
INTERNATIONAL MOBILITY
IN APPRENTICESHIPS: FOCUS
ON LONG-TERM MOBILITY
CROATIA





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CHAPTER 1.

Introduction

Croatian upper-secondary education consists of three main tracks. General education schools (*gimnazije*) account for little over 30% of students in upper-secondary education. The other two tracks, both VET, jointly account for 67% of students at the upper-secondary level (MoSE, n.d.). Programmes within two VET tracks differ in many important features such as: i) programme duration; ii) degrees of horizontal differentiation and vocational specificity, especially in terms of workplace learning content; iii) strength of labour market links and iv) opportunity for progression. Four- and five-year VET programmes, mostly school-based, account for around 48% of students in upper-secondary education that is 72% of VET student cohort. They usually last four years apart from programme for the occupation of medical nurse/technician that takes five years to complete. Finally, 19% of upper-secondary students partake in three-year VET programmes that prepare students almost exclusively for the labour market (MoSE, n.d.). General education and four- and five-year VET programmes allow direct access to state matura exam, virtually the exclusive pathway towards higher education. Three-year VET graduates, on the other hand, need to take a “one level up” qualification programme or bridging programme to complete the fourth year and then take the state matura exam to qualify for tertiary level entry.

Traditionally, there were two main sub-types of programmes within the three-year VET: (i) predominantly school-based programmes for industrial occupations; and (ii) a unified model of education (*jedinstveni model obrazovanja*, hereafter: JMO) for craft occupations through apprenticeship (which are the focus of this paper). However, recent period has also seen resurgence of the school-based programme for craft occupations (iii), consequence of factors discussed more thoroughly in Sections 2.1., 3.1. and 3.2. Programmes for industrial occupations (i) amount to 27% of students in three-year VET programmes; JMO (ii) for 39%, and the school-based programme for craft occupations (iii) for 29% (MoES, n.d.) ⁽¹⁾.

The scope of this article is the JMO programme within the three-year VET, further referred to as apprenticeship.

In 2018/2019, the Ministry of Science and Education launched the experimental dual education programme based on the new Model of Croatian dual

⁽¹⁾ The remaining 5% are enrolled in adapted programmes for students with disabilities and a new experimental programme of dual education piloted as of school year 2018/19.

education (MoSE, 2018). In 2019/2020, it was attended by 455 learners in six programmes at EQF level 4 (three-year VET programmes for sales assistant, glazier, chimneysweeper and wall painter/decorater and four-year VET programmes for beautician and hairdresser) in 19 VET schools (MoSE, n.d.). Similar to JMO, dual education programmes stress the cooperation between schools and companies in organisation of workplace learning and focus on increasing the quality and the share of work-based learning (MoSE, 2018). As the dual education programme is limited in scope and in its pilot stage, it will not be further discussed in the context of this article.

The Amendments to the VET Act from 2018 introduce an important enabler for outgoing international mobility. Namely, the Amendments facilitate the validation of learning outcomes by stipulating that learners may acquire learning outcomes at companies or VET schools during international mobility period in another country. Erasmus+ granting in the absence of other systematic funding schemes accounts for the most of international mobility at upper-secondary level. As Erasmus+ funding scheme demonstrates, the existence of a structured funding scheme acts as a principal enabler of international mobility of VET students, which Croatian VET schools are eager to use.

CHAPTER 2.

Exogenous factors influencing mobility of apprentices at upper secondary level

2.1. Sectors and actors

Apprenticeship programmes are present in a variety of education sectors that logically follow the general economic structure, which is one of the key objectives set forward by the national qualifications framework initiative (Croatian Qualifications Framework (CROQF), n.d., Croatian Parliament, 2013a). The apprenticeship programmes provide workforce for companies across the economy. Out of 25 education sectors set up under CROQF, apprenticeship is delivered in nine (MoSE, n.d.):

- (a) Agriculture, food and veterinary medicine
- (b) Forestry and wood technology
- (c) Textiles and leather
- (d) Mechanical engineering, shipbuilding and metallurgy
- (e) Electrical engineering and computing
- (f) Construction and geodesy
- (g) Economy and trade
- (h) Tourism and hospitality
- (i) Personal and other services

However, the structure of companies providing apprenticeships merits additional consideration. To deliver apprenticeship training, a company must obtain a licence from the Croatian Chamber of Trades and Crafts (*Hrvatska obrtnička komora* hereafter: HOK). While the licence can be issued to a broad range of companies, the pivotal role of HOK seems to create a certain path dependency in terms of apprenticeship supply. Namely, the majority of HOK members are micro and small-size craft companies, usually craftsmen providing services of a limited scope (e.g. hairdresser, car mechanic, carpenter). As HOK members, micro- and small-size companies are more easily recruited and licenced as apprenticeship providers. For this reason, the core of apprenticeship providers consists of micro- and small-size companies. Literature indicates (Matković et al., 2013: 6; 17) that these craft companies are often unable to secure steady provision of quality apprenticeships, particularly during economic downturn. Moreover, even

if key stakeholders generally promote internationalisation of VET, the current degree of institutional support to apprenticeship providers does not ensure sustainable offer of quality apprenticeships (Cedefop, 2019). This is another disabler for international mobility of apprentices of any sort, be it incoming or outgoing.

Consequently, broad familiarity with apprenticeship among crafts in different sectors could be considered as a potential enabler of incoming long-term international mobility. Namely, the variety of companies/crafts across different economic sectors with experience of setting up apprenticeships increases the odds of finding “suitable matches” for potential incoming apprentices. However, vulnerability to external shocks of craft companies, who account for bulk of the apprenticeship supply, can be considered a disabler of incoming mobility, particularly long-term variant. Furthermore, current weakness of institutional support to companies interested in hosting international apprentices and domestic apprentices keen on experience abroad is another disabler of long-term international mobility.

2.2. Dynamics of skills demand and supply at the medium level occupation level

The annual employers’ survey conducted by the Croatian Employment Service (*Hrvatski zavod za zapošljavanje*; hereafter: HZZ) generally indicates that a number of occupations linked to apprenticeship are in high demand. Table 1 presents results of the so-called high-demand index (*indeks deficitarnosti*) for several occupations in crafts, individual production and services that can legally cater apprentices. This index should be interpreted as ‘a degree of difficulty in finding a qualified worker among 100 employed within the respective occupation’ (HZZ, 2014: 28) ⁽²⁾. Higher scores indicate greater degree of difficulty and *vice versa*. The data presented is from the last three available survey reports, published in 2014, 2015 and 2017 respectively (HZZ, 2014; 2015 and 2017). Only occupations with the score above 2 are included.

Although findings indicate that some occupations are continuously in high demand, the issue does not seem to be particularly severe: index score remains

⁽²⁾ Index is calculated by weighting the total population of employed with the number of employers reporting on difficulties in finding workers within the respective occupation during the year in question. This number is then divided by the number of persons of respective occupation exiting registered unemployment in in the same period; and then multiplied by 100. More detailed elaboration is available in Employers’ survey reports (HZZ, 2014; 2015; 2017).

well below 10 in great majority of cases. However, effects of the economic cycle can aggravate the issue, as it is visible from the scores for occupations bricklayer and (especially) locksmith in the 2017 survey. It remains to be seen if these would remain specific outliers as a consequence of a cyclical expansion in the construction sector, or whether they would become a permanent structural imbalance.

Table 1. High demand index per occupation and year of survey

Occupation	2014 survey	2015 survey	2017 survey
Bricklayer	7.1	5.6	19.5
Welder	4.0	5.1	2.8
Car mechanic	6.1	5.5	1.4
Baker	5.2	4.9	1.4
Butcher	9.5	9.4	1.0
Cook	2.6	3.2	0.6
Hairdresser	4.8	7.1	1.0
Joiner/cabinetmaker*	-	4.1	1.1
Carpenter**	-	-	5.3
Locksmith	-	2.4	53.2
Tailor	-	2.2	0.9
Heat and air conditioner installer	-	-	2.3
Plasterer	-	-	2.0

(*) In Croatian: *stolar*.

(**) In Croatian: *tesar*

Source: HZZ

Outgoing migration may also play a role in these developments. According to the 2017 employers' survey, some 1.6% of Croatian workers left the country in 2016, with the construction sector bearing most of the brunt (5.6%; HZZ, 2017: 26). Furthermore, the problem seems to be the most severe among micro and small employers that reported loss of 3.8% and 3.3% workers on account of them finding employment abroad. For medium and large employers, this figure stands at 1.6% and 0.7% respectively (HZZ, 2017: 26).

Findings within this sub-section point to generally favourable conditions for incoming long-term international mobility of apprentices. Namely, high demand for qualified craftsmen may encourage companies to use long-term international mobility of apprentices as a strategy for attracting future workers they lack in the domestic labour market. This potential however should be leveraged against other less favourable factors discussed in the following paragraphs.

2.3. Attitude of employers towards training

The HZZ Employers' survey also provides bulk of relevant data for understanding attitudes of Croatian employers towards training. The findings of the 2014 survey denote that somewhat less than 28% of participating employers delivered certain form of workplace learning. This category entails a broad spectre of arrangements, ranging from apprenticeships, less intensive workplace learning as part of other VET programmes, to practical learning for higher-education students. Workplace learning is most commonly provided by large employers (62%) and least frequently by micro employers (16%); and twice more often by public (44%) than private sector (22%) employers (HZZ, 2014: 61).

However, findings of the 2015 survey are particularly revealing as it contains disaggregated data for apprenticeships, other forms of workplace learning for VET students and practical learning for higher-education students. These arrangements seem to be evenly deployed by Croatian employers (11%, 12% and 11% respectively). However, a more detailed analysis points to a difference in the structure of employers making use of these arrangements. Generally, large employers are most likely to take on either apprentice (32%), VET student and higher-education student (both around 40%), compared to mid-sized (27%, 21% and 15% respectively) and small employers (16%, 12% and 6% respectively). Same as mid-sized and small companies, micro-companies seem to prefer apprenticeships (14%) to workplace learning for VET students (6%) and practical learning for higher education students (3%). Employers in the private sector seem to prefer apprenticeship (15%) to the other two forms of WBL (12% and 8%),

opposite being the case in public sector: 5%, 12% and 17% respectively (HZZ, 2015: 68).

These findings cumulatively point both to the importance of economy of scale as a factor in setting up workplace learning arrangements considering that the propensity to offer workplace learning generally increases with the size of the company. This is consistent with greater availability of human resources for monitoring and mentoring apprentices and trainees in large enterprises. However, findings also seem to verify the traditional importance of micro and small craft companies in delivering apprenticeship considering their relative preference for apprenticeships over workplace learning for VET students and practical learning for higher-education students. Moreover, that same trend exists among mid-size companies as well.

In terms of long-term international mobility, these findings could be generally assessed as favourable. Namely, they indicate that enterprises of all sizes are interested in apprenticeship delivery, as well as delivery of other forms of workplace learning, with private sector demonstrating clear preference for apprenticeships over other arrangements. In the perspective of internationalising apprenticeships, it may thus be assumed that (private sector) companies may also be conducive to hosting long-term international apprentices. However, adequate incentives and support to targeted companies should be ensured to facilitate hosting international apprentices.

2.4. Other exogenous factors

According to the existing research (Matković et al, 2013; Doolan, Lukić and Buković, 2016) there is an urgent need for building a fine-grained strategy of social inclusion within apprenticeship. Namely, students within apprenticeship are sometimes viewed as low achievers. However, even within this seemingly homogenous perception, the children of craftsmen poised to carry on family business are often considered as more motivated learners. On the other spectrum are vulnerable groups, including the students of Roma origin, those with learning disabilities and in some context, commuting students. The latter often face additional social and economic barriers to inclusion and adequately opening international mobility opportunities for them may require additional efforts than the ones deployed towards 'the general population', let alone high achievers. Thus, the disproportionate presence of vulnerable groups in apprenticeship programmes represents both current disabler and potential enabler of long-term international mobility, if addressed appropriately.

Finally, it may be worth pointing out that none of the apprenticeship programmes in Croatia offer pathway towards international qualification, which could be considered as another barrier to international mobility.

CHAPTER 3.

The link between the apprenticeship scheme design and apprentices' mobility

3.1. Apprenticeship structure and implementation

As detailed in earlier reports (Cedefop, 2019; Cedefop ReferNet Croatia, 2014), programmes within the framework of apprenticeship are delivered as a combination of general education, 'professional theory' and practical component with exercises. While the first two components (general education and 'professional theory') are mostly delivered in schools, the practical component is usually organised in alternance between school-based and workplace-based delivery. ⁽³⁾

Although the distribution of instruction time ⁽⁴⁾ between these components is generally similar for all education plans within apprenticeship ⁽⁵⁾, it varies somewhat among education plans for qualifications for different occupations. For instance, the education plan for the occupation pedicurist (in Croatian: *pediker*) allocates an average of 75% of instruction time to vocational content when combining "professional theory" and practical component, rest being allocated mainly to general education content. The education plan further sets the maximum ceiling for practical training delivered in schools, and the minimum ceiling for workplace training. Pedicure apprentices should spend a minimum of around 36% of total instruction time with licenced company in their first year, 42% in the second and 48% of total in the third/final year. The upper ceiling for the duration of workplace training is thus limited only by the total instruction time allocated for the

⁽³⁾ The Amendments of the Crafts Act from December 2019 modify the structure of vocational curricula for craft qualifications delivered as JMO, which now consist of the general education component and the vocational component (the latter called apprenticeship). The Amendments also redefine the list of apprentice providers to some extent, for example by extending the opportunity to deliver apprenticeships to adult education institutions and regional competence centres.

⁽⁴⁾ Distribution of instruction time between general education, professional theory and practical component with exercises, expressed as teaching contact hours per week/year.

⁽⁵⁾ The education plan defines instruction time on the annual and weekly basis for each component.

entire practical component (Ministry of Education and Sports, 2003). This example can be considered common among apprenticeship programmes.

When it comes to organising alternance, there are certain limitations to periods apprentices can spend in workplace training uninterruptedly. Generally, first-year students should not exceed a maximum of 20 hours per week in workplace training, while second- and third-year students can spend a full week (40 hours) at the workplace. However, a minimum of 14 hours of rest is foreseen for apprentices between two full days at the workplace, with a minimum of 48 hours of rest per week continuously. On an annual basis, the companies must secure a minimum of 45 full days of rest for their apprentices (Ministry of Entrepreneurship and Crafts, 2014).

Compensation for apprentices in Croatia is rather low – minimally 10% of the average net wage in legal entities in the Republic of Croatia for the previous year for first year students, 20% for second and 25% for third year students respectively. Companies can also compensate apprentices more generously upon their discretion (Ministry of Entrepreneurship and Crafts, 2014).

Such a low compensation is made possible by the fact that apprenticeship is not considered employment, although certain general provisions of labour legislation apply. Namely, apprentices have the status of regular student and apprentice in craft. More technical description of steps in administration of apprenticeship contracts is detailed elsewhere (Cedefop, 2019; Cedefop ReferNet Croatia, 2014: 10).

Some general features of the apprenticeship model in Croatia may function as ‘enablers’ and other as ‘disablers’ of international mobility. For instance, the intensity of workplace learning; i.e. instruction time at the workplace, is relatively low. This can potentially create difficulties in setting up long-term mobility with partners from VET systems with more intensive workplace component.

3.2. Apprenticeship governance

A number of stakeholders are involved in apprenticeship governance. According to the Crafts Act from 2013 ⁽⁶⁾, the Ministry of Science and Education adopted curricula with prior consent of the ministry in charge of crafts. The Agency for VET and Adult Education used to be responsible for organising journeyman exams and the ministry in charge of crafts issued certificates of journeyman exams. The ministry in charge of crafts defined the licencing procedure and supervised the licencing of companies. HOK issued licenses to companies providing workplace

⁽⁶⁾ Crafts Act [Zakon o obrtu], Official Gazette, No. 143/2013

training and published lists of licenced companies. The ministry in charge of crafts equally regulated the content of apprenticeship contracts and supervised the legal aspects of organisation and implementation of workplace training.

The amendments of the Crafts Act from December 2019 ⁽⁷⁾, which entered into force as of 2020, introduced a shift in governance that transferred more responsibility to HOK, in particular, and the ministry in charge of crafts (Croatian Parliament, 2019). Accordingly, the ministry in charge of crafts and HOK now have a more prominent role in drafting curricula, while the Ministry of Science and Education keeps its role in adopting curricula, proposed by the Agency for VET and Adult Education. On the other hand, the roles in licencing remain unchanged. Although the apprenticeship contracts are still the main responsibility of the ministry in charge of crafts, HOK is now in charge of their verification and keeping their records. The validity of licences is now limited to seven years and the licences may also be revoked, which represents an important regulatory intervention for the quality of apprenticeships.

Key novelties also refer to the organisation of the journeyman exam. First, it is now called the apprenticeship exam and it is incorporated in the final exam students are required to pass to complete the programme and attain a secondary education qualification. The apprenticeship exam is thus organised by VET schools based on the catalogue of exam tasks proposed by HOK and adopted by the ministry in charge of crafts. HOK also issues the final certificate supplement on apprenticeship, while the ministry in charge of crafts defines the overall framework for apprenticeship exams. The Agency for VET and Adult Education keeps its role in external evaluation of the apprenticeship exams.

Moreover, HOK and HGK would from now on propose and deliver a training programme in basic teaching skills for workplace mentors, adopted by the ministry in charge of crafts with prior consent of the Ministry of Science and Education (which was earlier an exclusive role of the Ministry of Science and Education). By the 2019 amendments, the roles and the procedure for conducting exams in basic teaching skills for workplace mentors in apprenticeships is defined in detail for the first time, with its implementation mainly confided to HOK, and the general framework definition and supervision under the remit of the ministry in charge of crafts.

The amendments also expanded on provisions for supervision, which now include professional monitoring of apprenticeship delivery in companies. The procedure is defined by the ministry in charge of crafts and the monitoring committee includes representatives of the ministry in charge of crafts, VET

⁽⁷⁾ Act on Amendments to the Crafts Act [Zakon o izmjenama i dopunama Zakona o obrtu], Official Gazette, No. 127/2019

providers, Agency for VET and Adult Education, as well as HOK and HGK. Finally, the amendments also introduced important advancements to planning enrolment in apprenticeship. Namely, based on input on the available apprenticeship placements in companies from HOK, the ministry in charge of crafts now suggests the enrolment structure to the ministry in charge of education.

The 2019 Amendments to the Crafts Act address key challenges of apprenticeship expressed by stakeholders. They offer a clear governance structure and detailed distribution of responsibilities among stakeholders, which would improve stakeholder coordination in apprenticeship delivery. The amendments are expected to increase the quality of apprenticeships by improving professional monitoring, streamlining the final examination and linking the enrolment structure to the labour market demands. In particular, the quality and the relevance of workplace learning is expected to increase through the increased authority of HOK in licencing companies, mentor training and curricula development.

As a result, the increased quality of apprenticeship may, in the long-term, raise its attractiveness for learners and act as an enabler for incoming mobility.

3.3. Validation of learning outcomes in apprenticeships

There is a lack of disaggregated data on validation of learning outcomes for Croatian apprentices spending part of their studies abroad. However, some broader general trends can be derived from data collected from the Erasmus+ VET participants. According to the data provided by the national agency for Erasmus+ programme (*Agencija za mobilnost i programe EU*; hereafter: AMPEU), in 2017-2018, considerable majority were engaged in traineeships in companies (75%), whereas 25% conducted their traineeships in other VET schools/institutes.

Generally, data provided by participants yields encouraging results in terms of validation of learning outcomes. A high majority of participants (92.5%) report successfully validating mobility period in some form; the predominant format being Europass mobility document (86%). Further 73% report receiving attendance certificate from host school/company. The further common forms of validation are ECVET credits (34%), recognition by home institution, such as requirements fulfilled towards acquiring school leaving certificate (24%) and work certificate (10%). The increasing use of ECVET in validation is a result of intensive promotion

efforts of ECVET at the national level ⁽⁸⁾. In 2017, 41% percent of all funded KA1 projects used ECVET, the percentage rising to 65% for projects funded under Call 2018. Of projects funded under Call 2019, 73% have expressed interest in implementation of ECVET in their applications, meaning that over the past seven years more than 70 VET providers from Croatia implemented ECVET in their Erasmus+ projects.

The Amendments to the VET Act from 2018⁹ introduced an important enabler for outgoing international mobility. Namely, the Amendments facilitated the validation of learning outcomes by stipulating that learners may acquire learning outcomes at companies or VET schools during international mobility period in another country.

The general propensity of Croatian VET students to spend their mobility abroad in companies rather than VET schools can be listed among possible enablers considering that apprenticeships always entail significant workplace component. The same could be said about widespread practice of validating mobility periods of Croatian VET students. On the other hand, unreliable tracking of apprentices in Erasmus+ represents a potential disabler for designing coherent and evidence-based approach to long-term international mobility of apprentices.

⁽⁸⁾ Since their appointment in 2012, the members of the Croatian National Team of ECVET Experts participated in over 40 different tailor-made workshops organised by AMPEU. These workshops were attended by approximately 1 100 principals, teachers and project coordinators from Croatian VET providers. Other activities implemented jointly by AMPEU and the Croatian National Team of ECVET Experts include individual and group counselling of all stakeholders interested in implementation of ECVET, implementation of the Best National Project Implementing ECVET contest, further development and growth of web presence (National ECVET website: <http://www.ecvet.hr>) and participation in VET-related events at both national and international level (Days of Vocational Teachers, European Vocational Skills Week, ECVET Network Meetings, ECVET Forum etc.). All of these activities resulted in a significant expansion of the ECVET community in Croatia.

⁽⁹⁾ VET Act [Zakon o strukovnom obrazovanju], Official Gazette, No. 30/09, 24/10, 22/13, 25/18

CHAPTER 4.

Lessons learnt from existing policies, initiatives, projects

The only comprehensive data set on international mobility of VET students is related to participation in the Erasmus+ programme (AMPEU, 2019). Generally, figures are relatively low for both short and long-term mobility, the latter practically non-existent among apprentices. The total of 6 469 VET learners from Croatia took part in the outgoing mobility via Erasmus+ during the 2014-2018 period. This includes 1 270 learners classified as ‘apprentices’ ⁽¹⁰⁾ who participated in short-term mobility. During the same period, 3 322 VET learners have been hosted in Croatia via Erasmus+; 682 of them classified as apprentices. Of course, international mobility of VET students (including apprentices) may take place through other schemes and arrangements. However, Erasmus+ granting in the absence of other systematic funding schemes accounts for the most of international mobility at upper-secondary level (Ančić and Brajdić Vuković, 2017). Comparable to other EU countries, Erasmus+ data suggest that very few Croatian apprentices made use of (long-term) international mobility. This indicates low capacity for this activity at the level of entire apprenticeship system. Naturally, this should be considered as a critical disabler.

On the other hand, as Erasmus+ funding scheme demonstrates, the existence of a structured funding scheme acts as a principal enabler of international mobility of VET students, which Croatian VET schools are eager to use. Namely, international mobility is highly valued among Croatian VET schools or at least those taking part in Erasmus+ programme and its predecessor, Lifelong Learning Programme. That is a consistent finding that cuts across several evaluations in this field (Grgurović, 2015; Ančić et al., 2016: Ch. 1; Ančić and Brajdić Vuković, 2017). Such enthusiasm could be leveraged to motivate other schools, and perhaps most importantly, companies, as the offer of quality apprenticeships directly depends on their interest in delivering workplace learning, as demonstrated in 2.3.

Recognition of international mobility as one of the four key priorities within ‘The 2016-20 VET System Development Programme’ (Government of Republic of

⁽¹⁰⁾ This piece of data may be of questionable validity as classification is conducted during the application procedure by sending organizations/schools. These necessarily may not follow (inter)national legal framework governing apprenticeships. The same disclaimer applies for figures on incoming mobility listed below.

Croatia, 2016: 28-31) is another encouraging element. The two measures within this priority touch upon a number of features vitally influencing VET system's ability to produce international mobility of students and staff, such as expanding the volume of VET beneficiaries within the Erasmus+ programme, systematic monitoring and evaluation, boosting visibility and recognition of ECVET and providing additional financial stimulus for staff involved in mobility projects. However, apprentices are not recognised as specific target groups within this priority. This may create barriers if not addressed adequately at the implementation level.

Furthermore, material support towards apprenticeship is considerably reinforced by the EU funding, administered by the ministry in charge of crafts. The number of companies using EU-funded subsidies for apprentices increased from 34 to 190 in the 2016-2018 period, with a financial value of grants increasing from around EUR 280 000 to 1.4 million respectively (Cedefop, forthcoming). Although still limited in scope, this funding scheme could encourage companies offering apprenticeships to rely more extensively on project funding, international mobility falling within this category.

CHAPTER 5.

Conclusions

Apprenticeship and other forms of WBL are widely present within the Croatian economy; with apprenticeships favoured by the private sector. However, external vulnerability of craft companies (providing bulk of apprenticeship placements) and the lack of institutional support to apprenticeship providers represent significant disablers for its further development (Sections 2.1. and 2.2.).

As Erasmus+ funding scheme demonstrates, the existence of a structured funding scheme acts as a principal enabler of international mobility of VET students (including apprentices), which Croatian VET schools are eager to use. As another critical enabler of outgoing international mobility, the Amendments to the VET Act from 2018 facilitate the validation of learning outcomes by regulating the acquisition of learning outcomes at companies or VET schools during international mobility period in another country. Moreover, the validation mechanisms are in place and are being used to validate mobility periods, which also acts as an enabler.

Although disproportionate presence of different vulnerable groups within three-year VET programmers currently acts as a disabler, it has the potential to act as a potential enabler of outgoing long-term mobility in the future, if addressed appropriately (Section 2.3.). Specifically, vulnerable students often require additional (and currently lacking) institutional support in securing long-term international mobility. At the same time, they represent an untapped potential to expand the pool of candidates for long-term mobility of apprentices. Finally, the lack of apprenticeship programmes offering international qualifications represents another disabler of both outgoing and incoming long-term international mobility (Section 2.3.).

Overall, general features of the apprenticeship model in Croatia may have differing effects on long-term international mobility (Section 3.1.). Namely, low intensity of workplace instruction in comparative terms could serve as a disabler to long-term incoming mobility of apprentices from educational systems in which this element accounts for larger share of apprenticeship delivery. Low compensation represents a disabler for incoming long-term international mobility; on the other hand, it may encourage Croatian apprentices to engage in long-term international mobility.

Introduced by the Amendments to the Crafts Act in December 2019, the restructured governance structure in apprenticeship is expected to contribute to better coordination between stakeholders and the quality of apprenticeship,

including its international dimension. Generally, the propensity of Croatian VET students to spend their mobility abroad in companies rather than VET schools can also be listed among possible enablers.

Recognition of international mobility at the policy level, positive attitudes of VET schools practicing such schemes and overall expansion of ESF funding aimed at companies taking on apprentices can all be seen as enablers of long-term international mobility. However, current low capacities of apprenticeship system to secure significant supply of apprentices interested in long-term international mobility, as in many other EU countries, represents a disabler that needs to be addressed if it is to be successfully mainstreamed (Chapter 4). Another disabler is the absence of tracking system for incoming and outgoing mobility of apprentices as it hampers sound analysis and systematic planning.

This last point brings the discussion to broader field of policy reforms in Croatian VET. The general assessment is that the issue of international mobility of apprentices, at least in Croatia, is difficult to divide from broader questions related to the role and functioning of this type of programmes within the Croatian VET system. Consequently, one general policy advice stemming from this analysis is that it would be prudent to firstly resolve structural issues related to apprenticeship-based programmes in Croatia, as indicated by relevant research (Cedefop, 2019). Steps in this direction have been made by the legislative interventions in 2019, introducing important amendments to the Crafts Act, which should positively impact the quality of apprenticeships. As a further step, international mobility should be fostered as a meaningful instrument of advancing apprenticeships in Croatia.

List of abbreviations

AMPEU	Agency for Mobility and EU Programmes (<i>Agencija za mobilnost i programe EU</i>)
CROQF	Croatian Qualifications Framework
HGK	Croatian Chamber of Economy (<i>Hrvatska gospodarska komora</i>)
HOK	Croatian Chamber of Trades and Crafts (<i>Hrvatska obrtnička komora</i>)
HUP	Croatian Employers' Association (<i>Hrvatska udruga poslodavaca</i>)
HZZ	Croatian Employment Service (<i>Hrvatski zavod za zapošljavanje</i>)
ECVET	European credit system for vocational education and training
JMO	Unified model of education (<i>jedinstveni model obrazovanja</i>)
MoSE	Ministry of Science and Education
VET	vocational education and training

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