



# APPRENTICESHIP-TYPE SCHEMES AND STRUCTURED WORK-BASED LEARNING PROGRAMMES

**CROATIA**



Agency for Vocational  
Education and Training  
and Adult Education

This article on apprenticeship-type schemes and structured work-based learning programmes written in 2014 is the first one of a set of articles prepared within Cedefop's ReferNet network. It complements general information on VET systems available online at

**<http://www.cedefop.europa.eu/EN/Information-services/vet-in-europecountry-reports.aspx>.**

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## TABLE OF CONTENTS

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<b>A. Apprenticeship-type schemes and work-based learning structured programmes in Croatia</b>	<b>4</b>
Definitions and statistics / basic information	4
System of Vocational Education and Training in Croatia	5
Education for attainment of Vocational Qualifications in Crafts	7
Implementation of Vocational Education and Training for Crafts	9

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<b>B. Specific features of the above schemes/programmes in Croatia in relation to the following policy challenges identified at the EU level</b>	<b>11</b>
Support for companies, in particular SMEs, offering company placements	11
Enhance programme attractiveness and career guidance	11
National governance, regulatory framework and social partners' involvement	12
Quality assurance in work-based learning and/or apprenticeship	13

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<b>C. The main strengths and weaknesses of this scheme/program in Croatia</b>	<b>14</b>
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<b>D. Conclusion</b>	<b>15</b>
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## A. Apprenticeship-type schemes and work-based learning structured programmes in Croatia

### Definitions and statistics / basic information

In Croatian Vocational Education and Training system there is an apprenticeship scheme that is implemented from the school year 2004-2005 and only in three-year vocational education and training program for crafts, commonly known as Unified Model of Education (UME).

Previously in the VET system there were programs in dual system of education that were introduced in school year 1995/1996. The main characteristic of the dual system of education was the separation of the general education from vocational theoretical and practical education. These programs had high proportion of practical training, less demanding general education and the students were issued two certificates (for general education - the ministry responsible for education and for VET part - the ministry responsible for crafts and trade).

Due to the complexity, dual system programs were replaced by a vocational education and training programs for crafts. The total number of UME programs for qualifications in crafts is 63. Their main purpose is to prepare students for the labour market.

Currently this system is going through major changes that are result of new Act on Crafts (Official Gazette No 143/2013), which among other regulates apprenticeship. New Act made a shift in jurisdiction between various institutions (e.g. Ministry of Entrepreneurship and Crafts, Ministry of Science, Education and Sports, Chamber of Crafts, Agency for VET and Adult Education, etc.). Several sub-law regulations have been adopted that will further define new structure, obligations and tasks of institutions.

The student in VET program for crafts has the status of regular student in accordance with the Act on Education in Primary and Secondary Schools (Official Gazette No. 87 /2008, 86/2009, 92/2010, 105/ 2010 - corr., 90/2011, 16/2012, 86/2012 and 94/2013) and (s)he is a secondary education student and the "apprentice" in the craft.

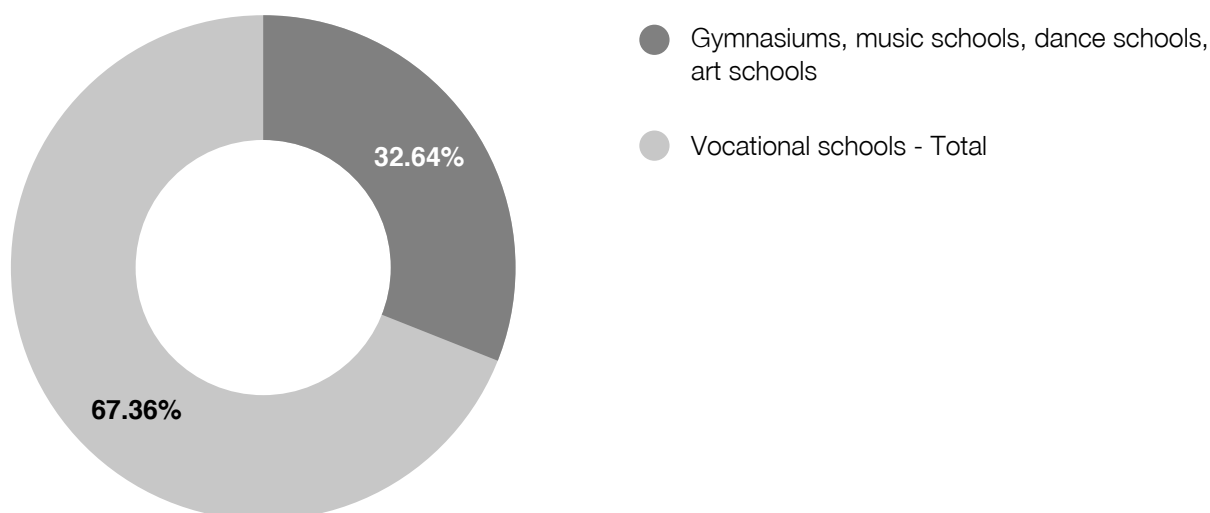
These programs encourage learning through work ("work-based learning") at the VET school and in real working process and places where student can learn about the new technologies and methods.

Alongside to this mainstream apprenticeship scheme, students in other three and four year VET programs have, but at much smaller scale practical training and exercises in companies, but they do not have a status of an "apprentice".

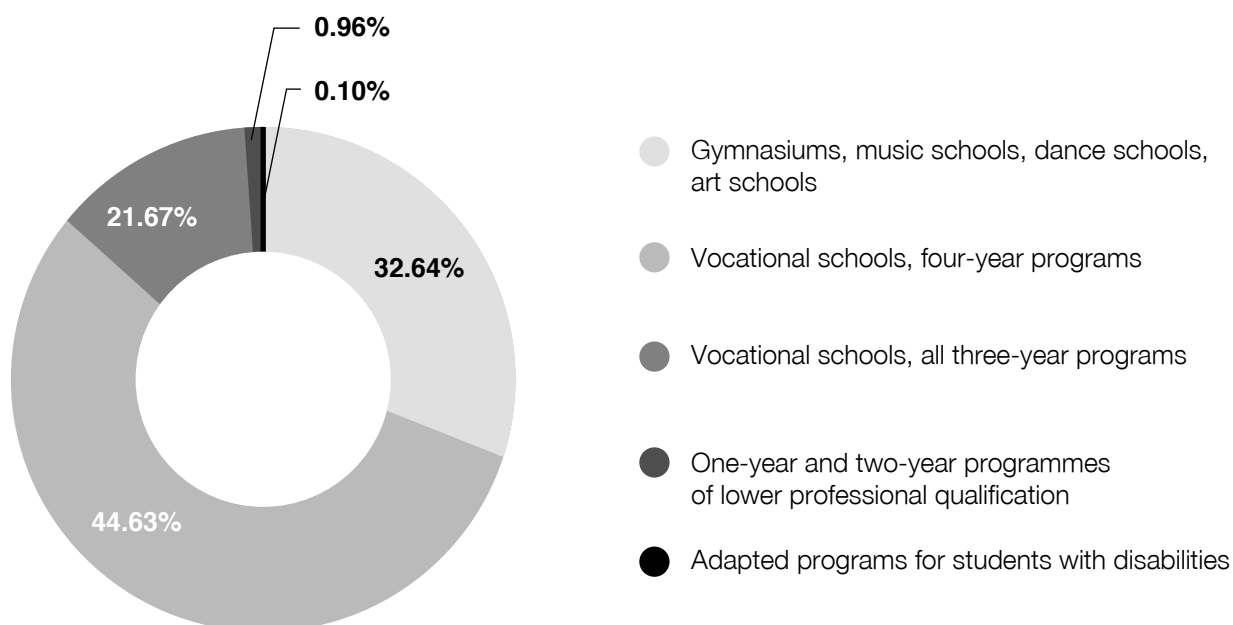
## System of Vocational Education and Training in Croatia

The existing system of VET in Croatia, at the beginning of the 2013/2014 school year, included approximately 68% of the total secondary education school population (source: Ministry of Science, Education and Sports - MoSES, 2014).

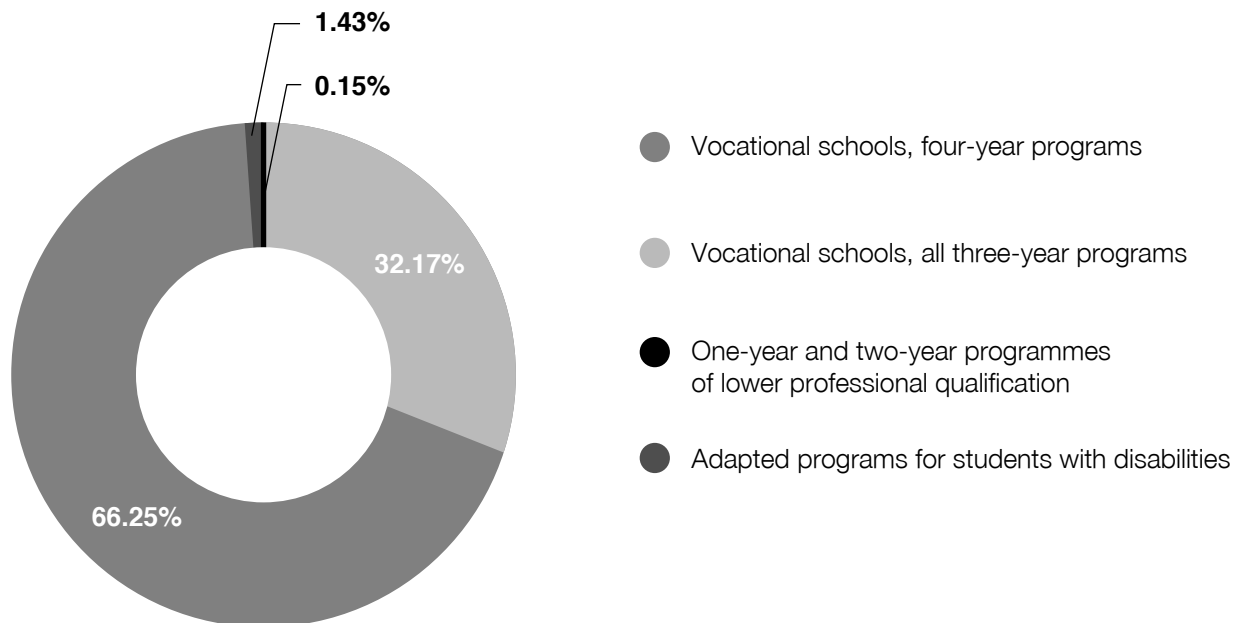
1. Percentage of students in VET schools and gymnasias, music, dance and art schools (source: MoSES, 2014)



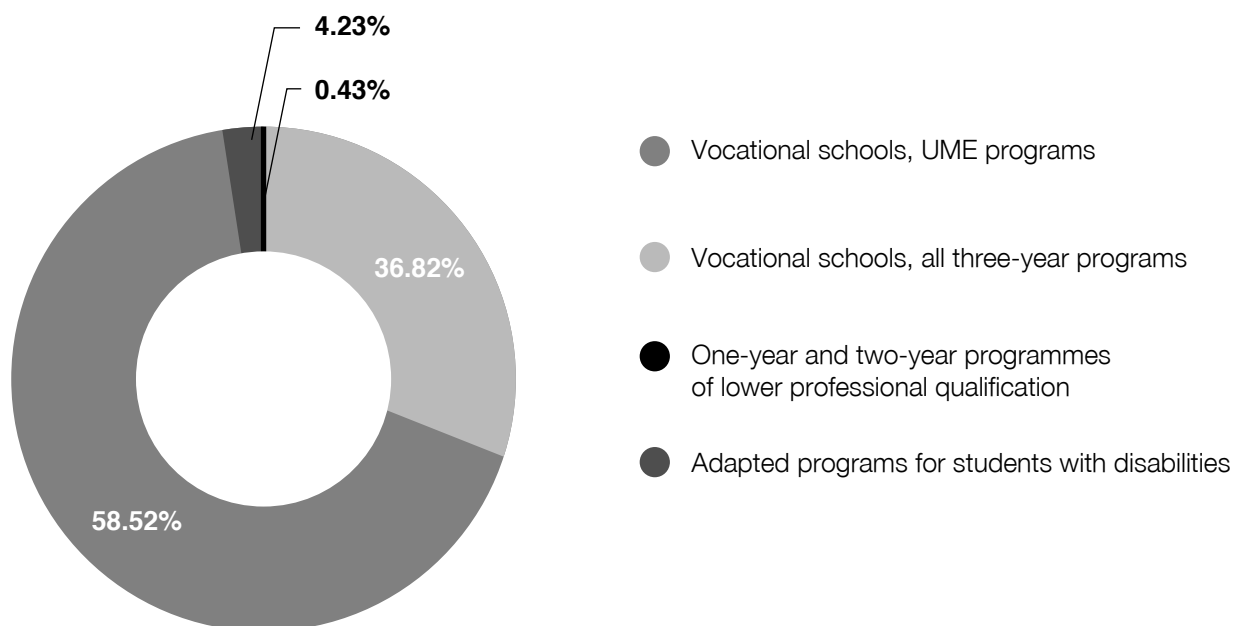
2. 100% of secondary education students (source: MoSES, 2014)



## 3. 100% of VET secondary education students (source: MoSES, 2014)



## 4. 100% of students in three-year, two-year vocational programs and adapted programs. (source: MoSES, 2014)



In the system of initial vocational education and training according there are:

- 49 one-year and two-year programmes of lower professional qualifications
- 72 three-year programmes for professions in the industry and 63 three-year programmes for crafts.
- 94 four-year programmes for technicians,
- 1 five-year program.

While the number of students enrolling into technical or similar programmes is relatively stable in recent years, number of students enrolling into three-year VET programs (for industry, craft and trade) and UME programs is in steady decline. Based on data of Ministry of Science, Education and Sport the annual number of students who are enrolled in UME programs has declined for about 2.000 students between 2011 and 2013.

Of all students enrolled in first year of secondary education number of students who enrolled in a vocational education and training program for crafts (UME programs) was:

- in the 2011/2012 school year 8.616 or 16,13%
- in the 2012/2013 school year 8.581 or 16,69% of students enrolled in VET programs (enrolment decline of 0,4%)
- in the 2013/2014 school year 8.450 or 16,48% (enrolment decline of 1,52%).

## Education for attainment of Vocational Qualifications in Crafts

Education for attainment of VET qualifications in crafts is implemented according to a vocational curriculum that consists of two parts - general education part and apprenticeship. Apprenticeship consists of a professional-theoretical part and practical training and exercises. Initial VET is financed by stated budget, unlike CVET where financing is by learners themselves or from other sources.

VET curricula for qualification in crafts is approved by minister in charge of education with prior consent of minister in charge of crafts. Curricula lists teaching subject of general education part, teaching areas of apprenticeship and profession, contents of teaching areas, human and spatial resources, duration, and yearly and weekly number of hours of teaching. General education and professional-theoretical part is implemented in VET schools.

The practical training and exercises are implemented mainly in the work process, in craft business workshops or in a trade association, institution or cooperative and to a lesser extent in VET school workshops in a certain amount of hours, according to the curriculum for each qualification.

For the practical training and exercises, craft business workshop or legal entities must have a license for work with student in program in apprenticeship scheme. The Croatian Chamber of Crafts conducts licensing craft workshops or legal entities. In order to get licence craft business workshop or legal entities must provide conditions for the student to acquire the knowledge, skills and competencies in the real work process and allow student the quality of the practical training and exercises, in accordance with the curriculum. This means that a student must have a mentor appointed to him (her) with adequate qualifications and pedagogical competences.

This is in accordance with European guidelines, which emphasize the importance of including education in the workplace in the initial system of vocational education.

The **structure of educational programs** for crafts (Official Gazette, 136/2003, 112/2004, 68/2005) is as follows:

Program structure	Hours per year			Total no. of hours
	1. grade	2. grade	3. grade	
General education	315	315	224	854
Professional-theoretical part with elective classes	244-281	244-280	244-288	732-849
Practical part with technological exercises	900	900	800	2600
Total A)+B)+C)	1459-1496	1459-1495	1268-1312	4174-4303

**Number** of vocational education and training **programs** for crafts (per education sector):

Education sector	Number of programs
Agriculture, food processing and veterinary	4
Forestry and wood processing	5
Geology, mining, oil and chemical technology	0
Textile and leather	6
Graphics technology and audio - visual design	0
Mechanical engineering, shipbuilding and metallurgy	24
Electrotechnics and information technology	4
Construction and geodesy	6
Economy, trade and business administration	1
Tourism and hospitality	3
Transport and logistics	0
Health and social care	0
Security service, personal and other services	10



## Implementation of Vocational Education and Training for Crafts

Vocational Education and training programs for crafts (UME) lasts three years and ends with a formal qualification. Students mentor in craft business workshops evaluate practical training and exercises of student's in craft business workshop or legal entities and propose grading of students, but teacher in VET school carries out formal assessment.

Students end their education with preparation and elaboration of the final thesis (practical assignment) (Article 82, Act on Education in Primary and Secondary Schools, Official Gazette No. 87 /2008, 86/2009, 92/2010, 105/ 2010 - corr., 90/2011, 16/2012, 86/2012 and 94/2013) and their school issues a certificate of final assignment (*Svjedodžba o završnome radu*).

From year 2014 student who has finished vocational education and training program for crafts or other three-year VET program can continue his education at the expense of State Budget in the fourth year in the same or in another educational sector or in gymnasium programs. The student take additional and supplementary exams of the first, second and third year of a particular qualification and then enter the fourth grade. Student can complete equivalent of a four-year program during period of two years. Upon successful completion student can take State Matura Exams that enable enrolment to Higher Education institutions.

After successful completion of vocational education and training program for crafts student take **apprenticeship exam** that is organised by Agency for VET and Adult Education and National Centre for External Evaluation of Education and in line with new Act on Crafts. A commission comprised of at least two master craftsman (but not those from craft business workshops where student had practical lessons) and one member from VET school assess student. Apprenticeship exam encompass assessment of practical and professional competences needed for carrying out work in a craft business in line with standard of qualification. Upon completion of apprenticeship exam, ministry in charge of crafts issues a certificate of passed apprenticeship exam.

Student that decide to enrol in a particular vocational education and training program for crafts must have completed primary education and also have to, prior to admission, find a place for apprenticeship in a craft business workshop where they will acquire competences for their future profession. Without a place for apprenticeship, students cannot enrol since this is a precondition for enrolment and in case where students cannot find a place, they may ask for a help from VET school or Chamber of Crafts. Information on licensed craft business workshops or legal entities involved in the implementation of apprenticeships can be found on the website of the VET school and regional chambers of Trades and Crafts.

In a school year 2013/2014, the total number of **licensed craft workshops** or legal entities involved in the implementation of apprenticeship in Croatia was 10.560 (source: Croatian Chamber of Crafts). Before choosing a profession, student should consult with experts in the field of youth professional guidance and with the school physician on medical conditions and possible adverse health consequences in certain professions. The minister responsible for education regulates elements and criteria for the selection of candidates for admission. Besides the confirmation of fitness to perform the tasks in the occupation issued by the institutions for occupational health and a signed apprenticeship contract there is no other required enrolment criteria.

The **apprenticeship contract** in writing is concluded between the craftsman and the student or his parents or guardian if the student is not of legal age and is not a contract of employment. The ministry responsible for crafts regulates the contents of the contract. The Contract governs the mutual rights, obligations and

responsibilities between a craftsman and the students throughout the duration of the apprenticeship programs, and in particular:

- The start and duration of the practical training and exercises in craft or legal entity
- Obligations of the craftsman regarding the curriculum
- Obligations of student in practical training and exercises in craft or legal entity
- Student's work hours in the workshop or on the work site
- The duration of the student's vacations (daily and annual)
- Monthly prizes (award) to the student

The contract is signed in four identical copies, which go to the student (parent or legal guardian), craftsman or legal entities, the school and the ministry responsible for crafts. The contract is evidenced in the ministry responsible for crafts.

According to Act on VET (Official Gazette, 30/2009) and in line with Regulations on minimal conditions for apprenticeship contract) (Official Gazette, 63/2014), Article 5 of the Apprenticeship contract prescribes the obligation to pay **monthly prizes** to the student. The award will be paid in a certain percentage of the average net salary in the previous year in the Croatian economy: in the first year of apprenticeship 10%; in the second year of apprenticeship 20% and in the third year of apprenticeship 25%.

The award is paid to the student for accomplished work scheduled by the curriculum for the year in which the award is paid.

The student according to the VET curricula for qualification in crafts, for the practical part must realize in the first year at least 560 hours, in the second year at least 630 hours, in the third year at least 640 hours of practical training and exercises in a craft workshop or legal entities. Based on this, the yearly apprenticeship award amounts from 1780,80 HRK<sup>1</sup> (app. 234 EUR) in the first year, 4013,10 HRK (app. 528 EUR) in the second year and 5094,40 HRK (app. 670 EUR) in the third year.

If the prize is paid per month, in the case of an student spending half a month in training (86,6 hours), the award is: 275,39 HRK (app. 36 EUR) in the first year of apprenticeship, 551,64 HRK (app. 73 EUR) in the second year of apprenticeship and 689,35 HRK (app. 91 EUR) in the third year of apprenticeship.

If the prize is paid per month, in the case of an student spending a full month in training (173,2 hours), the award is: 550,78 HRK (app. 72 EUR) in the first year of apprenticeship, 1103,28 HRK (app. 145 EUR) in the second year of apprenticeship and 1387,70 HRK (app. 183 EUR) in the third year of apprenticeship.

Initial secondary education in the Republic of Croatia, including vocational education, is financed from the State Budget.

Some counties in Croatia decide on awarding a certain number of scholarships annually to students who attend programs for occupations that are in demand in that county. The best example is the City of Zagreb that allocates funds annually from its budget for about 100 scholarships. Scholarship amounts are: 900 HRK (app. 118 EUR) for the first year, 1200 HRK (app. 158 EUR) for the second year and 1500 HRK (app. 197 EUR) for the third year.

1 Based on average net salary in Croatia in 2013 which was 5.515,00 HRK (app. 729 EUR)

## **B. Specific features of the above schemes/programmes in Croatia in relation to the following policy challenges identified at the EU level**

### **Support for companies, in particular SMEs, offering company placements**

*Entrepreneur impulse 2014*, a document by the Ministry of Entrepreneurship and Crafts, plans scholarships for students who are educated for scarce occupations and sends out a public invitation for potential users. The maximum amount of individual aid is 500 HRK per student per month, for the school year 2014/2015 (from 01.09.2014 to 31.08.2015).

*Entrepreneur impulse 2014* also foresees support for practical training and exercises in a craft business or legal entity at a minimal amount of 5.000,00 HRK. The maximum amount that may be granted to a craft business is 100.000,00 HRK, and will be granted to craftsmen at whose workshops practical training and exercises for students of secondary vocational schools who are trained to work in crafts take place.

*Act on State Aid for Education and Training* (Official Gazette No 109/2007, 134/2007, 152/2008 and 14/2014) provides tax breaks for businesses in whose manufacturing facilities or workshops practical training and exercises for crafts take place. This allows them to reduce the basis for the calculation of income tax or self-employment tax by the amount of awards paid to students for attending practical apprenticeship training exercises. If the same entrepreneur receives *de minimis* aid on any other grounds he can reduce his basis for calculation of income tax or self-employment tax to the upper value of the *de minimis* aid in accordance with the relevant rules on *de minimis* aid, taking into account the prescribed limits. Entrepreneurs that have one to three students on practical training and exercises at their premises may reduce their tax base or self-employment income by 5%. An entrepreneur that has more than three students on practical training and exercises can increase the percentage of the reduction of his tax base or income from self-employment by one percentage point per student, not exceeding 15% of the tax base or income from self-employment.

### **Enhance programme attractiveness and career guidance**

Presentation of the work of secondary schools as well as enrolment news, both for craft programs, as well as for other VET programs, to eighth-grade students of primary schools is carried out by individual secondary vocational schools or through joint presentations. One such public event organized by the City of Zagreb every year in May on main city square is *Dojdi osmaš* (Come eight-grader). On this event secondary education schools use promotional films, presentations and stage performances to present the characteristics of their programs, thus enabling eight graders to get all the necessary information about school programs and activities, admission requirements, necessary points to enrol in specific schools, but also the possibilities of continuing their education at universities and employment in one place.

In previous years, Croatian Chamber of Trades and Crafts on national level and in cooperation with the regional chambers and vocational schools organised promotional activities. The most significant event that was traditionally held every year to promote crafts was *Želim biti majstor* (I want to be a master craftsman) where students and teachers from vocational schools presented their schools programs, gave out promotional brochures and answered questions from visitors. Due to budget cuts, this event is suspended.

Compulsory professional guidance of young people who are planning to enter a program for crafts is not provided.

There is a need to enhance attractiveness (not regarding number of enrollees but a perception) of whole VET, including apprenticeship-type schemes. Both employers and students in WBL need more support and quality assurance mechanisms can assist in this since both groups still have low perception of WBL and claim it does not meet their expectations.

### **National governance, regulatory framework and social partners' involvement;**

Vocational education and training for crafts is regulated by:

- *Act on Crafts (Official Gazette 143/2013)*
- *Act on Education in Primary and Secondary school (Official Gazette 87/2008, 86/2009, 92/2010, 105/2010-corr., 90/2011, 16/2012, 86/2012 and 94/2013)*
- *Act of Vocational Education and Training (Official Gazette 30/2009) and by following sub-law regulations:*
  - *Regulations of procedure and ways of implementing apprenticeship exam (Official Gazette 63/2014)*
  - *Regulations on the form and content of certificates on apprenticeship exam (Official Gazette 63/2014)*
  - *Regulations on minimum requirements for apprenticeship contracts (Official Gazette 63/2014)*
  - *Regulation on crafts and privileged crafts and ways of issuing benefits (Official Gazette 42/2008)*
  - *Regulations on procedure and ways of issuing licence and conditions for implementation of practical part of apprenticeship (Official Gazette, 4/2008 and 17/2010),*
  - *Regulations on making and assortment of final practical assignment (Official Gazette 118/09)*
  - *Regulations on ways, procedures and elements of assessment of students in primary and secondary schools (Official Gazette 112/2010)*
  - *Regulations of ways of organisation and implementation of lessons in vocational schools (Official Gazette 140/2009) and by VET teaching plans and programs (curricula).*

In implementation of apprenticeship-type schemes, various stakeholders are involved. Ministry of Science, Education and Sports adopts programs (after positive opinion from ministry in charge of Crafts). Ministry of Entrepreneurship and Crafts issues a certificate of passed apprenticeship exam. Agency for VET and Adult Education is responsible for organisation of apprenticeship exams. Chamber of Crafts gives licence to craft business workshops that allows them to receive students and they publish lists of licenced craft business workshops. Employers (in craft business workshop or legal entities) receive students for practical part of apprenticeship scheme. VET schools enrol students into three-year vocational education and training program for crafts.

## Quality assurance in work-based learning and/or apprenticeship

Based on Article 56 of the Act on crafts (*Official Gazette* 143/13) the Croatian Chamber of Trades and Crafts conducts licensing of craft businesses and legal entities for carrying out practical training and exercises in the system of initial education at the secondary level. The same article of the Act prescribes the procedure of issuing the licence.

The licence can be obtained by:

- *persons who have passed the master craftsman exam,*
- *persons with rights that are recognized by the Act on Crafts which recognizes the rights of individuals who have passed the master craftsman exam if they have passed an exam proving basic knowledge about teaching students*
- *persons with the appropriate higher or university education who passed an exam proving basic knowledge about teaching students,*
- *and individuals, inventors, persons with relevant vocational education who have trades based in areas of special state concern, mountainous areas or on islands that have at least three years of experience in the occupation for which they conduct the practical part of apprenticeships and an exam proving basic knowledge about teaching students.*

The ministry responsible for craft carries out supervision of license issuing to master craftsman and legal entities for performing practical training and exercises and supervision over the legality of organizing and implementing practical training and exercises that are performed at the trade location or at a legal entity.

A special program to acquire basic knowledge about teaching students and pedagogical competence is brought by the ministry responsible for education, in accordance with special regulations governing vocational education and training.

According to the Act on Vocational Education and Training, adopted in 2009, VET QA system is established by permanent evaluation of students, VET institutions and the VET process, aligned to EQAVET quality cycle, indicative descriptors and EQAVET indicators. In 2010, Quality Assurance Framework for VET was developed together with QA instruments for the VET system. As a result of these changes, in 2010 Croatia started work on a new approach to quality assurance in VET, based on the principle that VET schools should take the lead by assessing themselves. Croatian QA framework breaks the work of schools down into six areas for assessment: planning and programming of work; teaching and support to learning; learning outcomes; physical and human resources including professional development of staff; cooperation both within the VET school and with other stakeholders; and finally administration and management. Each is broken down further into individual criteria. It is applied to initial VET, including for vocational education and training for crafts. Since July 2011, each institution produces a self-assessment report and detailed plans on how to improve.

Quality assurance system also includes inspection visits by education inspectors and professional-pedagogical monitoring visits by Agency for VET and Adult Education and Education and Teacher Training Agency but only in VET schools. The ministry responsible for craft supervises the legality of organizing and carrying out practical training and exercises in craft and in the legal entity.

## C. The main strengths and weaknesses of this scheme/program in Croatia

Main strength of vocational education and training programs for crafts is the acquisition of competence in the work process. It has a long tradition in Croatian education system. VET is crucial in the accumulation of human capital as a prerequisite for achieving economic growth, quality employment and social objectives.

Introduction of possibility for three-year VET students to continue their education in fourth year at the expense of State Budget increases vertical permeability of these students.

However, there are areas for improvements. These programs are still facing low attractiveness. Vocational education and training programs for crafts need a revision that will make them more relevant for labour market. This is underpinned by the fact that in the educational structure of unemployed people in Croatia biggest share of 32,7%<sup>2</sup> had individuals with secondary vocational school lasting up to three years and school for skilled and highly skilled workers (ISCED 3C level). In total population of Croatia, according to 2011 Census there were 27,49% of individuals with secondary vocational school lasting up to three years and school for skilled and highly skilled workers.

The current poor employability in the manufacturing sector and low and irregular incomes have impact on students selecting a vocational education and training programs for crafts. Practical training and exercises of students in crafts business workshops is not coherent since there is lack of QA mechanism. In addition, there is lack of coordination of professional-pedagogic monitoring in VET schools and craft businesses as coherent approach to QA in vocational education and training programs for crafts.

Vocational education and training program for crafts schedule 900 hours of practical training and exercises (at least 560 in craft business workshops or legal entities and remaining in VET school workshops) per year in the first and second grades and 800 per year in third grade. As the Act on Education in Primary and Secondary Schools stipulates that students are entitled to winter, spring and summer breaks in the amount that the ministry responsible for education decides, that often leads to difficulties in the implementation of the specified number of hours of practical training and exercises.

In addition, there is a lack of sufficient number of licensed craft business workshops or legal entities that accept students for practical training and exercises.

In many regions of Croatia there is often need for more modern equipment and resources for students to work on both in VET schools as well in craft business workshops.

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2 Monthly Statistics Bulletin No 5, 2014, Croatian Employment Service

## D. Conclusion

Significant number of students in Croatian VET system, 12,88% (source: MoSES, 2014), in 2013 were in vocational education and training programs for crafts (UME). There are in May 2014 32,7% (source: Monthly Statistics Bulletin No 5, 2014, Croatian Employment Service) of all unemployed people in Croatia with secondary vocational school lasting up to three years and school for skilled and highly skilled workers (ISCED 3C level).

Currently there is a major restructuring of apprenticeship system in Croatia as a result of new Act on crafts.

There is a need for improvements and investments in this type of education. All vocational education and training programs for crafts need to be modernised according to methodology for development of occupational standards, qualifications and curricula and with a focus on learning outcomes. This programming of curricula should include labour market research, analysis of relevant data as a mechanism for alignment of VET with Labour Market.

System of QA in apprenticeship system needs to be strengthened and continuously improved with a better links between school based VET and craft or legal entity based practical training and exercises.

There is also a need for additional training of teachers and mentors of students in practical training and exercises.

There is a need to develop a tracing system of students after completion of their education and analysis of data of successful finishing of programs and places of employment.

Finally, **apprenticeship-type scheme** is limited only to three-year vocational education and training programs for crafts and it limits students in other VET programs to benefit from this type of education. However, draft Strategy of Education, Science and Technology which is expected to be adopted in 2014, foresees the gradual introduction of the "work based learning" model in all forms and types of VET, in varying proportions depending on the vocational qualification, which would contribute to increasing the relevance of VET and facilitate the transition from education to the labour market.

