social partners**, including the very active chambers, are still seen as outsiders rather than stakeholders of the system.

Enrolment patterns do not provide for a flexible and equal access to the various programmes at secondary and tertiary level. The system provides for an **early** performance-based **streaming** into the two main education paths at secondary level with limited transfer possibilities at a later stage. Considerably fewer choices exist outside bigger urban centres, which essentially limits training and employment prospects of young people and adults. **Rigidities** inherent in the system do not allow for a high vertical or horizontal mobility. This concerns both young people in the system, as well as adults who have acquired some practical work experience and may want to return to the system.

Curriculum organisation with syllabi defining learning goals, the number of subjects and lessons, teaching media and tests, as well as teacher dominated learning methods and a poor material base at schools are not conducive to developing high-level technical, technological and social competencies called for by a competitive market economy. Links with industry are weak and entrepreneurship concepts not promoted. Organisational processes in schools are not systematically evaluated with a view to their continuous improvement.

A large proportion of young people either do not finish secondary school or leave school with **qualifications** which are not in line with employers' current requirements. This refers especially to vocational education programmes of a shorter duration and those provided exclusively by schools. Graduates from the broader-based 4-year technical education programmes, as well as the dual training programmes where vocational theory and practice form part of an integrated curriculum may stand better chances on the labour market.

There is a traditional focus on highly talented students. However, **inclusive concepts** providing, for instance, for second chance measures for school dropouts or the skills upgrading or retraining of low qualified adults are not widespread.

Current reform debates focus on the formal, initial education and training system and appear not to give sufficient attention to the development of a comprehensive **continuous training** system. Schools and teachers are generally poorly equipped in terms of both facilities, programmes and methodologies to cater for the needs of adult learners.

3. Barriers to reform

One of the biggest obstacles to creating a genuine vocational education and training system, integrating vocational theory and practice lies in the division of **responsibilities** between the Ministry of Education and Sports and the Ministry of Crafts and SMEs. The former is in charge of (the) school-based (parts of) vocational education, while the latter is in charge of

the practical parts of the dual training programmes. As mentioned before, there is a third ministry, the Ministry of Science and Technology, which assumes responsibility for all pre-service teacher training.

There is currently no **institution** with sufficient resources that would be in a position to guide and support a major curriculum overhaul in a decentralised setting.

Limits to the expansion of the **dual system** lie in the fierce economic conditions in Croatia, as well as the lack of financial or development support from the central authorities. Blue-collar work, as required of the students for instance in the dual training programmes, is still generally held in low societal esteem.

There are some traditional **concepts** in Croatia which may hinder overall curriculum reform. A focus on factual, reproduced knowledge and the resulting ‘academisation’ of education, the organisation of contents in subject form, the perception of the school as an institution able to impart all knowledge required and the appreciation of top (academic) performance are deeply rooted in the Croatian society and reflected through ministerial policy.

4. Recommendations

There are essentially **three perspectives** that may guide an overhaul of the national system of qualifications, curricula, assessment and certification in Croatia:

- *Lifelong learning*³: It is important that the relevance of the structure, length and breadth of vocational education and training programmes are re-assessed with a view to preventing early specialisation and narrow-track vocational preparation with all the ensuing negative consequences for lifelong learning and employment. Instead, a broader-based foundation training for related occupations may be provided with progressive specialisation (partly) taking place on the job at a later phase of vocational preparation. New basic skills and competencies are required today to prepare young people and adults for an ever-changing environment. ‘Bridging programmes’ would allow young people and adults to move within or go back to the system and, thus, increase horizontal and vertical mobility. A review of the system of national vocational qualification standards is best organised with industry involvement and aims at an increased transparency, a point of reference for both curriculum authors and examiners, as well as the recognition of skills acquired both within and outside the formal system. Further flexibility in terms of allowing for adaptation would increase the responsiveness of curricula to the needs of the regions or sectors. Following the example of the dual training system, all assessment in vocational education and training needs to focus on testing students’ abilities to act in certain work situations (“competencies”) rather than on the reproduction of theoretical knowledge. To allow for common standards, it is also important that designated bodies which are independent of the training provider are given the authority to take examinations. A framework for (initial and continuing) training that provides incentives to participate and invest in training and that ensures equity, quality and innovation is necessary.
- *Integration of work and learning*: A closer link of the curriculum with real (working) life situations is paramount. This includes changes to curriculum content, teaching skills and methodologies, as well as a structured collaboration with industry in curriculum design and delivery. Practical training needs to become an integral part of all vocational curricula. Training partnerships and networks between educational institutions and work

³ In addition to the comments that follow, both recent OECD publications on the issue and the “Memorandum on Lifelong Learning” published by the European Commission in November 2000 may inform policy debates in Croatia.

organisations at regional and local levels, aiming at a better integration of training and employment need to be built up.

- *Entrepreneurship*: In a market economy, learning goals can no longer be associated with the development of employee qualifications. What is required is support to individual initiative and entrepreneurial ventures through a diversification of both curriculum contents, learning sites and methods of delivery.
1. It is important that, in the **curriculum design process**, attention is paid to how jobs are constructed in companies, how the work process is organised and how learning takes place on the job. The development of core competencies as a key objective of the curriculum requires a departure from subject-based curricula. Core competencies are based on interdisciplinary skills and an integration of work and learning and can best be developed through active types of learning. It is essential that the curriculum focuses on the student's (experience-based) learning and development process (principle of the learner as the creator of his or her own learning process). Practical and in-company training components of curricula need to be elaborated in more detail.
 2. Curriculum reform necessitates the existence and resourcing of a number of **support institutions**. These include structures for organising the social dialogue, analysing skill requirements of the labour market, reviewing and registering qualification standards, approving curricula, taking examinations and providing various kinds of training. Initial efforts in the curriculum review process may concentrate on developing a joint vision of the future curriculum structure (levels, programmes, occupations), putting in place the necessary institutions and, in a second step, on developing the educational answers to new occupational profiles, agreeing curriculum development guidelines and training curriculum authors. New profiles are expected to emerge especially in economic growth sectors, such as information, communication and media technologies, agro-industrial, tourism and other service sectors.
 3. In view of the general knowledge explosion, the development of **generic skills** has regained significance, all be they different from what they used to be. Surveys in other countries have shown that employers attach more and more importance to the following core knowledge, skills and attitudes:
 - * sound numeric and (mother tongue) literacy skills;
 - * “intellectual skills for diagnosis and analysis, innovation and learning to learn;
 - * social and interpersonal skills and the ability to assume and discharge responsibilities;
 - * basic computer and foreign language skills;
 - * business and entrepreneurial skills; and,
 - * multiple technical skills in generic areas which are central to a number of jobs or occupations”.⁴

In accordance with the goal of education and training to help people become self-reliant citizens, able to effectively cope with the many transitions they will encounter and maintain a balance between work and life roles in rapidly changing labour markets, it is also important that curriculum reforms aim at the development of work and life orientation skills of both young people and adults.⁵

⁴ Quoted from Canadian Task Force on Transition into Employment in: ILO: The changing role of government and other stakeholders in vocational education and training, UNESCO publication, 1999, p.24-25.

⁵ Cf. P.S. Jarvis: Career information delivery systems – The next generation. Paper presented at the International Career Guidance conference, Budapest 20.3.2000

4. Curriculum reform is closely linked to changes in **delivery methods**. Problem orientation is the key didactic principle to allow students to become actors in the learning process. An 'open curriculum', as well as a variety of modern teaching methods (project-organised learning, self-learning activities, theme-oriented teaching etc.) are conducive to creating a true partnership between teachers or trainers and learners.
5. To facilitate overall orientation within the system and guidance of both young people and adults, it is important that **career guidance** concepts and arrangements are further developed.

Evelyn Viertel

S U M M A R Y

1. INTRODUCTION

Analysis of the existing condition of education and schooling in the Republic of Croatia (*Report on Croatian school system, 2000, Organisation of school system of the Republic of Croatia, 2001* and other) indicate that the in-school and out-of-school part of the system of education is in deep crisis regarding its efficiency and its own ability to get out of crisis. Namely, the past ten years marked retrograde processes in the area of development of infrastructure in education, and while other transition countries decisively marched forward compensating for their lagging behind in the past, Croatia had its Institute for Educational Development, and *Institute for Adult Education* devastated, then scientific researches in education as well as publishing of expert and professional literature reduced. Postgraduate studies in Education on Teacher-training universities were practically suspended, influence of professional associations on policy of education was reduced and positive processes that had started at the beginning of eighties were stopped. With regard to this situation, we are today taking measures for the development of vocational and professional infrastructure (strengthening of the Institute for Educational Development, establishment of *Centre for Research and Development of Education* as well as other research and development institutions), and initiating development researches with the aim of conceiving short-term measures of system consolidation and its long-term structural changes.

With this aim, national research priorities were determined, which refer to the structural (reform) changes of system of education and affect the problems of curriculum reform. These are the following researches:

- Determining the optimal model of compulsory education which would determine duration and structure of primary school as well as post-primary part of compulsory education,
- Determining the principles for the reform of national curriculum,
- Creation of a new national curriculum for primary and secondary schools,
- Creation of an optimal model of education of primary and secondary school teachers,
- Creation of a system of identification and educational support for talented students,
- Establishment of a system for external valorisation of educational achievements of students.

From the overview of these projects it is visible that the reform of curriculum gained a considerable attention, which is comprehensible, since the contents of education are the basis of a whole concept of education, which serves for mediating of certain knowledge, skills and values.

1.1. What is “curriculum” and what is “curriculum development”

A more narrow meaning of *curriculum* refers to the contents of learning incorporated in the education programmes. *National curriculum* comprises compulsory education curriculum (with related programmes) as well as joint forms of various types of post-compulsory education. That means that, in curriculum interventions, its suitability, that is harmony with other elements; aims, conditions of realisation and results of empirical evaluation should be taken into consideration.

Therefore it is customary that the programmes of education are continuously changed, which is conducted according to a standardised procedure called “curriculum

development". In the system of lifelong learning, composed of all levels of education, curriculum should constantly be adapted to changing needs of society.

1.2. Structural change of curriculum

Structural change of curriculum, or *curriculum reform*, is conducted when it is necessary to change the structure of education system, due to radical changes in the education environment (change in social context and/or major technological changes), or due to weakening efficiency of the existing education system, which then implies a radical change of (national) curriculum.

Our situation regarding the reform of the curriculum is paradoxical: on one side it should be changed as soon and as radically as possible, and on the other, the situation with the resources is such that changes should be conducted with extreme care. This imposes a need to give special attention to the strategy and planning of the change in order to avoid possible mistakes. With this purpose, it is useful to use experiences of other European countries that have implemented or are implementing the curriculum reform.

1.3. Forms of education/learning

Education (even more upbringing) is not only conducted through schooling, but also through out-of-school forms of education, that is, organised learning. There exist three forms of organised learning through which education is being conducted. These are formal education (schooling), informal education and self-education. Learning can be not only organised but also non-organised (spontaneous or natural learning), so-called informal learning. Modern doctrine of lifelong learning comprises and links all forms of organised learning (education) but also informal learning, so that today term lifelong learning is more and more widely used. The greatest rationalisation of modern education is composed of systematisation of all forms of learning and recognising its results through an appropriate form of certification.

2. CROATIAN SYSTEM OF SECONDARY VOCATIONAL EDUCATION

2.1. Education system in Croatia

Education system of the Republic of Croatia is organised pursuant to the Law on Pre-school Education ("Official Gazette" No. 10/97), Law on Primary School System ("Official Gazette" No. 59/90), Law on Secondary School System ("Official Gazette" No. 19/92), Law on Crafts ("Official Gazette" No. 77/93, 90/96) and Law on Vocational Colleges ("Official Gazette" No. 59/96).

Basis of our education system is composed of the following parts:

- | | |
|---------------------------|----------------------|
| 1.1. Pre-school education | from age 3 |
| 1.2. Primary education | ages between 7 - 15 |
| 1.3. Secondary education | ages between 15 - 18 |
| 1.4. High education | from the age 18 on |

2.2. Relation in programmes between primary and secondary school education

Since 1952, primary school education in Croatia takes 8 years. Duration of primary school and compulsory schooling in Croatia is equalised, which differs Croatia from the majority of Western European countries. Primary school curriculum is based on a subject-focused course system, characterised by the focus on programme. Contrary to the system with a focus on pedagogy, in this system what is important is how to implement the programme while the development of a child and his knowledge is less important. In the teaching process dominates teacher-oriented classes.

Teaching programmes in the first four grades is conducted by one teacher, and from 5th to 8th grade subject-oriented teaching is organised. Programmes are mostly directed

towards the continuation of education in secondary schools, while there is almost no account taken on preparation for secondary vocational schools.

Registration in secondary school education is based on the overall result of the seventh and eighth grades of compulsory school and on the result of 5 important subjects from the seventh and eighth grades for the continuation of education in a specific type of programme. Very often, in the case of VET programmes, the above-mentioned subjects are not well chosen.

2.3. VET programmes

Education pursuant to the programmes for gaining secondary vocational training can last four years (so-called A programmes) or three years. Three-year programmes for gaining secondary vocational training are programmes for occupations in industry and rural economy (so-called B programmes) and for crafts (C programmes and dual system programmes or programmes for related crafts DV). Education per programmes for gaining lower vocational training (D programmes) lasts from one to two years. Along with that there are programmes for children with disablement (E programmes).

2.4. Structure of education programmes

Pursuant to the Law on Secondary Education (“Official Gazette” No. 19/1992.) education programmes (curricula) for obtaining lower and secondary vocational training have:

- common part
- compulsory general education contents (minimum of common general contents)
- general education subjects in the function of vocation and common vocational contents (for related occupations, vocational education area)
- special vocational contents (vocational contents of a more narrow vocational area, occupation)
- selective part
- facultative part.

Four-year programmes provide education for the vocation of technician in various occupations, and for other areas of work in health care, catering industry, administration etc.

There is a vertical flow of students with completed education insured towards the higher education, although their readiness for studies is verified by an entrance examination. Horizontal flow of the programme is very limited and mostly reduced to the possibility of retraining.

There also exist three-year programmes for occupations in industry, crafts and related areas of work. Similarly to the four-year programme, these were also composed of more subject programming with an emphasis on theoretical knowledge, while practical skills and development of key qualification skills have been, in majority cases, neglected. In an industry that has survived and is developing (food production, for example), many technological processes have considerably changed, so that the existing programmes are not meeting the actual needs.

An exception are programmes for occupations in crafts and small-sized enterprises. However, even in this segment we have a situation of paradox, since there exist two types of programmes and two subsystems of education:

- programmes of complete school education;
- programmes of dual system of education.

Programmes of complete school education are made pursuant to the subject-focused programming. All contents are being accomplished in school, unless the school (which happens quite often) does not have a school workshop. In that case practical classes are organised with the craftsmen or in enterprises, but with no obligation to fully accomplish the programmes and with no external valorisation of the achievements.

The dual system of education has been introduced pursuant to the Law on Crafts and at the incentive of craftsmen themselves through the Croatian Chamber of Crafts. Programmes for this system of education have been made pursuant to the combined subject-focused and integral programming and are directed towards attaining the highest possible level of necessary knowledge and skills for a certain occupation. Subject-focused programming refers only to compulsory general subjects. Vocational part of the programme (apprenticeship) is composed of a theoretical part with exercises and practical part, where the practical part of apprenticeship takes 64.7%.

General educational, vocational theoretical contents and skills are being conducted at school, while the practical part of apprenticeship is conducted in crafts or exceptionally, a smaller part in school exercises. The right to receive apprentices for apprenticeship have only those crafts that meet personnel and material conditions, which is being verified by a commission. These crafts receive a licence, issued by regional chambers of crafts.

What is characteristic for the dual system of education is the partnership between the Ministry of Crafts, Small and Medium-sized Enterprises, Ministry of Education and Sports and Croatian Chamber of Crafts on a higher level, and on the lower, between county offices for education, regional chambers of crafts and schools, and particularly schools and licensed crafts.

Partnership between the ministries and Croatian Chamber of Crafts is defined in the Law on Crafts, and refers to issuing the framework of education programmes, planning of student registrations, making of sub-legal acts, monitoring etc.

Partnership between county offices, regional chambers of crafts and schools mostly comes down to co-ordination of enrolment plans. Schools and licensed crafts are partners in the realisation of the programme of apprenticeship, while the regional chambers of crafts provide adequate services through their expert associates for education.

3. HOW CURRICULUM WAS DEVELOPPED AND IMPLEMENTED IN CROATIA

In the estimate of the current situation in the development and implementation of curriculum, today, according to many, an inappropriate VET system, it seems advisable to remind of some curriculum-making mechanisms, which were at a certain point of time abolished in Croatia without grounds, whereby new, better ones were not established.

3.1. Law on Occupationally Oriented Education from 1982

The Law on Occupationally Oriented Education from 1982 (amendments in 1986 and 1989) was a clearly and precisely defined procedure of making and implementing curriculum in the secondary school education. Pursuant to that Law, frameworks for education programmes for obtaining qualifications were made by joint Croatian Education Council and Republic Assembly of self-management interest communities of occupationally oriented education, and at the proposal of programme councils and evaluation of the programme proposal made by the Institute for the Service of Education and Pedagogy.

3.2. Changes in the programming system in 1990

Amendments to the Law on Occupationally Oriented Education, determined by the end of 1990 abolished the programme councils for vocational areas, and instead of the Croatian Education Council the Programming Council is introduced. In June 1991, the Ministry of Culture and Education adopts a document Amendments in the System of Secondary Education. Introduction of the document states the transitory character of marked changes and announces a new conception of education in the Republic of Croatia.

In 1992, the Law on Secondary School Education is passed, which is today still in force. Problems of curriculum are dealt with in only three articles. They determine the basic structure of curriculum and the competence of the Ministry of Education and Sports in passing the curriculum.

Pursuant to the Law on Crafts from 1993, and the proposal of the Croatian Chamber of Crafts, with the accord of the Minister for Education and Sports, the Minister of Economy passes in 1995 programmes for occupations in crafts according to the dual system (published in 1996), that are being implemented in some vocational schools since the school year of 1995/96. In the making on the programme participated individuals or smaller working groups composed mostly of those employed in the education sphere.

3.3. Structure of the “narrow” curriculum

In the Croatian schooling system today we have a curriculum characterised by the system of subject-focused classes, closed towards the obvious changes occurring in various segments of the society. During the past ten years it went through two changes: the first at the beginning of nineties, with the reintroduction of three year programmes for industry and crafts, and introduction of four year programme of vocational education, for technicians and similar occupations. The above mentioned changes changed the character of VET. Programmes are based on subject-focused classes, they are too extensive, individual contents overlap, they are not fully compatible with the given education objectives, they are not flexible towards fast changes in technology and they do not provide teachers with greater freedom in creating practical programmes.

Exception are programmes in the dual system made by an integrative approach, directed towards the occupation, and contain only basic knowledge necessary to gain competence in occupation. Students are free from adopting dispensable contents, while teachers have greater freedom in creating practical programmes, discerning necessary and useful contents, possibility of team work, and specialisation in individual occupations. Due to the above mentioned, there is no multiple repetition of same contents, and it is more easy to co-ordinate the realisation of practical and theoretical part of the programme.

3.4. Practical training

The majority of secondary VET schools implement complete schooling education. This means that theory subjects and practical classes are being achieved in school, that is in the school workshops and most often in a form of exercises, and more rarely through the simulation of the actual work process. The majority of schools does not have adequately equipped school workshops or do not have them at all, which renders quality performance of practical classes almost impossible. If the students are sent for practice in enterprises or crafts on the basis of the contract on the realisation of practical classes contracted between the school and enterprise/craft, the school takes care of the realisation of the programme. The partnership between the school and enterprise/craft is most often formal. Evaluation of the practical work of students is often not made and the enterprise is not motivated to provide the student with quality knowledge and skills. If we add that the programme contents are not co-ordinated with the work process, and that the number of classes planed for the practical training is in most cases less that necessary, the competence of those that complete these programmes is often questionable.

In the dual system of education, the situation is more favourable. The training is conducted in licensed crafts/enterprises pursuant to the contract on apprenticeship which proscribes commitments of the apprentice of enterprises/crafts and schools.

3.5. National standards of qualification

National standards of qualification in the Republic of Croatia are basically non-existent. So far, only the “National Qualification of Occupations” has been made and passed so far, and the “National Qualification of Education” is in making.

National Qualification of Occupations is a multipurpose internationally harmonised means intended for the employment service, education system, professional orientation, in the state statistics and statistical researches etc. Complexity of occupation is of special importance for the education.

Most often, in the Republic of Croatia occupation or vocation of certain complexity can be gained by completing formal education. Working experience and gained knowledge and skills through work are rarely taken into consideration. This means that the school certificate, obtained at the end of formal education, is the condition for work position of a certain qualification.

It has already been mentioned that the education programmes in the vocational education often do not meet the actual needs of the market, thus, the school qualification and competence cannot be equalised.

3.6. Society evaluation of the vocational education

Education is the basis for the overall development of the society and it should be priority concern of every country. Unfortunately, in Croatia this is not the case, since for a number of years education is pushed on the margins of the state interest. The awareness of its importance in the life of humans, particularly from the aspect of lifelong education has not been recognised.

The position of vocational education, which has been pushed to the margins both by the line ministry and by the local authorities, as well as by the overall public that unjustly attributes greater importance to secondary schools and four year VET schools, is particularly difficult.

Motivation of students to register in the programmes of VET schools is weak, which is a consequence of the difficult situation of the Croatian economy. Bankruptcies and break downs of large systems of economy and insufficiently speedy development of small and medium-sized private firms causes little need for work labour. There is a large number of unemployed with various qualifications, which slows down or decreases the care about vocational education.

3.7. Horizontal and vertical mobility of the system

For the education system of Croatia, one can say that there is a partial mobility. Horizontal mobility is possible in several ways. Namely, during the secondary education, students can, after the first grade, change the education programme, that is transfer from four year schools to three year schools and vice versa, with the obligation of taking exams concerning the differences in the programmes.

The other way of horizontal mobility in the system is realised after the completion of the secondary education in the form of retraining and additional schooling in certain programmes. One part of students that have completed the four year schooling, and did not manage to register in the college or high school, decide for retraining for various occupations with the purpose of entering the labour market.

Educational system has a vertical mobility for students of secondary schools and four-year vocational schools, while it is very difficult for the three-year school programme students. By taking the final exam, students of four-year schools obtain possibility of taking entrance exams and thereby enrolling in colleges or institutions of high education. After completing secondary schools, students of three-year schools can take entrance examinations on all colleges (high schools), and only to a small number of institutions of high education, depending on the decision of each individual institution.

Students of three year schools for crafts, educated pursuant the dual system, are enabled to, after taking apprenticeship examination and three years of working experience in the occupation, to take the master craftsman examination. Successfully passed master craftsman examination gives them the opportunity to start their own craft, but does not increase their possibility to enrol in high vocational schools.

3.8. Regulation of the system

Croatian education system is centralised and is characterised by the central and roofing position of the Ministry of Education and Sports, which proscribes and passes all decisions relevant for the functioning and organisation of the education system.

In the past six years, the Croatian Chamber of Crafts appeared as the only partner to the Ministry of Education and Sports in the system of vocational education, and the last year was joined by the Ministry of Crafts, Small and Medium-sized Enterprises. The entrance of the trade chamber in the system of vocational education implied, not only new programmes for occupations and greater interconnection between work and learning, but also indicated to the imminence of co-operation between the Ministry of Education and Sports with all relevant social partners.

3.9. Taking exams

In a regular schooling system there are several forms of examinations:

a) A-level examination and final examination - after successfully completed fourth grade, secondary school students are taking A-level examinations which consists of oral examination of final thesis paper and taking two compulsory and one selected subject. Students of four-year vocational schools, after successfully completed fourth grade, take final examination consisting of oral examination of the final paper, written and oral examination of the Croatian language and written and oral examination of specialised subjects.

Students of three-year vocational schools who have successfully completed the third grade by the industry or crafts classical programme, take final examination, which consists of practical work, written exam of the Croatian language and oral exam in specialised-theoretical contents.

b) Apprenticeship examination - is taken by students of three year schools for crafts in the dual system of education, that have successfully completed only the vocational part of the programme. The examination consists of practical part and written exam in specialised-theoretical contents. Practical part is being conducted in the crafts shop, and is monitored and assessed by a three-member commission composed of master craftsman, teacher of vocation subject and expert associate. Hereby composed exam in theory represents the basis for obtaining specialised competence. Apprenticeship examination is an integral part of the final examination.

c) Exams concerning the differences in the programmes - are taken by students that have, after the first grade, transferred from one programme into another.

The system of education, according to personal needs, that is, adult education, contains:

a) Retraining - Today there are two forms of retraining in Croatia, whereby the one in the programmes of dual system of education is much more simple.

b) Training - is also conducted in several ways.

In the regional chambers of crafts, examination in vocational qualification enables independent management over some more simple crafts, for which the master craftsman examination is not necessary.

The other way of training is very similar to the formal education, and is most often conducted by open institutions of learning and secondary vocational schools. Various exams in internal courses for training are conducted also by economic experts.

c) Additional schooling - is conducted for students who, after the completed three year school, wish to continue their schooling on the four year school. Additional schooling lasts two years, whereby during the first year they take exams concerning differences in the programmes in the first three years, and during the second they listen and take exams of the fourth grade.

- d) **Master craftsman examination** - is taken in regional chambers of trade. The condition for taking the master craftsman examination are successfully taken apprenticeship examination and final examination, and three years of working experience in the vocation for which the master craftsman examination is taken. With the successfully taken master craftsman examination, one gains the vocation of master craftsman and opportunity to start one's own craft.
- e) **Professional training** - individual schools and open institutions of learning have programmes of professional training for a whole range of occupations.

3.10. Financing of the system

Schooling system of the Republic of Croatia is primarily and almost in its entirety financed from the State budget, through the agency of the Ministry of Education and Sports.

From the 1st July 2001, a part of school financing has been taken over by the local authorities, which was precisely the most sensitive part referring to material costs, maintenance and school equipping. Today, it is difficult to discuss on the results of these changes, but there is a fear that the Ministry made that step in a more formal than cautious way.

4. SOCIAL AND ECONOMY OBJECTIVES OF THE CURRICULUM

4.1. Problems of labour and employment in Croatia

Problems of Croatian economy are primarily reflected in the high, and still increasing, rate of unemployment. Consequences of such condition and trend are, of course, lower standard, but also great losses of knowledge and skills of those employed for a long time, loss of their self-esteem and finally loss of working habits and motivation. Finally, the result is that very often, despite the large number of unemployed, the potential employer cannot find a worker with required knowledge and skills.

5. INTEGRATION OF WORK AND LEARNING

Today, the Croatian society is undergoing deep changes, both in the sphere of politics and the economy. The transition towards a market economy and an open civil society results not only in the review of policy and economy, but also in the review of the education system, especially regarding the sphere of the education system dealing with the vocational education and training (VET).

In Croatia, there is a definite need today for a stronger interaction between education (learning) and work. It is the topic of theoretical debates at all levels. However, on the side of the competent bodies, decision making bodies (Government, Parliament) this need has not been clearly articulated. Considering the fact that the strategy of economic development has not been defined, it is difficult to lead the development of vocational education in the right direction. Still, the needs for changes are indisputable and should be directed towards enabling each individual to achieve his/her professional progress, which can be obtained through providing an offer of various educational options. The offer of educational options should be based on the research and defining of the needs for occupations, particularly new ones (in harmony with the development of technology), defining the knowledge and skills necessary for achieving qualifications in certain occupations, making of curriculum (integration, module programming), creation of conditions for a quality realisation of curriculum which includes education and innovation of the knowledge of teachers and specialised teachers. The education process should also definitely include contents important for good orientation on the market and functioning of individual as an active and responsible citizen.

5.1. Barriers to integration of work and learning

Barriers to a successful integration of work and learning both in formal and non-formal education and training are as follows:

1. Insufficient promotion of social partnership.

2. Outdated of school legislature.
3. Insufficient public funding available for schools.
4. Teachers who are neither motivated for change nor realising the potential of possible change.
5. Students and their parents still attribute a higher esteem to VET programmes with a higher academic content and consider these “more valuable” than the development of practical skills.
6. The public does not recognise the need of integrating work and learning.

5.2. Recommendations and guidelines for solving the problem

The concept of lifelong learning is most important and every individual must be able to use it. Therefore, everyone should have the chance to access specialised education, while young people should be informed in compulsory schools already about occupations and real work. Thereby, it is important to take care of and respect the capabilities of individual.

This is related with the transparency of vocational education which should be recognisable and completed with a certificate that has its value on the labour market. In order to achieve that, initiatives towards the schooling system and system of economy are necessary, in order to improve integration of work and learning.

Informing of public on the need, purpose and benefits of integration of work and learning and lifelong learning is extremely important. This concept should be rendered closer to each individual, so that he/she does not conceive it as a threat, or possible loss of subsistence, but as a useful change for him/her.

The initiative for passing the Law on VET should be followed by new standard in schools and recognition of all certificates (formal and informal) obtained on the basis of these standards.

6. SOCIAL PARTNERSHIP

Social partnerships in Croatia, both at the state and local level, should have an important role. At the state level general guidelines and projects of development of lifelong learning would be directed, while local partnerships could play a key role in that partnership, by supporting the development of the education and training programmes both for unemployed and employed persons. In this way, the human resources development at the local level will at the same time accelerate the development of the overall community.

Today, the achievement of social partnership is visible in Croatia only in the area of VET (dual system) where it is defined and regulated by law. Despite that, in practice it is unfortunately difficult to achieve because of the despotism of the public administration which often does not recognise its social partners (chambers, craftsmen, entrepreneurs) but imposes its own solutions on the account of political power.

7. PROBLEMS OF VET CURRICULUM IN CROATIA

VET curriculum is burdened by various problems due to which the system deteriorates with each year, does not function and does not achieve set objectives.

The influence of beneficiaries of services on the education system is insignificant, and partnership of those who are, due to the nature of the social events, supposed to participate in the creation of education system does not exist (except at the level of education for crafts, where it is difficult to achieve).

Knowledge on new technologies, training for individual work and initiative are on the margins of interest of those who create that is conduct schooling programmes.

8. NEED FOR CHANGES IN VET IN CROATIA - guidelines for the curriculum development

Changes in VET are necessary, but before we start with any concrete interventions, it is necessary to thoroughly discuss on the concepts and possibilities of curriculum development in the light of transition period we are going through.

The change in the form must be reflected in the following: from the formal qualification towards competence, taking over of responsibility for personal gain of knowledge, enabling of initiative for the development of individuality and flexibility in the change of occupation, establishment of balance between the system and the person.

9. NEW EDUCATION STRATEGY

New education strategy of secondary school education in Croatia should be based on the following principles:

1. Equal opportunities for the access to the secondary education.
2. High quality which imposes that the curricula be in harmony with modern scientific, technical and technological achievements.
3. All knowledge and skilfulness of citizens of European countries must be such that they provide indispensable synergy necessary for the society progress, whereby national competencies over education policies should not be abolished.
4. System of secondary education should be: clear, comprehensible, recognisable, of simple structure, completed with a certificate that is valid on the labour market or the document is recognised for the continuation of education at colleges, high schools and universities.
5. Penetration of general and specialised contents.
6. Importance of the labour market and adaptability of qualifications is the principle that can be achieved by applying appropriate model of education, which enables greater possibility of occupation choice.
7. Compatibility of qualifications dictates today's international global market.
8. The concept of lifelong learning is based on the idea that the development of information techniques is fast and constant, and requires also constant changes in qualifications. Therefore it is necessary to enable the citizens to understand and use the changes in science and technique by learning during all the periods of their life.
9. Social partnership is the necessary principle of VET.
10. In order for the VET to ensure the living of those who decide for it, it is necessary to grade it with clearly defined objective and determined duration and such curriculum that it could provide corresponding knowledge and learning close to practice. VET, like education in whole must be a lifelong process.

10. POSSIBLE CONCRETE MODELS OF CHANGES IN VET CURRICULUM

10.1. Means of obtaining occupations and vertical mobility

Various types of secondary schools are completed with taking various types of examinations. We have mentioned the secondary school A-level exams (school and state), final exams in the four-year programmes as well as final and apprenticeship examinations in VET schools. In the mobility towards the institutions of higher education, it is necessary to plan corresponding vertical links.

10.2. Regulation of the VET system and social partnership

The Government of the Republic of Croatia should urgently start with the making of the Law on VET, whereby it would show that it takes care about the development of its human resources in a new way, by linking economy and education. Just as well, it is important to decentralise the education system.

In the system of decision-making on VET, social partnership of all users of education should be developed.

10.3. Making of a unique standard of VET and designing of curriculum

Considering the fact that there is a whole range of various education models for some occupations present in the VET schooling system, it is necessary to make a national classification and standardisation of the programme according to their complexity, necessary material and personnel conditions and modes of conducting education.

Vocational education is a necessary element in the economic development. Its role is to help develop a society which learns, to stimulate social partnership and social dialogue, to stimulate intercultural learning, to reduce inadequacies in skills by motivating people to help themselves. Vocational education curriculum must have an objective, development of key skills, constant professional training, whether in schools or in firms, and it should be characterised by:

- module way of programming, when possible;
- integrative programming of vocational theoretical contents;
- integration of work and learning;
- flexibility and adapting to the fast technological development and market globalisation;
- possibility of lifelong learning for each individual, regardless his/her age and material status;
- a more simple horizontal and vertical mobility through the system of VET.

10.4. Network of VET schools

Today, Croatia has an expensive and irrational network of VET schools and programmes.

Considering the new trends in the Croatian schooling legislature (transfer of school equipment financing to the local community), it is to be expected that the local community will participate with more quality in defining the network.

A well-set network of VET schools should also define central VET schools which should become technological centres.

10.5. VET school - technological centre

Schools - technological centres should be rendered capable of responding to the fast development of technologies as well as the labour market demands with various forms and contents of education, so that they could, at any moment, provide education and counselling services. In order to achieve that, such centres should be equipped by modern equipment which would ensure education appropriate for the functioning economy. It is necessary that the equipment be at a technologically higher level a one step ahead of conditions in which operate majority of economy experts. Equipping of these centres (even the ownership) should include associations of employers, chambers and similar associations which will be able to enable constant development of such institutions along with the participation of state and local education and economy structures.

11. STRATEGY OF CURRICULUM REFORM

For a successful implementation of curriculum reform, unambiguous comprehension of the concept of (national) curriculum is not sufficient, but it is important to know the methodology, that is, the strategy of reforming the curriculum. With this purpose, experiences of developed European countries and advanced transition countries can be useful (*Strategies of educational reform: from concept to realisation*, 1999). The main task of the strategy is to optimise the way of implementation of the envisaged change with the given context (*What secondary education for a changing Europe*, 1997). When the matter is about the curriculum reform, its main strategic starting points are the following: a) reform of curriculum should be based on empirical evaluation of the existing curriculum, b) reform should be prepared and implemented together with as large number of interested partners as possible, c) enough time should be given for the reform (*Leclercq*, 1999).

1. STARTING POINTS

According to the documents issued by various international organisations dealing with development of education and training (UNESCO, OECD, ILO, Council of Europe), learning is seen as a lifelong process which is no longer confined to education systems (formal learning), but has spread out to non-formal ways of acquiring knowledge, including also self-learning (*Commission of the European Communities, 1995, 1996, Dohmen, 1996, Delors et al. 1996, 1998*). In other words, knowledge is not only acquired at school, but also in other organisations and through other channels. Therefore, our society has become a "learning society". The greatest treasure of developed countries is their people, and many countries have been promoting development of education and science as their own national priorities. Croatia must, like other transition countries, invest a lot into its vocational education and training (VET) if one of its objectives is a fast national development. This means that the vocational education and training must correspond to the demands of modern times, marked by extremely rapid scientific, technical, technological and social changes.

Analyses of the current situation in education in the Republic of Croatia (*Report on Croatian Education, 2000, Organisation of Croatian Schools, 2001 and others*) have shown that the Croatian education system is undergoing a deep crisis concerning the effectiveness and its own ability to cope with the existing problems. In the past decade, there have been some backward processes in the area of developmental infrastructure in education. While other transition countries rushed ahead trying to make up for the deficiencies from the past, Croatia had to face devastation of its Education Institute and the Institute for Adult Education, scientific research in the field of education and learning was reduced, the funds for publication of scientific and technical literature were cut, post-graduate studies at teacher training colleges were practically abolished. Vocational organisations lost their influence in creating the educational policy and all the positive processes launched in the late 1980s were interrupted. Due to such a situation, measures have been taken to develop some practical and scientific infrastructure (such as strengthening the Education Institute, setting up the Centres for Research and Development of Education and other relevant institutions) and development research have been launched in order to develop some short-term measures to consolidate the system and its long-term structural reforms. Many projects have been started in Croatia, trying to offer the best and the quickest solution to get out of the current situation.

In that respect there are discussions going on about national research priorities referring to the reforms and structural changes of the education system, touching upon the issue of the vocational education and training (VET) reform. The research includes:

- Identification of a best model of compulsory education, by defining duration and structure of basic education, as well as compulsory post-basic education,
- Reform of curriculum in the context of lifelong learning,
- Development of an ideal model for VET and secondary school teacher training,
- Development of a system for identification and support to talented students,
- Setting up a system for external evaluation of the achievements by schools and students,
- Decentralisation and financing of education and training.

The list of projects reveals that a lot of importance is given to the reform of curriculum. This is understandable as the contents of education represent the foundation for the whole of education and training system, helping to develop and apply knowledge, skills and values.

1.1. What is "curriculum" and what is "curriculum development"?

The term *curriculum* has various meanings and therefore it is important to define the one referred to in this context. The term is being used in its broader and specific sense. The broader sense refers to the curriculum system comprising learning objectives, teaching curricula (programmes), conditions and methods of presenting the programmes, as well as an internal evaluation of the achievements relating to education and development. Those elements all interact with each other and therefore form a system. For instance, curriculum should achieve the set objectives; in doing so it is important to consider external and internal preconditions of learning (student's prior knowledge, competences and motivation); finally the curriculum itself is determined upon the results of an evaluation (*Pastuović, 1999*).

The specific meaning of *curriculum* refers to the very substance of learning, which is a part of the overall teaching curricula. *A national curriculum* consists of teaching curricula (with corresponding programmes) of compulsory education and common contents of various forms of post-compulsory education. This means that when introducing some changes to the curriculum, it is important to take into account that the measures to be set in place are adequate and in line with other elements, such as the objectives, conditions of performance and the results of an empirical evaluation.

The scope of the curriculum reform can vary. Due to the structure of curriculum system, programmes of education and training need to be developed continuously in line with changes in teaching curricula, learning conditions, and depending on the results of performed evaluation. Regarding the fact that changes surrounding education (due to scientific, technological and social developments) are continuous and increasingly rapid, the objectives

of learning, which should be achieved by education and training, change accordingly. Therefore the teaching curricula must be changed continuously and this is normally done by a standardised procedure called "*curriculum development*". Within the system of lifelong learning, comprising all the levels of education and training, curriculum has to undergo constant adjustments to the surrounding demands.

1.2. Structural change of curriculum

Structural change of curriculum, or the *reform of curriculum* is necessary when there are fundamental changes in the education and training environment (changes of the social context and/or significant technological developments); also when the existing education system does not work effectively any more, there has to be a change in structure of the existing education system, which implies a radical reform of the (national) curriculum. In transition countries there is no doubt about the need for structural changes of curriculum, considering the social and economic discontinuity which appeared there, and the efforts of certain countries to adhere to the European Union. This is also the case with Croatia, regardless of enormous internal and external barriers and limitations in the framework of which the Croatian education system has been working. The situation in Croatia regarding the reform of curriculum represents a paradox: on one hand the curriculum should be changed fundamentally and the reform should start as soon as possible, and on the other the resources available allow only for an utterly cautious action. A special attention has to be paid to the strategy and planning in order to avoid possible mistakes. With that in mind, it is useful to look at the experiences of other European countries that have already finished or are in the process of a curriculum reform.

In Croatia the political authorities and experts dealing with education have agreed that a general reform of curriculum should be performed and that it should also include a reform of the curriculum of VET. However, success of any change depends very much on the system's ability to introduce the changes. Due to insufficient development of the developmental infrastructure of education system in Croatia, it can be said that its ability to introduce the changes is rather small. For that reason all the changes must be well planned and introduced gradually. First, there should be a consolidation of the education system based on the evaluation results, and only then substantial structural changes can be started. Here it is important to stress that major (structural) changes of curriculum must be harmonised with other structural changes of the system. Namely, education is a system with its horizontal and vertical elements being interdependent.

The vertical elements of an education system represent particular levels of education and training (pre-school education, basic, secondary, tertiary education and permanent education and training of adults), while the horizontal elements include programmes,

institutions and technology. Programme elements of individual levels of education must be set into the system in a way that the exit from a lower level of education (acquired competence and knowledge) must represent an adequate entrance condition (prior knowledge) for the following levels, including also all further phases of lifelong learning. In Croatia there are no standards for basic or compulsory education (9 to 10 years) and no common structure of secondary education. This makes the reform of the existing curriculum of VET even more difficult. Considering the fact that this form of education and training is offered not only through the regular education system, but also through other informal types of education and training, the reform of curriculum should be performed within the framework of lifelong learning as its main strategy.

There are three types of organised learning in an education system, including formal education (school education), informal education and self-education. Learning can be organised, but also non-organised (spontaneous or natural learning) or informal. The modern doctrine of lifelong learning comprises and links all types of organised learning (education) and also informal learning. Therefore the term *lifelong learning* has been increasingly used nowadays. The most significant rationalisations of modern education and training consist of including all types of learning into a system and recognising their results through adequate certification.

As qualification can be acquired through various types of learning, it is important to combine all of them in an optimal way. This is achieved by the development of *self-directed learning*. Self-directed learning is not a new form of learning. An individual decides by him/herself on what types of organised learning (formal education, informal education and self-education) he/she will include into his/her own learning process and in what way these types will be combined (*Gartenschlager & Hinzen, 2000*). Through self-directed learning formal and informal education and training become a part of a network, which improves their synergy. One's ability for self-directed learning is an intellectual competence acquired through compulsory education which should be further developed by education and training and by consultations offered by the institutions specialising in adult education and training. All these facts are extremely important for the practical part of VET because it is in that very area that the concept of lifelong learning, i.e. learning throughout the working life by combining various types of learning, should be applied.

2. CROATIAN SYSTEM OF SECONDARY VOCATIONAL EDUCATION AND TRAINING

2.1. Development and implementation of curriculum in Croatia

In this analysis of the current situation in Croatia regarding the development and implementation of VET curriculum, which according to many people's opinion seems inappropriate, it is good to remind of some mechanisms for the adoption of curriculum, which have been abolished for no reason and which have not been replaced by new and more adequate ones.

Law on professional secondary education dating back to 1982 (amended in 1986 and 1989) defined in a clear and precise way the procedure of drafting and adopting curriculum for secondary education. According to that Law, the framework curricula for the acquisition of qualifications were adopted jointly by the Croatian Educational Council and the Assembly of Croatian self-government interest group for vocational secondary education, upon a proposal by the Curriculum Councils and an opinion on the proposal issued by the Institute for Educational and Pedagogical Matters.

The Curriculum Councils had a task to draft and identify proposals for educational profiles (level and sort of knowledge to acquire, abilities, competencies and working habits needed to perform activities related to one or a group of occupations) and framework curricula with all their features (contents, material and human resources needed to fulfil the programme, entrance conditions, etc.). The Curriculum Councils also had to monitor the implementation of the programme and the preparation of proposals to ensure its improvement.

The Curriculum Councils were composed of distinguished school teachers, scientists and experts from businesses and institutes. The work of the Curriculum Councils was co-ordinated by a special committee which also acted for the Institute for Educational and Pedagogical Matters (working on the activities of drafting joint methodology plans and profiles, monitoring and co-ordinating the work of the Curriculum Councils).

Subsequently, at that time ten Curriculum Councils were set up for the following areas:

- Metal work and electrotechnics, agriculture and food processing, civil engineering and surveying, transport, technology and mining, economics, catering and tourism,

administration and law, health, education, culture and art, forestry and wood processing industry.

With all the bad points of the then ideological education and pedagogical system, the set up organisation of drafting and monitoring the implementation of framework curricula offered a possibility to establish the necessary link between the labour market needs and the education system. Unfortunately, this was all interrupted with later changes. Within such an organisation there were elements of social partnership when creating the curriculum. Considerable funds were allocated to the work of the Curriculum Councils, which was made possible by special interest groups of individual professional associations. The funds were raised from the economy and other areas where there was some interest for education.

According to the Law on vocational education and training, each framework curricula included compulsory and optional courses. The compulsory part of the curriculum included the general knowledge courses of the core subjects (common curricular basis) during the first two years of secondary education, which were compulsory for all both in 3-year as well as in 4-year education programmes. It also included common technical courses (for several similar occupations or a vocational educational area), special technical courses for more specific vocational educational areas and optional courses (two hours per week throughout education), where students could choose among a number of prescribed programme subjects according to their own interests and competencies.

With the amendments to the Law on professional secondary education adopted in 1990, the Curriculum Councils for individual professional areas were abolished. Instead of the previous Croatian Educational Council new Curriculum Council was introduced. In June 1991 the Ministry of Culture and Education adopted a document called "Changes of the Secondary Education System". The introductory part of this document announced that the introduced changes would have a transitional character and that a new concept on pedagogy and education should be adopted in the Republic of Croatia. The document was based on the proposal for the Law on secondary education (which was in the process of being adopted at that time). The following changes were introduced with the document:

- Common programme bases for the first two types of secondary education were abandoned, and the Minister of education and sports was to decide on the minimum common programmes in vocational and artistic secondary schools, separately for four-year and three-year programmes and for lower qualification programmes respectively.
- Sorts and types of secondary schools were defined,
- A total of teaching curricula was reduced (there were 23 professional educational areas, 81 teaching curricula for 4-year schools, 87 teaching curricula for the professions in industry and economy for 3-year schools, and 70 teaching curricula for 3-year crafts schools were defined).

On the basis of these decisions, the Institute for Education founded working groups that were in charge of drafting framework curricula. The working groups consisted of distinguished teachers from vocational schools, as well as of scientists and experts from universities, but there was nobody representing Croatian economy.

In 1992 the Law on secondary education was introduced. This law is still in force. The problem of teaching and learning plans and programmes tackles not more than three articles, defining the basic structure of teaching curricula, as well as the competence of the Ministry for Education and Sports in adopting the teaching curricula.

With a decision by the Minister of education and sports from 1995, the minimum common programmes were broadened (Religion and Ethics were introduced as compulsory subjects), which led to the corrections of teaching curricula and partly also of **contents of education**. The contents defined at that time are still applied today, with only a few changes.

On the basis of the Law on crafts dating back to 1993 and a proposal by the Croatian Chamber of Crafts, along with support from the Minister of education and sports, curricula for crafts professions according to the dual system were introduced in 1995. The dual system has thus existed in one part of VET secondary schools since the school-year 1995/96.

Individuals and smaller working groups composed mainly by teachers took part in drafting of the curriculum.

2.2. Education system in Croatia

Education system of the Republic of Croatia is organised according to the Law on pre-school education (Official Gazette, 10/97), Law on basic education (Official Gazette, 59/90), Law on secondary education (Official Gazette, 19/92), Law on crafts (Official Gazette, 77/93, 90/96) and Law on higher education (Official Gazette, 59/96).

(Scheme 1: Education system in the Republic of Croatia)

The basis of the Croatian education system formed by its parts:

- 1.1. Pre-school education from the age of 3
- 1.2. Basic education age 7 - 15
- 1.3. Secondary education age 15 – 18
- 1.4. Higher education from the age of 18

2.3. Link between basic and secondary education

Basic education in Croatia has been lasting for 8 years since 1952. Duration of basic education equals compulsory education, which makes Croatia different from most Western European countries. The basic education curriculum is based on a system with forms, subjects and class hours, which is characterised as the so-called curriculum centrism. Unlike in **pedocentrism**, in this system it is the realisation of the teaching curriculum which is important, while the child's development and his/her knowledge acquisition are in the background. The teaching process is dominated by teacher-oriented courses. Teaching methods and strategies, as well as the teaching equipment and the entire school atmosphere crucial for education are not adjusted to the development needs of a 7-year old child. In achieving the aims of basic education, the first four years of teaching process are characterised by the so-called personal concentration. In the 5th form children are taken over by subject teachers. Curricula for higher levels of basic education, i.e. 5th - 8th form, are designed in a way that they prepare students for grammar school secondary education and not for secondary vocational schools. Therefore, for a large majority of basic education students such curricula are inappropriate. Unfortunately this inappropriateness is not being reduced by any additional methodological and didactic solutions leading to more differentiation or individualisation of curricula and learning. Thus the student is not offered any sort of a support to achieve qualification and knowledge for a desired profession.

Certificates and diplomas issued at the end of basic education offer in most of the cases unrealistic data on the amount of knowledge and skills acquired throughout compulsory education. Thus the transfer from basic into secondary education represents a neuralgic point of the Croatian education system.

The Entrance into secondary education is based on the overall results achieved in the 7th and 8th forms of compulsory education and on the results achieved in those two years in five subjects which are the most relevant for further education in a particular form of school.

2.4. Vocational education programmes

Secondary education along the line of curricula offering a professional qualification can last for four (the so-called A programmes) or for three years. The three-year programmes for the acquisition of secondary education professional qualification in industry and economy (the so-called B programmes) and for crafts (C programmes and dual system programmes or programmes for related crafts, DV). Post-basic education offering a lower professional

qualification (D programmes) last one to two years. Besides, there are also programmes for children with special needs (E programmes).

The VET curricula have been divided into 28 professional educational areas. The table 1 gives a list of the professional educational areas with a number of curricula along with the number of years of education.

Table 1: Professional educational areas and programmes (school year 2000/2001)

Nr.	Education area	Number of programmes						
		A	B	C	DV	D	E	Total
01	Mechanical engineering	12	15	16	16	1	10	70
02	Shipbuilding engineering	1	4	-	3	8	-	16
03	Metallurgy	1	5	3	2	2	-	13
04	Electrotechics	10	4	4	4	2	1	25
05	Geology, mining, oil	4	4	-	-	4	-	12
06	Economy and trade	4	1	-	1	-	5	11
07	Catering and tourism	2	4	-	2	4	4	16
08	Agriculture	4	6	-	-	1	5	16
09	Food processing	1	7	-	4	-	4	16
10	Veterinary	1	-	-	-	-	-	1
11	Forestry	1	-	-	-	-	-	1
12	Wood processing	2	-	8	3	1	7	21
13	Civil engineering, surveying, construction materials	6	9	5	4	7	3	34
14	Road transport	1	2	-	-	-	-	3
15	Domestic transport	1	1	-	-	1	-	3
16	Marine, river and port transport	5	2	-	-	3	-	10
17	Postal communications	1	1	-	-	-	1	3
18	Air transport	1	-	-	-	-	-	1
19	Rail transport	5	4	-	-	-	-	9
20	Chemical technology	3	4	1	-	2	-	10
21	Graphics	6	4	5	-	-	7	22
22	Textile	3	5	3	5	1	6	23
23	Leather processing	2	-	2	1	2	9	16
24	Health	8	-	-	-	1	-	9
25	Personal services	-	-	3	3	-	-	6
26	Other services	-	-	6	6	3	5	20
27	Optics and glass processing	1	-	1	2	1	-	5
28	Internal affairs and protection	2	1	-	-	4	-	7
	Total	88	83	56	57	48	67	399

2.5. Structure of the educational programmes

According to the Law on secondary education (Official Gazette, 19/1992) educational programmes (curricula) for the acquisition of post-basic and secondary education professional qualification consist of:

- a common part
 - a compulsory core subject (minimum of common general knowledge courses)
 - general knowledge subjects supporting the profession and common technical subjects (for similar occupations, vocational educational area)
 - special technical courses (professional subjects related to a narrow professional area, profession).
- optional part
- facultative part.

The common part includes basic courses that are compulsory for all the students of a specific profession. The Optional part comprises courses linked with the specific programme, among which they pick one or more subjects according to their inclinations and competencies. This part adopted by the Ministry of Education and Sports.

In practice the optional part is very often identical with technical courses related to the profession (which is especially the case with three-year programmes). The facultative part is introduced by schools individually.

Every teaching curriculum defines the following:

- objectives and tasks of the curriculum
- subjects and hours per week (teaching plan)
- objectives and tasks of single subjects
- programme substance of single subjects
- basic methods of teaching
- material (and didactic) conditions needed to achieve the aims
- human resources needed to achieve the aims
- instructions for the final exam.

The above mentioned refers to the programmes A, B, C, D and E. They were introduced in 1992, and their main features include education by courses with a special attention to theory and its organisation based on teaching hours. The four-year programme

includes a total of 19 to 31 compulsory courses (without the optional part), while the three-year programmes have 11 to 24 compulsory courses, which allows for some optional subjects or subjects aimed at development of "key competencies" (communication, taking initiative, entrepreneurship, etc.).

The structure of the programme is not appropriate because the students acquire knowledge which is fragmented and are not able to link sufficiently the obtained knowledge on single subjects into one whole. Programmes preparing for specific professions are based on programming by individual courses, they are frequently too broad and overlapping with each other, and are not entirely compatible with the educational aims proscribed for particular professions.

The four-year education provides for the qualification of technicians in various areas and other professions in the sectors of health, catering and hotel industry, administration, etc. All the four-year programmes have one part of education in common. It includes general knowledge courses, such as the Croatian language, foreign language, History, Geography, Ethics and Culture, Politics and Economy, Physical Education and Training. From a quantitative point of view this part covers one third of the overall curriculum.

Vertical mobility of graduated students is possible towards higher education, although their knowledge and abilities are tested by an entrance exam at all faculties. Horizontal mobility through the programme is very limited and is usually confined to a possible retraining.

It is important to mention however that all these programmes, especially the programmes providing qualifications of technicians were set up at the time when Croatian industry offered more than enough posts for technicians with secondary vocational schools education.

The three-year programmes provide education for professions in industries, crafts and other similar professional areas. Like in four-year programmes, these are also programmed subject by subject, with the accent on theory, while the acquisition of practical skills and development of key competencies are mostly neglected. In the industries which have survived the recent changes (such as food processing), many technological processes have changed significantly and the existing curricula no longer meet the real needs.

An exception can be seen in the programmes for crafts and small sized enterprises. However, even in this segment there is a paradox in co-existence of two very similar programmes and two educational sub-systems:

- full-time school programmes;
- dual system programmes.

Full-time school curricula are programmed by subjects. The relation between general educational subjects and specialized theoretical courses, and practical education is approximately 1:1, which means that students get 1632 teaching hours of theory and 1632 teaching hours of practical training. All the subjects are taught at school, unless a school does not have a school workshop or a laboratory, which is unfortunately often the case. In that case practical part of education is organised at a craft workshop or in companies, however without their responsibility of the employers to fulfil the programmes and without external evaluation of the students' achievements.

Dual system of education has been introduced on the basis of the Law on crafts and upon the initiative undertaken by the craftsmen via the Croatian Chamber of Crafts, established or better re-established on 1 July 1994. Curricula for this system of education are set up by combining **subject-oriented and integral programming** and are aimed at the acquisition of specific competences for a particular profession. In that way the students are not loaded with the contents which are irrelevant for their profession, while the teachers have a greater freedom in developing the programmes, distinguishing among the necessary and useful information, more opportunity to organise group work and paying special attention to the technical courses relevant for individual professions. With this form of education, the repetition of the same contents is avoided and it is also easier to coordinate the realisation of practical and theoretical parts of the programme.

The prescribed contents of subjects represent a framework, which means that teachers and schools have an opportunity to define the implementation plans and the time of their realisation by themselves, along with additional possibility of up-grading the contents (which is however limited by time and compulsory contents).

The relation between the general knowledge, technical theoretical and technical practical courses in most of the programmes stands as 1:1:8, in other words:

- general knowledge courses (854 teaching hours) 17,7 %
- specialised theoretical courses (848 teaching hours) 17,6 %
- practical training (3120 teaching hours) 64,7 %

The general knowledge courses, technical theoretical courses and exercises take place at school, and the practical part of training is organised at the crafts workshop or to a lesser extent in the school workshop. The right to have pupils for the practical part of dual system education is offered only to those craftsmen who meet the necessary conditions regarding

human and material resources, which is all being examined by a set-up commission. Those craftsmen receive a license issued by the local chamber of crafts.

Problems occurring in the dual system of education are in the first place related to insufficient preparation of the employer to take over responsibility for a pupil's education. On the other hand, although many schools are ill equipped for practical training, they do not want to give up their competence over this part of pupil's education. Within a framework of its abilities, the Chamber of Crafts has been investing a lot into this form of education even though there has not always been sufficient support from the state.

The programmes of the dual system of education are in the first place aimed at preparing pupils for the labour market and they end with an apprenticeship exam and a qualification acquired before a commission set up by the Croatian Chamber of Crafts. After the examination procedure (with external evaluation) and a three-year practice in the specific profession it is possible to be promoted and acquire a craftsman qualification through the craftsman examination. It is also possible to proceed with education in four-year programmes and exceptionally also at higher education institutions, but it is up individual universities to decide whether they will admit somebody who has finished this sort of education.

Considering the difference between the practical part of education, the path to exam in the vocational school system takes one year longer than in the dual system, and it also takes longer to be able to sit for an apprenticeship examination which is a part of the final examination in the dual system.

Horizontal mobility in the dual system of education is possible and easy to do. This refers to similar professions (professions from the same professional area) where retraining is possible by passing the craftsmen assistant examination (both practical and theoretical parts) after one year of working experience in the relevant profession.

On the other hand in the VET programmes horizontal mobility is linked to the attending of courses in order to compensate for the differential part of the programmes and it takes 1 or 2 years.

The dual system is characterised by a partnership between the Ministry for Crafts and Small and Medium-sized Enterprises and the Croatian Chamber of Crafts at the national level and the county services for education, local chambers of crafts and schools, especially schools and licensed craftsmen at the regional level.

The partnership between the Ministry of Crafts and SMEs and the Croatian Chamber of Crafts has been defined by the Law on crafts and it refers to the adoption of framework curricula, planning of the number of admissions, drafting of sub-legal acts, control, etc.

The partnership at the regional level refers mainly to the coordination of the plans regarding the admission. Schools and licensed craftsmen are partners in the implementation of the curricula, and regional chambers of crafts offer services through their advisors for education matters.

2.6. Practical training

The majority of Croatian vocational schools offer a full secondary education. This means that both theoretical courses and practical training are provided at school or at school workshops and labs, usually in the form of exercises, but sometimes also through simulations of the real working process. Most of the schools do not have appropriate or have no equipment at all, which makes it impossible to organise an adequate practical training. If the pupils are sent for practice in companies or at craft workshops with which the schools have a contract, the concern of the organisation of the programme still belongs to schools. The partnership between schools and companies/craft workshops is in most of the cases only formal. Usually there is no evaluation of the practical work performed by the pupils, and the company is rarely motivated to introduce relevant knowledge and skills to the pupils. If one takes into consideration the fact that the teaching curricula are not in line with the working process and that the time foreseen for practical training is usually insufficient, there is a question as to how qualified are the ones graduating from those programmes.

The situation in the dual system is much better. Training is performed at licensed crafts workshops or companies with which schools have an apprenticeship contract. This contract sets the obligations of the apprentice, the company or craftsman and of the school.

Granting a licence to craftsmen and companies is ensured by a commission according to specific rules. According to these rules, a craft workshop must meet the set conditions regarding material and human resources. This means that a craftsman or an employee who will be a mentor to the apprentice must have a craftsman profession or a craftsman's status. In addition this person must also have appropriate knowledge in pedagogy, methodology and psychology. The conditions regarding material resources are met if:

- there is adequate space in line with the conditions prescribed for performing a craft or for hosting an apprentice,
- there is adequate equipment (machines, devices and tools), which enables at least 70% of performance of prescribed working operations and procedures during apprenticeship,
- there are technical and hygiene measures of protection at work as well as environment protection measures put in place and
- there is a respect for prescribed sanitary standards.

The majority of vocational teachers at a crafts workshop or in a company do not have an adequate craftsman examination, as these were introduced only in 1996. In most of the cases they have been recognised a craftsman's status based on their professional qualification and working experience. The problem arising with such specialised teachers is their lack of pedagogical and psychological training. Therefore the Croatian Chamber of Crafts, in cooperation with the Chamber for crafts in Munich and Upper Bavaria, has organised training of multipliers in crafts and craft schools in the first place for the professions most frequently selected by the apprentices. Besides there are seminars on work pedagogy organised for the members of the craftsman examination commission, multipliers and education advisers from the chambers of crafts. In such a way competencies of the VET teachers are developed and improved and their knowledge and skills transferred to the apprentices.

Unfortunately the material conditions often do not allow for a necessary level of craft workshops which are mainly production-oriented. Apprentices are mostly trained with obsolete technology and this problem has been tackled at the local level of the regional chamber of crafts in a way that the pupils during their apprenticeship exchange several craft workshops in order to have the best possible conditions available for the practical part of their education.

It is the craftsman, school and the chamber of crafts that are in charge of the practical part of apprenticeship. This contributes to the development of good partner relations and thus the quality of acquired knowledge and skills is better than in the school-based VET. When the dual system was introduced in 1995, the craftsmen had to deal with the pupils of higher forms of vocational school-based education and with the apprentices from the dual system at the same time. Towards the end of education of the first generation in the dual system, the

Croatian Chamber of Crafts performed a poll on the results achieved in the dual system of education. In the poll the craftsmen stated that in comparison with pupils in school-based education the apprentices:

- a) acquired more knowledge and skills relevant to the crafts – 84,8 % of the questioned
- b) acquired less knowledge and skills relevant to the crafts – 0,3 %
- c) acquired the same level of knowledge and skills relevant to the crafts – 14,9 %.

The results proved really encouraging for the further development of dual system of education as an efficient model of integration of work and learning for crafts and small-sized enterprises. Unfortunately there is still a series of barriers to the further development of this system, going from the acceptance of changes, through insufficient standardisation and regulation, lacking quality infrastructure to the lack of understanding the need for integration of work and learning.

2.7. National qualification standards

The national qualification standards practically do not exist in the Republic of Croatia. There has only been a "National classification of occupations" (NCO) and a "National standard classification of education" has been prepared.

The national classification of occupations is a multi-purpose, internationally harmonised means of assistance to employment, education system, professional orientation, national statistics and statistical research.

The national standard classification of education is based on the principles, parameters and explanations which are a part of ISCED 97 (International standard classification of education). ISCED 97 "comprises curricula of formal education starting at the early age until

the entrance to the labour market, and lifelong learning. It makes the statistical data on education comparable at the international level.

In Republic of Croatia a profession or a professional qualification of certain complexity is most frequently achieved through graduation from formal education. Working experience and acquired knowledge and skills are rarely taken into consideration. This means that the formal education diploma, obtained upon the end of formal education, is a condition for a working place requiring certain qualification.

It has already been mentioned that the curricula in vocational education often do not meet the real needs in the labour market and thus there is no identification between the school qualification and competencies.

A try to acquire more appropriate professional competencies in the dual system of education refers to the so-called catalogue of knowledge and skills needed for individual occupations which have been made, only for the theoretical part of the programme though. For the school system where there is a lack of practical training and no direct link with the real working environment it is even more difficult to acquire the necessary competence.

It is obvious however that in the future there will be a need to have a national qualification standard, adjusting the educational standards with the ones related to the labour market. This will be a way towards the accreditation of qualification (competencies) acquired through working and life experience, in other words through informal education and training. Such a possibility to acquire professional qualification would enable individuals to have all their competencies accredited. Consequently this would improve the partnership between education and working environment.

In order to develop qualifications, their national standardisation ways and means to acquire them, it will be necessary to define some basic terms used by ISCED 97 and in the Proposal for the national standard classification of education such as: occupation, professional area, occupational standard, key qualification, special competence, modules, etc.

2.8. Social value attributed to vocational education and training

Education represents a foundation of the general development of a society and it should be a priority for each government. Unfortunately this is not the case in Croatia where education has been marginalized for a number of years as regarding the national interests. There is no recognised awareness about its importance in every person's life, especially from the point of view of lifelong learning. Education is mainly seen as an obligation to graduate from some school and to obtain a formal professional qualification, even without considering employment possibilities, lifelong learning and the development of an individual as a creative and civilised person with respecting educational, democratic and cultural values. It is obvious

that education is given only formal attention. Croatia has been undergoing a period of transformation, but this cannot justify for the lacking investment into education and its image of something that is putting an enormous burden to the state budget and should in fact be more economical.

The particularly difficult situation can be observed in VET. Much more attention is given to gymnasiums and four-year vocational secondary schools, not only by the state and economy, but also by the parents. The reasons lie in the difficult economic situation where nothing is invested into new staff; there is no employment in almost all sectors, no funds for organised types of education and training and without justification more social value attributed to gymnasias than to vocational schools. The society has not yet recognised the fact that good vocational education and the acquisition of qualification leading to employment become a guarantee for economic development. In Croatia all this is seen through the following facts:

- vocational schools, the carriers of VET, are usually either fully unequipped or have only obsolete technical equipment which is not at all compatible with new technologies. Due to the lack of financial resources nothing is invested into the equipment of school workshops and labs. It is obvious that there is a need for more commitment from all social segments to get the vocational education material standard from the present crisis. Some vocational schools do not even have a minimum of necessary space and equipment to educate students for particular occupations. As a consequence, there can be no functional education and acquisition of professional competencies.
- there is no network of specialised training for teachers of vocational subjects which would enable them to develop their knowledge and skills permanently and to get acquainted with new technologies. Thus they are confined to self-learning, which can give seldom results, especially considering the lack of specialised literature and the relevant specialised information. Specific course-related teachers trainings are organised rarely and are mostly purely theoretical.
- in the ministry which is in charge of vocational education, i.e. Institute for education development there are only few experts dealing with improvement of vocational education. The situation at the local level is even worse, which can be illustrated by the mentioned Institute, where there is only one adviser in charge of VET in all four South-Croatian counties. In addition this person is in charge only of the VET in the machine building area;
- the network of vocational schools is far too big and there are no intentions to make it more economical and adjust it to the needs of Croatian economy. The network has been spreading without a reason and without having ensured the

necessary means to organise education of good quality for specific occupations. Amendments to the Law on secondary education upon which the equipment of schools has become a responsibility of the local government. Hence it is expected that the local community will secure a more rational care for the school network;

- the lack of relation between the education system and economy can be recognised in the fact that the education system is closed against new curricula which would match better the needs of economy, plan professional profiles and that majority of businesses are not at all interested in possible investing into education or school equipment;
- social partnership, so much needed by vocational education, has only been partly established in the past six years by the entrance of the Croatian Chamber of Crafts into the vocational education system. However, the true coordination with the responsible ministries has never been achieved. Other economy subjects and their organisations do not participate in creation of VET curricula.

Another key problem to formal education, which also offers a bad influence to the quality of VET and qualification acquisition, is the structure of pupils who attend secondary vocational schools.

The four-year vocational programmes often admit the students who in fact do not have a sufficient knowledge on particular professional areas and quite a number among them cannot absorb the prescribed curriculum (an example to this is a significant number of students who have been enrolled to the programmes qualifying for technical occupations, who are not able to cope with those programmes as they are too demanding for them. Therefore they move already during or after the first year to some less demanding programmes or they simply drop out). Beside the children who are really motivated for particular occupations (for example the children of craftsmen who want to continue the family business), the three-year vocational schools are to a large extent attended by the children who have not been admitted to four-year vocational schools with more demanding programmes. Most of those children are not interested or motivated for the occupation they have been admitted to, which has a bad impact on the theoretical, as well as on the practical part of education. Generally speaking the motivation among students to attend vocational schools is low and has been decreasing throughout the time. The most probable explanation to this is the bad economic crisis in Croatia. Bankruptcy and destruction of large economic systems, as well as insufficient development of small and medium-sized enterprises have caused the constant need for a qualified labour. On the other hand the labour market is characterised by a large number of unemployed with different qualifications which reduces and slows down the concern about training and retraining of the labour.

Children with good results achieved during their practical training at a craft workshop and with true specialised competencies, which would enable them to continue their work in crafts have more chance to get employed.

2.9. Horizontal and vertical mobility of the education system

The Croatian education system there is partly mobile. Horizontal mobility can be observed at several levels. After the first form, the pupils can change the educational programme and switch from the four-year to three-year system or vice-versa if they pass the **supplemental examinations**. The transfer is possible only if there are places available in the school of the pupil's choice and if the educational authority in charge allows the transfer. In the past few years there has been a significant number of transfers from four-year to three-year programmes.

Another level of horizontal mobility within the system is possible after the completion of secondary education in the form of retraining or **additional training** for particular programmes. A part of the students who have finished their four-year education but have not managed to get to university or other higher educational institution, often decide to get retrained for other occupations with the aim of getting into the labour market. Nowadays retraining is possible in two ways. Firstly, it can be done at schools and other educational institutions where a new qualification is acquired, usually through consultations and instructions and by passing the differential and final exams. In this form of retraining a considerable problem lies in the fact that practical training is just a formality: a trainee simply brings a certificate on the practical training. Besides the practical part, the final examination consists of writing and not of a practical task. This implies that we can rather talk about the acquisition of formal qualification than about professional competence. Secondly, retraining is organised by the chamber of crafts (on the local level) in the form of an apprenticeship examination where, before an specialist commission as an external examiner, a trainee has to show the practical and technical theoretical knowledge. The condition to present oneself at this exam is one year of working experience in the relevant occupation and the secondary education professional qualification in the similar area. This sort of retraining offers more opportunities to acquire professional competencies at least formally.

Vertical mobility of the Croatian education system is possible for the students in gymnasium and four-year vocational schools, but rather difficult for the students who have finished the three-year programmes. The students who have graduated from the four-year educational programmes have an opportunity to sit for an entrance exam and get enrolled at all institutions of higher education. The students who have graduated from the three-year

programmes can sit for an entrance examination at all higher education professional schools and a limited number of universities, depending on the admission decision by each individual institutions. In order to meet the conditions for the entrance at all higher educational institutions, the students have to undergo additional training, which is possible only in the form of adult education and training. Additional training is organised in the four-year vocational schools and it lasts for two years, during which there is a large number of differential exams to pass.

The students of the three-year crafts programmes, who are educated in the dual system, can sit for a craftsman's exam, after they have passed the apprenticeship examination and have worked in that occupation for three years. The craftsman's exam offers them a possibility to start their own craft but it does not provide more opportunities to go to higher vocational schools.

When talking about the mobility of education system there are various sorts of levels of professional qualification and additional training organised by individual schools, non-university colleges, local chambers of crafts and various private educational institutions with a licence by the Ministry of Education and Sports. In this very part one can recognise a lack of coordination within the VET system and a lack of standardisation as education and training for single occupations, depending on who provides it, are performed based on various programmes and length although the level of demand is always the same. Thus the qualification of a beautician can be acquired through classical four-year school programme or through three-year dual system programme.

It is necessary to set the standards for occupations in order to create a coordinated and uniform system of qualifications needed to integrate work and learning.

2.10. Regulation of the system

The Croatian education system is mainly centralised and characterised by the central and roof position of the Ministry of Education and Sports which prescribes and adopts majority of decisions related to the functioning and organisation of education. For example it:

- gives proposals for legal and sub-legal acts,
- sets and distributes financial means for education systems based on the State budget,
- adopts teaching curricula,
- controls the systems and its functioning through inspection services,
- gives permissions to introduce new programmes (unfortunately without ensuring there are sufficient material resources available for their proper functioning) and thus indirectly influences the development of the school network which is

inefficient, expensive and incompatible with the needs of economy of certain local areas,

- takes decisions on school equipment and on teacher training,
- prescribes study materials, etc.

In the past six years the Croatian Chamber of Crafts has appeared within the VET system as the only partner to the Ministry of Education and Sports, and in the last year there has also been the Ministry of Crafts and SMEs. The Croatian Chamber of Crafts has contributed to new programmes for occupations and more integration of work and learning in the system of vocational education, but has also pointed to the necessary cooperation of the Ministry of Education and Sports with all the relevant social partners. The local level authorities have not shown much interest in getting involved with searching for solutions for the burning issues in the education system, especially in VET, although all the county and town administrations have departments for education. However these departments have mainly been administrating instructions by the Ministry and dealing with irrelevant and administrative activities.

Amendments to the Law on secondary education give a more active role to the local administration and self-government in designing activities related to secondary education. The example of this can be taking the responsibility for school equipment, election of school managers, school boards etc. It is hard to predict how the local administration will deal with the tasks that have been assigned to it and whether it will be able to bare the financial burden, which has been passed on to it by the state.

2.11. Examinations

There are several types of examination in the Croatian education system:

a) Graduation from gymnasium and the final examination– upon a successful completion of the fourth form, the gymnasium students sit for the final examination called *Matura*. *Matura* is composed of an oral presentation and argumentation of their final paper and of exams in two compulsory and one optional subject. *Matura* does not ensure a direct entrance to higher education or higher vocational education, but the students need to sit for an entrance exam. Upon a successful completion of the final form, the students of four-year vocational schools sit for the final exam which is composed of the oral presentation and argumentation of their final paper, an oral and written exam in Croatian language and an oral or written exam in specialised subjects.

The students of three-year vocational schools, who have successfully completed the third form of industrial or crafts programmes, sit for the final vocational examination which is

composed of a practical work, a written test in Croatian language and an oral test in technical theoretical subjects. It is important to note here that sometimes the practical part of the exam is tested in a written form without a check of the student's knowledge on practical matters.

b) Apprenticeship examination – has to be passed by the students of three-year crafts schools who have been educated in the dual system and who have successfully completed the specialised part of the programme. The examination is composed of a practical part and a written test in technical theoretical subjects. The practical part is tested at the craft workshop and the students is controlled and evaluated by a three-member commission represented by a master craftsman, a teacher and an expert from the chamber of crafts. Such a structure of theoretical part of the examination represents a basis of acquiring a professional competence. The apprenticeship examination is an integral part of the final exam at schools which have a dual system of education. This final exam is composed an apprenticeship examination and a written test in Croatian language and thus the students who have successfully completed the vocational part have also succeeded in accomplishing the general educational part of the programme.

c) Supplemental examinations – have to be passed by the students who switch to another school or another programme after the first year of secondary education. These students have to pass the exams that represent a difference between the two programmes before a commission.

The Croatian education system for adult education includes:

d) Professional retraining – in Croatia there are two types of professional retraining. Firstly, it can be done at schools and other training institutions where a new qualification is acquired, usually through consultations and instructions and by passing the supplemental and final examinations. In this form of retraining, there is a problem lying in the fact that practical training is just a formality: a trainee brings a certificate on the practical training. Besides, the practical part of the final exam consists of writing and not of a practical task. This implies that we can rather talk about the acquisition of formal qualification than of professional competence. Secondly, retraining is organised by the local chamber of crafts in the form of an apprenticeship examination where, before a specialist commission and an external examiner, a trainee has to show the knowledge on practical and technical theoretical matters. The condition to present oneself at this examination is one year of working experience in the relevant occupation and the secondary education professional qualification in the similar area. In this sort of retraining

the practical part of the exam includes a performance of a working task in the crafts business.

f) Professional competence exam – can also be done in several ways.

In the local chambers of crafts, the professional competence examination consists of showing practical and theoretical knowledge and skills necessary for independent performing of an occupation. The practical part of the exam includes a working test before a commission represented by several craftsmen.

A condition to present oneself to the exams is a completed basic education and the candidate is expected to have performed an occupation or passed the exam preparation. The professional competence exams are organised only for less demanding occupations or occupations of a lower level of complexity.

At the same time the professional competence examinations are also organised by open universities and various private institutions that not only organise the examinations but also provide a one or two-month preparation for the examination. The examination consists of showing practical and theoretical knowledge related to the particular profession. However at this point a paradox occurs revealing a lack of coordination within the vocational education system. The same professional qualification can be acquired through various, substantially different programmes of different length. Examinations following internal training providing professional competence are also organised by companies.

g) Additional training – is organised for the students who want to continue their education in a four-year vocational school, after they have completed the three-year programme. Supplementary education lasts for two years. During the first year differential exams of the first three years of vocational school have to be passed and during the second year the students attend the fourth form of vocational school. The knowledge acquired here is to a large extent theoretical.

h) Craftsman's examination – is organised by local chambers of crafts. It consists of a practical task, a test on technical theoretical knowledge, a test on economy and legal regulation and of a written and practical test on work pedagogy. The exam is taken before a five-member commission from the Croatian Chamber of Crafts. A condition to present oneself at the craftsman's exam is the apprenticeship examination and the final vocational examination, as well as three years of working experience in the relevant occupation. With the craftsman's examination successfully passed, one acquires the title of a craftsman and the permission to start an individual and independent craft business. The craftsman's examination can be taken even after the craftsman's school (one year) and at least two years of working experience in the relevant occupation.

i) **Continuous training** - some schools and open universities offer continuous training for a number of occupations. The training usually lasts for six months and ends with a certificate of attendance. At this point the question of the purpose of such training should be brought up. How and with what purpose to train a car mechanic at school if there is an inevitable need to have sophisticated equipment of single car produces? It is a known fact that the mechanics are being trained continuously in the well-equipped training centres of the car producers themselves.

Beside the above-mentioned procedures organised by the education system, there are also types of education and training organised by non-education institutions. Namely, all the companies who have improved their technological process by introducing new technologies organise continuous training for their workers. An example for this are companies that use the CNC machines and train their own workers in handling these machines. There are also some shipyards where professional training and training for the very specific occupations are being organised, based on their own curriculum and on job. Many craftsmen car mechanics have obtained a licence (as authorised service) to repair particular sorts of cars. Of course, prior to this they had to undergo training for that particular sort of cars. The well-known car companies open specialised, training points for car repairs, where their licensed mechanics from all around Croatia are being trained continuously. There is a whole series of examples for non-formal education and training, which are all extremely important because most of them do provide a professional competence.

2.11. Financing of the system

Education system in the Republic of Croatia is primary and almost exclusively financed from the State budget, through the Ministry for Education and Sports. At the beginning of each calendar year, upon a Decision on financing of the education system, the Ministry provides financial resources for the following expenditure:

- salaries of the staff
- capital expenditure
- public transport for the staff
- energy
- teaching records
- urgent intervention and current repairs
- damage to the school property

- expenditure for teaching materials in vocational schools – 16,00 kn/month per student,
- monthly allowance of 15 kn per student, 250 kn per class and a 2,500 kn supplement. These sums cover all the school expenditure (allowances, telecom and postal services, purchase of didactic and other specialised periodicals, cleaning materials, waste disposal, purchase of school inventory and means of the work protection, water consumption and prescribed water allowance, maintenance, working facilities and equipment, costs of seminars and scientific and professional literature, banking services, representation, travel costs, students competitions, etc.).

The schools, which are being financed only through the means of the Ministry, (which are every limited) cannot invest anything into the equipment of their workshops, labs or in continuous training for their teachers. The secondary level of providing funds for education are resources owned by individual schools that are being acquired through adult education, sale of the products produced in the school workshops, through the rental of school premises or other intellectual services. These resources enable the school to improve the current situation regarding the equipment for workshops and cabinets.

The local self-government has not been included into the secondary level of providing financial means to education so far, although there are some examples which prove the contrary (some school buildings in Zagreb have been constructed thanks to the financial support by the City administration). Since 1995, when the Croatian Chamber of Crafts entered the VET system with its programmes, the central chamber and its local chambers have been supporting schools in purchasing sophisticated facilities, organising competitions and study trips for the students to crafts fairs.

A few companies have recognised the importance of education and they have been supporting schools which provide education for the profiles they might need.

Since 1 July 2001, a part of school funding has been taken over by the local self-government. This financing refers to the most sensitive part of education – the material expenditure, maintenance and school equipment. It is hard to evaluate the results of such changes, but there is a fear that this step taken by the Ministry is more likely to be formal than thoroughly planned.

In economically less developed counties which do not have sufficient funds in their budgets, it is hard to expect significant support to the school development by the local administration. The standard in vocational schools in those areas is likely to be lower than before and this could result in low quality of education, students leaving schools and perhaps even dropping out of the education system, and those schools might find it hard to survive at the "education" market. In this case a positive impact could only be expected by a more rational programme network at the local level.

3. SOCIAL AND ECONOMIC AIMS OF CURRICULUM

3.1. Labour market and employment problems in Croatia

The problems of Croatian economy are seen in the first place in high, and still rising unemployment. The consequences of such a situation are of course a drop in living standards and enormous loss of knowledge and competences among the long-term unemployed, their loss of self-confidence as well as a loss of working habits and motivation. Finally as a result, it often happens that an employer, despite the large number of the unemployed, cannot find a worker with needed knowledge and skills.

Considering the fact that the Croatian education system is not flexible enough and subsequently does not follow the changes at the labour market, there is an increasing discontent among the broad public concerning the VET. It is the obsolete teaching curricula and also the organisation of the education process that are being criticised. Tables 1,2, 3 and 4 show occupations with the highest rates of unemployment.

Table 1. Occupations with the highest rate of unemployment
(secondary school qualification, three-year education), December 2000

Occupation	Number of unemployed	Occupation	Number of unemployed
Salesperson - B, DV	20.227	Bricklayer - C, DV	1.761
Waiter -B	8.620	Electrician mechanic - C, DV	1.753
Cook - B, DV	7.460	Shoemaker - DV	1.532
Driver – B	7.128	Plumber - C, DV	1.492
Car mechanic - C, DV	6.594	Car electrician (C, DV)	1.379
Engine fitter – C, DV	5.018	Butcher - B, DV	1.253
Hairdresser - C, DV	3.640	House painter- C, DV	1.187
Turner - C, DV	3.433	Farmer – B	1.071
Carpenter - C, DV	3.336	Agriculture machine mechanic - B	971
Electromechanic -B, C, DV	2.976	Central heating technician - C, DV	922
Locksmith - C, DV	2.520	Tool maker - B, C, DV	861
Car tinsmith – C, DV	1.953		

B – curricula for occupations in industries and economy – since 1992, amendments 1996-1998.

C – curricula for crafts occupations – school education system since 1992

DV – curricula for crafts occupations – dual system since 1995

Table 2. Occupations with the highest rate of unemployed

(secondary school qualification, four-year education), December 2000

Occupation	Number of unemployed	Occupation	Number of unemployed
Technician in economy (economist) – A	15.524	Administrative technician (secretary) - A	2.024
Technician in Mechanical engineering – A	4.757	Technician in electrical engineering - A	1.437
Administration clerk - A	3.157	Technician in civil engineering VG - A	1.229
Technician in chemistry – A	3.110	Technician for road transport - A	1.181
Nurse – A	3.088	Technician in catering and tourism - A	1.082

A – four-year programmes – since 1992, amendments 1996-1998.

Table 3. Admissions to the programmes educating for the occupations with the highest rate of unemployment
(secondary school professional qualification, three-year education, December 2000) in the school year 2000/01 (1st form)

Occupation	Number of admissions	Occupation	Number of admissions
Salesperson – B, DV	B-3000, DV-164	Bricklayer - C, DV	C-60, DV-36
Waiter -B	B-1293	Electrician mechanic - C, DV	C-252, DV-147
Cook - B, DV	B-1283, DV-97	Shoemaker - DV	DV-42
Driver – B	B-680	Plumber - C, DV	C-322, DV-135
Car mechanic - C, DV	C-951, DV-820	Car electrician (C, DV)	C-342, DV-124
Engine fitter – C, DV	C-215, DV-74	Butcher - B, DV	C-264, DV-117
Hair dresser – C, DV	C-937, DV-751	House painter - C, DV	C-145, DV-63
Turner - C, DV	C-126, DV-19	Farmer - B	B-24
Carpenter- C, DV	C-476, DV-151	Agriculture machine mechanic - B	B-129, DV-8
Electromechanic -B, C, DV	B-179, C-472, DV-147	Central heating technician - C, DV	C-301, DV-120
Locksmith - C, DV	C-113, DV-44	Toolmaker - B, C, DV	B-2, DV-4
Car tinsmith – C, DV	C-366, DV-197		

B – programmes for the occupations in industries and economy – since 1992, amendments 1996-1998,

C – programmes for crafts – school system since 1992,

DV – programmes for crafts – dual system since 1995.

Table 4. Admissions to the programmes educating for the occupations with the highest rates of unemployment

(secondary school professional qualification, four-year education, December 2000) in the school year 2000/01 (1st form)

Occupations	Number of admissions	Occupations	Number of admissions
Technician in economy (economist) – A	4.505	Administrative technician (secretary) - A	414
Technician in Mechanical engineering – A	685	Technician in electrical engineering - A	1.659
Administration clerk - A	779	Technician in civil	714

		engineering VG - A	
Technician in chemistry – A	237	Technician for road transport - A	379
Nurse – A	1.594	Technician in catering and tourism - A	1.499

A – four-year programmes– since 1992, amendments 1996-1998.

From the above tables it can be seen that the school admissions are not coordinated with the economic criteria and that education and economic policies do not take each other into consideration. The consequence of such a situation is further unemployment among the young people, who have been educated for the professions that are not needed at the labour market, additional problems with their professional retraining and illegal work and the promotion of social exclusion among them.

The adult education and training in Croatia are also not adequate. Although from the point of view of existing legal acts Croatia can be said to have a sub-system of formal adult education, in reality the situation is pretty bad, which can be illustrated by a number of facts.

According to the data by the Ministry of Education and Sports, there are 372 registered institutions providing formal adult education and training (public and private schools, open universities and legal persons) and offering following programmes:

- basic professional training for less demanding occupations
- lower secondary professional education for less demanding occupations
- secondary school professional education (gymnasium education)
- secondary school professional education (additional professional qualification of students who have graduated from gymnasiums)
- professional retraining
- specialised training

In the 1998/99 school year, 22,702 people attended such programmes, mainly enrolled to those providing secondary school vocational qualification, retraining, continuous training and basic professional training. Unfortunately, most of the people attended programmes for occupations that were not needed in the labour market, which again points to the fact that not even at this level of VET has there been coordination between education system and work.

Training is available in large companies and the contents of such training are linked with the production processes or internal qualification. However, this type of training is not

compulsory nor has it been regulated by any legal act in the sense of promotion of lifelong learning.

Therefore the interest of an individual for education and training besides the work has been decreasing. The reasons for that lie in several factors: a low living standard which does not make it possible for an individual to invest into his/her own learning, the professional competence acquired in such a way is not sufficient for the demanding working tasks, the offer of such programmes is pretty poor and the market badly equipped with specialised literature, and the employer's interest to invest into his/her employees knowledge is low.

4. INTEGRATION OF WORK AND LEARNING

The Croatian society has been undergoing significant changes of political and economic nature. Establishment of market economy and open civil society has led not only to the revision of politics and economy, but also to the revision of education system and particularly of VET.

In the European Union (EU) and its members states, educational and life paradigms have been undergoing rapid changes. The EU has been going from an "industrial society" towards a "learning society". Croatia is not in a favourable situation considering its internal problems on one hand (which is a consequence of the war destruction, bad economic situation, falling apart of big economic systems, inability of SMEs to develop more rapidly, bad opportunities for the placement of goods and services to foreign markets, high rate of unemployment on the verge of a crisis, etc.) and constant striving to integrate into the EU with very high demands and standards on the other.

The education in Croatia has traditionally been characterised by a number of problems, such as low educational standard (very little investment into education and training), obsolete curricula regarding their methodology and contents (no modules or integrated learning), inadequate learning premises with little opportunities for practical training, and little or no link between education and the students' future working life.

Although Croatia has undergone a series of different education reforms in the past 30 years and some of them have been promoting coordination between education and economy, only a small part of such ideas have been fulfilled. Subsequently the situation in Croatian education is very poor.

Some of the large companies and factories with thousands of workers, where some of the staff were dealing with future employments and education and training of the future

employees, have fallen apart and disappeared. Ever since then, there has been little or no cooperation between economy and education. Small and medium-sized enterprises, with partitioned production and without a good economic orientation (as they have not had the opportunity to prove themselves yet), "do not have time" to deal with relation between work and education.

Like the big ones without success, the SMEs have been "looking for a way out of their crisis in their own way" (the big companies at the same time have to deal with abundant work force), they are not interested in investing into education and training of young people.

Because of a large number of the unemployed, there are all possible qualifications available at the labour market. However the question is whether knowledge and skills of the unemployed meet the demands of new technologies at the labour market.

Other successful big systems (PLIVA, INA, AGROKOR, LURA) have recognised the value and use of integration of work and learning and they internally invest into professional training of their staff. However they are not integrated within the systems of VET and mostly there is not concern about the future young workers. Still, there are some positive examples of such concern, such as the cooperation between the aeronautical school in Zagreb and the Croatian national aircraft company Croatia Airlines, or education for health and crafts (dual system of education). In those cases theoretic learning and practical training are organised both at school and in a working environment, and thus learning and working are intertwined. A particular example here is crafts. As the craftsmen have a sense of responsibility for quality and for placing and retaining their products and services on the market, and because they are aware that it all depends on themselves exclusively, they have recognised the importance of education for their workers and have taken over the care for their practical training.

On the other hand, there are examples of total ignorance and lack of understanding for joint investments into education of young people. In such cases companies want that the state bares the burden of the students' practical training (like the Port of Rijeka and Maritime Affairs school in Bakar) or they claim that it is cheaper to train labour with low professional qualifications than to invest systematically into education (small firms trying to find their place on the market).

Considering the awareness of the need to integrating learning and work in order to achieve better results, the situation in state institutions is not entirely negative. In principle such awareness does exist, but there is a lack of adequate activities and law has not defined

the competencies and responsibilities. An exception is again the dual system, the organisation of which has been regulated by the Law on crafts and sub-legal acts that have been introduced subsequently.

School as an important part of the chain in the knowledge transfer has had a bad position in the Croatian society. Education and especially VET have not been recognised as an important asset to the development of economy, which is particularly obvious regarding low investment into education. Therefore the people working in education are not very motivated to introduce changes which would imply more work but also new knowledge. The practical training as a part of education is regarded as less important part of the education process. In many cases practical training at schools or outside the schools (if any) is rather a formality than something of an added value to the development of the students' skills. In the VET curricula, the rate between theory and practice is often imbalanced in favour of theory (an exception is the dual system). The practical part is most frequently bound to obsolete equipment and the teaching staff have not been sufficiently trained for new technologies. A professional certificate given to the student upon his/her completion of such an education often means purely a formal qualification and not a true competence.

In Croatian there is an undisputable need for more interaction between education (learning) and work. Therefore numerous theoretical discussions at all levels have been going on. However this need has not been clearly articulated by the competent authorities and decision-making bodies (Government, Parliament). Considering the lack of precise strategy of economic development, it is difficult to find the right track for development of VET. Still the need for a change is more than evident and the changes should be aimed at providing professional development of each individual, which can be acquired by offering various education opportunities. The offer of education opportunities should be based on research and analysis of needs for particular occupations, especially concerning new occupations (in line with technological development), definition of knowledge and skills needed for the acquisition of certain professional qualifications, development of curricula (integration, modules), ensuring quality in curriculum implementation, which includes teacher training and development of new competencies by teachers. The learning process must inevitably include contents that will enable the individuals to find their way in the labour market and to be active and responsible citizens.

The initiatives and positive examples do exist in the area of education for craftsman qualifications, management, future entrepreneurs and on-the-job training and **education for individual purposes**.

4.1. Obstacles to integration of work and learning

The obstacles that stand in the way to a successful integration of work and learning in formal and informal education are:

1. Insufficient promotion of social partnership inevitable for establishing a link between schools and companies or the integration of work and learning. A positive example here is the partnership between the Ministry of Education and Sports, Ministry for Crafts and Small and Medium-sized enterprises and the Croatian Chamber of Crafts in implementing the dual system of education.
2. Education legislation is obsolete. For example, there is only a general Law on secondary education while there is no Law on vocational education and training and it is necessary for a number of specific issues related to this type of education which also includes the link between work and learning.

Because of the existing obstacles (1) and (2) no specific competence in the process of integration of work and learning can be defined.

3. Insufficient investment into education from the point of view of financing.
4. The teachers lack motives to accept the changes and are not stimulated to recognise them as something useful. The community is not being informed about the quality of individual schools nor are the schools being evaluated according to prescribed criteria.
5. Students and their parents still prejudiced about occupations with more theoretical knowledge being more highly valued than the practical occupations. Such awareness persists despite the fact that it is impossible to find a job afterwards or that theoretical occupations do not get as high salaries as the practical ones.
6. The public has not been sensitised to the need of integration of work and learning.
Due to its bad technical and technological equipment, bad financial opportunities which do not promote development, and a lack of support by the economy, the education system mostly "produces" formal qualifications without really evaluating competences acquired by the students educated in it. However, this system has persisted a number of years despite its low level of quality.

4.2. Recommendations and guidelines to solving the problems

In order to improve its vocational education and training at all levels, be it formal or informal, and to integrate work and learning within the framework of lifelong learning, there is a need for some guidelines for Croatia. The concept of lifelong learning has become a priority and it must be offered as an opportunity to all individuals. Therefore vocational education and training have to be made available for everybody and the young people should be informed about the occupations and chances for a future employment already at the level of compulsory education.

It is also important to follow the reconstruction of economy, be aware of the perspectives or at least have a vision about it. In relation to this is the need for more transparency in VET and for certificates with a value at the labour market. In order to achieve this there is a need for initiatives in education, which will improve its integration with work.

A certain task in this process is to be borne by the governing structures that must be aware of their importance. They should found expert bodies, which would support the development of VET (implying integration of work and learning) and lifelong learning in a formal (Institute for Vocational Education and Training) and informal (Council for Vocational Education and Training) way. New occupations should be defined and the old ones redefined (if necessary). (Modular) curricula and adequate legal acts should be adopted. The Institute for Vocational Education and Training should have an important role in this process at both central and local levels.

Informing society about the aim and use of the integration of work and learning as well as lifelong learning represents an important activity. Each individual needs this concept and it should be brought closer to all, so that it is not seen as a threat or possible loss, but as a useful change.

The initiative to adopt a Law on vocational education and training should be followed by new educational standards and recognition of certificates acquired on the basis of the new standards (through formal or informal education).

Which direction should be taken in order to see and fulfil those initiatives?

- The initiatives introducing changes accompanied by necessary arguments and lobbying, should be addressed to the Croatian Government and Parliament.

- For all the obligations that have been taken over by the Government, deadlines should be set (long-term and short-term).

- Projects on the reform should be made and resources for their realisation provided. Experts on special fields should be included into projects, methodology prepared, people working on the project should be trained (and experience from other countries should be used).
- The pilot projects should be placed within the system. New occupations should be defined and the old ones redefined (if necessary). Curricula and necessary legal regulation should be adopted. Teachers should be prepared for changes through continuous professional training implying a combination of theory and practice (work with real situations).
- The financial resources should be made available from international projects for setting up educational technological centres, which would ensure a better integration of work and learning and a better qualification competence.

5. SOCIAL PARTNERSHIP

Social partnership in Croatia exists only in the area of education for crafts (dual system) where it has been defined and regulated by law. Unfortunately, in practice it is hard to achieve due to the state administration which often does not take into consideration the social partners (chambers, craftsmen, entrepreneurs) but uses its political influence to impose its own solutions to problems.

The term of social partnership is also quite new in Croatia. The social partnership has been introduced in November 2000, through the project called "Vocational education and training against social exclusion" which was launched in cooperation with European Training Foundation and Croatian Employment Service. The project was targeted at two Croatian counties – Bjelovarsko-bilogorska and Požeško-slavonska counties. Through local cooperation between social partners (Ministry of Education and Sports, local administration and self-government, schools, Employment Service, local entrepreneurs and companies, trade unions) and with the assistance from foreign experts from Slovenia the project has comprised setting up of a training programme and employment of youth whose primary occupations are not sought at the labour market.

At the end of the project, positive experiences, together with the development of a new local partnership will be disseminated throughout Croatian counties.

A similar form of local partnership within the Project for support to small and medium-sized entrepreneurship has been developed in the Virovitičko-podravska and Koprivničko-križevačka counties, through cooperation between the Ministry for Crafts and SMEs and GTZ Germany along with other partners at local level.

Social partnerships in Croatia at both national and local levels should have an important role in this process. General guidelines and projects on the development of lifelong learning should be developed through the partnership at the national level, while the local partnerships could play a crucial role in that they support development of VET programmes for both employed and unemployed. In this way human resources development at local level would improve the general development of the community.

In the future human resources development will not be based only on the ability of individual institutions to educate and train their labour, but also on the abilities of the economic sector, governmental institutions, regional, local and non-governmental organisations along with VET institutions to cooperate both with employers and employees. Therefore the development of social partnership is extremely important for each state and thus for Croatia too. Tasks of social partnerships can be listed in brief:

- to create a network between various institutions at the national, regional and local levels, which could contribute to a more quick and coordinated social and economic development through development of human resources
- to provide guidelines for further regional/local economic and social development which influences the need for skills and knowledge
- to create appropriate conditions to increase employability of unemployed persons and job-creation, which means to participate actively in human resources development and financing
- to enable establishing the necessary conditions for development of a lifelong learning society
- to speed up investment and human resources development within companies
- to develop and implement the measures which will improve human resources development through lifelong learning, which will result in economic and social development of regions.

The crucial social partners in this process are:

- employers and chambers (of economy and crafts)
- trade unions
- local and regional authorities

- governmental bodies (ministries, Employment Agency)
- institutions providing education and training (public and private)
- various vocational and developmental organisations
- non-governmental organisations.

Lifelong learning has an enormous importance for all the people. The urgent need for it comes from:

- the current business restructuring in trade, technology and employment, which leads to a large number of activities that require planning, management and combination of decision-making skills, independent team-work and a need for more flexibility and mobility.
- The need for a broad basis of understanding by all the people and their participation in the complex democratic processes of thinking and providing information.

The future changes cannot be clearly foreseen throughout the critical phase of transformation. Because of that human capacities need to be fully developed. Creative potential, as well as the key competencies and personal qualifications need to be as comprehensive as possible.

6. PROBLEMS OF VOCATIONAL EDUCATION AND TRAINING CURRICULUM IN CROATIA

As can be seen from the above texts, vocational education curriculum has to bear the burden of various problems due to which the system has been decaying gradually, it does not function and the set objectives are not being achieved. A synthesis of all the mentioned gives out the most apparent problems which cry for a thorough analysis and a solution.

- Centrally organised system does not offer an opportunity to be influenced from the local level, or by other interested parties eager to improve Croatian education (industries, crafts, NGOs).
- The existing network of schools and programmes is irrational and expensive and makes a considerable influence upon the education quality which has been decreasing.
- A low rate of GDP (less than 3%) investment into education results in a low standard of education, organisation in shifts, inadequate and inhumane equipment of schools which in no way stimulate or create obligations, lack of equipment in school workshops and cabinets for practical training or even a total lack of them, lack of study materials and specialised literature, of computers (of software in the first place), modern technology and techniques. Subsequently education and training are characterised by low quality.

- Insufficient methodological and professional level of teaching staff in vocational schools, where technical theoretical subjects and practical training are often taught and monitored by free-lance staff without any methodological or pedagogical training, or by experts with inadequate qualifications, who teach five or more subjects at the same time, without even having been trained in some of them, frequently results in a poor quality of education.
- High-quality teaching staff are not motivated to work at schools because of the working conditions, low salaries etc. and thus teachers often leave the education system.
- Insufficient investment into continuous training of teachers and development of new knowledge (seminars and consultations where new technologies are being presented are seldom organised, workshops in which they could check their competences and operational use of their knowledge are even more rare), which leads to low level of acquired new knowledge and skills in students.
 - Inadequate programming of teaching curricula concerning the contents and methods applied, as well as traditional organisation of education (system based on teaching hours and subjects, no modules, no link between knowledge and skills acquired through individual subjects but all relevant for professional qualification, etc.) do not support teacher's creativity or the possibility of choice in order to meet the pupils' needs.
 - Horizontal and vertical mobility of educational programmes are conceived in a bad way and the students often do not have an opportunity to fulfil their education objectives.
 - Schools are managed by the people who have not been trained appropriately. The school managers lack relevant knowledge on school management, and they often do not have the necessary pedagogical and psychological competences needed to develop the teaching and learning process at the school-level. It is hard to define the way in which the school managers are being selected, there is a significant political influence, and there is also some self-government (it is the teachers who decide). Considering the fact that there is no external assessment of work at a school, it is impossible to evaluate quality of school management, and thus the selection of school managers can hardly be performed in a quality manner.
 - Teaching methodology has not been changed for decades. Education is predominantly teacher-oriented, students are offered enormous amounts of facts (frequently useless), which are not linked nor organised into operation knowledge, and any relationship between the knowledge and practice has been neglected.
 - Skill development is sometimes marginalized, even in vocational schools. Practical training is often performed in a form of exercises or teacher's demonstration, and not as true practical training for students. The reasons lie in the fact that school

workshops are often ill equipped and there is insufficient investment into continuous training teachers and trainers.

- Learning through the programmes of vocational schools is not adequate (except in the dual system of education for crafts, where learning is provided at school and in a licensed craft workshop) as the link between education and real working life, practical training and working tasks upon the completion of education is practically inexistent.
- The influence of the future service-users on education system is extremely small, and there is also no partnership among those who should participate in creation of education system by the very nature of their social developments (such partnership, despite all difficulties, exists only at the level of education for crafts).
- Knowledge on new technologies, training, development and promotion of independent work (entrepreneurship), creativity and sense of initiative, as well as civil education are frequently not in the centre of interest of those who create and implement curricula.

7. NEED FOR CHANGES IN CROATIAN VOCATIONAL EDUCATION – guidelines for curriculum development

After having listed all the problems it is not necessary to ask ourselves whether there is a need for changes in Croatian education. The changes in VET are vital. However, before starting any concrete interventions, it is necessary to discuss the concepts and possibilities of curriculum development in the context of transition period Croatia has been going through.

Changes should be aimed at the promotion of the following areas:

- each individual should be able to create his/her own career path by the means of education and training;
- secondary education should have the access door wide open;
- within the process of education and training, young people should be encouraged to persist in their own individual path of education and in creating their own plan of education;
- teaching curricula should create a basis for the acquisition of knowledge and skill development relevant for work, and at the same time development of the students civil

persons who should play a positive role in their families and wider society should be taken into account;

- a basis for lifelong learning must be created;
- those implementing school curricula should be prepared to face the changes, be trained and make sure they support the changes.

The changes must be aimed at the following: a shift from formal qualification to competency, taking responsibility for one's own acquisition of knowledge, taking initiative in individual development and flexibility in occupational changes, finding a balance between the system and individuals.

8. NEW EDUCATION STRATEGY

Croatian new education strategy should be based on the following principles:

Equal opportunities in entering secondary education, which implies equal opportunities for entering the education system, possibility of choice among various paths in achieving the same goal, mobility of individuals in both Croatian and European labour markets, (regional and global) harmonisation between professional qualifications, opportunity to re-enter the education system.

High quality of education which implies that curricula should be in line with modern scientific, technical and technological developments, teaching equipment available should be modern and at the highest level of quality, teaching staff should be highly qualified and have access to continuous training in profession and changing methodology, and the highest international standards should be the ultimate objective (achieved on the basis of external evaluation at all levels and in all segments of education).

At the beginning of the 21st century, Europe has set a task to all its member states:

knowledge and skills of all the citizens of the European Union must be at the level at which there is the necessary synergy for development of the society. However, despite that fact, national competencies for educational policies should persist. This means that Croatia must go on building its own education system, by respecting at the same time the principles of the EU. Regardless of its length, basic education is a foundation, secondary education represents a bridge towards the working life or high professional qualifications, and education at all levels must be continuous.

Secondary education system must be: clear, easy to understand, easy to recognise, simple in its structure, ended by a diploma which has a value at the labour market or should be recognised in further education at non-university college education or at universities.

A combination of general knowledge and technical subjects, which implies equality between general and technical knowledge and respect for practical training. The practical, theoretical and general contents should mutually support each other.

The importance of labour market and qualification flexibility is a principle that can be achieved by the means of modular education, which would imply more choice of occupations and a better start at the labour market, and in the general education system it would offer an earlier choice of professional area.

Qualification compatibility dictated by the global labour market.

If Croatia wants to develop its market of capital and services, and if it wants to adhere to global development trends, knowledge and skills of its citizens must reach an international level (here we should also not forget Croatian cultural heritage).

This compatibility can be reached through examples of curricula of similar contents and forms, exchange of experience, permanent teacher training, similar learning premises, getting employers into education system, etc.

The concept of lifelong learning is based on the idea that the development of information and telecommunication technologies is rapid and continuous, asking for permanent changes in qualifications. Globalisation of economy has increased the job competition to the wider European area. Scientific changes and technological development have been speeded up and people do not always see it as something positive. For many it represents a threat, a potential loss of existential basis. Therefore it should be made possible for everybody to understand and use in their own favour all the changes in science and technology and to learn at all stages of life.

Social partnership is a crucial principle of vocational education and training. All the actors using the results of education, including employers, economists, chambers, unions, governmental institutions, scientific institutes and of course educational institutions, should all contribute to the education process. The role of employers is particularly important here, mainly in secondary VET, as they are the main users of vocational education and training. Therefore they should invest into curricula innovations, and within social partnership they should contribute to strengthening the link between learning places and different competences acquired.

In order to make sure that vocational education can secure existence for those who have opted for it, there have to be different levels of VET, with clear aims and duration, and a curriculum which will provide theoretical knowledge and practical skills close to real working life. In developing VET sub-systems, it is important to bear in mind that the classical model of chronological sequence of steps in life, including education period, working period and retirement, is no longer applicable. Vocational education and education in general represent a lifelong process.

9. POSSIBLE CONCRETE MODELS OF CURRICULUM CHANGES IN VOCATIONAL EDUCATION

Development of technology, economy and society as a whole has paved new ways of education. Technical knowledge has been outdated rapidly. Therefore there is a need for permanent learning within the framework of a person's working life. Due to increased global competition, changes in economy have set greater demands to the labour, more complex forms of work organisation and thus independent and responsible action by individuals. Social changes which can be recognised in the increasing quality demands, more interest for cooperation and participation in the working process as well as a stronger sense of the environment asking for more involvement and responsibility in all the areas of people's activity. All these important changes must be respected when developing possible concrete models of vocational education curricula. However, before starting the development of those models, one has to be familiar with the VET standards, occupational standards and the level of professional competence acquired by a young person throughout education.

9.1. Ways of acquiring professional qualification and vertical mobility

(scheme 3)

It is extremely important that a young person becomes aware of the fact that by acquiring professional qualification and thus an occupation, he/she will get a position within society which will ensure his/her existence as well as educational and professional development. However, the educational and professional development does not stop with the acquisition of a professional qualification and occupation. All the limitations on the way towards a better position within society throughout one's life must be breached. Young people who do not manage to complete their formal education, elderly workers who have been unemployed for a long time, women who have interrupted their career for family matters and would like to go back to work, they all must have an opportunity and a chance for retraining (lifelong learning) or training (permanent professional training) and get back to labour

market. How to ensure horizontal and vertical mobility within and outside a profession? A basic principle should be the one claiming that what has not been learned through educational module and is important for a higher post or for a shift to another occupation or professional area, has to be made up for. For instance, three-year education for an occupation could be compensated by work in the professional area and acquisition of necessary technical theory (1.5 to 2 years). Somebody attending four-year vocational education could move to three-year programme in the same professional area in that the person gets sufficient personal experience (one year). All this refers to retraining within the same professional area. If a person wants to change his/her profession, this will be called a full retraining.

Different types of secondary schools end with various examinations. We have already mentioned the final examination in gymnasium (at school and state levels) - Matura, final examinations in four-year vocational education, as well as final and apprenticeship examinations in vocational schools providing education for occupations. When speaking about mobility within education system towards tertiary education it is important to plan vertical transfers, links between schools and their programmes and graduation from them. For example, after graduation from a secondary vocational school and the final examination which enables enrolment to certain faculties, there is a possibility to prepare a gymnasium final examination (Matura) through one-year additional courses. Graduation from a gymnasium opens the door to all the faculties.

Upon the Matura there are also different sorts of preparation courses (six months) for an easier admission to tertiary education.

Graduation from three-year programmes offers two possible directions towards non-university college education and university education. The first one implies the opportunity to proceed after the three-year vocational education to the two-year programmes offering professional qualification at a higher level. After those two years it is possible to take a final examination which will enable the candidates to sit for an entrance exam in both non-university college education and university education. The second possibility is to sit for supplemental examinations or one-year differential education after two years of working

experience and a craftsman's certificate, which opens the door to non-university college education. All the schools provide a possibility to move towards gymnasium final examination in case all the relevant knowledge has been acquired.

9.2. Regulation of vocational education system and social partnership

Government of the Republic of Croatia should start as soon as possible with drafting of Law on vocational education and training. This would be a sign that there is awareness and concern about the development of Croatian human resources by bringing together economy and education. At the same time there should be decentralisation of education system through two segments:

- a) Management, financing and development of vocational education system, as well as adoption of certain decisions should be left to the local self-government. This is particularly important in the area of VET, where the local administration needs to develop a rational and economically compatible network of vocational schools in line with the perception of economic development of the very area, and include all the interested economic subjects into the creation of ideal conditions to perform VET. This should include in the first place the equipment of schools with sophisticated and technological modern facilities, and development of technology centres. Financing of the VET system should be provided at several levels:
 - The State budget would cover the costs of salaries and capital expenditure, vocational school equipment and organisation of professional training, especially for schools in less developed counties. Considering the changes in economy structure and a large number of the unemployed who lack the skills for dealing with new technologies, the state should bare the costs of retraining and professional training.
 - Local self-government should bear a greater burden in providing vocational school equipment in line with their own perception of economic development.
 - Economy, the main user of the education system services, must invest into school equipment and make sure that they are at the level of high technology. Only in this way can the companies expect to get highly educated and skilled

human resources and an opportunity to use school premises for permanent education and training of their staff.

- Schools with their material and human resources can enter the labour and education markets and can sell their educational services and products from their own workshops. In this way they would provide self-financing.

b) Decision-making within VET should promote social partnership among all the users of education services (i.e. competent ministries, chambers, associations, etc.). It is important to set up a body which would act as a coordinator and a link between the named institutions and at the same time as a consultative body to the Government of the Republic concerning the VET matters (Council for vocational education and training). This would prevent the repetition of a frequent situation where in principle there is support for some project, but as soon as its realisation is about to start, the very support disappears. Besides, there is a need for an Institute for vocational education and training which would participate in setting the VET standards, developing curricula, monitoring their implementation and adjustment to the market, as well as defining new skills. It would also cooperate with economy and react to the new specific needs in the labour market. Besides, the Institute should be in charge of the teacher and trainer's licences for work in VET programmes and of their permanent professional training. In order to make sure the listed tasks are really set in place, the Institute should gather a team of highly expert people who are competent for different parts of VET, who are aware of the necessary integration of work and learning and of the need to adjust VET to economy and the labour market demands. The Institute for VET should also have regional departments on the level of counties which would be aimed at the education system at local level as it is on this very level, even more than on the national level, where a body bringing together all the parties interested in VET should would be formed. The Institute would have a database on all the education models and conditions needed for their implementation, and it would be equipped with the experts from the professional areas specific for individual counties.

9.3. Uniform standard for vocational education and curriculum development

Considering the fact that there is a series of different types of education preparing for the same profession, it is important to set starting points for the development of a uniform standard for vocational education, which should enable the adoption of a curriculum offering the opportunities to lifelong learning and having links with the working process.

Vocational education and training represent a crucial factor of economic development. The role of VET is to develop a learning society, to promote social partnership

and social dialogue, to support intercultural learning and reduce a lack of competences by stimulating people to help themselves. Therefore the starting points for the development of a strategy should include basic guidelines, the link between work and learning, profession terminology at all levels, competences depending on different levels of complexity of education and leading to key competencies as well as to occupation standardisation (names, working area, skills and knowledge needed to perform them, level of complexity, basic practical and related technical theoretical knowledge, professional competence needed for quality assurance, economic sustainability, development of organisation and communication skills, skills related to responsible actions, problem solving, ecology, cooperation etc). The occupation standard represents the education matrix for curriculum in the specific sense, including a simple one or with several modules. It is also the basis for the development of national classification of occupations and for the acquisition of professional qualification. The curriculum should define the level of technical competence needed for particular activities, taking into consideration the possibilities of continuous development of a profession and lifelong learning. If the curriculum refers to modular programming it is important:

- to ensure all types of literacy (alphabetic, cultural, information, etc), especially the one of a civilised citizen, democracy, ecology and multicultural tolerance which is not given enough attention nowadays.
- to ensure knowledge on technical theory (general and specific knowledge, related to individual occupations). From the point of view of VET this is one of its important constituent parts which should be continuously harmonised with technological development and rapid changes in economy. A part from teachers, the development of this part of curricula should also include experts from economy.
- to ensure a large number of available modules referring to optional courses, adapted to the wishes and skills of students and trainees, as well as to facultative courses referring to the acquisition of knowledge related to all segments of social developments.

In order to provide existence for those who have opted for vocational education, there have to be different levels in VET, with clearly defined objectives and curricula which provide theoretic knowledge and development of adaptability and skills. The Croatian VET should foresee several levels of education and training:

- lower vocational education and training (two years of duration),
- secondary vocational education for occupations (3 to 3.5 years of duration)
- secondary VET for technical and similar occupations (4 years of duration)

- secondary additional VET for occupations (2 years of duration)
- education and training for qualifications sought for at the labour market, which is neither secondary nor tertiary,
- non-university college education and training,
- education at university level.

Each education level should foresee a standard for the occupations, acquisition of professional competence, education organisation, getting in and out of the education system, as well as returning to it in order to continue education and training at higher levels. The position of each level within the framework of lifelong learning is extremely important, no matter for what purpose: be it a simple return to education system, or the acquisition of qualifications by taking one of the existing examinations. In order to provide a good quality of implementation of the named programmes both at schools or in companies, it is important to secure sufficient material resources for it. It is also important to have the right teachers and trainers with technical and methodological competencies. Before the implementation of any programme, it is crucial to ensure the above preconditions, make knowledge catalogues and prepare the public for the up-coming changes.

9.4. Networks of vocational schools

Today Croatia has an expensive and non-rational network of vocational schools and programmes. Considering the insufficient mobility of youth in Croatia, according to the national policy there have to be vocational schools with a large number of programmes in each bigger town of a county. Unfortunately the schools are being set up regardless of the conditions related to the available human and material resources needed for the organisation of those programmes (in the past 10 year there has been no state body setting the standards to the programmes of VET nor have there been standards adopted at the national level). The practice has proven that even highly demanding programmes, considering the necessary equipment and staff are being organised in a large number of Croatian towns. The courses are purely theoretical, while there is no skill development, and thus the diploma acquired can be regarded only as a qualification for the theory of a certain occupation. Considering the new trends in Croatian education legislation (financing of the school equipment has been transferred to the local community), it can be expected that the local community will participate in defining the vocational school network in a better way. As such projects are extremely important, all educational and economic actors of a region should be included into development of such networks. Hence through teamwork it should be possible to develop to a functional network of vocational schools, which will surely contribute to the economic

development at both local and national levels. A well based network of vocational schools should define the most important vocational schools which could become technology centres.

9.5. Vocational school – technology centre

Well-equipped vocational schools should be the carriers of VET at the local level or should become technology and education and training centres aimed at students, but also at groups and individuals with a need for training and development. The technical centres and schools should be able to offer various types and contents of education and training and in this way to respond to the rapid technological development and labour market demands, and be able to offer education and advising services at any moment. In order to achieve this, such centres should be provided with modern sophisticated equipment, which would ensure functional education in line with the needs of economy. The equipment should be at a higher technological level and ahead of the premises available in most of the businesses. Employers associations, chambers and similar unions should all be included into the equipment of such centres, as they, along with the participation of national and local education and economic authorities will be in charge of providing a continuous development of such institutions. The centres should be in the first place multipliers of practical knowledge, along with the latest technical theory. These centres will be technical teachers and craftsmen. Beside the formal education, the centres will provide non-formal sorts of education and training, which should enable individuals to acquire professional qualification based on a long working experience with one occupation or on the similar types of non-formal education. Such centres must cooperate with the broad local population, interested for all sorts of alternative paths to qualification acquisition, and financing of the centres should be harmonised through interest unions of the local actors (local administration and self-government, chambers, employers associations etc.).

9.6. Evaluation of secondary school activities

One of the major problems in Croatia is a lack of evaluation mechanism for school activities in general. The objective evaluation criteria for students and teachers and consequently of schools have not been elaborated on either local or national levels. Therefore there should be criteria on the achievements of schools set up, which will be defined for

particular types of schools. Each school has to make sure that at the beginning of school year a concise activities plan with input data is set up, and at the end of the year annual reports with students' record in practical and theoretical subjects, teachers and management's performance should be presented. Based on those reports and objective testing performed by the competent institutions, there will be ranking lists in individual counties showing their schools' success. In this way there would be a competition among schools from the same area.

10. STRATEGY FOR THE REFORM OF CURRICULUM

In order to ensure a successful reform of curriculum, it is not sufficient to have a unique understanding of the concept of curriculum, but it is important to know the methodology or the strategy for its reformation. For that purpose Croatia could use the experiences of more developed EU member states (*Strategies of educational reform: from concept to realisation*, 1999), as well as the projects in transition countries realised by the EU assistance programmes. The main task of a strategy is to optimise the implementation of the conceived changes within a given context (*What secondary education for a changing Europe*, 1997). When talking about the reform of curriculum, the main strategic guidelines include: a) the reform of curriculum must be based on an empirical evaluation of the existing curriculum, b) the reform should be prepared and developed in cooperation with the highest possible number of partners interested, c) enough time must be available for the reform (*Leclercq*, 1999).

10.1. Need for evaluation.

At all the levels of education (curriculum) reform, there is an apparent need for the changes to be based on evaluation of the existing system, performed at the national or even international levels. The international dimension of evaluation of the European education is important for the European integration processes and for the support to the mobility of persons within the single market of labour, which will sooner or later include transition countries as well through the EU enlargement. Subsequently Croatia, along with other transition countries, will need to establish a special institution (or make available a part of

some existing institution) in charge of performing external evaluation of educational achievements which will serve as an evaluation of the curriculum.

The development of psychometric procedures in the past few decades has made it possible for the results of external evaluation of students' achievements to be used not only for the purpose of curriculum evaluation but also for the evaluation of all the learning conditions, especially training organisation and procedures. In this way evaluation has become an integral part of the reform of other parts of curriculum, not only of the contents of education. The absence of a systematic evaluation in Europe, which is one of the features of the reforms in the '60s and '70s, is mainly a matter of the past.

10.2. Partnership and communication.

The next step in implementation of education reforms in Europe is to include as many partners as possible, including people from politics, science, teachers and parents (their associations and trade unions), economy, parents and public in general, into the process of preparing and implementing the reform. For that purpose it is necessary to establish special bodies representing individual interest groups. A disadvantage to such an approach is the fact that it is very time-consuming and some parts of the public have shown only little interest for their participation. Still, this disadvantage is far less significant than the loss occurring when the (technical) public has not been sufficiently included in the creation of the curriculum. In that case the proposals including changes can easily deny its necessary legitimacy, so the proposals are not easily adopted and implemented. Achieving a technical and social consensus on curriculum is so important, that it is advisable that it should be adopted by the national parliament.

The experience so far has revealed that when including the public into reformation processes there should be a balance between the roles of central expert teams and the roles of social. Namely, if the process on the changes of the curriculum is to be as democratic as possible, there is a danger of creating a chaotic situation with numerous initiatives which cannot be coordinated/harmonised. In order to avoid it, the top-down process has a task to provide a framework for changes (regarding the aims and main means or the main strategy of reform), while the bottom-up process has a role to improve the accuracy in identifying problems, assessing how realistic the proposed solutions are and presenting alternatives.

In finding generally acceptable solutions concerning curriculum and other structural changes of education system, it is extremely important to ensure accurate and timely information to all the actors participating in the harmonisation process. Besides, information is necessary from the point of view of their motivation to participate in the reform, so as not to get an impression that the participation is purely formal. The information process should include different media, depending on the target group. Traditionally pressed materials, newspaper, electronic media (Internet) and television have their differential roles in the process. Those belonging to the broadest public have a tendency to simplify (and select) everything excessively and to present matters in a sensational way. Their role in making the changes more popular is being distorted, and the quality of discussion has necessarily decreased.

10.3. Time for preparation of reforms and the pace of their implementation

It has turned out that the time factor is the one determining the success of reforms. It is not realistic to expect a reform to give quick results and to be prepared for implementation in a short time. The experiences in the past few decades have revealed that structural educational reforms should be prepared in a professional way, implemented gradually and evaluated continuously in order to ensure contingent planning of reforms. There has been an absolute unanimity that a long-term formula should be given advantage before the short-term (*Leclercq, 1999*).

Only taking the right decisions on the reforms can take a few years of expert elaboration and public discussions and around ten years for gradual implementation and evaluation (it has turned out that there is a minimum of 2 years for a project development, if the necessary infrastructure has been provided). It has been repeatedly confirmed that insisting on quick changes could only lead to high risk of failure, which can cause enormous disappointment among technical and lay public and this could only increase the rejection of later reforms. Curricular reforms are a particularly sensitive part of the system and thus need to be studied thoroughly and implemented gradually, through phases. Only when a document on the reform has been finished, increasingly many comments usually start coming in and they all require amendments to the document in order to make it acceptable by all the interested parties.

No matter how long they might take, the reforms require constant monitoring or evaluation of individual phases of the process in order to make corrections. Of course,

providing sufficient time in the reform process does not mean a relaxed attitude among teaching authorities and experts towards the reform, but a highly responsible attitude towards this important business of a significant social interest. The education ministers who, in line with the political logics, tend to speed up the process, should be aware of the fact that education represents a national interest beyond political parties and that they will be remembered by the quality of their decisions in certain parts of the process, and not on starting new processes throughout their mandate, without taking into consideration the actions taken by their predecessors. The experiences in the past ten years in Croatia have been warning enough and should not repeat.

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