



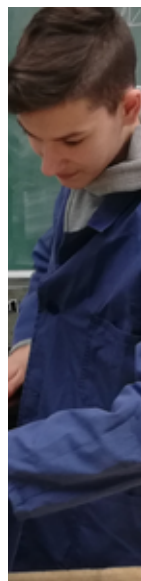
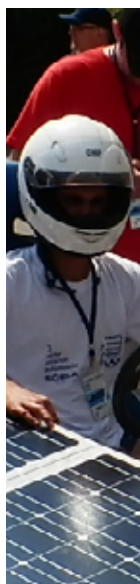
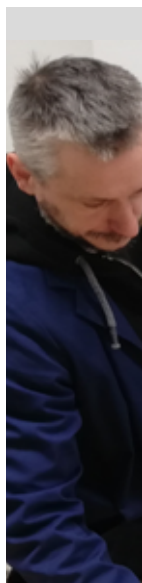
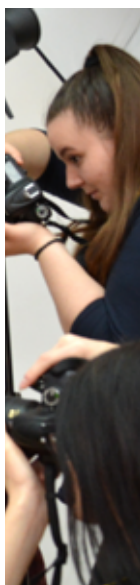
CEDEFOP

European Centre for the Development
of Vocational Training

EN



T H E M A T I C
COUNTRY REVIEWS



APPRENTICESHIP REVIEW

CROATIA

Improving apprenticeships through
stronger support and care



Apprenticeship review CROATIA

Improving apprenticeships
through stronger
support and care

THEMATIC COUNTRY REVIEWS

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The European Centre for the Development of Vocational Training (Cedefop) is the European Union's reference centre for vocational education and training, skills and qualifications.

We provide information, research, analyses and evidence on vocational education and training, skills and qualifications for policy-making in the EU Member States.

Cedefop was originally established in 1975 by Council Regulation (EEC) No 337/75. This decision was repealed in 2019 by Regulation (EU) 2019/128 establishing Cedefop as a Union Agency with a renewed mandate.

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Foreword

There is broad consensus in Europe that apprenticeships can be an effective way of helping young people make smoother transitions from school to employment and of addressing labour market imbalances. As highlighted by the European framework for quality and effective apprenticeships ⁽¹⁾, which draws on Cedefop's work, several necessary conditions must converge to establish good quality apprenticeship schemes.

As part of its work to support European and national policy-making and cooperation on apprenticeships, Cedefop conducted a thematic review in Croatia, where a major reform in vocational education and training (VET) and in the entire education system was under way at the time. This publication presents the review findings. By making our findings available, we aim to support national stakeholders in their endeavour to strengthen their structured dialogue and joint work, to make apprenticeships a valuable option for learners.

Cedefop's reviews, conducted in nine countries ⁽²⁾, rely on the inclusive, participatory and iterative approach based on a common analytical framework. In close cooperation with national stakeholders, we identified strengths and enabling factors in the existing arrangements and focused on challenges that the country can address with the help of the actions we suggested. They were developed from analysis of the situation and bringing in the views of beneficiaries, practitioners and decision-makers.

Feedback from our national partners suggests that the review helped them clarify their views and shape their policies. The open dialogue during the review suggests that ministries and social partners are ready to discuss their views and visions, with Cedefop contributing its expertise from across the EU; it is important to achieve consensus and synergy to ensure quality apprenticeships.

Reviewing countries' apprenticeships has proved mutually rewarding and Cedefop has gained better insights into the contexts and issues at stake in Member States while working with national authorities and social partners. This is why we believe that the in-depth information gathered so far will help

⁽¹⁾ Council of the European Union, 2018a.

⁽²⁾ Belgium (French Community), Greece, Croatia, Italy, Cyprus, Lithuania, Malta, Slovenia and Sweden.

not only the countries concerned but, through our role as intermediary, also other countries to reflect on their practices and implement reforms for better apprenticeships.

Cedefop has gained significant knowledge and better insight into issues at stake in Member States. We share this wealth of information in our review publications and a cross-nation overview, and in our online databases ⁽³⁾ on 30 apprenticeships schemes in 24 countries.

Cedefop's team has been following policy developments closely in all the countries reviewed. It will continue to do so by organising policy-learning activities, enabling Member States and European stakeholders to learn from each other, and sharing experiences with a view to establishing high-quality apprenticeships in their national contexts.

Mara Brugia

Acting Executive Director

Antonio Ranieri

*Head of department for learning
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⁽³⁾ <http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/apprenticeship-schemes>



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The publication was reviewed by Jelena Letica, Cedefop expert, who acted as strategic adviser throughout the review.

Special thanks are also due to the members of the steering group coordinated by the Ministry of Science and Education who actively participated in validation meetings to discuss project findings and results and provided valuable feedback.

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Executive summary



Executive summary

Cedefop has conducted thematic country reviews (TCR) on apprenticeship since 2014 to support countries that wish to set up or improve the quality of work-based learning (WBL), including apprenticeships. Since 2014, reviews have taken place in Belgium (French Community), Greece, Croatia, Italy, Cyprus, Lithuania, Malta, Slovenia and Sweden ^(*). In its TCR, Cedefop applies a methodology that is based on three main principles:

- (a) a common analytical framework of characteristic features of apprenticeship;
- (b) an inclusive, participatory and collaborative approach to all stakeholders;
- (c) an evolving and iterative approach where surveying of stakeholders is organised in three consecutive rounds.

The thematic review in Croatia focused on the unified model of education (*jedinstveni model obrazovanja*, hereinafter referred to as JMO). These are three-year programmes for trades and crafts (Croatian qualifications framework (CROQF) level 4.1) where students have the status of (upper) secondary students in accordance with the Primary and Secondary School Education Act (2008) and have an apprenticeship contract with the employer according to the Act on Crafts (2013).

JMO programmes were introduced in 2003 and comprise a relatively small part of the vocational education and training (VET) system; in 2017, about 10% of all secondary VET students were enrolled in them. These programmes have experienced a dramatic decline in participation, especially since 2013, while participation in technical programmes was stable in those years. The number and share of JMO students in all VET programmes has fallen by more than half in the past 10 years.

During the review, key stakeholders shared their views and experiences in interviews and round-table discussions: JMO students, VET school directors, VET teachers and trainers, employers who take students in apprenticeship, parents and youth organisations, social partner and responsible ministry representatives, and experts from national agencies and chambers. A total of 113 interviews took place.

^(*) The reports are available at: <http://www.cedefop.europa.eu/en/events-and-projects/projects/apprenticeships-work-based-learning#1>

TCR offers the view of an external observer on the situation and suggestions for action, validated by the steering group. The review highlights that the need for changes and improvement in JMO is strongly felt throughout the system. The findings bring to mind Cinderella as a metaphor for JMO where its key actors, students, schools and crafts are expected to perform without proper support and resources, often facing problems on their own. The main challenges concern:

- (a) curricula and learning outcomes: the education plans and programmes of JMO are outdated and need to be urgently renewed. The VET system is undergoing significant curriculum reform but JMO programmes have not been affected so far;
- (b) permeability and access to higher levels of education for JMO graduates are provided formally, but not widely used in practice. Horizontal transition is possible but in practice it too is rare;
- (c) lack of coordination or a coordinating body with a mandate and clear ownership over JMO is an issue. More cooperation among institutions and strengthening the coordinating role of some institutions is seen as a means to overcome various challenges of JMO. The need for better coordination between public authorities and employers to identify skill needs is also pointed out in the country-specific recommendation to Croatia (Council of the European Union, 2018b);
- (d) cooperation between schools and employers (crafts and legal entities): the need for improving and better coordination between the school and the workplace is strongly advocated, especially by the participating crafts. Responsibility for the overall learning outcomes is not clear to all actors involved; it is assumed that schools are responsible but the division of responsibility between school and employer is not explicit;
- (e) apprentices' working and learning conditions: apprentice remuneration is reported to be an issue. Some interviewees claim that apprentices are not always paid and consider the lack of reaction by stakeholders on this alarming issue as a major concern. Other financial aspects, such as transportation costs in order to reach available workplaces or schools, also play a role in student choices;
- (f) imbalanced demand and supply of JMO programmes: labour supply-demand gaps for skilled workers are emerging increasingly. There is a need for specific (JMO) occupations on the labour market, especially after the start of the economic recovery as of 2015.

At the same time, the review identified some enablers in the current system that national stakeholders can build upon in their effort to improve the JMO programmes and, more broadly, to reform the VET system and strengthen the work-based learning in other types of VET programmes/occupations:

- (a) the place of JMO in the system is generally clear and JMO is relatively well-regulated in several legal acts and regulations. It is a recognised learning path leading to a vocational qualification;
- (b) in more than a decade following the Act on VET (2009) and driven and supported by the Agency for Vocational Education and Adult Education (ASOO), the approach to the development of VET curricula in Croatia has undergone profound changes. Some 29 new vocational curricula have been developed and implemented since 2013 (Agency for Vocational Education and Training and Adult Education, 2016a). In 2018, the Ministry of Science and Education (MoSE) developed and adopted the national curriculum for VET (MoSE, 2018), which will serve as a core and uniting element for VET programmes. Including JMO in the process soon is a chance to improve;
- (c) the review did not identify any particularly negative attitude towards JMO, which is not distinguished from other VET programmes; they are perceived as training programmes in crafts and trades;
- (d) the memorandum of understanding was signed by intermediary bodies, employers, VET providers, public authorities (ministries, agencies, employment service) on 29 January 2018, setting up the apprenticeship partnership at national level;
- (e) the establishment of VET centres of competence can bring new potential to the system. It is important that JMO programmes are also considered as beneficiaries of the centres;
- (f) there are good examples of the implementation of JMO programmes, particularly of cooperation between schools and the local branches of the Croatian Chamber of Trades and Crafts (HOK) at local level; this is even more so between schools and individual employers, where cooperation is established in long tradition. There are also many qualified and motivated school principals, heads of practice, teachers and mentors in crafts and companies;
- (g) the availability of EU funding provides a good basis for updating VET infrastructure, improving the quality of JMO, including incentives to students and employers, and increase continuing professional development (CPD) offers to VET teachers and trainers.

The review suggests that, building on the enablers and on the current reform, Croatian stakeholders can successfully work in four directions:

- (a) making apprenticeship more attractive and supportive to learners;
- (b) ensuring a good combination of financial and non-financial support to employers;
- (c) increasing the quality and permeability of the apprenticeship pathway;
- (d) improving coordination among stakeholders for better governance.

The report is addressed first to national stakeholders, represented in the steering group and those interviewed, and to a broader audience. Read in conjunction with the other TCR reports, it will provide valuable insights for those interested in learning in more depth about the experience of other countries in setting up and improving apprenticeships.





1. Introduction

Introduction

As part of their strong commitment to reducing levels of youth unemployment, the European Union and its Member States (MS) promote and support the development of policies and programmes to ensure the availability of high-quality work-based learning (WBL), including apprenticeships. Work-based learning in general, and apprenticeship in particular, is seen as an effective way of improving smooth and sustainable transitions from school to work. By alternating school and work, apprentices develop practical knowledge and skills relevant to the labour market and employer needs. In apprenticeship, learners also develop professional identity and the soft skills (communication, problem solving, judgement, leadership, flexibility, teamwork), which employers often refer to as lacking when they discuss skill mismatches in the labour market. These soft skills are more difficult to acquire in a traditional school setting.

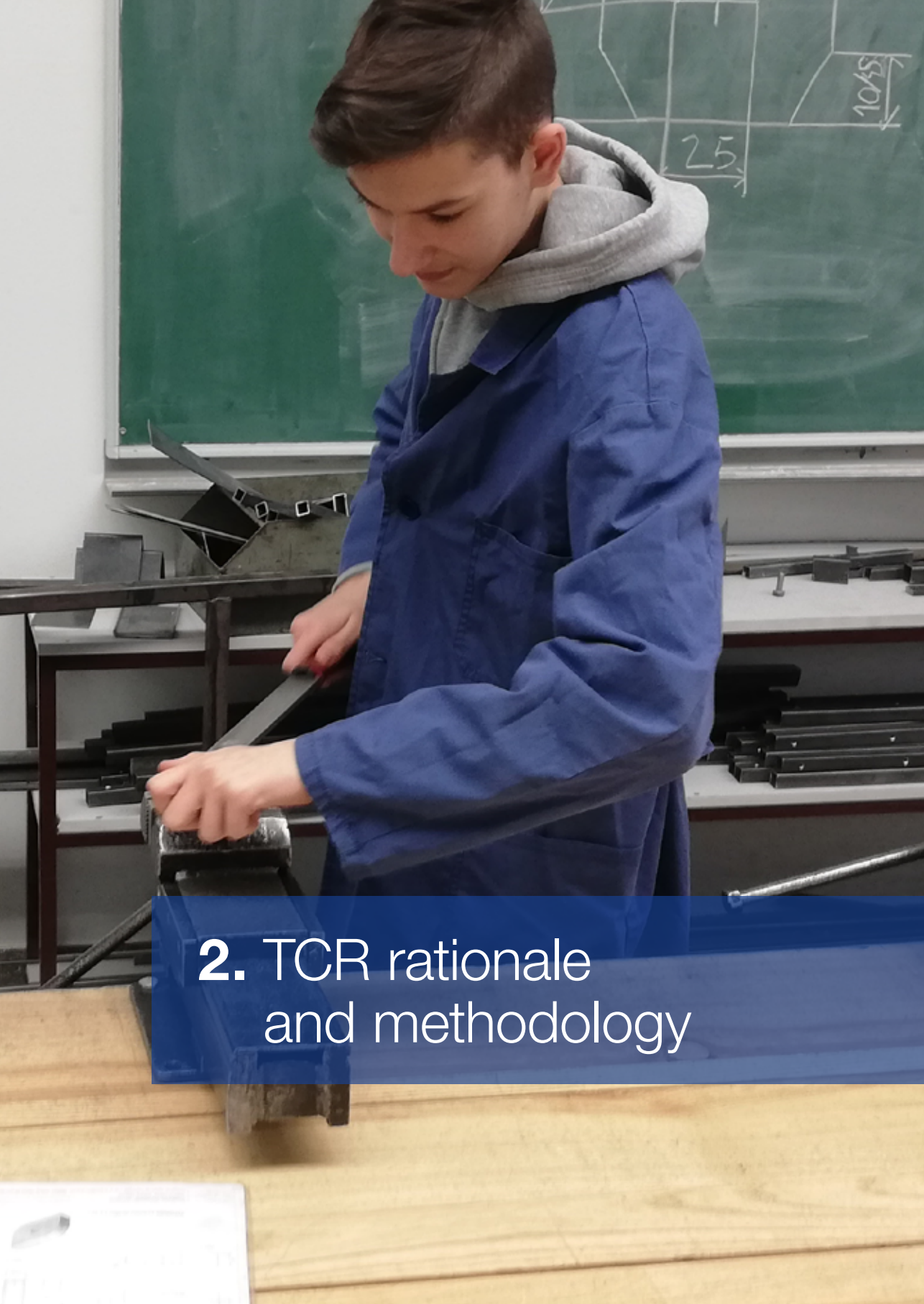
Against this backdrop, to create a solid basis to support effective apprenticeships, Cedefop strives to enrich and systematise the knowledge base on apprenticeships in Europe. It also seeks to complement it with extensive country-based information and monitor progress in relation to Member State commitments under the umbrella of the European alliance for apprenticeships (EAfA) ⁽⁶⁾. Cedefop supports cooperation among the Member States, and interacts with individual countries that wish to foster the development of high quality WBL, including apprenticeships.

On 2 December 2016, Cedefop presented its project for the thematic country review on Apprenticeship in Croatia (TCR) to key stakeholders in a preparatory meeting held in the Ministry of Science and Education (MoSE). The project started in 2017. This report includes the key findings, conclusions and recommendations of the TCR. Chapter 2 sets out the analytical framework and methodology of Cedefop that was used for this review. Chapter 3 provides a brief overview of the socioeconomic and VET developments and introduces apprenticeship schemes in Croatia. Chapter

⁽⁶⁾ Under the EAfA, stakeholders across the EU undertake initiatives to improve the quality, supply and image of apprenticeship. EAfA initiatives are funded through the European Social Fund (ESF), the *Youth employment initiative*, *Erasmus+* and other EU funding mechanisms, resources and networks. Apprenticeship systems are included in the national policy plans associated with the *Youth guarantee* and the *Youth employment initiative*.

4 presents the current situation of apprenticeship in Croatia based on stakeholder experience. Chapter 5 provides a list of concrete suggestions for action to improve apprenticeship in Croatia.





2. TCR rationale and methodology

TCR rationale and methodology

Cedefop conducts thematic country reviews on apprenticeships to:

- (a) identify, in cooperation with national stakeholders, strengths and challenges of apprenticeship in the country and present a set of policy suggestions on how to improve its quality;
- (b) increase the evidence base at European level, potentially supporting policy- and decision-makers at different levels in designing and implementing policies and measures for quality apprenticeships.

Three key elements form the basis of the review methodology that Cedefop specifically designed for the project and has applied since 2014:

- (a) using a common analytical framework. This includes characteristic features that are present, to varying extent and in different combinations, in countries where apprenticeship operates as a system. The analytical framework comprises 10 areas of analysis that are operationalised into detailed explanatory descriptors (see Annex for the full framework). These areas and descriptors are used throughout the review as a frame of reference for the data collection, analysis and reporting;
- (b) an inclusive, participatory and collaborative approach and policy learning organised at two levels:
 - (i) steering of the review and validation. The Ministry of Science and Education nominated a steering group that included representatives of the Ministry of Science and Education (MoSE), the Ministry of Economy, Entrepreneurship and Crafts (MoEEC), the Croatian Chamber of Trades and Crafts, the Croatian Chamber of Economy, the Mixed Industrial and Crafts School of Karlovac, the Croatian Employment Service (*Hrvatski zavod za zapošljavanje*; hereinafter referred to as HZZ), the Agency for Vocational Education and Training and Adult Education, the Ministry of Labour and Pension System (MoLPS), and the Croatian Employers' Association. The steering group guided the process by determining priority areas, discussing, validating and providing feedback on intermediary products and

- results. The members of the steering group also participated in individual interviews and round-table discussions;
- (ii) stakeholder involvement. During the review, representatives of various groups of stakeholders took part in interviews and in-depth discussions on the strengths, weaknesses, areas for improvement, solutions and policy, and institutional and organisational implications for apprenticeship in the country. A total of 113 individuals were surveyed (Table 1);
 - (c) an evolving and iterative approach. The review relies on surveying stakeholders organised in three consecutive rounds of surveys, where each round has its own objectives and informs the following one(s).

Round 1 interviews took place between May and mid-July 2017 to collect factual information from the implementation level stakeholders (practitioners and beneficiaries). In total, 90 apprentices, directors and teachers from 11 VET schools and directors and in-company mentors from 24 companies took part in 68 interviews (see Table 1 for details on the type and number of respondents). The interviews covered the programmes of woodworker/carpenter, car-mechatronic, car-mechanic, car-electrician, heating and air-conditioning installer, pedicurist, hairdresser, electro-mechanic, chef, locksmith, and turner in six counties and cities. The round was wrapped up with a round-table discussion with 10 school directors and company representatives in October 2017. The discussion was about the positive elements and enablers of the apprenticeship system in Croatia and mainly confirmed the findings from the interviews.

Building on the findings of the first round, a second round of consultations was carried out between October 2017 and January 2018. In total, 22 persons took part in 15 interviews representing main bodies in VET ⁽⁶⁾ to gather opinions at the institutional level on the challenges identified in the previous round, and their current and possible future role in providing quality apprenticeships in Croatia. A third round of consultations took place in April 2018 and consisted of two round tables:

- (a) one with relevant ministry representatives (MoSE, MoEEC, MoLPS);
- (b) one with social partners, employers and agencies with a total of 14 participants to discuss possible suggestions for actions.

⁽⁶⁾ Respondents represented responsible ministries (MoSE, MoEEC, MoLPS), the Agency for Vocational Education and Adult Education (ASOO), the chambers (both national and local branches), the Employers' Association, the Public Employment Service (HZZ), youth organisations, a group of parents, and municipalities.

The outcomes of the three rounds are integrated in the relevant sections of this report; findings from rounds 1 and 2 serve as the basis for Chapter 4, while findings from round 3 were used for Chapter 5.

Table 1. **Stakeholders involved by group and number**

Group of stakeholders	Number of persons interviewed
JMO students	35
Directors/deputy directors of VET schools	11
Teachers from VET schools	18
Managing directors (or HR managers) in companies that provide training	21
Mentors in companies	5
Ministries	5
Main bodies in VET	2
Employer organisations	9
Public employment service	3
Youth organisations	1
Parent organisations	1
Municipalities	2
Total	113

Source: Cedefop.



3. Context

Context

3.1. The young on the labour market

The economic crisis of 2008 and the six-year recession (with a cumulative fall in GDP growth of -13.2%) (Eurostat, 2018) had a strong impact on the Croatian economy and, most visibly, on the Croatian labour market.

According to Eurostat data, the unemployment rate increased in Croatia more than in the EU-28 during the crisis, from 8.7% in 2008 to 17.5% in 2014 (at its peak). Since then it has fallen considerably to 11.3% in 2017 for the working-age population (15 to 64) compared to 7.8% in the EU-28 (Table 2). The reduction is partly attributed to the increase in employment rates, though these remain substantially below the EU average (Council of the European Union, 2018b). The former is 66.4% compared to 73.4% in EU-28, the latter 58.9% in 2017 (EU-28 67.7%).

The youth population was hit especially hard: youth unemployment (age 15 to 29) increased dramatically in Croatia from 16% in 2008 to 34.1% in 2013 (highest since the crisis). It has been falling since then but at 21.8% in 2017 remains higher than in EU-28 (13.2%). Croatia is also in the critical situation as regards young people not in employment, education or training (NEETs) (17.9% in 2017 versus 13.4% in EU-28) despite being among best EU performers for early leaving from education and training (2.8% versus 10.7% in EU-28).

A total of 16% of all individuals registered unemployed at the HZZ belong to the 15 to 24 age group while about 37% are in the 15 to 34 age group. Among the total registered young unemployed (15 to 29 years old) the highest share is for those who attained secondary education of up to three years (36.2%), closely followed by those who completed secondary education of four or more years (30.7%) ⁽⁷⁾.

Low job creation levels and a rigid labour market, among other things, have been blamed for the relatively more adverse effects of the crisis on the young, while skills mismatch is another factor often mentioned in public discussions.

⁽⁷⁾ <https://statistika.hzz.hr/>

Policies and measures have been introduced to combat high unemployment, with special emphasis on youth unemployment. Croatia started implementing *Youth guarantee* in 2014; however, the Act on Employment Promotion (2012) can be considered as the most important legislative change. It included allowing employers to train the young in a form of occupational training without commencing employment (*stručno osposobljavanje za rad bez zasnivanja radnog odnosa*). The measure was intended for young people who finished VET for trades and crafts ⁽⁸⁾ or those who finished higher education in an occupation that requires professional exams, with government covering the remuneration of those participating in the programme. The number of participants in this arrangement has more than tripled from 4 227 in 2012 to 16 396 in 2016 ⁽⁹⁾.

Average levels of educational attainment have increased in Croatia in the past 10 years. Compared to the EU-28 average, Croatia presents a lower level of attainment at both ends of the educational ladder, lower secondary and tertiary education; the share of the population with upper secondary and post-secondary non-tertiary education (levels 3 and 4) is higher than in EU-28. Participation in the vocational stream at upper secondary level is much higher than the EU average (70% in Croatia compared with 48% in the EU).

According to Eurostat data, there is a labour market penalty associated with a low level of educational attainment in Croatia. The employment rate of the working population with at most lower secondary education is much lower (24.4%) than for those with higher levels of educational attainment (62.6% and 81.5% for levels 3 and 4 and levels 5 to 8 respectively) and in comparison with the EU.

Most enterprises in Croatia (Croatian Bureau of Statistics, DZS), are micro, small and medium-sized (SMEs). SMEs are almost 99.7% of all enterprises in the non-financial business ⁽¹⁰⁾ economy in 2017. More important is that they employ 71.1% of all employees and produce 59.1% of value added. Micro firms with fewer than 10 employees represent 91.6%, while large firms (more than 250 employees) comprised only 0.3% of all firms in the non-financial business economy in 2017.

⁽⁸⁾ In 2017, this programme was extended to all the young who have completed secondary education (not just trades and crafts).

⁽⁹⁾ DG EMPL: [https://webgate.ec.europa.eu/empl/redisstat/databrowser/view/LMP_PARTME\\$HR/default/table?category=imp_particip.IMP_particip_me](https://webgate.ec.europa.eu/empl/redisstat/databrowser/view/LMP_PARTME$HR/default/table?category=imp_particip.IMP_particip_me) [accessed 8.2.2019].

⁽¹⁰⁾ NACE (<https://www.nace.org>): B-N, without K + S95.

SMEs are almost 100% of all the firms operating in specific sectors, for example in construction or accommodation and food services; however, they employ around 20% in electricity, gas, steam and air conditioning supply, and less than 50% in transportation and storage. The number employed in trades and crafts fell by more than 25% during the crisis; this is important as apprenticeships are implemented in trades and craft occupations.

Table 2. **Unemployment rate in Croatia and EU, by age, 2008-17**
(latest available data)

Year / Country	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Young people (15-24 years old)										
HR	23.7	25.2	32.4	36.7	42.1	50.0	45.5	42.3	31.3	27.4
EU-28	15.6	19.9	21.0	21.7	23.2	23.7	22.2	20.3	18.7	16.8
All population (15-64 years old)										
HR	8.7	9.4	11.9	14.0	16.3	17.5	17.5	16.4	13.3	11.3
EU-28	7.1	9.0	9.7	9.8	10.6	11.0	10.4	9.6	8.7	7.8

Source: Eurostat, 2016.

3.2. Vocational education and training in Croatia

Vocational education and training programmes are mainly placed within (upper) secondary education and last from one to five years ⁽¹⁾ (Figure 1 and Table 4), most programmes lasting three or four years. In 2016, about 70% of all secondary school students (in ISCED sub-categories 344, 351, 353 and 354) were enrolled in VET programmes (Eurostat, 2018), compared to 49% in the EU, among the highest shares at (upper) secondary level in the EU.

VET at level 4 of CROQF takes the form of:

- (a) school-based programmes: three-year programmes for industry and crafts (CROQF level 4.1) leading to the labour market; and four-year programmes (CROQF level 4.2) and a five-year programme for general

⁽¹⁾ A programme for a medical nurse lasts five years while one- and two-year programmes lead to lower professional qualifications.

Table 3. **Croatia and EU: enterprises by size (2017)**

Type of enterprises	Number of enterprises			Number of employees		
	Croatia		EU-28	Croatia		EU-28
	Number	%	%	Number	%	%
Micro (fewer than 10 employees)	136 747	91.2	93.1	303 649	29.7	29.4
Small (10-49 employees)	10 932	7.3	5.8	208 063	20.4	20.0
Medium-sized (50-249 employees)	1 781	1.2	0.9	184 202	18.0	17.0
Total SMEs	149 460	99.7	99.8	695 914	68.1	66.4
Large (250 and more employees)	415	0.3	0.2	326 232	31.9	33.6
Total	149 875	100.0	100.0	1 022 146	100.0	100.0

Source: European Commission: <https://ec.europa.eu/docsroom/documents/32581/attachments/5/translations/en/renditions/native>

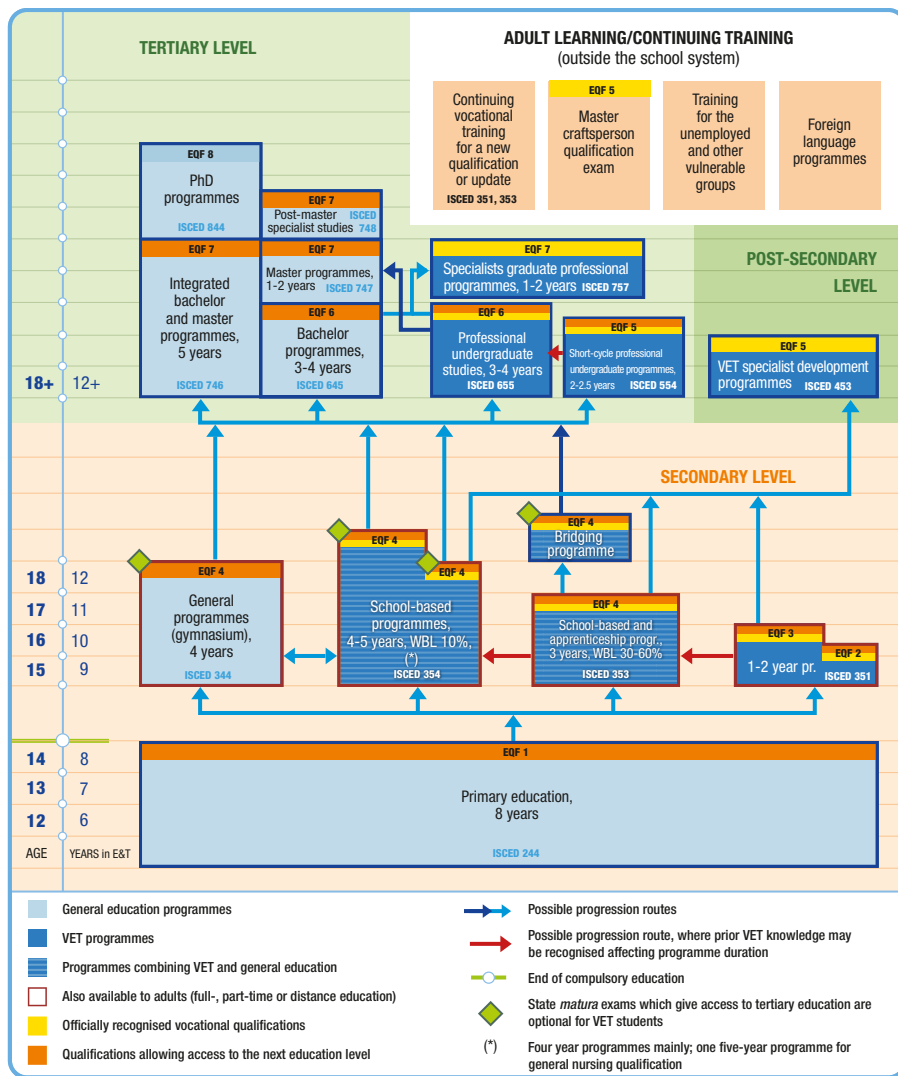
care nurses (CROQF level 4.2) ⁽¹²⁾ leading to the labour market and higher education;

- (b) the unified model of education (*jedinstveni model obrazovanja*, JMO): three-year programmes for trades and crafts (CROQF level 4.1) leading to the labour market; these programmes are in the focus of this report.

All VET programmes include two parts, a general education part and a vocational part; the latter is further divided into a professional-theoretical part and practical training and exercises (*praktična nastava i vježbe*). Students in four- and three-year programmes, other than JMO, have practical training and exercises in companies but on a much smaller scale.

⁽¹²⁾ The programme for general care nurses has its own structure that differs from other programmes.

Figure 1. Croatian education and training system



Source: Cedefop.

According to the Agency for Vocational Education and Training and Adult Education (2016b), the highest (66%) share among VET programmes is four- and five-year programmes (CROQF level 4.2), which have more or less equal share of general and vocational parts. They enable students to enter the

labour market or provide access to enrol in higher education programmes, after completing external *matura* exams ⁽¹³⁾.

Table 4. **VET programmes in Croatia at the upper secondary level**

VET programme	ISCED level	CROQF (HKO) level	EQF level	No of programmes	Primary progression routes	Work-based learning
1-year VET programmes	3/351	2	2	23	labour market/ master craftsman exam	
2-year VET programmes	3/351	3	3		labour market/ master craftsman exam	
3-year VET programmes for professions in industry	3/353	4.1	4	30	labour market	periods of training at employers' and at school
3-year VET programmes for professions in trades and crafts (JMOs)	3/353	4.1	4	63 ⁽¹⁴⁾	labour market/ master craftsman exam	on-the-job training periods in crafts or legal entities and at school
4- and 5-year VET programmes	3/354	4.2	4	83	labour market/ higher education	periods of training at employers' and at school

Source: Adjusted from Cedefop ReferNet Croatia, 2014 and Agency for Vocational Education and Training and Adult Education, 2016a.

Secondary VET can also be provided as adult education or as continuing VET (CVET) in line with the provisions of the Act on Adult Education (2007). Adult education covers a broad range of options, mainly in the form of short

⁽¹³⁾ 60.7% of these VET students enrol in higher education study programmes (Agency for Vocational Education and Training and Adult Education, 2016b).

⁽¹⁴⁾ According to the latest MoSE data, the number of these programmes is 52, offered in 175 schools across the country.

(re)training programmes, which range from basic or technical skills courses to complete formal secondary education and training (Cedefop, 2019). To enter a post-secondary adult VET programme requires relevant initial VET training and/or a number of years of professional experience. However, only 3.1% of adults participate in adult learning/continuing training in Croatia (Cedefop, 2018b), one of the lowest participation rates in the EU.

VET at higher levels is provided in the form of post-secondary VET specialist development programmes (ISCED-P 453), short-cycle programmes (ISCED-P 554) and professional studies (ISCED-P 655 and 757) with a focus on applied sciences. Learning in these programmes typically involves extensive practical work experience and leads to a qualification at CROQF and EQF levels 5 to 7.

Box 1. More sources on Croatia

More on the Croatian vocational education and training is available in:

- Agency for Vocational Education and Training and Adult Education (forthcoming). *Vocational education and training in Europe – Croatia*. Cedefop ReferNet VET in Europe reports. <http://www.cedefop.europa.eu/en/publications-and-resources/country-reports/vet-in-europe-country-reports>
- Cedefop (2018a). *Developments in vocational education and training policy in 2015-17: Croatia*. Cedefop monitoring and analysis of VET policies. http://www.cedefop.europa.eu/files/croatia_-_vet_policy_developments.pdf
- Cedefop (2019). *Spotlight on VET – 2018 compilation: vocational education and training systems in Europe*. Luxembourg: Publications Office. <http://data.europa.eu/doi/10.2801/009>
- Erasmus+ Programme (2017). *Get involved in EP4A: European partnerships for apprenticeships: country report Croatia*. https://supportapprenticeships.eu/wp-content/uploads/2017/01/1.1.1.Country_Report_Croatia_EN.pdf

Source: Cedefop.

3.3. Apprenticeship in Croatia: brief historical snapshot

JMO developed from a form of dual education that was introduced as experimental in school year 1995/96 in some VET schools alongside the classical school-based model. The dual education programmes clearly

separated the general education component from the vocational (theoretical and practical) education component and include much practical training. On graduation, students received two certificates, one for the general education part from the ministry responsible for education and the other for the VET part from the ministry responsible for crafts and trades. However, due to the complexity of their organisation for schools, the dual programmes were replaced in 2003 by the JMO, a unified model. JMO has been operating for crafts and trades since then and this was when most of the current JMO programmes were developed (Section 4.3.3).

In 2013, a new Act on Crafts gave more responsibility to VET schools compared to crafts and shifted some responsibilities from the Croatian Chamber of Trades and Crafts (*Hrvatska obrtnička komora*, HOK) to the ASOO, ministry responsible for entrepreneurship and craft and VET schools. The shift of responsibility mainly concerned the organisation of journeyman exams for students completing their education, but it brought about some negative effects on the governance and implementation (Section 4.3.3). Several by-laws followed to regulate minimum conditions for apprenticeship contracts (*ugovor o naukovanju*) (Regulation No 1208/NN63/2014) and for licensing crafts for taking apprentices (Regulation No 766/NN37/2015).

JMO programmes comprise a relatively small part of the VET system; in 2017, about 10% of all secondary VET students, about 11 200 students, were enrolled in them. It should be noted though that these programmes have experienced a most dramatic decline in the participation, especially since 2013, while participation in technical programmes was stable in those years. The number and share of JMO students in all VET programmes has fallen by more than half in the past 10 years (Table 5) ⁽¹⁵⁾.

There are many licensed crafts and legal entities ⁽¹⁶⁾ but many of them do not want to take apprentices in reality; and there are occupations where there is high demand (for example electrician) but not so many students enrol. As a result, some programmes have been discontinued (machinist, plumber, car mechanic, goldsmith, watchmaker, gunsmith) and others transformed into school-based programmes (waiter, confectioner, chef). While some schools offer only JMO programmes, others offer both, JMO and non-JMO programmes (such as three-year industrial programmes or different four-year VET programmes).

⁽¹⁵⁾ The only exception to this trend is car mechatronics, which is one of the two programmes with the most recently developed curriculum in 2011 (Section 4.3.3):
https://narodne-novine.nn.hr/clanci/sluzbeni/2011_08_96_2008.html

⁽¹⁶⁾ The ones that are in the database filled by the HOK and maintained by the MoEEC.

Table 5. **JMO students by school year, number and share among all VET students**

School year	No of students			Share of JMO students (%)	
	JMO programmes	VET programmes	all upper secondary programmes (ISCED 3)	in VET programmes	in all upper secondary programmes (ISCED 3)
2008/09	24 142	116 628	162 612	20.7	14.8
2009/10	23 962	115 823	163 434	20.7	14.7
2010/11	23 585	114 893	163 531	20.5	14.4
2011/12	23 345	118 148	168 638	19.8	13.8
2012/13	22 475	120 862	171 740	18.6	13.1
2013/14	21 224	124 240	178 253	17.1	11.9
2014/15	17 912	121 483	174 803	14.7	10.2
2015/16	14 269	115 433	166 938	12.4	8.5
2016/17	11 203	109 618	159 688	10.2	7.0

Source: MoSE.

In June 2018, MoSE proposed the model of Croatian dual education ⁽¹⁷⁾ and four curricula that selected schools started piloting from 2018/19; the experimental phase of the programme is planned for two years. The programmes are sales assistant, glazier, chimney sweeper at level 4.1 of the CROQF and beautician at level 4.2. Students will sign an employment contract with business entities. The responsible institution for implementing the programme is MoSE, with other ministries, agencies, economic and crafts chambers, associations of entrepreneurs and a number of embassies acting as partners. The programme is financed from the State Budget and from the Swiss-Croatian cooperation programme as part of the project *Modernisation of VET programmes* (Agency for Vocational Education and Training and Adult Education, forthcoming).

⁽¹⁷⁾ https://mzo.hr/sites/default/files/dokumenti/2018/OBRAZOVANJE/Strukovne-Dualno/model_hrvatskoga_dualnog_obrazovanja.pdf



4. Unified model of education: current arrangements, enablers and challenges

CHAPTER 4.

Unified model of education: current arrangements, enablers and challenges

The thematic review focused on the JMO programmes and analysed them against the Cedefop analytical framework (Annex). The findings of the review are presented in this chapter and come from the desk research, interviews and round-table discussions with stakeholders. They are discussed according to the areas of the analytical framework.

The steering group selected the following areas as priorities for the review:

- (a) place of apprenticeship in the education and training system;
- (b) governance structures;
- (c) training contents and learning outcomes;
- (d) requirements and support to teachers and in-company trainers (mentors);
- (e) financing and cost-sharing mechanism;
- (f) quality assurance.

Interviews covered also other areas.

Despite the balanced selection of types of stakeholder and the large number of interviewees, the opinions expressed were those of individuals and might not necessarily be representative of the entire population. However, they provide a vivid picture of the current situation of JMO in Croatia and draw attention to some critical points in need of urgent action.

4.1. Distinguishing features of apprenticeship

JMO, in principle, is an apprenticeship scheme according to the analytical framework definition, as detailed below.

4.1.1. Systematic long-term training alternating periods leading to a qualification

JMO covers three-year programmes for trades and crafts where students alternate training at the employer (crafts or legal entity) and secondary vocational schools; usually a week in school and a week with the employer. At the end of the programme, and on successful completion of the final work (project), students acquire a secondary school qualification and a vocational certificate (ISCED level 353; CROQF level 4.1; EQF level 4) (Section 4.3.1). Students also take a journeyman's exam (organised by the ASOO) and get a journeyman's certificate (Section 4.3.3).

4.1.2. Contractual relationship with the employer and remuneration

Students have the status of (upper) secondary students in accordance with the Primary and Secondary School Education Act (2008). During their first semester in a programme, students have to sign an apprenticeship contract with a craft or legal entity licensed to provide practical training and exercises in accordance with the Act on Crafts (2013).

According to the apprenticeship contract, the employer has to pay monthly remuneration to students (Section 4.6).

4.1.3. Employer responsible for the company-based part of the programme

An employer is responsible for the company-based part of the programme (Regulation No 1208/NN63/2014) (Section 4.4).

4.2. Place of apprenticeship in the education and training system and its governance

4.2.1. Regulatory framework

Key findings

- The place of JMO in the education and training system is clear: it is regulated in several legal acts and regulations. It is a recognised learning path leading to a vocational qualification.

JMO is a recognised learning path leading to a vocational qualification in three-year VET programmes for craft and trade occupations.

The following acts and regulations set up a framework for JMO:

- (a) the Act on VET (2009), with further amendments, defines main aspects of VET implementation, such as education plans and programmes, and links JMO to the Act on Crafts (2013);
- (b) the Act on Crafts (2013) provides an overall framework for education and training for crafts and trades;
- (c) the Regulation on the procedure and method of issuing permits (licences) for the delivery of the practical training and exercises in apprenticeship (2015) defines requirements to crafts willing to offer apprenticeship places and to mentors;
- (d) the Regulation on the minimum conditions for apprenticeship contracts (2014) specifies what aspects of practical training at the employer should be defined by a contract;
- (e) the Primary and Secondary School Education Act (2008) provides a general framework for all secondary education in the country.

The interviews with stakeholders, however, hinted that the current legislative provisions for apprenticeship are not entirely clear at implementation level, with some practitioners. This can be partly attributed to the fact that minor changes and adjustments had been introduced in recent years while the overall framework was not revised. Another point of concern is that some school directors and employers from smaller communities consider that the regulation is based on experience from the Zagreb area and does not take into account their reality and difficulties, such as lack of licensed crafts in the area.

4.2.2. Governance structures

Key findings

- The roles and responsibilities of stakeholders from the State, education sector and the labour market in relation to VET in general and JMO programmes in particular are defined in several legal acts and regulations. The respondents expressed opposing views on whether the distribution of responsibilities among stakeholders is clear. While it is clear as regards policy- and decision-making





and, to some extent, implementation, responsibility for monitoring and control is less clearly defined.

- Many respondents from schools and crafts thought that chambers and trade unions do not make enough effort to support and promote JMO. Trade unions are not involved in JMO at all.
- School directors and crafts consider that their views are not taken into account in policy-making processes and that they have no influence on the position of the JMO in Croatia's educational system.
- Coordination is one of the crucial issues requiring attention; more clarity was mentioned, especially in the coordination between education and labour market actors.

The responsibilities for JMO programmes are divided as follows:

(a) ministries:

- (i) the MoSE has overall responsibility, takes main decisions and adopts programmes, following a positive opinion of the Ministry of Economy, Entrepreneurship and Crafts (MoEEC). Most decisions (for example enrolment quotas, opening programmes, choosing the form between JMO and classical school-based) are made by the MoSE. MoSE coordinates activities at decision-making and advisory levels, as in the VET Council;
- (ii) MoEEC shares the responsibility with MoSE; it defines and supervises the procedure for issuing licences to perform practical training and exercises, maintains the database of licensed crafts, populated by HOK, sets minimum conditions for apprenticeship contracts and keeps record of apprenticeship contracts; it defines the method and process of the journeyman exams and issues journeyman certificates;

(b) national agencies:

- (i) ASOO is responsible for providing support related to different aspects of vocational education (Act on ASOO, 2010). It is responsible for curriculum development and the coordination of different stakeholders active in vocational education; it participates in defining the network of institutions to be involved in developing curricula; it collects and maintains a database of students, teachers, headmasters, and equipment of institutions participating in vocational training; it participates in quality assurance; it provides training and

promotion activities for VET teachers. The interviews showed that most of these activities do not directly cover JMO. As of the school year 2013/14, ASOO is in charge of organising journeyman exams in cooperation with the schools; the final certificates are signed by the Minister for Economy, Entrepreneurship and Crafts;

- (ii) the Agency for General Education is responsible for general education subjects in VET schools;

(c) chambers:

- (i) HOK issues licences to companies (craft workshops) allowing them to receive apprentices and also publishes lists of licensed companies. As of 2013, HOK does not directly cooperate with schools and no longer with ASOO and/or MoSE, except when they are members in some working groups ('task forces'); however, they closely cooperate with MoEEC and there is also some cooperation with HZZ. Through its local branches, it fills and maintains a database of the licensed crafts. School directors and craft persons characterised their cooperation with HOK and its local branches as good or satisfactory respectively;
- (ii) The Croatian Chamber of Economy (HGK) does not have a formal role in the JMO system; however, in recent years HGK has been active in promoting apprenticeship (dual education) in the sectors beyond crafts and trades. They also cooperate with HZZ in surveying employers at the local level; this information is used to determine enrolment quotas, scholarships and for other support;

- (d) employers (craftspersons and legal entities) sign contracts with and receive students for apprenticeship practical training and exercises (Section 4.3.3); they must keep documentation on apprenticeship learning with them. Some crafts feel that they are not well heard at policy level and not consulted much in preparing policies for JMO or VET; those interviewed who provided some feedback to local authorities, ministries or chambers never received feedback. Among the respondents from crafts, some actively participate in various bodies, committees and activities of the chambers and are very knowledgeable and informed about the JMO; such employers can act as JMO champions/ambassadors;
- (e) local self-governments are founders of secondary schools (as of 2001). They finance schools' material expenses, building new facilities and renovating existing ones, and seek improvement of education via mechanisms such as scholarships and awards. Counties work with schools as a whole and usually do not differentiate between specific

programmes. Some believe that they can change almost nothing regarding the education system as the MoSE has a final say on proposed changes, such as investment (upgrades, renovations, buildings) or need for new programmes/facilities. Some small municipalities lack capacity to fulfil their delegated function of managing education and training (Council of the European Union, 2018b). The National Association of Counties does not have a formal role in education; its main role is to address government representatives, at national level, on common problems that counties face, including education;

- (f) VET schools enrol students, implement the general, vocational theoretical part and part of the practical training of the programme, organise the development and defence of the final exam ⁽¹⁸⁾ and issue certificates on the final exam. Schools follow instructions and orders from the MoSE. Schools (directors) can take decisions about the organisation of practical work or create new programmes in cooperation with local crafts, also subject to approval by the MoSE; however, they can decide not to have any JMO programmes ⁽¹⁹⁾. School directors noted that their participation in decision-making about JMO is not sufficient and sometimes they do not receive feedback from the MoSE on their proposals about legal provisions;
- (g) the social partners: the Croatian Employer Association and trade unions do not have a direct role in JMO but they play an advisory role in VET generally, including as members of the VET council ⁽²⁰⁾. Employers and trade union representatives take part in sector councils (covering all levels of education) contributing to shaping VET qualifications. During the interviews, most respondents noted that trade unions are not involved in JMO in any capacity. One of the reasons for this could be that apprentices are not employees (they do not enjoy full rights of employees) (Section 4.6); however, another reason could be that trade unions in Croatia are fragmented and do not have a unified position on apprenticeship, in particular, and VET in general. As noted in the country-specific recommendations, the social dialogue structure is in place but interaction of the social partners in policy preparation is

⁽¹⁸⁾ The Croatian term *završni rad* can be translated as a final work/assignment; for the purpose of the report, it will be referred to as final exam as students have to perform it to complete their studies for qualification (Section 4.3.3).

⁽¹⁹⁾ This was the case when in 2013, some programmes for hospitality and catering were transformed from JMO to school-based (classical).

⁽²⁰⁾ The establishment of the VET council is defined by the Act on VET (2009) with 17 members representing all VET stakeholders. However, at the time of the review, the council had not been operational and the mandates of the nominated members expired; new nominations were under way.

limited to providing written feedback to proposals developed by the government (Council of the European Union, 2018b). This applies to education and VET policies too;

- (h) parents: the role of parents is not covered in the legal framework; however, many employers considered the role and impact of parents on apprentice motivation and success as important, though noting that the parents are not very involved or interested; some teachers consider the best communication and information exchange to be when parents come to school and talk to them.

Coordination, or rather its lack among the institutional actors, especially between education and business, was mentioned as a crucial issue requiring attention and more clarity. The interviews brought forward opposing views on whether the distribution is clear: most respondents from schools and crafts thought that the responsibilities are not defined clearly while some thought the opposite. However, many admitted that more coordination in the system is necessary and that one of the ministries should take the leading role over JMO programmes. More cooperation among stakeholder institutions is seen as a means to overcome numerous challenges for JMO.

Lack of coordination among the stakeholders can be partly explained by low sustainability in the governance system due to frequent changes of government and related tensions among the major stakeholders. The memorandum of understanding signed on 29 January 2018 by intermediary bodies, employers, VET providers, public authorities (ministries, agencies and employment service) to set up a national partnership for apprenticeship can aid dialogue and coordinated effort.

4.2.3. Responsiveness to labour market

Key findings

- There are institutional procedures for JMO programmes to respond to or anticipate labour-market needs in principle, and there are some sources of information available; for example, HZZ conducts annual employer surveys and provides recommendations for enrolment and scholarship and there is also information from the chambers. Enrolment quotas are approved by the MoSE. These create a basis for identifying bottlenecks in sectors/occupations and balancing the offer; however, their potential is not used to the full. All stakeholders





at national level support the idea of better monitoring of supply and demand and also of a graduate tracking system.

- Individual employers believe that JMO ensures qualified workers they need; should they hire, they prefer JMO graduates. At the same time, many believe more generally that JMO programmes and VET programmes do not respond to labour market needs and that schools do what they can do, protecting teachers and existing practice.
- There is no monitoring or systematic follow up on graduate pathways (the work is under way); some school directors report occasional contact with their graduates, such as inviting them to talk to current students; some employers also keep contact with their apprentices.

According to the Act on VET (2009) and the Act on CROQF (2013), occupational standards (*standardi zanimanja*) and qualification standards (*standardi kvalifikacija*) should respond to labour market needs as outlined in key strategic documents and are expected to be revised at least every five years. Sector profiles have been developed by ASOO in 2011-12 to bring VET programmes closer to the needs of the labour market. Sector profiles provide a comprehensive analytical background that combines macroeconomic indicators and data from employer surveys.

The Croatian employment service has the main responsibility for organised support activities: information, guidance and counselling aimed at students in their final years of basic and secondary education (including VET), the unemployed and jobseekers, as well as employers (Section 4.10). The HZZ conducts a survey of employers (*anketa poslodavaca*), in collaboration with HGK, HOK and the Croatian Employers' Association, and prepares annual recommendations on education enrolment policy and scholarship policy (*preporuke za obrazovnu upisnu politiku i politiku stipendiranja*); they also survey pupils/students in both primary and secondary schools about their future education and work plans.

Enrolment quotas can help accommodate (local) labour market needs into vocational training, and particularly into JMO. Schools decide and make proposals on the enrolment that the MoSE has to approve. To make these proposals, some schools examine local labour market needs, discuss with the local employers and self-governments. Some schools contact HZZ to check the demand for occupations or talk to employers

about the needs and availability of places; some check with the MoEEC about available scholarships. Several school directors mentioned that they conducted a survey in primary schools; they then determined enrolment quotas based on the interest expressed by the students of the final eighth grade in primary schools. Then they assess their capacity and resources and submit a plan to municipality and, sometimes, to the local HOK branch, which forwards it to the MoSE, which sends out final quotas. The county authorities usually rely fully on the school's discretion and do not question their decisions about the programmes. Some respondents pointed out that quotas were based on previous experience and remained more or less the same from year to year. In reality, the system is not flexible enough to adapt and it is not easy to open a new programme; one can usually only be opened if another is closed. Some craftspeople thought that schools often continue to offer programmes that suit their capacity and interest but are not in demand on the labour market, while those that are needed are not popular.

MoLPS and HZZ believe that there is a demand for JMO graduates on the labour market but think that they are not fully prepared for employment. At the individual level, about half of the employers interviewed claimed that JMO programmes generally produce qualified workers they need, and they would prefer hiring JMO graduates who worked with them for growth and development.

There is no comprehensive analysis that examines the responsiveness of the education system to labour market needs and follow-up system on monitoring the labour market outcomes of VET graduates, including those from JMO programmes ⁽²¹⁾; there is no information on whether JMO graduates have any advantage over the unemployed trained through HZZ.

Schools occasionally, and informally, contact their graduates. They may, invite them to talk to current students, collect feedback from matriculation and enrolment in higher education. Some interviewed crafts reported cases where they continue contact with their former apprentices, either hired by them or working independently. ASOO has a project on European quality assurance in vocational education and training (EQUAVET) that includes testing graduate tracking in a few selected schools; there have also been some studies on this topic for specific sectors.

⁽²¹⁾ This is the only EQUAVET criterion that Croatia does not fulfil but work is under way.

4.2.4. Financing and cost-sharing mechanisms

Key findings

- The law requires that apprentices are to be paid; apprentice remuneration is part of the apprenticeship contract. The amount of remuneration set by law is not high, but the interviews indicate that many apprentices are not paid. There are no systematic data on whether and how much apprentices are paid; schools also do not have this information.
- The State finances VET schools and regional or local units of self-government are founders of the schools who are in charge of maintaining their schools. Some provide funds to local crafts, for example apprentice grants; however, this funding is usually linked to the student place of origin (residence), meaning that only students from this municipality are eligible.
- Most crafts report that training JMO students is costly for them but their views on the return on investment vary. There is no system level data on cost-benefits of apprenticeship.
- Generally, crafts do not use any financial support, even from the existing options. Some believe that they should benefit from tax deduction and compensation for materials used for training.

The funding model in Croatia is sharing, in principle: the State funds VET schools while employers bear the costs of training apprentices at the workplace.

The responsibility for financing VET schools is divided between central and regional/local government. Some VET schools benefit from EU-funded projects, sometimes supported by the counties in the application process and with financial support for the national share of the project funding.

According to the Act on VET (2009) and Regulation No 1208/NN63/2014, an employer has the obligation to pay monthly remuneration to students calculated as a percentage of the average net salary in the economy in the previous year ⁽²²⁾ and depending on the year of apprenticeship. In legal terms, remuneration is different from the salary of employees; it is 10% of the average net salary in the first year of JMO, 20% in the second year and 25% in the third year. Employers also bear the cost of materials, safety equipment

⁽²²⁾ Regularly published by the Croatian Bureau of Statistics.

and the mentor's time. Some employers pay apprentices' lunches and/or transportation. They also have to pay for obtaining the licence from HOK.

The interviews indicated that many apprentices are not paid, which is problematic for the JMO system. Even when paid, there are differences in apprentice remuneration between occupations and within occupations related to the size of the craft or legal entities; larger companies are more likely to pay their apprentices. Apprentices in occupations in high demand, such as waiters/chefs in tourist areas, are more likely to be regularly paid, especially if they are good students. Some municipalities provide funds for apprentice grants; however, this funding is usually linked to the student's place of residence, meaning that only students from this municipality are eligible.

There are no systematic data on whether and how much apprentices are paid; schools also do not have this information. Some school directors and JMO teachers pointed out that schools do not have many opportunities to intervene or collect data, if apprentices are not paid. School directors maintained that schools do not have any authority or responsibility to check the financial part of the contract. VET teachers said that parents sometimes visited the school and complained about their children not being adequately remunerated. VET teachers believe that additional monitoring and control should be introduced in the system.

There are no studies that would document whether the duration and organisation of apprenticeships are such that it allows companies to recoup their investment. During the interviews, most stakeholders agreed that employers are not always aware of the benefits of taking apprentices and might be more willing to do so if the benefits are better presented to them. Some interviewed crafts thought that they manage to recoup their training investment by the end of the third year as apprentices start performing as skilled workers and mentors are more effective when supported by apprentices in simpler tasks. As one of the employers put it, 'Apprenticeship within the JMO is a win-win situation: apprentices learn something, but they also contribute with their work so that the investment pays off in the end.' Some employers report paying higher amounts than recommended by law to those apprentices who perform well.

Some employers argued that the return depends on the amount of time and effort a mentor invests and also on the occupation: in some occupations, apprentices can start contributing to production early while in others they need a lot of practice before they can start doing so. Others thought that they have zero gains or even losses.

There are incentives, such as subsidies or tax deductions that should encourage companies to take on apprentices. Since 2007-08, in line with the Act on State Aid for Education and Training (2007), companies can get tax breaks if they provide training for three-year VET programme students. In 2014 and 2015, the Ministry of Entrepreneurship and Crafts (now MoEEC) provided grants to obtain a master craftsman qualification, required for becoming a mentor. MoEEC also has been implementing the projects *Apprenticeships for craft occupations that provide incentives to crafts and legal entities taking apprentices* ⁽²³⁾ and *Scholarships for students in vocational occupations that provide grants to apprentices in selected craft occupations* ⁽²⁴⁾. The interviews hinted, though, that many participants from crafts, schools and apprentices are not aware of these incentives or do not use them for various reasons; for example, they think that the application procedures are complicated or require many support documents. Some employers noted that they need some help in applying for these funds, which they currently do not receive.

The availability of EU funding provides a good basis for updating VET infrastructure, improving the quality of JMO, and including incentives to students and employers. The chambers, HOK and HGK, have projects to support and increase the capacity of employers to take apprentices or students from other programmes (Box 2). Bilateral projects are implemented in cooperation with Austria, Germany and Switzerland.

4.3. Apprenticeship pathway: attractiveness, value, permeability

4.3.1. Permeability and access

Key findings

- Horizontal and vertical transition are legally stipulated but, in reality, rarely implemented: graduation from JMO does not allow direct progression to next education levels.

⁽²³⁾ A craft receives financing of 80% of the cost of the apprentice remuneration annually for all JMO occupations, in advance for the coming school year and the mentor wage, on the basis of the gross labour costs.

⁽²⁴⁾ Apprentices educated in occupations in which there are labour shortages can receive a grant of HRK 750 per month.

According to the Act on VET (2009) and the Amendments to the Primary and Secondary School Education Act (2008) of 2012, both horizontal and vertical pathways are stipulated. As of 2014, graduates from three-year VET programmes can enter an optional one- to two-year bridge programme and, if successful in gaining a second VET qualification, can also take *matura* exams to access higher education. They can also apply for the master craftsman exam after two to three years of work experience in the field. In 2016, an additional regulation on the conditions and the pathways of continuing education for obtaining higher level qualifications was introduced; this specified that students can continue education for two years after acquiring lower level qualifications, conditional on previous educational achievements (the minimum average score achieved during the period of their three-year education). Schools providing JMO programmes are obliged to organise a tuition-free fourth year for students wishing to continue their education.

The findings from the interviews indicate that provisions for access to higher levels of education are not widely used in practice. It is very hard for JMO students to continue with their education: schools reported approximately 10% of their third-year students continuing their studies. School directors point out that students have to take many exams to catch up with the students from other programmes and enrol in the regular fourth year: according to some, this is about 20 to 25 exams, or equal to two years of schooling, successful graduation from which gives access to the State *matura* exams. This is one of the main reasons why most schools offer, and students opt for, adult education programmes that are not free of charge but are provided as evening school option allowing students work full-time. The students who decide to continue their education are mostly those with higher grades achieved during the three-year period of the JMO programme.

During the interviews, students who expressed their wish to continue education mostly believed that their prospects of finding a job would increase if they graduated from a four-year programme. However, most students are also aware that continuing education ‘for free’ involves passing many exams in order to catch up. Parents saw continuing education beyond three-year programme as providing better prospects on the labour market in the future. Some employers reported that they encourage their employees, and also apprentices, to continue their education, for example, to finish the fourth year or take the master craftsman exam; they believe it is good for the craft’s competitiveness and for the employees’ job prospects.

Horizontal transition among the programmes is possible but also rare. There are few examples where students from JMO programmes switch to other VET programmes after a period. This may be if they have not succeeded in obtaining the necessary hours of practical work and it is allowed only during the first year of studies. Some students change to JMO if they find a school-based programme academically demanding. For the transition, they have to apply to the VET school teachers' council (*nastavničko vijeće*), which decides whether the application should be approved or not. However, most school directors interviewed said they had no experience of in-transfers from JMO to other VET programmes. Some indicate that the curriculum is different, even for the subjects with the same nominal title.

It is expected that the introduction of national VET curricula (MoSE, 2018) and sectoral curricula would improve permeability for learners through common modules.

4.3.2. Value of apprenticeship and promotion

Key findings

- Stakeholders interviewed generally agree that the large number of hours of practical work at employers and in school workshops is an advantage of JMO programmes in comparison with other VET programmes. According to the view of many respondents, in some aspects JMO prepares young people better to start in the occupation than school-based programmes. Apprentices feel positive about their programmes. According to school directors, the most popular programmes are: catering; car mechatronic; locksmith; classic car mechanic; electro-installer; electro-mechanic ⁽²⁵⁾.
- At the same time, in the last decade, the number of students in JMO programmes has dropped by half, bearing most of the overall decrease in the number of students in the country. Among the reasons are the demographic situation and insufficient promotion/marketing among potential students, their parents and employers.
- Recruiting students to JMO programmes is a challenge reported both by schools and employers. There are no requirements to enter apprenticeship programmes, except for a medical check. As the



⁽²⁵⁾ Generally, these are programmes where employers are likely to hire students after graduation.



interest of students to enrol in JMO programmes is not high, schools do not set any requirements for enrolment; neither do employers. Students often enrol in JMO programmes when they know that their grades are not sufficient to enrol into other programmes.

- There is no strategy for marketing apprenticeship and informing companies of the benefits of taking apprentices, related responsibilities and available incentives. Most crafts underlined the need for more promotion of JMO.

JMO generally ensures that crafts or legal entities get skilled workers, on condition that there are enrolled students.

Apprentices interviewed gave a generally positive picture of existing practice; many students and their parents were satisfied with their studies. They also thought that after graduation they will be able to work in the occupation, should they choose to do so. Some directors believe that JMO is the only one suitable for crafts and some teachers believe that JMO programmes are also good for local communities. At the same time, about half of the employers interviewed thought that the duration of the programme of three years is not enough to prepare qualified workers able to work autonomously in an occupation. Some suggested increasing the duration of some JMO programmes to four years.

Overall, many respondents thought that all vocational training programmes would benefit from more practical work; for example, representatives from the Croatian Employers' Association (HUP) maintain that orientation towards practical work should be incorporated in all segments of education, including higher education.

JMO has experienced a dramatic fall in the number of enrolled students and chambers, school directors, teachers and employers maintain that recruiting students to JMO programmes is a challenge. Apart from economic and demographic issues, this is partly caused by poor perception of these programmes and related occupations, due to insufficient promotion. Many respondents from school directors and teachers, chambers and employers, and parents believe that promotion/marketing among potential students, their parents and employers that JMO programmes get is not sufficient. They think that the ministries of education, economy and tourism, the chambers, media and primary schools should do more in this respect.

HOK organises promotional activities at national level but it seems that this is somewhat less than they did in the past when they had more

ownership of the programmes, prior to the Act on Crafts (2013). At the local level, local branches of HOK promote vocational occupations in primary schools with support from counties and sometimes in cooperation with HZZ while HGK branches have been involved in some promotion activities for vocational education at the local level (such as fairs and other events) financed from their own and EU funds.

4.3.3. Training content and learning outcomes

Key findings

- Most respondents at all levels agreed that JMO education plans and programmes are not up to date and need urgently to be updated.
- Most typical arrangements of alternance between school and craft are: one week at the workplace and one week in school or two days at the workplace and three days in school, out of which one day is in practical workshops. The amount of time with the employer can gradually increase from the first to the third year; in some programmes, apprentices start working in crafts from the second year.
- There is no single final assessment common to both learning venues and independent from both. There are two assessments: a final exam, which is mandatory for all students in order to receive a valid qualification and a journeyman exam afterwards.

4.3.3.1. Curricula and education programmes

The content, duration and expected outcomes for each occupation are specified by the education plan and programme (*nastavni plan i program*). The education programmes for occupations in trades and crafts consist of a general part and vocational part, which includes professional-theoretical part and practical work. The number of hours during the entire three years of schooling is distributed in the following way:

- (a) 20% general education;
- (b) 20% professional-theoretical part with elective courses;
- (c) 60% practical part with technological classes, distributed approximately the same across all three years.

The general education and professional-theoretical parts are delivered in VET schools. The practical training exercises are delivered in craft business workshops or in a trade association, institution or cooperative, and, to a lesser extent, in VET school workshops. The time for practical work is 900 hours per year and is considered an advantage over other vocational and technical education programmes: some apprentices, craftspersons, chambers and the social partners believe that the large share of learning at the workplace enables apprentices to experience real working life.

Based on the education plan and programme, each teacher defines an operational plan (*operativni plan*) for his/her teaching activities; the plan contains teaching units with specific learning outcomes. Schools also develop implementation plans for practical training (*izvedbeni plan praktične nastave*) and send them to employers. Craftspersons are usually not involved in developing the content ⁽²⁶⁾, but examples of good practice are reported.

The Croatian VET has undergone profound changes in the last decade. The current curricular reform is expected to have a positive impact on the system if implemented in full and consistently with other actions of the VET strategy (Council of the European Union, 2018b). However, none of those processes have yet targeted JMO programmes.

During the interviews, most respondents from all levels agreed that the current JMO education plans and programmes are not up to date and need to be revised in line with the new approaches and methodologies. Most of the programmes for craft occupations are from 2003-07; only two programmes, domestic installations and automotive mechatronics, were adopted in 2011 ⁽²⁷⁾. None of the programmes is based on learning outcomes and occupational and qualification standards, as the latter have not yet been developed for craft and trades.

The transfer of some responsibilities from HOK to ASOO in 2013 led to a degree of demotivation on the part of HOK and less ownership of the JMO programmes; the sentiment was confirmed during interviews with some school directors and teachers, craftspersons and some institutional stakeholders. Many respondents from schools assessed critically the transfer of the organisation of the journeyman exam from HOK to ASOO, one of the principal changes.

⁽²⁶⁾ Prior to the Act on Crafts of 2013, implementation plan (*izvedbeni plan*) was prepared in collaboration with local chambers of craft.

⁽²⁷⁾ https://narodne-novine.nn.hr/clanci/sluzbeni/2011_08_96_2008.html
https://narodne-novine.nn.hr/clanci/sluzbeni/full/2011_08_96_2009.html

4.3.3.2. *Distribution of content between learning venues*

Although education plans and programmes distribute the hours between school and craft, the distribution of learning content between the two was often not clear according to some school directors and craftspersons, which can result in omissions or variations in the same programme. This is compounded by the fact that apprentices' learning experiences are too individualised to draw conclusions that apply to a programme as a whole (for example some crafts can have narrow specialisation).

The review could not conclude whether there is a sufficient link and coordination between what is learned in school and in craft, and whether apprentices can apply what they learn in school during their work in crafts. Some school directors expressed concern that they have less control over the content and learning outcomes in JMO than in other VET programmes. Some craftspersons thought that school can be more engaged in coordinating the content between school and craft and also in managing the rotation of apprentices among crafts to ensure that they acquire all learning outcomes.

Apprentices should record their activities at the workplace in their logbooks of practical training (*mapa praktične nastave*)⁽²⁸⁾. Mentors in crafts check those regularly while VET teachers in schools check and grade the apprentices. Some schools report that logbooks include the framework plan and programme (*okvirni plan i program*); however, almost all mentors interviewed reported not being informed about training plans but were aware of the logbooks. Apprentices are usually informed about their training plan by a teacher in charge from the school (*razrednik*). Mentors in crafts assess apprentices' actual work and attitude and record it in the logbooks of practical training (Section 4.4.2), the assessment is verified by VET teachers in schools.

4.3.3.3. *Final assessment of learning outcomes*

There are two final assessments for apprentices:

- (a) a final exam (*završni rad*);
- (b) a journeyman exam (*pomoćnički ispit*).

Most third-year apprentices from those interviewed were informed about the content and process of the tests (both final and journeyman) while most second-year students were not; those who were aware had found out

⁽²⁸⁾ http://www.asoo.hr/UserDocsImages/aso_mapaprakticenastave.pdf

from their friends. This suggests that informing students only starts in the final year, which might not be the most effective approach.

Final exam

A final exam for the completion of the education programme is organised and conducted by schools; upon passing it, a student acquires a secondary school qualification and the VET school issues a certificate (Act on Crafts, 2013). Organisation of the final exam is according to Regulation No 2914/NN118/2009.

The final exam is a small project, involving something the student has worked on in the craft. Each school can have different timelines for organisation of the final exam as well as the specificities regarding the choice of topics. Students choose topics (*tema*) themselves or with teacher support (usually by 1 October of the third year) and consult with the mentor in craft whether he/she can accomplish that.

The final exam covers both the theoretical and practical part, both in written form. In the practical part, the student describes what he/she did and also defends it in front of the commission; in some schools the practical part takes place at the craft or legal entity. Commissions usually consist of VET teachers. Some schools include in-company mentors; no-one from those interviewed took part. The final grade is composed of the theoretical part, the practical part and the defence.

Journeyman exam

A journeyman exam is taken after successful completion of the education programme; it is organised by ASOO and takes place in schools.

The journeyman exam is free for students for two years after they graduate. During the school year after graduation, the practical part of their final exam is usually recognised, and they do not have to do it again as a part of the journeyman exam.

The interviews raised several issues related to the journeyman exam:

- (a) the content (programme and tasks) has not been changed following the takeover by ASOO. Those developed and published by HOK are used;
- (b) timing is an issue. First, the exam takes place in mid-July when most of the students are already otherwise engaged and, as a result, less interested ⁽²⁹⁾. Second, the Regulation No 1209/NN63/2014 (Articles 5 and 18) defines that the cycle is to be finished within one month, while

⁽²⁹⁾ The exam is organised in three cycles a year (July, September, February). The most challenging is the one following the end of the school year in July.

for schools it requires and actually takes more time to deliver all the documentation (such as results and minutes). Some teachers find the associated paperwork excessive and demotivating;

- (c) implementation includes a number of activities: HOK suggests the commission members to ASOO; schools send student applications, organise the exam on their premises, prepare documentation and complete the online system *e-naukovanje*; MoEEC finances members of the commissions and issues certificates signed by the minister. ASOO has to organise, supervise and coordinate all these activities.

Some teachers in schools and some employers encourage students to take the journeyman exam (apprentices confirmed this) while some thought that its purpose was not clear. Some VET teachers thought that the journeymen exam is a more adequate measure than the final exam to assess the proficiency in competences the students have to master during the programme. Some teachers and directors thought that students do not know the value of the exam while most third-year apprentices interviewed intended to take it, believing it increased their future prospects, for example if they want to open their own craft or as a step towards the master craftsman. However, according to some school directors, many of those who pass the journeyman exam students never collect their certificates.

Intermediate test

Students can also take an intermediate test (*kontrolni ispit*) in the second year. Some students call this test 'small *matura*' (*mala matura*).

Teachers of practical, vocational and theoretical classes and mentors assess students during this test. It is organised in school and students have to present what they have learned in front of an examination commission. The test serves the purpose of quality control; it helps to identify what students are learning in crafts. If there is a need, the school can decide to provide preparatory training in school workshops. Some schools explicitly mentioned these examples and emphasised that each case had to be approved by the MoSE. If the same problem of knowledge of professional subjects is repeated with more students, it means that emphasis should be placed on these subjects. If the same problem is repeated with more students in the practical part, then it should be explained to the mentors in crafts.

4.4. Participation of and support to employers, and cooperation of learning venues

4.4.1. Motivation, participation and support to crafts

Key findings

- Rights and obligations of crafts and legal entities providing training are legally stipulated.
- To take students in JMO, crafts or legal entities have to be licensed while a licence is not required to take students for practical training from other programmes. The HOK is responsible for checking whether the craft meets certain criteria set out in law and issuing the licence. Many crafts noted that there is no further monitoring once the license is issued.
- Employers said that there is no system of non-financial support to crafts and legal entities, including micro and SMEs. Some crafts referred to a possibility to recover taxes or claim expenses from the MoEEC but few used it, the main reason being complexity of procedures. Some local branches of HOK (for example, in Samobor) organise free seminars for employers on methodology and didactic. Some crafts mentioned applying to HOK for support but not getting any response. Few crafts used the MoEEC support to cover the master craftsman exam. Schools generally do not provide support to the crafts they cooperate with, though some good practices were reported.
- There is no systematic recognition for crafts and legal entities that provide quality apprenticeships; some crafts thought that an award could motivate them to take apprentices.
- Most respondents from crafts agreed that employer organisations do not play a role in engaging and supporting companies; they thought that the HOK (and also HGK within new initiatives) can be more active in protecting their rights and providing support.

Craftspersons decide on whether they are going to take apprentices, and how many, in cooperation with local schools and based on their future

needs/plans ⁽³⁰⁾. Their motivation varies; some of the reasons mentioned in the interviews are:

- (a) their personal experience ('I was an apprentice myself');
- (b) getting helping hands in production;
- (c) a sense of responsibility to transfer knowledge and prepare a new generation of craftsmen or to provide an opportunity for young people to finish their education;
- (d) potential to identify those who are fit for the job and eventual hiring and training for company needs; some employers referred to growth and/or expansion when they spoke about taking apprentices: 'you have to take them if you want your business to grow';
- (e) employing the local population to keep young people in the area and sometimes lowering the costs of transportation and accommodation, which employers have to cover.

The rights and obligations of companies providing training are stipulated in the Act on Crafts (2013), the Act on VET (2009) and the Regulation No 766/NN37/2015. The employers who take apprentices have to:

- (a) obtain a license issued by HOK ⁽³¹⁾;
- (b) appoint a mentor (one per a maximum of six apprentices);
- (c) ensure appropriate technical conditions in terms of learning and working premises and adequate equipment for the apprentice to gain the required competences;
- (d) observe all the necessary safety procedures in the learning process;
- (e) pay apprentice remuneration regularly;
- (f) keep documentation on the training;
- (g) allow school teachers to visit the craft and monitor the progress of learners' practical training.

HOK is responsible for licensing crafts and legal entities according to Regulation No 766/NN37/2015. HOK maintains a database of the licensed crafts ⁽³²⁾ that feeds the apprenticeship ⁽³³⁾ enrolment system, *e-naukovanje*, maintained by the MoEEC. The system allows enrolment and registering of contracts only for licensed crafts. Known to school directors and teachers,

⁽³⁰⁾ A survey of SMEs conducted by HGK showed that 80% of SMEs, members of HGK, were willing to participate in apprenticeship.

⁽³¹⁾ In contrast to other VET programmes where it is not required.

⁽³²⁾ http://www.hok.hr/obrazovanje/mjesta_za_naukovanje_praksu

⁽³³⁾ <https://enaukovanje.portor.hr/login.htm>

the database is not usually used to find places; many school directors and VET teachers reported that they rely on personal contacts with the crafts in their area to help students and send them to the crafts they know and had good experience with. Most apprentices interviewed said that they found placements through their parents and family contacts. Some school directors from outside of Zagreb noted that there are not many places in their areas. Some directors suggested that school workshops could be licensed as workplaces; this can help if apprenticeship places are insufficient.

The review revealed a clear need to have the information on actual available places. Although there are many more licensed crafts in the database than students, not all take apprentices every year and may not take them at all, so finding an apprenticeship place is a challenge for potential apprentices and the schools where they enrol. In the past, HOK contacted all licensed entities to get such information but they no longer do this as they do not have such responsibility. Even if they were to collect it, they do not have capacity to process it: there is only one professional associate in each local branch.

Currently, the licences do not have a validity period, which is considered a risk to quality of the training provided and also contributes to the problem described in the previous paragraph. In principle, a licence can be revoked, if:

- (a) the craft closes;
- (b) teachers or parents report irregularities and those are confirmed;
- (c) crafts/workshops report themselves if they do not satisfy conditions for licensing anymore.

To make it work, strong monitoring, a clear procedure for reporting irregularities and awareness among students, parents, and teachers are necessary. During the interviews, some respondents from crafts pointed out that once a licence is issued, there is no follow-up with the craft on its application or compliance; some cases of non-compliance were mentioned by school teachers, for example when licensed mentors were no longer working in the craft but the craft continued to take apprentices. Also, apprentices rarely file complaints, even if advised by teachers, for various reasons, including lack of knowledge about the procedure.

Availability of apprenticeship places and engagement of crafts and legal entities is crucial to successful JMO implementation. Many craftspersons see that JMO programmes need more promotion but there is no strategy for marketing apprenticeship and informing companies of benefits of taking apprentices, related responsibilities and available incentives; information is

Box 2. Chambers supporting SMEs in apprenticeship

HGK implemented an *Erasmus+* project, Cap4App: *Strengthening the capacities of the chambers and partners to help SMEs to engage in apprenticeship* (2016-18), in the framework of which the partners developed:

- a report on implementation of apprenticeship in Croatia (2017), based on a survey of SMEs, secondary vocational schools and county departments responsible for education;
- a [toolbox for apprenticeship advisors](#) (*vodič za savjetnike za naukovanje*, in Croatian), intended for advisers in HGK county chambers to give guidance to SMEs who want to take on apprentices;
- a [guidebook for SME mentors](#) (*priručnik za mentore u poduzeću*, in Croatian) providing practical advice for training apprentices/students during practical training at the workplace;
- a training programme for mentors developed by the University of Zadar;
- trained apprenticeship advisors and in-company mentors.

More information at: <https://www.dualnoobrazovanje.hr/about>

HOK implemented an *Erasmus+* project to promote apprenticeships by building partnerships between intermediary bodies, companies, VET providers, public authorities and the social partners in the partner countries. Within the project framework, the partners:

- prepared a country report and needs analysis, based on a survey of craftspersons;
- conducted advocacy training workshop for HOK employees and regional chamber advisors responsible for VET and regional info days;
- initiated signing a memorandum of understanding on apprenticeship partnership formation by intermediary bodies, employers, VET providers, public authorities (ministries, agencies, employment service), setting up the apprenticeship partnership at the national level, and 14 statements to support apprenticeships;
- set up a helpdesk for SMEs and developed a [guide on apprenticeship for employers](#);
- established a trademark as a quality sign for employers involved in apprenticeship.

More information at: <https://supportapprenticeships.eu/en>

provided mainly ad hoc. Some employers think that they do not receive meaningful support from any stakeholder in the JMO system.

Some recent initiatives of the HOK and HGK emphasised the importance of, and developed, concrete measures promoting and explaining apprenticeship to employers, especially SMEs, and recognising their role (Box 2). HOK, through its local chambers and their expert advisors, provides guidance to its members on implementing JMO.

During the interviews some craftspersons stated that an award can motivate them to take apprentices; some reported receiving a thank you note or a plaque from their municipality. There are two awards:

- (a) the MoEEC presents the *Šegrt Hlapić* award to the best school for the education programme for craft professions, the best master-professional teacher and the best apprentice to promote education for vocational and craft professions;
- (b) HOK presents an annual prize, Golden Hands (*Zlatne ruke*) to its members for a long-term work in crafts and crafts development, where one of the criteria is contribution to education. How decisive this information is for the award and whether it is consistently applied is not clear.

Schools generally do not provide any support to the crafts they cooperate with, as acknowledged by some school directors and craftspersons. Some good practices are reported: some schools explain to crafts the benefits of being licensed and taking apprentices; some have a person in charge of this. Schools also organise events, such as competitions or skill demonstrations, where they invite employers to take part.

4.4.2. Cooperation among learning venues

Key findings

- There is some cooperation between schools and crafts. Crafts most often cooperate with one school while schools have a range of crafts (from one major player in smaller towns to 100 and more crafts or legal entities). Both sides characterised their experience in cooperation as good, especially, cooperation with heads of practice or teachers in charge. There are longstanding examples of good cooperation between schools and crafts. However, the need for its improvement and better coordination is also strongly expressed,





especially by crafts. More cooperation between institutions is seen as a means to overcome numerous JMO challenges.

- It is assumed that the school takes ultimate responsibility for apprentices' learning as it issues the certificate; however, none of the venues takes a coordinating role.
- According to school directors and JMO teachers, schools inform employers (at least mentors) on what students need to learn at the workplace (usually a head of practical classes does so at the beginning of the school year). Some crafts reported not being informed about any plan, some were aware of the implementation plan (*plan naukovanja*).
- There are no mechanisms for ensuring learning in the event of company failure. If a company fails to provide training (mainly cases of rude behaviour or irrelevant tasks reported by some teachers and apprentices), apprentices are advised to change company.

VET schools and crafts are the two main learning venues in JMO programmes and the quality of their cooperation is essential for the effective functioning of JMO programmes. The distribution of content between the two venues was discussed in Section 4.3.3; however, the distribution of responsibilities between them is not explicitly defined, or at least not clearly understood at implementation level. The legal framework does not define which of the venues takes a coordinating role and it is generally assumed that the school takes ultimate responsibility for apprentices' learning as it issues the certificate. VET school teachers supervise the practical learning process outcomes both in school and at the workplace, according to the Act on VET (2009) and the Regulation No 3430/NN140/2009.

In practice, schools and crafts indicate each other as their main partners and cooperate to varying degrees: crafts most often cooperate with one school while schools cooperate with a range of crafts (from one major player in smaller towns to 100 and more crafts or legal entities in Zagreb and the county). Only a handful of employers were in contact with multiple schools; these were companies with several different departments providing apprenticeship in several JMO programmes. There are longstanding examples of good cooperation between schools and crafts. Some craftsmen take part in school events (for example fairs or competitions) or come to give presentations. Both sides characterise their experience in cooperation as good, especially, the cooperation of crafts with heads of practice or teachers in charge who make it work on a daily basis.

During the review, the need for improved coordination between school and the workplace was strongly expressed, especially by the participating crafts. Cooperation is not systematic and mostly depends much on the individual effort and commitment of teachers and employers. Both schools and crafts think that communication also needs to be improved to the benefit of the learners. Most respondents reported that communication with the other venue takes place mostly where there are problems while some teachers thought that good communication is the main instrument for effective cooperation. Teachers thought that some employers do a very good job but this is a result of frequent contacts and invested time.

Lack of clear guideline – who is in charge of what and formal cooperation – leads in some cases to a degree of mistrust or blame between the two venues. Some school directors thought that crafts or legal entities do not recognise that they are involved in education and do not take responsibility. Some craftspersons thought that schools have outdated equipment and are not interested in learning about the developments in industry to address the mismatch of what they teach and what takes place in the workplaces. In giving tasks to apprentices, crafts tend to follow their production process potential and needs rather than following any specific content or plan, especially when they do not get one. Few crafts reported being informed by their apprentices of what they need to learn and what they learn in school. Some crafts noted lack of coordination between theoretical and practical classes in school.

Box 3. What apprentices say

During the interviews, almost all apprentices agreed they prefer to learn at a workplace ⁽³⁴⁾ because:

- mentors can devote full attention to each of them;
- some school workshops are not well-equipped to perform all programme tasks;
- learning in school is too much theory-oriented;
- some students prefer learning with concrete examples;
- most students would prefer that some school hours are reallocated for more practice at workplace.

Source: Cedefop.

⁽³⁴⁾ It can be assumed that these apprentices were satisfied with their learning experience with the employer as those who experienced difficulties were in favour of learning in school.

Two main tools are used for communication between school and craft:

- (a) the apprentice logbook of practical training (Section 4.3.3): the apprentice logbook serves as a communication tool between the school and employers; it is also used for practical training in school workshops. It seems that it is used: students, teachers, mentors are aware of it and report making entries at regular periods as required; no specific issues with the logbook have been mentioned. Apprentices receive specific tasks from their supervisors/mentors which they summarise in their logbook once a week. These logbooks are taken first to their supervisors and then to their school teachers for evaluation; teachers in school validate and approve the grade of the mentor;
- (b) teacher visits to crafts: school teachers check the progress of their students at the workplace, on average four times a year. These visits usually take place when the students/apprentices are working, and involve a meeting with the students' in-company mentor and, on rare occasions, the students themselves; communication is often done by telephone. Apprentices report not receiving much feedback from the exchange between school and company unless there is a problem.

According to the Regulation No 3430/NN140/2009, training with the employer should correspond to the overall education curricula. When a craft or legal entity cannot ensure the acquisition of all required learning outcomes as defined by the curriculum, an employer must ensure that the contractual obligation is fulfilled by another employer or institution. The two employers are required to have a cooperation agreement (Article 9). The same regulation mentions that the VET school is also responsible for providing another employer if the current one is no longer able to ensure implementation of contractual obligations.

In practice, the cases of such cooperation are rare ⁽³⁵⁾. Most interviewed crafts reported not cooperating for various reasons: some believe that they can ensure all the learning content and there is no need; a few cooperate informally or send their apprentices to cooperating companies or branches for specific skills. Some believe that such cooperation needs to be formalised.

The usual practice in the event of a company failure is that a school advises the apprentice to find another placement, sometimes helping them to do so. Where there are problems with apprentices, craftsmen would turn to schools that mediate the process or to the apprentices' parents.

⁽³⁵⁾ According to MoEEC, the database (*e-naukovanje*) does not allow an apprentice to have valid apprenticeship contracts with different companies.

4.5. Ensuring apprenticeship quality

4.5.1. Requirements and support to teachers and mentors in crafts

Key findings

- One of the criteria for a craft to be licensed is that they have to assign a mentor, a qualified staff member to accompany apprentices. Most craftspeople were aware of the requirements for mentors. Most respondents (employers, JMO teachers and apprentices) confirmed that there is a mentor in the craft who works most of the time with apprentices. Most mentors interviewed were master craftsmen; however, most reported that they did not follow any training to develop their pedagogical/didactic and transversal competences.
- There are no formal procedures for cooperation between in-company trainers and VET teachers. The main mechanism for their cooperation and exchange is JMO teachers/head of practice visits to companies. Teachers (most often, heads of practice) are required to visit the crafts regularly to monitor the apprentices' progress; they have time allocated for this activity but the interviews indicated that this might not be sufficient as the visits are not frequent (from once per month to two times per year/once per term) and contact is often by telephone only.
- There is no clear indication who (teacher or mentor) has ultimate responsibility for apprentices' learning; as apprentices are students by law, there is a sentiment among respondents that teachers and schools are responsible.

4.5.1.1. Teachers in schools

Teachers of general subjects, for example mathematics, English, and some vocational subjects in JMO programmes, are the same as in other VET programmes in schools that provide both types; they are qualified according to general regulations on teachers set by MoSE. Teachers in practical workshops in many schools come from the business sector, after having passed a professional exam and completed supplementary pedagogical-psychological education. For JMO students, there is a teacher in charge

(*razrednik*) and a teacher responsible for the logbook of practical training (Section 4.3.3).

Teachers have the right and responsibility to update their competences and continuing professional development (CPD) is also necessary for their career advancement. Teachers' professional development is part of the self-assessment of schools (Section 4.5.2). Many school directors report encouraging their teachers' professional development; some craftspersons think that VET teachers need to update their knowledge of the latest developments in industry and crafts.

The main provider of CPD is ASOO which prepares an annual catalogue of in-service training (*katalog stručnog usavršavanja*) and organises training throughout the year. ASOO advisors cooperate with head teachers of inter-county professional councils (*voditelji međuzupanijskih stručnih vijeća*) who suggest topics for in-service training in their respective sectors. Training covers both general and specific issues and is conducted by university professors, people from the business community, other teachers (in the status of an advisor or even mentor) or ASOO advisors. ASOO also organised several trainings where teachers were trained directly in the work process in companies under supervision of the employees.

During the review, school directors and some teachers pointed out that:

- (a) most courses target general education teachers while the offer for vocational subject teachers is limited, especially in their professional fields; the latter are in high demand. Even when such courses are offered, the number of seats is limited and teachers enrol on 'first come, first served' basis;
- (b) the budgets that schools have for CPD teachers are limited so the number of teachers who can attend training is also limited. The budget only covers training exercises listed in the MoSE catalogue/database so if teachers attend training organised, for example, by private companies, their expenses are not eligible for reimbursement;
- (c) to cover the needs, some schools send teachers to seminars or invite experts to school; some schools use the opportunity for their teachers to update their competences in local or large companies. Other methods of professional development are peer learning and class observation, sharing the information acquired in training with colleagues in school, and participation in mobility projects.

ASOO is implementing an ESF-funded project ⁽³⁶⁾ on the modernisation of the CPD system of VET school teachers; this has a budget of over EUR 1.5 million for 2017-19. The project has several aims: define the strategy of CPD for VET school teachers and develop an innovative, open and flexible professional development model, developing the professional competences and improving the reputation of VET school teachers in Croatia; raise the number of teachers participating in professional development; and improve the quality and the availability of teacher training.

4.5.1.2. *Mentors in companies*

Crafts and legal entities have to assign a mentor, usually a qualified staff member who accompanies apprentices during their work with the employer. According to the Act on Crafts (Article 56(4), 2013) and Regulation No 1208/NN63/2014, mentors can be:

- (a) master craftspersons;
- (b) individuals who have the same rights as those who have passed the master craftsman's exam and also have passed the exam that proves their basic knowledge of teaching;
- (c) individuals with the appropriate high-school qualification who have their trades and crafts businesses registered in the regions of particular national interest and have three years of experience in the profession for which they conduct apprenticeships, and have passed the exam that proves their basic knowledge of teaching;
- (d) individuals who have the appropriate high-school qualification and at least 10 years of work experience in the profession for which they conduct apprenticeship, and have passed the exam that proves their basic knowledge of teaching.

In many cases, craftspersons themselves act as mentors; if they nominate another employee, their decision takes into account the latter's professional experience, position and previous work with apprentices. In some cases it reflects their intrinsic motivation, as with those who like sharing their knowledge. Craftspersons and owners see as most important characteristic of a good mentor:

- (a) flexible enough to adapt to new situations which may arise;
- (b) rich previous experience in working with apprentices.

⁽³⁶⁾ <http://www.asoo.hr/default.aspx?id=1173#1>

The prevailing opinion was that masters had acquired all the pedagogical competences needed to work with apprentices in passing the master's exam, and they became more experienced with every new apprentice. None of the craft or legal entity directors sent masters to any competence updating courses, mostly due to financial reasons and lack of information. They agree, however, that everyone who works with young people has to attend at least basic training on how to transfer knowledge, and that it would be a good idea to arrange seminars with school teachers.

The review did not identify how mentors can acquire pedagogical competences and who conducts the exam to prove that, nor who is in charge of providing it. There is also no information about any continuing professional development of mentors from crafts.

A programme for attaining pedagogical competences for VET teachers, trainers and mentors was established in 2016, with 225 hours equivalent to 60 ECTS points ⁽³⁷⁾. Most stakeholders considered it too demanding and not feasible for mentors in crafts to follow. This requirement was cancelled for mentors in 2017. MoSE in cooperation with stakeholders is working on a new model.

Mentors are generally not paid extra for working with apprentices, with some exceptions ⁽³⁸⁾. However, if nominated, mentors are able to allocate time to work with apprentices and they do so. The apprentices interviewed report that they spend most of the time with their mentors. Apprentices believe that mentors should be rewarded for working with them, and that this would mean more crafts interested in providing apprenticeship places.

Mentors described their responsibilities as working with an apprentice, signing apprentices' logbooks of practical training and providing feedback on it once a month, keeping record of the hours an apprentice worked each month, and looking out for the overall wellbeing of the apprentice. This also involved some extra paperwork but mentors seemed to have no problems with that. They were all satisfied with the level of their involvement in training apprentices.

⁽³⁷⁾ Decision No 180/NN8/2016.

⁽³⁸⁾ First, some employers mentioned that they pay mentors for working with apprentices. One craftsperson mentioned that working with apprentices might have indirectly increased mentors' salaries: in this case salaries were connected to productivity at the end of a certain period, so having an apprentice might have actually increased someone's productivity. Second, MoEEC implements the project *Apprenticeship for crafts occupations*. Starting from 2019, the project foresees a reward for the mentors in the companies. More information: <https://www.mingo.hr/page/ministarstvo-gospodarstva-poduzetnistva-i-obrta-objavljuje-otvoreni-javni-poziv-za-projekt-naukovanje-za-obrtnicka-zanimanja-za-2017-godinu>

4.5.1.3. *Cooperation of teachers and mentors*

Formal cooperation and exchange between mentors in crafts and VET teachers in schools is limited. Teachers have special time allocated for visiting crafts, and most of them visited their students at the workplace a few times a year. Some employers thought that two or three visits per year are not enough; some also thought it would be good to have a joint seminar with school teachers at least once per year. There is also a problem of transportation costs that prevents some teachers from visiting employers.

4.5.2. **Quality assurance processes**

Key findings

- Self-assessment is the current quality assurance arrangement in VET schools. It covers the school-based part of JMO programmes in schools that implement them, sometimes alongside with other VET programmes. The guidelines are extensive and they do not specify whether and how JMO should be included. Some schools include JMO programmes and some survey employers; most reported not involving employers into this process but mainly surveying students and parents.
- Licensing of crafts is a quality assurance tool for the workplace-based part of JMO programmes; there is no follow-up after obtaining the licence.

In accordance with the relevant provisions of the Act on VET (2009), the ASOO is developing a national quality assurance framework in VET (*nacionalni okvir za osiguranje kvalitete u strukovnom obrazovanju i osposobljavanju*), aligned with the European quality assurance in VET's quality cycle (EQAVET) indicative descriptors and indicators.

Each school has to conduct self-evaluation every year and submit a report and detailed improvement plans. The process is supported by the self-assessment handbook and the web-based tool *e-quality (e-kvaliteta)* ⁽³⁹⁾. It applies to entire VET schools, covering the school-based part of JMO programmes, if the school provides them. It is up to schools to decide to what extent they will include JMO-specific aspects into their self-assessment and

⁽³⁹⁾ <http://www.asoo.hr/UserDocsImages/Priru%C4%8Dnik%20za%20samovrjednovanje.pdf>

improvement plans. The school's self-assessment should include feedback from all stakeholders, which potentially should include crafts providing JMO, but it is not the case universally.

Box 4. **How self-assessment is organised**

The procedure is as follows: a school sets up a committee for self-evaluation comprising a teacher, a parent, a student and a representative of the founder (local unit, county). The committee prepares and sends a report to ASOO. Following a SWOT ⁽⁴⁰⁾ analysis, schools develop an improvement plan, on the implementation of which they will report the next year. ASOO experts check the report and plan and provide feedback. So far, ASOO provides feedback only if there is a problem with the quality of reports and the methodology used; they do not analyse and provide feedback on the actual situation in schools.

Source: Cedefop.

All school directors interviewed said that they had participated in the self-assessment process and that JMO programmes are included in the assessment; they noted that it is often difficult to get employers' views into self-assessment.

ASOO is responsible for the development and implementation of self-assessment and providing feedback, while MoSE is in charge of the whole process. So far, ASOO has provided feedback only on the report and self-assessment process; they do not analyse and provide feedback on the actual situation in schools and possible recommendations for improvement. In 2017, ASOO analysed a sample of reports, but has not yet published results ⁽⁴¹⁾. According to ASOO, about 90% of schools report regularly, though there are no repercussions if a self-assessment report is not submitted. There is an assumption that self-assessment is needed for the schools to improve, so they have to be interested to use it without any feedback on their situation. Most directors pointed out that they expect

⁽⁴⁰⁾ SWOT stands for strengths, weaknesses, opportunities and threats.

⁽⁴¹⁾ ASOO conducted a comprehensive analysis of the five-year implementation of the process in cooperation with external experts in 2017. The results of the analysis were presented in training for VET schools teachers. Training presented the opportunity to gather feedback from schools on their experiences in the implementation of the process.

such feedback. There is also an issue of capacity of ASOO to deal with so many reports and their follow-up.

Apart from self-assessment, quality assurance processes also include inspection visits to VET schools by education inspectors from MoSE and professional-pedagogical monitoring visits by the ASOO and Education and Teacher Training Agency.

Licensing of crafts is a quality assurance tool for the workplace-based part of JMO programmes: a craft or legal entity has to meet minimum criteria for implementing apprenticeships. The HOK is in charge of licensing companies, under the supervision of the MoEEC (Section 4.2.2). Representatives from the chambers believe in the need for as a way to build trust in the system. There is no follow-up monitoring once the licence is issued given that the licence does not expire unless it is revoked. Few employers mentioned any visits or checks.

Box 5. How licensing is organised

HOK appoints a licensing commission consisting of master craftsman, teacher from a school and professional associate (*stručni suradnik*) from HOK. The commission checks the appropriateness of expertise, material and technical conditions to implement the practical training and exercises in the company.

Source: Cedefop.

4.6. Apprentice working and learning conditions

Key findings

- Rights and obligations of apprentices are legally stipulated and are part of the apprenticeship contract. Apprentices and craftspersons are most often informed about their rights and responsibilities by teachers from school. Placements are done mainly through personal contacts and family networks.
- The apprenticeship contract that students or their parents and employer sign is a special type of contract; it is a formal agreement for a placement in a craft or legal entity and enrolment





in the programme, but it does not give all rights and benefits of an employee. The contract also regulates the training component. All apprentices interviewed had a contract. MoEEC registers all apprenticeship contracts and keeps a database.

- Respondents from schools and crafts believe that only students with lower grades and with no choice enrol in JMO programmes, which is objectively the case grade-wise; as a result, students are not motivated. In contrast, many apprentices interviewed reported that the programme/occupation had been their first choice, influenced by their family tradition/business or by their own interest.
- Most of the apprentices interviewed reported not having faced problems and assumed that, in the event of a problem, they would consult with their teachers. On rights and responsibilities, they reported that they are informed by their teachers, mostly on safety rules while in company, or by mentors in the craft. Some reported reading the contract.
- If there is employer failure, schools mediate the process most often, but only if students or their parents cannot find a new employer or apprentices by themselves. In exceptional cases, a school can arrange practical training in the school workshop, which needs to be approved by the MoSE.
- Career guidance and counselling available for students and apprentices is not sufficient.

According to the Primary and Secondary School Education Act (2008), the student has the right to consultation, while education institutions (schools) are obliged to provide consultation/advice to students. However, apprentices do not have any single reference point for JMO programmes where they can get information on their rights and responsibilities and support, if there is a problem, especially regarding their working and learning conditions.

Apprentice working and learning conditions are defined in the apprenticeship contract (*ugovor o naukovanju*) between the apprentices or their parents/carers and the crafts or legal entities; however, this is not an employment contract and apprentices do not have all the rights and benefits of employees. Students have to find a craft and sign an

apprenticeship contract ⁽⁴²⁾. Crafts must provide all necessary conditions so that apprentices acquire all skills and competences defined by the curriculum and education programme, ensure a safe and secure workplace, and assign a qualified mentor.

Regulation No 3430/NN140/2009 states that an employer must ensure that the contractual obligation is fulfilled by another employer if the apprenticeship can no longer be provided in the original venue. The same regulation states that VET schools are also responsible for providing another employer if the current one is no longer able to continue fulfilling the contractual obligations. However, the procedure is not clear and the regulation does not specifically mention employer failure.

School directors believe that teachers who are in charge of ‘following’ students ⁽⁴³⁾ in crafts or legal entities should inform them about their rights and responsibilities. Apprentices reported that they are informed on rights and responsibilities by their teachers, mostly on safety rules while at the workplace, or by mentors in the craft or legal entity. Some reported reading the contract but most frequently they had not read it and did not receive counselling prior to signing the it; for many it was a ‘take it or leave situation’ to get a place. Only one student reported that prior to signing the contract the legal service department of the company informed him of his rights and obligations. Apprentices also mentioned that there was little information provided to them before going to companies on what their work would look like, how to behave at the workplace and similar.

Apprentice work contexts have positive and negative aspects, as indicated in the interviews:

- (a) when performing tasks, the most usual scenario was that the masters worked closely with apprentices during the first two years of the JMO programme and then, in the final year, they gave apprentices more autonomy and only occasionally checked on them. They started with very simple tasks (for example changing the oil in cars) and, as they progressed, tasks became more sophisticated (for example, car engine repairs). In some cases, apprentices were allowed to work on their own from day one, as in some hairdressing salons, and they were closely monitored in these cases. Some apprentices preferred learning that way

⁽⁴²⁾ As of 2017/18, they have to do it by the end of the first semester of the first year; up to 2017/18 it was before their enrolment in school.

⁽⁴³⁾ Most respondents suggested that this task is assigned to the classroom main teacher (*razrednik*), but also other teachers were also involved, especially those responsible for practical training.

as it ‘helped them verify what they have learned’ in school. In general, apprentices thought that their masters spent enough time with them, but it depended on their workload. When working with more than one master, there was a possibility to be given different tasks from different masters, which was confusing at times. Most students were very satisfied with their in-company mentors;

- (b) school directors and JMO teachers reported that apprentices are often required to work long hours, on Saturdays or summer breaks to cover all the 900 hours of practical training, divided between the workplace and the school and depending on the grade students are attending. In contrast, most apprentices interviewed said that they generally worked normal hours; they reported working on Saturdays or in summer only to compensate for some missed hours or if they worked with their mentor ‘in the field’;
- (c) apprentice remuneration is reported as one of the crucial issues (see Section 4.6). When explaining why they do not follow the obligation to pay apprentices, some employers gave no explicit reason while some mentioned ‘economic difficulties’; nobody (school, parents, apprentices, HOK) reacted to this, they said. According to a study by HOK ⁽⁴⁴⁾, in 2010/11 only 30% of apprentices received remuneration regularly;
- (d) motivation of apprentices is another concern of all stakeholders.

Respondents from schools and crafts believe that only students with lower grades and with no other options enrol in JMO programmes; as a result, students are not motivated. Some crafts raised the issue of apprentice motivation and preparedness: they thought that students are not prepared well by school and also they are not motivated and interested in learning. They thought that apprentices whose parents/relatives work in the same field tend to be more motivated; also, craftsmen thought that apprentices coming from small towns or rural areas are more hard-working. In contrast, many apprentices interviewed reported that the programme/occupation had been their first choice, influenced by their family tradition/business or by their own interest. This is not the case universally; some apprentices reported that their choice was limited by their grades. Data on the average grades of the enrolled students can help.

Most apprentices interviewed assumed that they will consult their teachers in school, usually the head of the school workshop, or with parents, if there is

⁽⁴⁴⁾ The study was referred to by the Croatian Youth Network.

of a problem; few reported having faced problems. In the event of employer failure or specific problems, schools usually mediate but only if students or their parents cannot find a new employer by themselves. In exceptional cases, a school can arrange practical training in the school workshop, which needs to be approved by the MoSE. However, most of the time the school does not interfere in internal affairs of crafts or legal entities because schools have no formal means to do so. Crafts and legal entities that do not train well can be 'blacklisted' unofficially but there is no formal mechanism, as they report that schools cannot get involved other than explaining to the employer; this might be the reason why schools seem unwilling to intervene or make recommendations for placements in the first place.

If apprentices have problems with the employer, they find it difficult to share these with their in-company mentors; instead they preferred to speak to their teachers. If the situation could not be resolved, apprentices were asked to draw up a written complaint, without which the school could not take any action, but filing complaints is not common in the system. If the employer complains about an apprentice, the teacher first informs the apprentice's parents and, if they fail to find an appropriate solution, recommends a different craft or legal entity for the completion of the apprenticeship.

For cases when apprentices are not paid, there is a provision that anyone, students, school, or parents, can inform the MoEEC. In such cases, the ministry sends inspectors to the craft or legal entity and informs HOK about the situation. HOK would first contact the local chamber in charge and then a professional associate from that chamber would visit the craft/workshop in order to reach an agreement with the employer to start paying. If things are not solved in this way, the parents and/or school could report the craft/workshop to the HOK's Court of Honour. The Court decides whether they want to revoke the licence. The number of such complaints in general is very low. One interviewed apprentice initiated the termination of the contract because the learning conditions were not fulfilled and looked for a new employer; her experience taught her that students should be able to write a complaint directly to the HOK and to schools.

There is no comprehensive career guidance and counselling available for students; some school directors admitted that existing provision is not enough. Where career guidance and counselling exists, along with informing about education and training programmes, it seems to start rather late in students' pathways. Some students mentioned help from their parents, friends and family. Some schools provide counselling if students want to change occupation. In such a case, a team composed of pedagogues, social

pedagogues and associated experts is consulted. When making the choice, few students mentioned that they were motivated by the job prospects of the particular JMO programme.

Career guidance is under the responsibility of HZZ which organises and participates in different promotion activities, such as job fairs, career days, lifelong learning week, and cooperates at local level with HOK branches which promote craft occupations. HZZ also targets parents by participating in the first parents' meetings for eighth-grade students in the primary school and informing them where they can find further information on different school programmes and later career options. There is no information on the impact of such activities and HZZ finds that, despite these efforts, it seems that children remain uninformed: a few students from those interviewed reported using tests from the HZZ service or attending their events. Some schools work actively, according to school directors and JMO teachers, to attract students from primary schools, using visual materials, presentations, and similar. Some apprentices mentioned visiting job fairs, open days, girls' days organised by some schools or checking school websites.

The *Science and technology strategy* and the *Strategy for lifelong career guidance in the Republic of Croatia 2016-20* (*Strategija cjeloživotnog profesionalnog usmjeravanja i razvoja karijere u Republici Hrvatskoj 2016-20*) promote professional guidance at early stages in life. MoLPS are currently working with MoSE on an action plan. The idea is to empower teachers to be able to provide some basic occupation information (not necessarily alone, but in cooperation with other institutions) because the teachers have closer interaction with their students and can follow the development path of each student.

4.7. Enablers and challenges

The review identified some enablers in the current system that the MoSE, MoEEC and all national stakeholders can build on. These will aid their efforts to improve the JMO programmes and, more broadly, to reform the VET system and strengthen work-based learning in other types of VET programmes/occupations, including establishing the dual education. Many challenges have also been identified, some of which the current reform in Croatian VET will potentially remedy. How to use the former and address the latter will be discussed in Chapter 5.

4.7.1. Enablers

The review identified enablers in the current system; building on them can support further improvement of JMO:

- (a) the place of JMO in the system is generally clear and JMO is relatively well-regulated in several legal acts and regulations. It is a recognised learning path leading to a vocational qualification;
- (b) the review did not identify strong negative attitudes towards JMO, which is not distinguished from other VET programmes; they are perceived as training programmes in crafts and trades. There are stakeholders who generally agree that JMO programmes have an advantage over other VET programmes, especially the large share and amount of practical training spent at employers and also the overall amount of practical training, including in school workshops. They believe that, in some respects, JMO prepare young people better to start in the occupation than school-based programmes. The apprentices interviewed generally feel positive about their programmes;
- (c) there is goodwill in Croatia to improve the JMO system and, possibly, open it up. MoSE is currently reforming the entire education system, in which apprenticeship is expected to be upgraded in a way that will ensure quality, efficiency and labour-market relevance. MoSE and MoEEC will carry out activities to improve apprenticeship with HOK as the main stakeholder, according to the Act on Crafts;
- (d) the memorandum of understanding was signed by intermediary bodies, employers, VET providers, public authorities (ministries, agencies, employment service) on 29 January 2018, setting up the apprenticeship partnership at the national level;
- (e) at national level there are mechanisms in place to involve the social partners and other labour-market actors in the development and implementation of apprenticeship;
- (f) there are electronic systems and databases that potentially allow for comprehensive planning and monitoring of the JMO and other VET programmes: *e-matica*, *e-enrolment*, HOK and MoEEC database of licensed companies linked to *e-enrolment*;
- (g) there are good examples of the implementation of JMO programmes, particularly, of cooperation between schools and HOK at local level, but even more so between schools and individual employers, some of which is longstanding. School-craft cooperation is becoming the most important factor for the effective functioning of JMO programmes. There

are many qualified and motivated school principals, heads of practice, teachers and mentors in crafts and companies;

- (h) the establishment of VET centres of competence can bring new potential to the system. The future system envisages three learning venues: school, employer, and the competence centre. It is important that JMO programmes are also considered as beneficiaries of the centres;
- (i) the availability of EU funding provides a good basis for updating VET infrastructure, improving the quality of JMO, including incentives to students and employers, and piloting 'dual education'. The chambers (HOK and HGK) have projects to support and increase the capacity of employers to take apprentices or students from other programmes. Bilateral projects are in operation with Austria, Germany and Switzerland;
- (j) the process of licensing of crafts and legal entities is established and managed by HOK;
- (k) the employer and VET institutions surveys conducted by HZZ and further reported to MoSE create a basis for identifying bottlenecks in sectors/occupations and potentially balancing the offer.

4.7.2. Challenges

The following challenges will need to be addressed to succeed:

- (a) permeability and access to higher levels of education for JMO graduates is provided formally, but not widely used in practice, only for better performing students. In reality, it is difficult for JMO students to continue with their education. Access to higher levels of education for JMO graduates is currently limited; occupational profiles are narrow and limit graduate flexibility in the labour market; and missing admission requirements further add to low esteem/attractiveness of JMO. Horizontal transition is possible but in practice it is rare;
- (b) most additional year options are provided as adult education programmes, which are not free for students. This is against the background of the adult education system characterised by a large and unevenly distributed number of providers across the country, not properly assessed programmes and low participation (Council of the European Union, 2018b);
- (c) the chambers are active promoters of the apprenticeship pathway, which is an enabler, but each of its own – HOK of JMO and HGK of 'dual education' – which poses a challenge;
- (d) lack of coordination and clear ownership over JMO is an issue, caused partly by a degree of tension among major stakeholders.

Many respondents called for more coordination in the system and its processes. More cooperation among institutions and strengthening the coordinating role of some institutions will help overcome various JMO challenges. Lack of coordination is partly linked to low sustainability in the governance system due to frequent changes in government, which a coordinating body can address. The need for better coordination between public authorities and employers to identify skill needs is also pointed out in the country-specific recommendation to Croatia (Council of the European Union, 2018b);

- (e) real partnership among the national stakeholders in improving apprenticeship has not yet occurred. The social partners are involved mainly at the strategic level and their interaction in policy preparation is limited to providing written feedback to government proposals (Council of the European Union, 2018b). Trade unions are fragmented and also involved to a limited extent; the review findings signal that the potential role of trade unions in VET and in JMO in particular is not understood by main stakeholders. Monitoring of implementation is not strong. The overall human resource and administrative capacity of the system and its competent bodies (MoSE, ASOO, HOK) to monitor, analyse and identify gaps is relatively low. Local authorities, especially small local units, lack financial and administrative resources to fulfil decentralised functions, such as education and training (Council of the European Union, 2018b);
- (f) the education plans and programmes of JMO are outdated and urgently need to be renewed: most respondents, including national level stakeholders, agree on this. Updating seems to be hindered by the current curricular reform and lack of new occupational standards that should serve as basis for new curricula. Some steps have been taken but JMO programmes have not been affected so far. There is widespread commitment by various stakeholders to support this work and respondents mentioned that some teachers are active in updating content, including in cooperation with local employers; however, attention and guidance from national level and responsible bodies is felt missing;
- (g) there are currently no criteria for students to enter apprenticeship programmes, except for a medical check. As a result, both schools and crafts complain that students with lower grades, limited choices and no motivation enter these programmes. Some of these might be true and some are based on stereotypes;

- (h) the need for improved and better coordination between the school and the workplace was stressed, especially by the participating crafts. Responsibility for the overall learning outcomes is not clear to all actors involved; it is assumed that schools are responsible but the division of responsibility between school and employer is not explicit;
- (i) opportunities for professional development of VET teachers are not sufficient, especially for their professional fields and latest developments in industry. One of the main reasons is lack of financial resources. The competences of mentors in crafts and companies are a matter of concern on the policy agenda ⁽⁴⁵⁾;
- (j) quality assurance processes do not explicitly address JMO quality, particularly the learning with the employer;
- (k) apprentice pay is an issue. The fact that apprentices are not paid and that stakeholders are aware but do not take action is worrying. Other financial aspects, such as transportation costs in order to reach available workplaces or schools, play a role in student choices;
- (l) demands from employers for skilled workers are emerging increasingly, especially due to the massive emigration of the labour force from the country after joining the EU in 2013 and, more positively, after the start of the economic recovery as of 2015;
- (m) demand and supply of programmes is imbalanced/mismatched.

⁽⁴⁵⁾ There are some projects and initiatives that develop and provide training for mentors in crafts and companies, including a project run by HGK.





5. Areas and suggestions for action

Areas and suggestions for action

The review has shown that the need for change and improvement of JMO is strongly felt by stakeholders throughout the system and action is imperative. Based on the analysis of findings, identified enablers and challenges, and suggestions made by the stakeholders during interviews, Chapter 5 outlines areas for intervention and puts forward suggestions for action. Taking into account the context, the Croatian stakeholders themselves will decide whether and how these suggestions should be taken forward.

The review findings bring to mind Cinderella as a metaphor for JMO. Its key actors, students, schools and crafts are expected to perform without proper support and resources, often facing problems on their own. Improving the JMO requires more care in four directions:

- (a) learners, making apprenticeship attractive and supportive to learners and compliant with regulation;
- (b) employers (crafts and legal entities), increasing the number of crafts taking apprentices by ensuring a good combination of financial and non-financial support;
- (c) the pathway, increasing its value through better quality and permeability;
- (d) governance, improving coordination among stakeholders.

5.1. Taking more care of learners: attractive and supportive apprenticeship

5.1.1. Easier access to higher levels of education and/or change of track

It is important that apprentices should have easier access and flexible ways to reach higher levels of education, progress in the same vocational field and ability to change field while studying or after. Apprentices, their parents and some employers consider continuing education as contributing to better occupation and life prospects. In reality, practical implementation of the provisions for continuing education to get access to higher levels of

education is one of the reasons for low interest in JMO programmes, though not the only one.

The following actions can be considered:

- (a) ensure the implementation of bridge courses to four-year VET qualifications and to State *matura*;
- (b) provide financial support to apprentices taking bridge courses as adult education and inform learners about it.

5.1.2. Ensure all apprentices are paid for the company-based part of the programme

Apprentices should be paid for their contribution to production/service and a system to monitor the compliance of apprentice pay should be established. Apprentice remuneration came out as one of the most problematic issues in the JMO system; the interviews with apprentices indicate that many apprentices are not paid; finding a solution to tackle the situation should be a priority. The law requires that apprentices are to be paid and apprentice remuneration is also part of the apprenticeship contract but there are no systematic data on whether and how much apprentices get (schools also do not have this information). International comparison shows apprentice pay in Croatia is among the lowest in Europe. Monitoring of the compliance with the law should be a priority to establish and make it work.

One solution can be grants paid by the state to the apprentices, in which case it can be more easily monitored and accounted for. While this approach can aid the involvement of crafts and micro enterprises, it is not on the agenda at the moment, except for grants provided by the MoEEC to apprentices in some occupations. Students should be better informed about these grants.

Another way to improve the current situation is that MoEEC and HOK consider taking the lead in monitoring and providing better information on the existing procedure for non-compliance. The procedure exists but the interviews indicated that the number of complaints about non-pay is very small.

The following actions can be considered:

- (a) establish a system of monitoring compliance in law;
- (b) inform students about the existing procedure for complaints;
- (c) inform students about available grants in specific occupations;
- (d) consider availability of grants for all students;
- (e) potentially consider building infrastructure for student representation (for example apprentice union/council) or student sections of trade unions.

5.1.3. Start guidance and information activities early and improve the provision of continuous guidance

Students and potential students need more information, support and guidance to make informed choices about their education. The review showed that almost all stakeholders agreed that these activities should start early, from primary school. During the review, many apprentices stated that their programmes were their first choice, influenced in many cases by their family traditions or family business or guided by their own interest; this is against the background of general perception among schools and crafts, and most likely society at large, that only students with no other choice enrol in JMO programmes.

Potential JMO students and their parents need to know about occupations, available programmes and financial support, organisation of learning, especially, at the workplace. Apprentices need to have access to lifelong guidance while studying and after. Apprentices need to have a reference point that informs them about the rights and responsibilities of all parties and supports them in the event of problems.

Employers interested and willing to take part in information activities should have the opportunity to visit primary schools and talk to students to inform them about their companies and occupations; they could also host visits to the company. VET schools should be encouraged and supported to organise ‘career days’ in the same manner as some secondary schools or universities do.

The following actions can be considered:

- (a) start guidance and information activities early, from primary school, and improve their provision, make better use of the existing infrastructure, for example ‘school expert service’ (*stručna služba*); the network of centres for lifelong guidance;
- (b) improve cooperation with and transition from primary schools, build capacities of primary and secondary schools to provide guidance to students;
- (c) encourage and support employers to take part in guidance activities at local level, for example visits to schools and to companies, and VET schools to organise ‘career/information days’;
- (d) encourage MoSE; MoEEC; HZZ, HOK, HGK and their local branches; trade unions to support schools and employers in lifelong guidance;
- (e) promote examples of good guidance practices from schools, employers, chambers, HZZ;

- (f) reconsider the role of, and the ways to involve, parents in governance, implementation and support processes; use examples of good practice;
- (g) refine the *e-enrolment* system to accommodate students' choices better;
- (h) coordinate and benefit from all ongoing activities for promotion of occupations.

5.2. Taking more care of employers: motivating and supporting crafts or legal entities

5.2.1. Ensure a balanced combination of financial and non-financial incentives and support to crafts or legal entities

The importance of financial incentives to keep apprenticeship attractive to employers was supported by many interviewees; however, the importance of other kinds of support was evident too. The responsible ministries, MoSE and MoEEC, should look for a balanced combination of available and new financial incentives (such as grants, tax breaks or reducing tax bases) and non-financial measures to employers: guidance in training at the workplace, involving them in the design of curricula, training plans and assessment, recognition of and award for excellent contribution and achievement. It is key that employers willing to take apprentices have all opportunities to do so.

The concept of shared financing should remain as a guiding principle and there should be more promotion and facilitation of access to available funding; the review showed that employers are not always aware of existing provisions, though some financial support is available in the current arrangement or they do not apply for it. MoEEC, supported by the chambers, should improve information to employers, potential and participating, on the potential for joint financing and also on the availability of grants for apprentices in some occupations. The criteria and procedures perceived as complicated can be better explained or assistance be provided by intermediary bodies. Financial incentives can be more effective for micro and small businesses compared to larger companies. A national funding scheme that would ensure sustainability of support beyond 2020 should be considered.

EU experience (Cedefop, 2015a, 2015b, 2017a, 2017b, 2018b) shows that non-financial support is often more important to employers than financial measures to support starting, and especially continuing, taking apprentices. During the review, employers pointed to the lack of non-financial support to companies, such as guidance on how to take part in and implement

apprenticeship, and methodological support on how to deliver the practical training and exercises. Responsible education bodies/agencies should ensure pedagogical guidance and support. Employer organisations can provide guidance and information on various aspects of apprenticeship, for example activating apprenticeship advisors in the local branches of the chambers (Box 2). In the current setting JMO is associated with crafts and trades and their chamber, HOK. In recent years, HGK representing companies now excluded from apprenticeship have undertaken activities to expand apprenticeship beyond crafts and trades and to stimulate national discussion on that.

Most crafts underlined the need for more promotion of JMO and its benefits to other crafts. When there was relative abundance of labour force on the Croatian labour market, employers were not so eager to be included in the education process; now they are faced with labour force shortages and might be more willing to participate because they need a skilled labour force.

A very strong motivational argument for crafts can be derived from the fact that many craftspeople take apprentices motivated by their personal experience ('I was an apprentice myself'), sense of responsibility to transfer knowledge and prepare a new generation of craftsmen. Disseminating experiences and testimonials of these craftspeople would be beneficial for engaging more employers in providing apprenticeship places. Such activity can be specifically targeted at the craftspeople who have a licence to take apprentices but for some reasons do not. The social partners and chambers are best positioned to support this.

Based on the interviews with craftspersons, other benefits that can be transmitted to employers are:

- (a) they can identify apprentices with necessary skills and talents and eventually hire them;
- (b) apprentices are helping hands in the production process, especially in the third year, so the three-year commitment pays off;
- (c) they can train future employees to company needs and potential growth of business; some employers referred to growth and/or expansion when they spoke about taking apprentices;
- (d) they can hire local people to increase the sustainability of their business and contribute to local development;
- (e) on a social level, they can provide an opportunity for young people to finish education.

The following actions can be considered:

- (a) keep and promote the concept of shared financing as a guiding principle of financial support;
- (b) seek a balanced combination of financial and non-financial support to employers;
- (c) financial incentives ⁽⁴⁶⁾:
 - (i) increase the available budget for grants to employers taking apprentices, earmark funds to micro and small enterprises;
 - (ii) better inform about available joint funding opportunities;
 - (iii) facilitate access to joint funding and provide administrative support;
- (d) non-financial support:
 - (i) ensure guidance and methodological support to employers in training apprentices (curricula, methods and techniques);
 - (ii) better use the potential of apprenticeship advisors from the county branches of HOK and HGK;
 - (iii) encourage schools to provide more support to employers on training issues;
 - (iv) guide and support employers who take apprentices with special learning needs, for example provide information about students before they start work;
 - (v) develop methodological materials and practical support;
 - (vi) encourage public authorities to give extra points in public tender procedures to those employers who train apprentices;
 - (vii) target crafts that are licensed but do not take apprentices, especially in occupations in short supply on the labour market;
- (e) set up an award to crafts or legal entities for excellent contribution to implementing and promoting apprenticeship; it should not necessarily be monetary but, for example, a label of apprenticeship ambassador developed by HOK;
- (f) create a pool of 'champions/ambassadors' of apprenticeship and disseminate their experience and testimonials in various formats and through appropriate channels.

5.2.2. Consider attracting companies that cannot train the full curriculum through compensating their training capacity

A high number of micro and small enterprises, as exists in Croatia, is always a challenge for apprenticeships because one employer cannot ensure that

⁽⁴⁶⁾ For an overview of financial models, see Cedefop's database on financing apprenticeships (forthcoming).

learners acquire all learning outcomes foreseen by the curriculum. Other countries solve this by establishing industrial training centres, for example as a third place of learning in Switzerland or inter-company vocational training centres, *überbetriebliche Berufsbildungsstätten*, in Germany ⁽⁴⁷⁾; there are also training networks, for example in Austria where one apprenticeship may be split among several employers. The VET competence centres that MoSE is establishing now would also be an appropriate approach to this challenge. Many stakeholders generally support the idea of VET competence centres but call for more clarity about their configuration and terms of reference.

Licensing for modules could be introduced to provide an opportunity for willing crafts that cannot ensure training of all curricula.

The following actions can be considered:

- (a) allow for licensing of modules or parts of the curricula;
- (b) ensure that the newly established centres of competences are:
 - (i) equipped with the latest technologies and machines to assure the acquisition of the full range of skills envisaged by the standards;
 - (ii) open/available for students from all over Croatia to come for longer periods of time and attend practical classes that complement the programme acquired in school and crafts in their location;
 - (iii) be centrally located and provide accommodation, which will address the issue of transportation;
 - (iv) provide for involving professionals from businesses to train students and teachers;
 - (v) be used for VET teachers professional development.

5.3. Taking more care of the pathway: increasing value, responsiveness and assuring quality

5.3.1. Develop new curricula according to the new methodology

In more than a decade following the Act on VET (2009) and driven and supported by ASOO, the approach to the development of VET curricula in Croatia has undergone profound changes:

- (a) bringing in robust methodologies and mechanisms;
- (b) strengthening the link with the needs of the labour market;
- (c) introducing learning outcomes, modules and credit points;

⁽⁴⁷⁾ European Commission and Cedefop, 2014a, p.5.

- (d) establishing a logical sequence from sector profiles through occupational and qualification standards to VET curriculum.

The Act on CROQF (2013) confirmed the methodology for developing curricula and 29 new vocational curricula have been developed and implemented since 2013 (Agency for Vocational Education and Training and Adult Education, 2016b). On 9 July 2018, the MoSE has developed and adopted the national curriculum for VET (MoSE, 2018), which will serve as a core and uniting element for VET programmes.

New curricula for JMO occupations should be developed according to the new methodology and in line with the national curricula.

The following actions can be considered:

- (a) accelerate the renewal of JMO curricula according to the new methodology;
- (b) start by updating programmes with larger number of apprentices and/or most in demand by employers;
- (c) consider combining some occupations into broader programmes; this will be accomplished to a degree through sectoral core curricula that are foreseen to be developed;
- (d) make sure that employers and their organisations are involved in developing standards and curricula; support the initiative of individual employers/schools or sectors willing to update the curricula of the programmes they are interested in.

5.3.2. Improve final assessment procedures

Although there are no major concerns about the existence of two final assessments, and many apprentices plan to take journeyman exam, one final assessment of apprentice learning outcomes can be sufficient. The fact that ASOO coordinates the journeyman exam now and there are some provisions for recognition of part of the final assessment is a strong enabler to streamlining the final assessment into one. The final assessment should emphasise the practical part or demonstration while the theoretical knowledge can be assessed formatively as school studies unfold.

Replacing the journeyman exam with only school assessment is not advisable as it is an important step in the career pathway in crafts. A combination and better synergy in one assessment can also increase the efficiency of its organisation (less assessment commissions) and the participation of employers in the commissions; this can address their concern that they are not involved in assessing apprentices' learning outcomes, especially in the practical part.

The following actions can be considered:

- (a) streamline the final assessment with a focus on the practical part.

5.3.3. Strengthen and diversify teacher and mentor CPD

Capacity, motivation and diversified provision of professional development of teachers and mentors should be addressed, as well as its funding. ASOO and the chambers have a key role to play in this, provided their capacity is ensured.

There is a general view among stakeholders that professional development of VET teachers should be implemented through stronger links and cooperation with employers, strengthening the relevance of JMO (and VET) to labour market demands. Apart from traditional training courses for teachers, and especially for mentors, their professional development will benefit from more interactive or mutually beneficial forms, such as school teachers training mentors from companies in pedagogical competences and methodologies while mentors from companies training teachers in new developments in industry and business; there could also be joint work on curricula or training plans or joined seminars for both groups. Such new formats should be recognised professional development.

There have been initiatives and projects which aimed at providing training to teachers and mentors in companies, implemented by education authorities and by both chambers, mostly funded by EU programmes. The projects created a pool of potential multipliers who can disseminate the knowledge gained (see Box 2 for project results). It is important for MoSE to take inventory of the outcomes of all existing initiatives, consolidate them and mainstream relevant and applicable results, i.e. training courses, trained trainers, training materials.

Appropriate funding is necessary to improve the opportunities for VET teachers to develop and update their technical competences. CPD serves as a basis for teacher promotion, but insufficient provision can deprive them of such opportunity.

The following actions can be considered:

- (a) widen CPD opportunities for VET teachers to update their technical competences;
- (b) collect and disseminate information about the projects implemented to train VET teachers and in-company mentors and their outcomes; create a database of all trained professionals, both VET teachers and in-company mentors, and activate a pool of multipliers who have completed such training;

- (c) explore more interactive or mutually beneficial forms of CPD, including those piloted and developed in projects; recognise them as professional development of teachers and mentors;
- (d) provide training for mentors in crafts and companies through the existing network and capacity of adult education institutions;
- (e) involve employers and provide financial and non-financial support in delivering CPD to VET teachers and to schools in training in-company mentors.

5.3.4. Develop a monitoring system for apprenticeship vacancies and applicants and graduate tracking

The review showed that monitoring the implementation of JMO programmes needs serious improvement, especially, in managing supply and demand for apprentices; for example, it is important to have up-to-date information on the crafts and legal entities licensed to take apprentices and also on the apprenticeship places for occupations in a given year publicly available. The existing employer survey data run by HZZ could be better used to analyse employer needs.

A graduate tracking system, which is now under development, would be helpful in the long term to better understand and assess the effectiveness and efficiency of the JMO system: how many graduates stay with employers after apprenticeship; how many proceed to higher levels of education; how many change occupations/field of study?

The following actions can be considered:

- (a) develop a system for monitoring and matching apprenticeship supply and demand; in the short term:
 - (i) information about actual vacancies for apprentices each year;
 - (ii) information about compliance with contract obligations by crafts, such as apprentice remuneration;
- (b) increase the capacity of monitoring bodies;
- (c) refine/rationalise enrolment practices to balance apprentice supply and demand and to allow meeting local needs;
- (d) continue work on developing a graduate tracking system.

5.3.5. Cover learning at the employer by school self-assessment and external evaluation

Quality assurance processes include self-assessment and external evaluation; they should explicitly cover training at the workplace.

The review has shown lack of consistency in the approach to self-evaluation among schools in terms of addressing the learning at the employer.

As schools are required to submit their self-assessments annually, they expect guidance on how they perform it and how they can improve. ASOO experts work hard to check and compile the information and communicate with schools, but there is a need for more human resources to accomplish a more comprehensive system analysis and provide support to schools. There is also a need to harmonise evaluation criteria between those used for self-evaluation and the ones for external evaluation.

Self-assessment should explicitly include feedback by participating employers on the quality of learning at the workplace. HOK and trade unions should be involved in quality assurance processes; eventually, a new system or body taking care of quality of apprenticeship in companies could be established.

The following actions can be considered:

- (a) include explicitly learning at the workplace in quality assurance procedures and provide guidelines how to do it;
- (b) increase capacity in the competent bodies to provide comprehensive feedback to schools on their self-assessment and the capacity of VET schools to benefit from the self-assessment to the fullest;
- (c) involve HOK (and HGK) and trade union representatives in quality assurance processes.

5.3.6. Refine licensing of crafts and legal entities

Licensing of crafts and legal entities is currently the main instrument of assuring quality of learning in the workplace; it is operational but needs to be refined. Relicensing can be considered as a measure towards further quality improvement and control in crafts, as lack of follow-up and monitoring after licensing has been pointed out as one of the challenges to quality apprenticeship.

Modes and institutions in charge should be determined by all stakeholders. To implement relicensing, HOK (and potentially HGK) capacity will need to be increased.

The following actions can be considered:

- (a) establish relicensing and increase follow-up monitoring ⁽⁴⁸⁾.

⁽⁴⁸⁾ European Commission and Cedefop, 2014b.

5.3.7. Improve mechanisms of communication and exchange of information between schools and employers, teachers and mentors

Communication between schools and employers should be guided to increase mutual information and clarify expectations about apprentice preparedness, expected learning outcomes and progress. Employers should be encouraged to share their suggestions or concerns with the teachers in charge. This requires a mechanism that defines the content of such exchanges and supports both sides in communicating in an appropriate way. Properly supported, such a mechanism would increase the actual involvement of employers in developing curricula, training plans and assessment.

The following actions can be considered:

- (a) provide guidelines or templates to structure good communication;
- (b) promote examples of existing good practice of cooperation between schools and employers, local branches and local authorities, chambers and education authorities at national level.

5.4. Paying attention to governance: better cooperation, coordination and delegation of responsibilities

5.4.1. Improve stakeholder cooperation and coordination and increase responsibility delegation, in particular for employer organisations and trade unions

Apprenticeship implementation demands good cooperation and trust between education and labour-market actors. The review identified a degree of tension among major stakeholders at national level: there was some mistrust between schools and crafts and yet a marked willingness and effort to reach consensus, agree on responsibilities and improve the system together. The memorandum of understanding of 29 January 2018 laid the foundation for further improvement and promotion of JMO programmes and is expected to lead to amending and fine-tuning legislation and campaigns to promote apprenticeship.

Current arrangements require better coordination among the stakeholders in the short term. MoSE, which has formal leadership on VET, should communicate explicitly the distribution of responsibilities among

competent bodies and institutions and practitioners (school directors, teachers, and employers).

The interviews pointed to the fact that some stakeholders and practitioners expect some institutions to have a more active role: MoSE to step up the direction; HOK and ASOO to harmonise cooperation between education and employers; HOK to support the rights of crafts in the process of implementation and monitor employers; and sharing of responsibilities for licensing and support between HOK for crafts and HGK legal entities/companies.

Trade union involvement in JMO has been limited so far, though the interviews showed that unions are well-informed about the situation and have an interest in the topic. At the same time, some stakeholders did not see a role for trade unions in the JMO system. Box 6 provides some ideas for involving trade union representatives and an example from Germany.

Box 6. Potential roles for trade unions

Trade union representatives, especially those from sectoral unions can contribute to:

- providing guidance to potential apprentices and their parents, and to school staff, for example participating in career days;
- informing about occupations and labour relations;
- monitoring apprentice pay and supporting apprentices at the workplace, where possible.

Not immediately, but in the long term, Croatia can support the representation of apprentices and students support their rights. Trade unions could use their infrastructure and experience to organise apprentices.

For example, in Germany trade unions (Giessler, 2017):

- participate in the development of the national occupation standards;
- look after the interests of the young people who will start their professional life with VET and balance between broad-based VET and the often narrow needs of employers;
- look at the day-to-day experience of apprentices on the shop-floor, at least in the companies where unions are established; apprentices are often members of the unions themselves;
- participate in examination bodies.

The following actions can be considered:

- (a) set up a new coordinating body/unit or clarify the mandate of existing institutions;
- (b) support the involvement of social partner and chamber representatives with their local branches in JMO implementation;
- (c) delegate a more active and responsible role for employer representatives;
- (d) revisit the role and participation of sectoral trade union representatives beyond the formal strategic level; encourage trade unions to take a more active part where possible;
- (e) increase institutional capacity of the chambers to fulfil delegated tasks.





6. Concluding remarks

Concluding remarks

Croatia has a very strong school-based VET system with a share of VET students at upper-secondary level as high as in Austria and Switzerland. This review has taken a bottom-up approach to work on ideas which could improve JMO in Croatia and made suggestions described in Chapter 5 from this particular perspective; the review did not discuss alternatives to the JMO or measures which could improve work-based learning elements in other parts of the Croatian VET system.

The review provides a menu of possible actions to choose from rather than a comprehensive strategy on which the stakeholders have to decide. As regards a possible future strategy for JMO, it should be kept in mind that some actions may result in a shift towards an even more school- or State-based system, while other actions may result in a shift to a more work-related version; finding the right balance is a challenge. For instance, increasing the time spent in companies and allowing for trade-specific requirements, such as seasonal work, monitoring compliance on apprentice remuneration, focusing on the journeyman exam as final exam, reforming enrolment to depend on demand within crafts or legal entities, involving employers in defining the content of curricula or handing over some coordination responsibilities to HOK will result in a shift to the world of work. In contrast, increasing State grants for students, involving schools in licensing procedures for training companies, focusing on the school exams, or strengthening the coordination role of ASOO would equally improve the current situation of JMO, but probably also keep it closer to the world of education.

The former maybe harder to achieve, depending very much on the willingness and capacity of employers and employer organisations, and risk further deterioration of JMO if the actions are not successfully implemented. The latter may be easier to achieve because it depends less on stakeholder consensus, but it may also lead to less work-based learning, further withdrawal of employers and less responsiveness of JMO programmes to the need of the economy in the long run.

The suggestions in the report include numerous actions beneficial for JMO, but neutral in terms of the shifts mentioned above: providing more and

better guidance; improving permeability, quality assurance; or monitoring supply and demand. However, limiting future action to these issues would reduce the potential of wider reforms which could be achieved by constructive dialogue on the implicit conflicts described above. Designing a system of quality apprenticeships will always have to balance the advantages and disadvantages of the worlds of education and of work.

Abbreviations/Acronyms

ASOO	Agency for Vocational Education and Adult Education
CPD	continuing professional development
CROQF	Croatian qualifications framework
CVET	continuing vocational education and training
DZS	Croatian Bureau of Statistics
EAfA	European alliance for apprenticeships
EQAVET	European quality assurance in vocational education and training
EU	European Union
ESF	European Social Fund
GDP	gross domestic product
HGK	Croatian Chamber of Economy
HOK	Croatian Chamber of Trades and Crafts
HR	human resources
HUP	Croatian Employers' Association
HZZ	<i>Hrvatski zavod za zapošljavanje</i> Croatian Employment Service (CES)
ISCED	international standard classification of education
JMO	<i>jedinstveni model obrazovanja</i> unified model of education
MoEEC	Ministry of Economy, Entrepreneurship and Crafts
MoLPS	Ministry of Labour and Pension System
MoSE	Ministry of Science and Education
MS	Member States
NEET	not in employment, education or training
QA	quality assurance
SMEs	small and medium-sized enterprises
SWOT	strengths weaknesses opportunities threats
TCR	thematic country review
VET	vocational education and training
WBL	work-based learning

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Annex

Table A1. **Cedefop thematic country reviews on apprenticeships: analytical framework**

Distinguishing features:

- systematic long-term training alternating periods at the workplace and in an education and training institution or training centre;
- an apprentice is contractually linked to the employer and receives remuneration (wage or allowance);
- an employer assumes responsibility for the company-based part of the programme leading to a qualification.

Areas of analysis	Operational descriptors
1. Place in the ET system	Apprenticeship is defined and regulated in a legal framework (a legally regulated and recognised learning path).
	Apprenticeship leads to a formally recognised qualification, covering both learning in the education and training institution and in the company.
	Apprenticeship offers both horizontal and vertical pathways to further specialisation or education at higher levels.
2. Governance structures	Roles and responsibilities of the key players (the State, social partners, schools, VET providers, companies) at national, regional, local levels are clearly defined and distributed: decision-making, implementation, advisory, control.
	One coordination and decision-making body is nominated.
	Social partners understand and recognise the importance of apprenticeship to a skilled labour force.
	Employer and employee representatives are actively engaged at all levels.

Areas of analysis	Operational descriptors
3. Training content and learning outcomes	Curricula and programmes are developed based on existing qualification standards and/or occupational profiles.
	Standards are broader than the needs of companies and are expressed in learning outcomes.
	The content and expected outcomes of company and school-based learning are clearly distributed and form a coherent sequence.
	Qualification standards/occupational standards/curricula are regularly evaluated and updated.
	Curricula define the alternance between learning venues and duration.
	(Minimum) requirements to access apprenticeship programmes are stipulated.
	Final assessment is common for both learning venues and independent.
4. Cooperation among learning venues	There is cooperation, coordination and clear distribution of responsibilities among the venues as well as established feedback mechanisms.
	A school, a company and an apprentice together develop a training plan, based on the curriculum and qualification standard.
	A training plan ensures that learning in the company covers the full set of practical skills and competences required for a qualification.
	There are mechanisms to ensure continuity of learning in both venues, including in the event of a company's failure to provide training during the course.
	One of the venues takes up (is designated by law) the coordinating role in the process.
5. Participation of and support to companies	Rights and obligations of companies providing training are legally stipulated.
	There are strategies, initiatives in marketing apprenticeship and informing companies of benefits of taking apprentices, related responsibilities and available incentives.
	There are minimum requirements for companies willing to provide apprenticeship places and/or an accreditation procedure.
	There is a system of support (non-financial) to companies (especially SMEs).
	There is recognition, and even award, for companies that provide quality apprenticeships.
	Employers' organisations play a key role in engaging and supporting companies.

Areas of analysis	Operational descriptors
6. Requirements and support to teachers and in-company trainers	Companies must assign a qualified staff member (tutor) to accompany apprentices.
	There are stipulated requirements for qualification and competences of an apprentice tutor.
	An apprentice tutor in a company must have qualification in the vocation he/she trains for.
	An apprentice tutor in a company must have some proof of pedagogical/didactic competence.
	There is a provision of training for in-company trainers to develop and update their pedagogical/didactic and transversal competences.
	There are mechanisms for cooperation and exchange between in-company trainers and VET teachers in schools.
7. Financing and cost-sharing mechanisms	There is a clear indication who (teacher or trainer) has ultimate responsibility for apprentices' learning.
	Apprenticeship companies pay wages as defined in the contractual agreement between the company and the apprentice and/or indirect costs (materials, trainers' time).
	The State is responsible for financing VET schools and/or paying grants to engage apprentices.
	The duration and organisation of apprenticeships is such that it allows companies to recuperate the investment through apprentices' work.
	There are incentives (subsidies, tax deductions) to encourage companies to take on apprentices, generally and/or in specific sectors or occupations.
8. Quality assurance	Social partners cover part of the costs (direct and/or indirect).
	Quality assurance mechanisms exist at system level as well as at the level of training companies and schools.
	Responsibilities for quality assurance are shared. It is clear who is in charge of what aspects of quality assurance.

Areas of analysis	Operational descriptors
9. Apprentice's working and learning conditions	Rights and obligations of apprentices are legally stipulated.
	Apprenticeship is an attractive option for learners.
	There is a reference point (responsible body) that informs the apprentice of rights and responsibilities of all parties and supports him/her in the event of problems.
	An apprentice has an employment contract with the company and enjoys all rights and benefits of an employee and fulfils all responsibilities.
	A training contract is signed between a company, a school (training centre) and an apprentice that defines the training programme.
	An apprentice is protected in the event of company failure (bankruptcy, for example) to provide training.
	An apprentice has access to guidance and counselling services.
10. Responsiveness to labour market	There are institutional procedures that allow apprenticeship to respond to or to anticipate the needs of the labour market.
	Outputs and outcomes of apprenticeship are regularly monitored and evaluated.
	Ex-ante and/or ex-post impact evaluation of apprenticeship are in place.

Source: Cedefop.



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APPRENTICESHIP REVIEW

CROATIA

Improving apprenticeships through
stronger support and care



This publication is the final report of Cedefop's thematic country review of apprenticeship in Croatia. The review took place between January 2017 and June 2018 at the request of the Ministry of Science and Education of Croatia. It examined the unified model of education (*jedinstveni model obrazovanja*) three-year programmes for trades and crafts (CROQF level 4.1). The report presents key findings and suggestions for action to improve and further develop the model in line with the curriculum reform and labour market needs. The analysis is based on the information collected from stakeholders from different levels (students, practitioners, institutional actors, the social partners and policy-makers) and in-depth discussions with the steering group. The review suggests taking more care of the model in four directions:

- (a) making it attractive and supportive for learners;
- (b) supporting employers who take apprentices;
- (c) increasing its quality and permeability;
- (d) improving stakeholder coordination.

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