



PRESS KIT

Updated on 21/2/2018



FACTSHEET

Who we are

The European Training Foundation (ETF) is **an agency of the European Union** helping 29 neighbouring countries to reform their own education and training systems in line with the EU's external relations policies. By supporting human capital development, the ETF contributes to social and economic development and to long-term stability in neighbouring countries. The ETF is based in Turin, Italy, and employs 130 staff.

What we do

The ETF supports institutions in partner countries engaged in **human capital development**.

The ETF does this by encouraging **networking** and the sharing of information, experiences and good practices among the partner countries and between the European Union and partner countries. In endeavouring to provide broader access to education and training initiatives, and improving the quality of those initiatives, the ETF facilitates collaboration between the world of education and businesses in order **to increase the employability of individuals**, including by promoting entrepreneurial learning.

Through the establishment of inclusive governance in education and training, developing better schools and enrolling teachers in refresher courses, and offering opportunities for life-long learning, the **ETF eases the transition from school to the world of work**. This is reflected in the development of a more inclusive economy and more opportunities for everyone in their own countries of origin.

By regularly reviewing the progress of human capital development policies as part of the 'Torino Process', the ETF offers a structured approach to the design and implementation of an effective support strategy by the European Union to help the partner countries.

Where we work

In the context of the EU's external relations policy, the ETF works:

- in South Eastern Europe: Albania, Bosnia and Herzegovina, Kosovo¹, the former Yugoslav Republic of Macedonia, Montenegro, Serbia and Turkey;

¹ This designation is without prejudice to the position on its status and is in line with United Nations Security Council Resolution 1244 and the International Court of Justice's Opinion on the Kosovo declaration of independence.

- in the Southern and Eastern Mediterranean: Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine², Syria, and Tunisia;
- in the countries of the Eastern Partnership: Armenia, Azerbaijan, Belarus, Georgia, the Republic of Moldova and Ukraine;
- in Central Asia: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan;
- in Russia.

Our partners

The ETF works with various institutions to foster cooperation, knowledge development and the exchange of experiences in the field of education and training, in particular with:

- policy makers, practitioners, donors and social partners in the EU, in its Member States and in the territories and partner countries;
- European bodies such as the European Centre for the Development of Vocational Training (CEDEFOP), the European Foundation for the Improvement of Living and Working Conditions (Eurofound), the European Bank for Reconstruction and Development (EBRD), the bilateral donor organisations of the EU countries and the European Investment Bank (EIB);
- international institutions, such as the World Bank, the Organisation for Economic Cooperation and Development (OECD), the International Labour Organization (ILO) and the United Nations Educational, Scientific and Cultural Organization (UNESCO).

² This designation must not be construed as recognition of a State of Palestine and is without prejudice to the individual positions of the Member States on this issue.

CESARE ONESTINI

Cesare Onestini took up the post of Director of the European Training Foundation in September 2017.

Prior to joining the ETF, he was Deputy Head of the EU Delegation to India and Bhutan. He began working for the EU institutions in 1995, starting by promoting cooperation in education and training. He has developed intercultural education projects, coordinated school partnerships and teachers' mobility across Member States and was part of the team which developed proposals for the first EU programme for Life Long Learning.

He has since worked for the European Union in external relations, international trade, security and crisis management and in the EU Delegation to the United Nations in New York.

In the 2013-14 academic year, he was a Visiting Fellow at the Lee Kuan Yew School of Public Policy of the National University of Singapore. Cesare Onestini is a graduate of Oxford University.

Cesare Onestini



Copyright ETF

FACTSHEET

Work-based learning in Europe and in neighbouring countries

'Work-based'³ learning exists in a variety of forms.⁴ **Internships or traineeships** are periods of training which can last from a few days to several months, and do not necessarily involve an employment contract or remuneration. An **apprenticeship** is a combination of school education and workplace training, which aims to ease the transition from school to employment for young people. Although there is a wide variety of apprenticeship training models across the EU, on average an apprentice spends 50% of his or her training period in the workplace.

In terms of results, **an apprenticeship is the most effective way of transitioning from education to employment**. According to estimates from the European Commission, there are currently around **3.7 million** apprenticeship students in Europe, compared to approximately 20 million university students. Overall, 60-70% of apprentices move into a job directly following their apprenticeship, and in some cases this figure increases to 90%. **Two out of three apprentices move straight into jobs after finishing their education**⁵.

The situation in Europe⁶. While some Member States can boast a very long tradition of apprenticeship training, and have efficient systems of implementation, others are establishing or improving their own systems.

- **Ireland** has a long tradition of apprenticeships. Additionally, for more than 15 years, the country has been working to promote life-long learning and in 2013-4, supported a reform of apprenticeships aimed at streamlining the functioning of the system and adapting it to reflect changes to the economy and jobs market. To make this possible, Ireland reinforced social dialogue platforms and introduced funding schemes.
- In **Sweden**, apprenticeships are on the rise: in the course of a year (2015-6), the number of apprenticeship students in upper secondary schools rose by one thousand to 8 300, and 86% of employers have declared themselves happy and ready to take on new apprentices. Recently, the government has introduced measures to improve the quality of apprenticeships and render them more attractive, including by establishing an Apprenticeship Centre (*Lärlingscentrum*) within the National Agency for Education and offering funding, primarily intended for those wishing to offer training (professional training institutions, teachers and tutors).
- In the **Netherlands**⁷, there are two parallel systems: work-based training with an apprenticeship (*beroepsbegeleidende leerweg*), and school education (*beroepsopleidende leerweg*). While the two qualifications have the same value in the Dutch system, the effect on employment is definitely different. In 2012, unemployment among those who had followed the first path was in fact only at 3%,

³ Source: European Council, http://europa.eu/rapid/press-release_DOC-13-5_en.htm

⁴ Source: European Commission, http://ec.europa.eu/dgs/education_culture/repository/education/policy/vocational-policy/doc/alliance/work-based-learning-in-europe_en.pdf

⁵ Source: European Commission, http://europa.eu/rapid/press-release_IP-17-3585_en.htm

⁶ The European Agency responsible for development of professional training policies in the Member States is the European Centre for the Development of Vocational Training (Cedefop): <http://www.cedefop.europa.eu/en/about-cedefop>

⁷ Source: International Labour Organisation, http://www.ilo.org/skills/pubs/WCMS_607466/lang--en/index.htm

whereas among those who had followed the second it was between 11% and 30%, depending upon the level of qualification obtained.

The apprenticeship as an instrument to encourage political stability around us. The future expansion of Europe to the east and the current migratory movements from the Mediterranean also direct the focus to what is happening in the vicinity of Europe. The European Union is in fact also supporting the development of quality apprenticeship systems in countries what is known as the 'neighbourhood' – from Ukraine to the Balkan states, and even in North African countries. This is done with the support of the **European Training Foundation (ETF)**, a European Agency based in Turin which works precisely to create political stability in neighbouring countries through development of professional training which leads to employment opportunities.

The ETF helps countries close to the EU to develop work-based learning – for example by promoting participation in skill exchange platforms, such as the [European Alliance for Apprenticeships](#), a platform which brings together governments, businesses, and training providers from Europe and neighbouring countries. [Very recently, a working group met in the Balkans](#), where Albania has taken inspiration from the European model to create a similar platform for national use.

In several countries outside the EU, reforms of work-based training are already significantly advanced.

- In **Serbia**, on 8 November 2017 the national parliament approved the dual education bill, which will be implemented from the school year 2019/20. The Serbian Chamber of Commerce and Industry plays a significant role in the Serbian model: it is responsible for accrediting employers who accept students doing 'professional training'. The Chamber of Commerce also trains and certifies mentors and instructors within companies.
- In 2016, **Turkey** introduced apprenticeships as part of mandatory school education. Students usually receive practical training at work for 4–5 days a week, and 1–2 days of theoretical training.
- Kazakhstan is taking inspiration from the European models, and is moving towards a dual training model. From 2014 to 2017 the number of apprenticeship students has more than doubled.

Background

Improving the quality of apprenticeships supports the European [priority of stimulating investment and creating jobs](#). On 5 October 2017, the European Commission put forward the proposal for a [European Framework for Quality and Effective Apprenticeships](#): the proposal identified 14 criteria that Member States and stakeholders should use to develop quality and effective apprenticeships. The initiative is part of the [New Skills Agenda for Europe](#) and contributes to the consolidation of the [European pillar of social rights](#), the first principle of which establishes that everyone has the right to quality and inclusive education, training and life-long learning.

MEDIA STORY

A total of 20 jobs for 20 electricians

- Success story: 'Mihajlo Pupin' school, Skopje. Project 202020
- Country: former Yugoslav Republic of Macedonia
- Sector: apprenticeship
- Keywords: vocational training, energy, employment

Description. A company is set to employ 20 students in 2020 on completion of their studies and apprenticeship, offering them a salary of at least MKD 20 000. The company in question is electrical firm EVN Macedonia, who in 2017 launched 'Project 202020' together with the 'Mihajlo Pupin' electro-technical vocational school in Skopje.

Fifteen-year-old student **Jovana Nikoloska** has enrolled at the school as she wants to be an electrician. Her parents have signed a contract with the school and the company, which sets out the rights and obligations of both parties. Jovana will receive practical training in the company for 3 years, hoping to be one of the 20 students who will be taken on.

'I enrolled because I like the idea of receiving specialist training in a workplace environment,' she says. 'During my training at the company I will do my best and work hard to be one of the top in my class. I hope to work for the company where I am training, EVN Macedonia, when I graduate in 2020.'

To be successful in getting this job she will need to be one of the top students, of which there are 36 this year, a number which is on the increase. The high percentage of training in the workplace offered by the new course and the prospect of a job at the end have seen enrolment numbers soar by 400% in a single year.

*'The success of the project with EVN Macedonia shows that there is a demand for high-quality training courses among young people,' explains **Eftim Pejovski**, head of the school. 'We have managed to meet the needs of both training and employers with a new, flexible approach that involves employers in the course design. The positive momentum generated by this pilot project should continue and serve as a model for the future, providing new opportunities for vocational schools in this country, and for students.'*

To ensure that the training provided in the workplace is to a high standard, the company personnel who provide the training are themselves trained to European standards. Furthermore, the importance of quality is a message reinforced at all levels of the company, including electricians, engineers and managers who supervise the students.

Background Mihajlo Pupin electro-technical vocational school is based in Skopje, in the former Yugoslav Republic of Macedonia. Its 56 teachers provide training for over 500 students. Project 202020 is the fruit of collaboration between the school, EVN Macedonia, the National Centre for Vocational Education and Training and the Ministry of Science and Education. It has led to the creation of this new training course. The project has received strong support from the Macedonian Employers' Association and the Trade Union for the private energy sector, and is raising awareness of the career prospects offered by vocational training.

The project has the support of the European Training Foundation (ETF), the European agency for fostering the development of human capital in the countries bordering the EU, which has facilitated the exchange of best practices and provided technical guidance.

Information:

- EVN Macedonia www.evn.mk
- 'Mihajlo Pupin' school <http://mihajlopupin.mk/en/>
- National Centre for Vocational Education and Training <http://csoo.edu.mk/index.php>
- Ministry of Science and Education www.mon.gov.mk/
- ETF www.etf.europa.eu

Jovana Nikoloska



Copyright ETF

Eftim Pejovski



Copyright ETF

School "Mihajlo Pupin"



Copyright ETF

MEDIA STORY

Studying in the workplace, combating unemployment

- Success story: Kostanay Higher Polytechnical College
- Country: Kazakhstan
- Sector: dual training for students aged 16 and over
- Key words: dual training, school/company cooperation

Description. Kostanay is a region lying to the north of the central Asian country of Kazakhstan. *Kostanay Higher Polytechnical College* was founded in the region's capital in 1971, in order to train specialists to work in the grain processing industry. In 1975, its first 420 graduates were awarded the title of technologist, electrician or mechanic.

Today, the College is renowned as a leading player in education and vocational training: one out of every ten students enrolled on food-farming, energy and mechanical courses participates in what is known as 'dual training', which involves them spending up to 70% of their training hours within a company, where their work is closely monitored by a company mentor (one assigned for every four students).

Combining school with the workplace has long been a successful practice in Kazakhstan. The country invests greatly in vocational training, with 500 000 students enrolled on 'dual' training courses at 1 900 companies in 2017, and this has played a part in its very low unemployment rate (4.3% in 2015; source: National Statistical Committee of Kazakhstan).

*"The dual approach makes it possible to teach students skills that correspond to the actual needs of the companies," says **Aigul Tatyanova**, the College's Vice Principal. "By acquiring an improved skills set, the graduates will be better prepared for working life, and have better job opportunities."*

The companies play a key role in developing the training courses: they not only provide in-house mentors, but also improve and refine teaching equipment together with the College. In 2015, following a request made by a major food producer, the College launched a confectionery production course.

To supplement its business courses, Kostanay College has developed a refresher training programme for its teaching faculty, which takes place in some of the biggest companies in the region (in 2017, 15 such companies took part in the programme). This gives the College's teachers the opportunity to analyse technological innovations and processes and new types of apparatus and equipment.

Background. Kazakhstan is a pioneer of vocational training in central Asia. In 2014, the country's Ministry of Education and Science, in partnership with the National Chamber of Entrepreneurs, approved a roadmap for implementing dual training, encouraging companies to play an active part in the initiative, with the Regional Committee of Chambers also helping by providing specialists tasked with developing human capital.

In 2015, the country updated its legal system and employment code so that they incorporated the concept of dual training. In 2016, a new vocational training standard

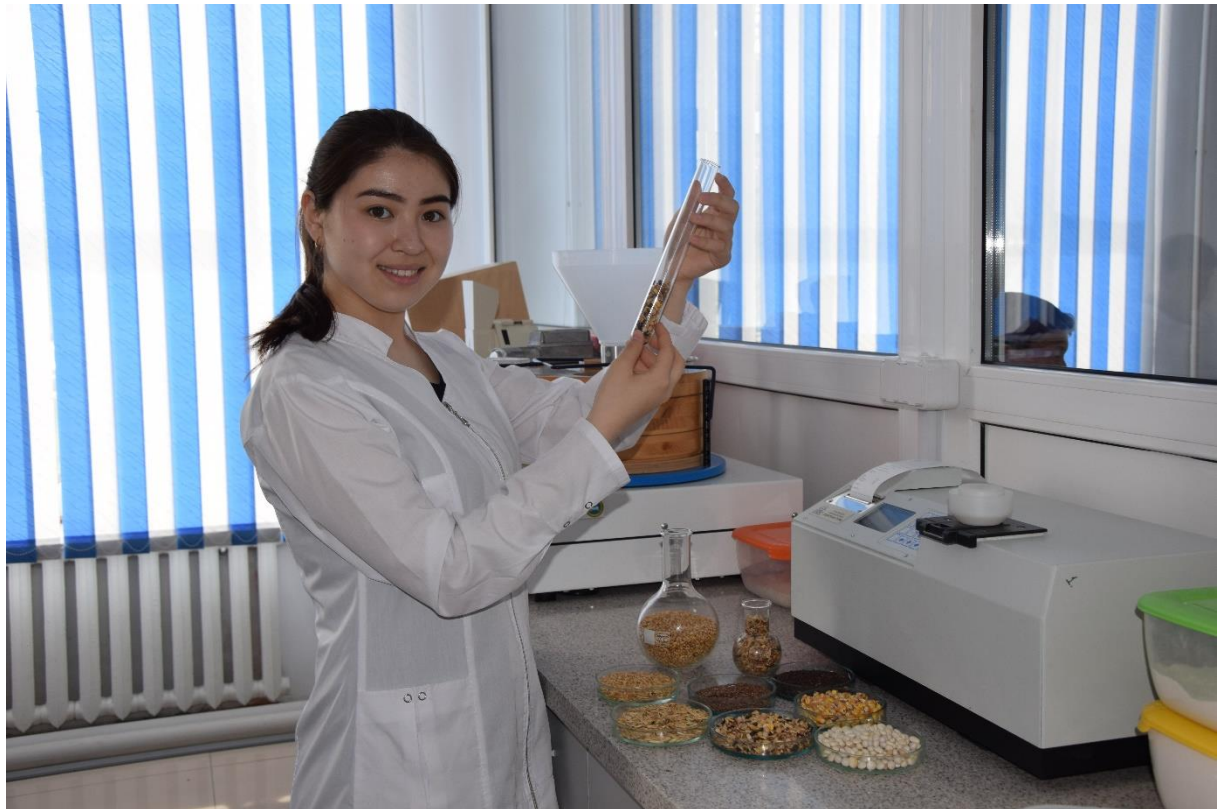
specifically for the dual approach was adopted, allowing vocational training centres to adapt their courses to take account of companies' needs.

The European Training Foundation (ETF), the European agency that helps countries bordering the EU to develop their human capital, has been working with Kazakhstan since 1996. It supports the country by working directly on the ground, for instance by supporting the development of a national qualifications framework (2007-10) and disseminating the dual approach in vocational training. Since 2010, the ETF has also been helping Kazakhstan to regularly assess the changes being made to its vocational training system. In 2017, these assessments began taking place regionally as well as nationally.

Information:

- Kostanay Higher Polytechnical College <https://kpvk.kz/en>
- ETF www.etf.europa.eu

Kostanay Higher Polytechnical College



Copyright ETF

COUNTRY FICHE

Montenegro: Building EU enlargement through education

EU accession talks are underway with Montenegro. The European Commission's Strategy for the Western Balkans⁸ sets out the indicative steps needed to complete the accession process in a 2025 perspective. Education, employment, social policies, governance, the digital agenda and youth are a focus of the reform areas.

With the **support of the EU and of the European Training Foundation**, the EU's agency in charge of developing human capital in the neighbouring countries, vocational education and skills are high on the policy agenda of the Montenegrin Government to tackle structural challenges – as documented in the Employment and Social Reform Programme (2015-20).

According to the Economic Reform Program 2018-20, recently submitted by the Government, Montenegro committed itself to undertake **education reforms in the view of joining the EU**, and in particular: developing qualifications in line with the labour market needs; improving school-to-work transitions through work-based learning and promoting the appeal of vocational professions; carrying out apprenticeships with employers; and implementing legal provisions in the field of the labour market with focus on active employment policy.

Context⁹

Montenegro has a **relatively young workforce** with one in five aged between 15 and 24. The population (some 620,000 inhabitants) has remained stable, with negligible growth over the past decade. GDP grew by 2.9% in 2016, mainly due to the expansion of industry, which grew by almost 6% in 2015 and over 4% subsequently.

Almost **three quarters of Montenegro's workforce is employed in services** (75% in 2016) and this proportion has remained stable over the past years.

The **employment rate is relatively low** (45% in 2016) with sizeable gender gaps. Unemployment has affected nearly one in five of the active population in recent years (the rate was close to 18% in 2016); this rate rises to 36% for young people. Due to weak employment demand, tertiary education graduates are taking jobs below their formal qualification level. Employment growth remains modest despite stronger investment.

The Montenegrin workforce is relatively low skilled, with only 30% holding a tertiary education qualification. Two in five students are low skilled in reading and more than half in science and mathematics. However, **the country is catching-up rapidly with the EU2020 target** (34% of adults aged 30-34 attaining tertiary levels of education in 2016).

Education and labour policies

Vocational education is the first educational choice of students in Montenegro. In 2015, two in three upper-secondary students participated in vocational programs. This is also

⁸ Source: [EU-Western Balkans Strategy - 'A credible enlargement perspective for and enhanced EU engagement with the Western Balkans'](#)

⁹ Source: [ETF Montenegro Country Strategy Paper 2017-20](#)

proven to be a successful option to overcome the early school leaving, (only 5.5% of those aged 18-24 in 2016, one of the lowest rates in Europe).

Vocational education and skills are high on the policy agenda of the Montenegrin Government. Since 2012, Montenegro has participated in the Copenhagen Process for Enhanced European cooperation in vocational education and training, as well as in the implementation of the [Bruges Communiqué](#) and the [Riga Conclusions](#). The Ministry of Education is moving ahead with the implementation of the [Vocational education and training Strategy \(2015-2020\)](#) and the [Adult Learning Strategy \(2015-2020\)](#). **The involvement of the private sector is a priority** and an important challenge in the reform process.

Montenegro is ahead of many EU countries in referencing and introducing labour market relevant qualifications. The revised vocational education and training law includes an apprenticeship system as a new opportunity for **in-company experience for learners**.

EU support and the ETF

The EU provides assistance to Montenegro and the Montenegrin people through a set of measures, including support for education and labour market reforms.

As part of the EU's external action, the **European Training Foundation (ETF)** is the agency of the European Union in charge of supporting EU's candidate and neighbouring countries to reform their education and training systems. By supporting human capital development, the ETF contributes to social and economic development and to long-term political stability in the EU neighbourhood.

The overall **priority of the ETF's interventions in Montenegro** are to strengthen education and business cooperation in particular through entrepreneurial learning and SME skills development, work-based learning, teacher placement programme, skills needs analysis.

A story of success: Montenegro towards better apprenticeships

Dado Mujovic is a student at the Ivan Uskoković secondary vocational school in Podgorica, Montenegro. Every Monday after breakfast he goes to Auto Service Šahović, to do practical training. With the support of the employer he gets acquainted with the business and how to deal with customers. *'Initially, everything was new and unknown to me because I learned at school and the bench. Now I spend my entire day at a service station. The master already gives me small tasks and auxiliary jobs. I get a lot better at the service and I like the carmaker's work'*, says Dado.

This is the first year that the Ivan Uskoković school is exploring dual education, following an initiative of the Ministry of Education implementing the amendment of the Law on Vocational education, in 2017. The students spend one day per week at the workplace in their first year, two in the second and three in the third. The Ministry of Education subsidises the pay of students in dual education to the extent of 10% in the first grade, and 15% of average net salary in the second grade.

Montenegro is not the only country investing in more training at work. Four Western Balkan countries (Albania, Former Yugoslav Republic of Macedonia, Montenegro, Serbia) and Turkey joined forces in Budva (Montenegro) on 26-27 October 2017 to strengthen the quality of apprenticeships and *increase* the employability of young people. The event was organised

by the European Commission in cooperation with the European Training Foundation (ETF), in the framework of the European Alliance for Apprenticeships (EAfA) – a platform bringing together governments and key stakeholders to strengthen the quality, supply and image of apprenticeships in Europe. With Serbia joining in 2017, all five candidate countries are now part of the Alliance. The European Alliance for Apprenticeships regional seminar was part of the **European Vocational Skills Week, a series of events organised all over Europe to improve the attractiveness and image of vocational education and training.**

By helping its neighbouring countries to improve the quality of apprenticeships, the EU is supporting the development of human capital opportunities for growth. In this area of work, it relies on the expertise of the ETF - the only EU agency working for political stability and opportunities for growth through learning in the EU's candidate and neighbouring countries.

Improving the quality of apprenticeships contributes to the EU's priority on jobs, growth and investment. Last 5 October the EC has proposed a European Framework for Quality and Effective Apprenticeships. This is part of the New Skills Agenda for Europe and is in line with the European Pillar of Social Rights, which defends a right to quality and inclusive education, training and life-long learning.

COUNTRY FICHE

Serbia: Building EU enlargement through education

EU accession talks are underway with Serbia. The European Commission's Strategy for the Western Balkans¹⁰ sets out the indicative steps needed to complete the accession process in a 2025 perspective. Education, employment, social policies, governance, the digital agenda and youth are a focus of the reform areas.

With the **support of the EU and of the European Training Foundation**, the EU's agency in charge of developing human capital in the neighbouring countries, vocational education and skills are high on the policy agenda of the Serbian Government to tackle structural challenges – as documented in the Strategy for the Development of Education 2020.

According to the Economic Reform Program 2018-20, Serbia committed itself to undertake **education reforms in the view of joining the EU**, and in particular: developing digital skills, lifelong learning and qualifications in-line with labour market needs; improving school-to-work transitions through work-based learning; and improving skills information intelligence, building upon the successful Vojvodina ICT ecosystem (see success story p 3).

Education policy development is in line with the EU's Education and Training 2020 Strategy.

Context¹¹

Serbia experienced a weak recovery after the financial crisis. Public finances deteriorated and government debt increased from 42% of GDP in 2010 to 75% in 2015, leaving little room for fiscal stimulus to address policy challenges.

Serbia's **population decreased** from 7.64 million in 2002 to 7.07 million in 2016, largely due to the low fertility rate (1.5 children per woman in 2015) but also due to the loss of educated young people to countries offering better employment prospects. By 2014, **the proportion of the population under 15** had dropped to 14.3%, while the proportion 65 or older was 18%, resulting in a high old-age dependency ratio (25% in 2016). Also, the country has a rather low proportion of youths (aged 15-24) in the labour force (only 16.3% in 2016), suggesting potential problems with the new entrants to the labour market.

There is a pattern of internal migration from rural areas to urban centres such as Belgrade, but **growing sectors such as ICT**, already report difficulty recruiting skilled workers and the number of young people entering the labour market is decreasing.

Similar to other countries in the region, Serbia has a **service-oriented economy**, contributing 60% of GDP and 30% generated by industry. About 10% of GDP comes from agriculture but the employment structure (agriculture employs one in five people) suggests it is typically subsistence-type.

¹⁰ Source: [EU-Western Balkans Strategy - 'A credible enlargement perspective for and enhanced EU engagement with the Western Balkans'](#)

¹¹ Source: [ETF Serbia Country Strategy Paper 2017 2020](#)

Education and labour policies

Vocational education rates are high, with nearly 75% of upper secondary students enrolled in 2016. However, the proportion of young people aged 15-24 neither in employment nor in education and training (NEETs) remained relatively high (17.7% in 2016), decreasing slightly from 2010. This suggests **problems in the employability of VET graduates** and the existence of skills imbalances. A 2016 International Labour Organisation study on school-to-work-transition in Serbia found the unemployment rate for youth (15-29) with only primary-level education is significantly higher than those with a tertiary-level degree (40.7% and 32.9%, respectively). The unemployment rate of secondary-level graduates is the lowest, though still high, at 29.9%.

Serbia's **National Employment Service plays an essential role** for skills needs anticipation and matching. The ETF is working closely with education, employment and statistics institutions on skills mismatch analysis. This will inform vocational training and labour market policies, reflecting emerging skills needs, supply and demand and school-to-work transition.

Vocational education and training **cooperation with EU member states** and candidate countries is framed by the Copenhagen Process and 2015 Riga Conclusions prioritising five Medium-Term Deliverables (MTDs) for VET by 2020.

Serbia became member of **the European Agency for Special Needs and Inclusive Education** as of 1 January 2018, facilitating cooperation with Member States and access to good inclusive practices and systems.

EU support and the ETF

The EU provides assistance to Serbia and the Serbian people through a set of measures, including support for education and labour market reforms.

As part of the EU's external action, the **ETF** is the agency of the EU in charge of supporting 29 EU neighbouring countries to reform their education and training systems. By supporting human capital development, the ETF contributes to social and economic development and to long-term stability in neighbouring countries.

The overall **priority of the ETF's interventions in Serbia** are to strengthen work-based learning, address skills mismatch in priority sectors, for example ICT, develop the National Qualification Framework, Small Business Act (SBA) assessments, strengthen key competences including entrepreneurial learning and digital skills and the continual professional development of teachers and trainers.

A story of success: Serbia towards better skills in the ICT sector

Milan Solaja, chief executive of Serbia's Vojvodina ICT Cluster, speaks rapid, fluent English that he began learning informally as a boy desperate to understand the lyrics of songs by the Beatles. A tall, slender man who has to remember to duck to avoid hitting his on the wooden beams that support the ceiling of the offices of the Novi Sad-based software and computing industry support and training body, he is a passionate advocate for the role that IT businesses can play in supporting Serbia's economic - and educational - development. Putting IT and software at the heart of national development under the slogan Digital Serbia is Milan's vision and one that he is passionate about.

The Vojvodina Cluster - which brings together around 35 companies employing 4,000 people and stakeholders from 11 governmental and educational institutions - aims to give ICT companies a regional, national and global platform; support training initiatives both at its centre and through in-house and dual education programmes; and lobby the government for better policies to support digital industry development.

A not-for-profit business association, it raises around 10-12% of its annual budget through company subscriptions of €100 per month and the rest from projects. In 2016, its budget was around €250,000. Its regional role - in Serbia's largest province that occupies around a quarter of the former Yugoslav republic's territory, but accounts for a third of the country's GDP - is as important as its national and international position.

'We've always had strong support from ICT companies - ever since we were set up in 2010, based on an industry initiative. They had seen similar organisations overseas and wanted something like that here,' he says. 'We saw the need to involve all stakeholders - the industry, government and education - that can contribute to taking advantage of opportunities to develop the digital process. ICT has been the nuclear fuel for everything that we do, but the role of training and policymakers is also essential: a triple helix must be there to achieve the best results.'

A collaborative approach to skills development

Involving stakeholders, working with VET schools and other educational institutes is one of the keys to ensuring that enough software engineers are trained to sustain an industry that often loses its best skilled employees to international firms. Milan mentions a German company that skills tested a Serbian team of IT specialists to design a piece of software it had already had its HQ staff work on. The Serbs did a better job at a better price. Fortunately, in this case, the foreign company did not poach them, but invested in establishing a local office and creating new employment opportunities.

'Often we have a lack of IT staff in the market and we have had to start pressure education institutions to deliver more.'

Building a creative, sustainable home-grown ICT industry is essential to the future of the sector: the basic model of IT, he says, boils down to outsourcing - where foreign companies sub-contract projects to local firms - or developing your own business models, software, games and other applications. Outsourcing has a low ceiling - a company that has 10 engineers can charge a maximum of ten monthly engineer fees. Develop your own software and the sky's the limit.

'There were a couple of students here who dropped out of college to develop specialised project management software they could not find on the market,' Milan says. 'They put the resulting software on the Internet as open source with a licence priced at \$300 - not much by western standards - with support and upgrades included and sold 40,000 copies, making \$12 million over two years. Now their company employs a dozen staff.'

Another company that designs HOPA games (Hidden Object Puzzle Adventures) has 450 employees, only a third of whom are engineers - the rest are creative game developers, designers, graphic artists, photographers, visual effects specialists and others, underscoring the importance of the educational component of the 'triple helix'. The ETF developed the

education and training part of the Vojvodina ICT Cluster approach, through a needs analysis conducted in 2016.

'Nobody knows exactly what profiles we need to develop for training and dual education programmes,' Milan says. 'Everybody thinks they know. The ETF helped us design a needs analysis and questionnaire that went out to 40 companies. Initial results confirm what we know - but it is useful now to have the facts to push an agenda for dual education in IT training.'

Apart from core engineering skills, the sector also needs to train people in business, marketing, communications and sales, the study found. Milan says many lessons have been learned since the ICT Cluster was set up in 2010. *'We've learned that it is better to give a general [skills] base for trainees, because later on they will specialise. We stopped offering entry level tests online as they are open to cheating.'*

Through the Serbian Association of Business Clusters, the organization is also engaged in lobbying the government for better policies. The Torino Process, the ETF's flagship tool for providing evidence-based analysis of VET systems to support policy reform can help support this lobbying effort, Milan adds. A priority in that area, he concludes, is to encourage a more efficient approach to EU structural funds available so support digital training and reform in Serbia: currently only around 15% of which is being drawn down as too few people actually apply for the support.

Contact details

Daria Santucci

Press Office - Communication Department

European Training Foundation

Villa Gualino, Viale Settimio Severo 65, 10133 Torino, Italy

+39 0116302260 - mediarelations@etf.europa.eu - www.etf.europa.eu

 [@etfeuropa](https://twitter.com/etfeuropa)