

TORINO PROCESS 2014

FORMER YUGOSLAV REPUBLIC OF MACEDONIA



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EXECUTIVE SUMMARY

The new government took office in mid 2014 following elections that confirmed the previous coalition and reaffirmed its five priorities, one of which is 'investment in education as the most reliable way to create strong individuals and a strong state'.

The country was granted candidate status by the European Council in December 2005. The Commission has recommended the opening of negotiations on five occasions since 2009, but the Council has taken no decision. The High Level Accession Dialogue (HLAD), which was launched in March 2012 between the government and the Commission, injected new dynamism into the EU-related reform process, but cannot replace the accession negotiations.

On 16 December 2014 the General Affairs Council (Council of the European Union, 2014d) discussed and adopted conclusions on enlargement and the stabilisation and association process. With regard to the former Yugoslav Republic of Macedonia specifically, the Council welcomed the fact that the EU agenda remains the country's strategic priority and emphasised that the country has achieved a high level of alignment with the body of EU law. However, the conclusions mentioned prevailing issues regarding the independence of the judiciary and media freedoms, encouraged more constructive and inclusive political dialogue, and highlighted the need for greater trust between the communities. Finally, the conclusions stated that the Council broadly shares the Commission's assessment that the political criteria continue to be sufficiently met on the basis of cumulative progress achieved, and took note of the Commission's recommendation that accession negotiations be opened with the former Yugoslav Republic of Macedonia.

The Instrument for Pre-Accession Assistance (IPA) Indicative Strategy Paper 2014–2020 was approved on 19 August 2014. The country is a full member of Erasmus+. Performance on the Education and Training 2020 (ET2020) benchmarks has been mixed: the country progressed visibly in terms of the two education-related Europe 2020 headlines (early school leaving and higher education attainment), while a great deal of effort will be required to reach the EU28 average figures in the remaining benchmarks.

A small improvement was registered in the Human Development Index between 2010 (0.728) and 2013 (0.732), and the country ranks 84 (out of 187 countries). There has been continuous improvement in relation to the World Bank's Doing Business Index; in 2014 the country ranked 25 (up from 36 in 2013). With regard to the Global Competitiveness Index, the country had improved in 2013, with a leap from 80th to 73rd place (of 148 countries).

The country, the government and the social partners have gained experience and improved the policy dialogue processes, and in the period 2012–2014 adopted new medium-term strategies to address some of the important policy areas. Significant progress has been registered in the development (and adoption) of key strategies and programmes to address the issues faced by the country in terms of its socioeconomic future:

- youth unemployment: National Action Plan on Youth Employment 2012–2015;
- overall employment policy: Employment Strategy 2015;
- activation of the population towards effective and quality employment and self-employment: Operational Plan for Active Labour Market Measures;
- skills for employment and lifelong learning: Vocational Education and Training (VET) Strategy 2013–2020 – Better Skills for a Better Tomorrow;

- entrepreneurial attitude and skills: Entrepreneurial Learning Strategy 2014–2020;
- social inclusion from an ethnic perspective: Steps Towards Integrated Education;
- Innovation Strategy 2012–2020.

The vision for VET has been outlined, and enjoys wide consensus. This vision is largely in line with objectives set out in other strategies and with the Skills Vision adopted by the stakeholders within the FRAME Skills for the Future Initiative, with its focus on the social, economic and individual dimensions.

The economy, the labour market indicators and the educational attainment of the population have improved in global terms during the period 2010–2014. Despite economic reforms and improved labour market indicators, in 2013 total unemployment stood at 29% of the labour force, well above the EU average of 9.7% (figures from Eurostat). The NEET rate (young people aged 15–24 years who are not in employment, education or training) has been declining over time, but remains very high, at 25.5% in 2013 (against 13.2% in the EU28). Wide disparities in the labour market participation rates of young people and women, the persistently high rate of long-term unemployment, and high rates of informal employment represent severe structural challenges to be addressed through coordinated policies. According to Eurostat data, gross domestic product (GDP) per capita in 2012, EUR 3 650, was well below the EU average of EUR 25 500.

Investment in training and education should be a priority. Empirical analysis shows that nearly two-thirds of long-term unemployment is explained by skill mismatches between the supply of and demand for labour. Active labour market policies (ALMPs) and education reforms have been successful in reducing the mismatch, but the effects are likely to be felt only slowly, as job seekers need to acquire the relevant skills before they are able to benefit from newly created jobs.

Other analysis, based on the new HERMAC model long-term forecast, at the Ministry of Labour and Social Policy (MoLSP)) shows a substantial proportion of under-qualified employed individuals in certain sectors, including construction, healthcare and manufacturing. Over-qualification also occurs, and is most prevalent in agriculture, financial intermediation and public administration.

Despite the inherently high levels of unemployment, modern enterprises often experience difficulties in recruiting personnel with the right skills, identifying inadequate levels of transversal and ‘soft’ skills among the key problems. Such persisting problems will hamper the modernisation process and limit economic productivity if they are not addressed more systematically through the wider supply of relevant continuing training and reformed qualifications in initial VET and higher education.

In the reporting period, reforms in VET have been more active in three-year (‘VET-3’) programmes. In-depth reform of VET-3 programmes started with the adoption of occupational standards for 13 professional fields, 25 qualification standards and 13 new curricula. The newly designed curricula are oriented to learning outcomes, propose that approximately 30% of the workload for practical learning takes place in the work context, and allow room for adjustment (20% of content) to school and local context and needs.

The promotion of VET to the wider public and in order to increase enrolment has received new impetus through the MoES’s Action Plan (2014) encouraging the enrolment in secondary VET of students who have completed primary education.

Renewed focus on enhancing practical learning in companies is well grounded in the dedicated Action Plan initiated in 2013 by the Chamber of Crafts.

Non-formal education has seen rapid growth in terms of the number of verified training programmes leading to vocational professional qualifications that are entitled to be registered in the National

Qualifications Framework (NQF). Between 2012 and 2014, 58 programmes were verified. These programmes are in the following NQF sectors: civil engineering; economy, law and trade; electrical engineering; healthcare; agriculture; personal services; mechanical engineering; transport and storage; textiles and leather; restaurants and tourism; chemical technology; and wood processing. In the first few months of 2015 the number of verified programmes almost doubled to more than 100. Providers of such programmes are private companies and training centres, public schools, chambers and the Workers' Universities. The Employment Service Agency (ESA) is a major initiator of non-formal training for the target population of unemployed people who are actively seeking jobs.

However, these two sub-sectors in which reforms are being undertaken – VET-3 and non-formal education – cater for only a small minority of participants in education and training. The large majority of VET learners receive qualifications from four-year ('VET-4') programmes, which are in need of redesign and reform in order to align them with the requirements of the NQF. This reform will be supported by a World Bank project, launched in 2014.

The adoption of the NQF for Lifelong Learning (Law and Baselines) in 2013 and the process of referencing to the European Qualifications Framework (EQF) have stimulated new reflection among stakeholders on issues and areas that require further work in terms of coherence, notably: the governance of the NQF and the necessary reinforcement of the role of employers; the rationale for sub-levels; the level descriptors and their meaning and implications for overall objectives of education and training for the future; the quality and transparency of qualifications in the light of the NQF requirements on qualifications; and the methodology for transparent allocation of qualifications in the NQF.

The comprehensive Inventory and Analysis of Qualifications (2014) can be seen as a first step towards a national register of qualifications. A national register of higher education qualifications had already been prepared with Tempus assistance, but was never published for the wider information and guidance of various users. Such a qualifications database needs to be aligned with other databases of EQF countries, for compatibility with the Learning Opportunities and Qualifications in Europe portal.

There is sufficient momentum to undertake a new reform of qualifications that is aligned with the NQF and that meets current and future labour market needs. Predictable resources, steering, expertise and collaboration are indispensable factors, and experience shows that they are currently in short supply. Large technical assistance assistance from donors, in particular from the World Bank and the EU, is planned and agreed.

The final Torino process debate in Skopje concluded that the reporting period had registered a relatively low degree of progress in formal VET, whereas non-formal VET had developed capacity and procedures, making this sub-sector more likely to be responsive to the changing skills requirements of the labour market and regions. The Torino process debate considered as highly positive the implementation of new curriculum for entrepreneurial learning, and the reinforcement of employers' awareness and participation in new initiatives on practical training.

Priorities that have great potential to nurture sustained change are located in the following areas.

- The leading institutions need to give more attention to the consistent steering of the action plans for the three most important strategies (VET, Youth Employment and Entrepreneurial Learning) and monitoring of their synergetic implementation. A common steering and monitoring framework could be put in place under the joint leadership of the leading ministries and with oversight from the social partners in order to stimulate accountability, inter-stakeholder collaboration and effectiveness.
- The upcoming VET curriculum and qualifications reforms should be driven by and clustered around the NQF implementation and the EQF Referencing process. Urgent and consistent attention and

resources are needed to move forward the development of NQF governance and of quality assurance mechanisms for qualifications in relation to their allocation into the NQF. Donors' projects should be aligned with this policy orientation.

- The proposed governance of the NQF has significant merits for the coherence and collaboration of the various stakeholders. Ministries and their agencies. An efficient approach to start NQF implementation would be the establishment of a small NQF unit, with dedicated human resources, under the MoES.
- Quality in education and training must be driven by pressure from the market players and social interests, and by the need for international comparability and mobility of learners. External factors, such as alignment with EU policies and practices (notably European Quality Assurance in VET (EQAVET)), need to be stimulated, and the record of cooperation with and learning from EQAVET improved.

INTRODUCTION

Skills, employment and innovation are recognised as drivers for growth and cohesion in the former Yugoslav Republic of Macedonia. Most national strategies, beyond the VET Strategy proper (2013), devote attention to and include actions relating to VET.

This report is based on information and data gathered through desk research, dialogue and exchanges with stakeholders and independent experts, and relies on information and data collected through the national process led by the VET Centre. In drafting this report the ETF benefited from the input of the stakeholders, with political support from the Ministry of Education and Science (MoES) and the operational leadership of the VET Centre.

In spring 2014, at the start of the information meetings with the ETF (including an initial issues paper to support the national dialogue), the MoES took the initiative to inform the Cabinet of Prime Minister about the objectives of the Torino process and entrusted the VET Centre with the organisation of the necessary interactions with key institutions to gather information and discuss key aspects of the analytical framework. In the fourth quarter of 2014, the inter-stakeholder Torino process working group started a series of regular weekly meetings, and agreed on each institution's contributions and inputs to the process. The national Torino process interaction focused on data collection in line with the statistical annex of the Torino process framework, and this process added value to the ETF statistical annex by providing new or complementary data for a number of indicators¹.

Acknowledgements are due to the VET Centre for translating the Torino process indicators into Macedonian and for successfully coordinating the activities. Thanks are expressed to all members of the working group, representing the MoES, the MoLSP, the Bureau for Development of Education (BDE), the Centre for Adult Education (CAE), the ESA, several chambers, the State Education Inspectorate (SEI), the State Statistical Office (SSO), the Association of Units of Self-Governance (ZELS) and the VET Centre.

A final meeting between the Torino process working group and the ETF on 27 November 2014 at the VET Centre allowed discussion of some of the outstanding policy issues and main achievements of the reporting period. At this meeting the VET Centre transmitted to the ETF the statistical data collected by the working group.

¹ Data provided by all institutions have been added to the statistical annex and relate to the following TRP indicators: TRP14: 19, 45, 48, 49, 50, 51, 53, 57, 58, 59, 62, 63, 66, 71, 72, 77, 79, 86, 88, 87, 89, 94, 95, 80, 84, 85. The data provided complemented the existing data in the ETF standard statistical annex; certain indicators are new additions to the ETF annex.

1. VISION FOR THE NATIONAL VET SYSTEM

1.1 Introduction to the VET system

The formal VET system is fully integrated with the education system and is provided chiefly by public schools. Figure A1.1 (Annex 1) shows the place of the VET system within the formal education system and the labour market, and the links between the various elements. This diagram represents the ladder of formal education.

A different view of the education and training system is offered in Table 1, which adds a new element: the articulation of the various levels and types of education and training with the levels of the NQF for Lifelong Learning, adopted by law in 2013. The correspondence to NQF levels presented in the table reflects the possible levels as set out in the law, although effective insertion of qualifications into the NQF levels has yet to start.

Table 1 Levels and types of education and training and NQF levels

NQF levels	ISCED 97	Education level	Type, designation of award	Type
Higher education				
8	6	III study cycle	Diploma – PhD	Formal
7A	5	II study cycle	Diploma – Master of Science academic studies (60–120 credits)	Formal
7B	5	II study cycle	Diploma – Specialist studies (60 credits)	Formal
6A	5	I study cycle	University studies (240 credits) Vocational studies (240 credits)	Formal
6B	5	I study cycle	University studies (180 credits) Vocational studies (180 credits)	Formal
5A	5	Short cycle	Vocational studies (60–120 credits) Short vocational study programmes within the first cycle	Formal
Post-secondary level				
5B	4	a) Formal VET Non-formal VET	a) Post-secondary school education (specialist education and craft exam)	Formal and non-formal
		b) Higher education	b) Post-secondary school education (60–120 credits)	
Secondary and primary level				
4	3	a) General secondary school (four years)	a) and b) State Diploma	Formal and non-formal
		b) Technical VET (four years)		
		c) Non-formal	c) Certificate (level in line with complexity of occupational standard)	
3	3	a) VET for occupation (three years)	a) Vocational diploma	Formal and non-formal
		b) Non-formal	b) Certificate (level in line with complexity of occupational standard)	
2	3	a) VET (two years)	a) Certificate	Formal and non-formal
		b) Non-formal	b) Certificate (level in line with complexity of occupational standard)	
1	1 and 2	a) Primary and lower secondary education (nine years in three cycles) b) Basic skills (non-formal)	Certificate	Formal and non-formal

ISCED: International Standard Classification of Education

Source: MoES (2013), NQF Law. Table: ETF.

Transition

Compulsory nine-year primary education was introduced in the 2007/08 academic year, on the basis of the Law on Primary Education and the Concept for Nine-Year Primary Education (2007). Upper secondary education became compulsory in the following year. The first cohort of pupils to complete the full nine years of primary education will leave school in 2015. This reform has had a visible impact on the transition to secondary education and the reduction of early school leaving (see Chapter 3 of this report).

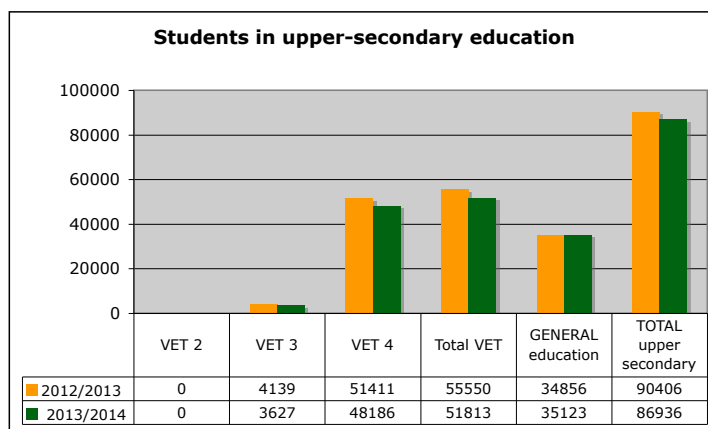
Following primary schooling, pupils can select general secondary education, art secondary education or vocational secondary education. Pupils with special educational needs can attend mainstream secondary schools or state schools that have been designated for pupils with such needs. If a pupil wishes to enter vocational secondary education, he or she can select between four-year profiles, three-year profiles and specialised profiles.

1.1.1 VET provision – some elements

Secondary education is provided by municipal secondary vocational schools, municipal high schools (gymnasia), state art secondary schools, state secondary schools for students with special educational needs and private secondary schools. According to the MoES ('Public call for enrolment of students in public secondary schools for the school year 2012/13'), secondary education is offered in 99 public schools (10 state schools, 21 schools of the City of Skopje, and 68 municipal schools) and 13 private schools.

With regard to the type of secondary education and curricula delivered in the public schools, 16 are general education schools and 40 vocational schools, while 34 offer both general and vocational education; 4 are vocational schools for students with special education needs and 5 are art schools (information from the MoES). The provision of the various VET (and arts) programmes by area is unevenly distributed in the public school network (Table A1.1, Annex 1).

Figure 1 Students in upper secondary education (number of students)



Source: SSO. Data refer to regular schools, special upper secondary schools and religious schools.

Students of secondary VET represent the largest proportion (approximately 58%) of all upper secondary students (ISCED 3) (Figure 1). This share has declined over the past decade in favour of students in general education. Within the VET group, VET-4 dominates, accounting for approximately 93% of all secondary VET students in 2013/14. VET-3 remains a marginal sector. Enrolment in upper secondary education decreased by more than 3 400 students in one year. The reduction in VET students (both VET-3 and VET-4) is responsible for this change, and is in contrast with the situation for gymnasia, in which enrolment has grown.

1.1.2 Overview of legislation

The main laws governing the VET system are the following:

- Law on Secondary Education (Official Gazette, No. 52/2002) with several subsequent amendments;
- Law on Vocational Education and Training (Official Gazette, No. 71/2006, and recent amendments 17/2011);
- Law on the Bureau for Development of Education (Official Gazette, No. 37/2006, with most recent amendments in Official Gazette No. 148/2009);
- Law on Adult Education (Official Gazette, No. 7/2008);
- Law on the State Examination Centre (Official Gazette, No. 142/2008);
- Law on the Education Inspectorate (Official Gazette, No. 52/2005).

These laws are accompanied by numerous bylaws (rulebooks, norms, regulations, guidelines, etc.), which regulate curricula, verification of programmes, methodology for the elaboration of occupational standards, student assessment, personnel, rules for practical learning in enterprises, and technological, organisational and financial areas.

The institutions devote a great deal of effort to improving and updating primary and secondary legislation, but the stakeholders highlight persisting issues relating to structural weaknesses, insufficient synchronisation between laws, and areas of unclear institutional responsibility. Combined with weaknesses in implementation mechanisms and in public information, these issues adversely affect the effectiveness of the education policy. For example, stakeholders often mention the ineffective application of incentives that are intended to encourage employers to participate in training.

1.1.3 ET2020 benchmarks and the country's performance

Performance against the ET2020 benchmarks and the headline indicators of Europe 2020 are monitored and the data updated on the websites of the SSO, and discussed on the various platforms that relate to enlargement and EU approximation.

Performance has been mixed: there have been visible leaps forward in terms of the two headline indicators (Table 2), but slow progress in respect of two indicators, namely the participation of adults in lifelong learning and participation in early childhood education and care. The distance between the country's performance and the EU28 average is very significant for both indicators, and indicates that sustained reforms need to continue. The headline indicator on employment shows a substantial difference of over 20 percentage points compared with the EU28 average (2012).

Table 2 ET2020 benchmarks: performance and comparison

Indicator	Target 2020	EU28		Former Yugoslav Republic of Macedonia			
		Current EU28	Trend (percentage points)	TRP 2012 report	Current	Trend	Distance from current EU28
Headline targets							
Employment rate, total (age 20–64)	75%	68.4% (2012)		48.2%	48.2% (2012)	Stable	Lower by 20.2 points
Early leavers from education and training	Less than 10%	12.0%	-1.9	12.9%	11.4%	Improving	Better than EU28 average
Tertiary education attainment	At least 40%	36.9%	3.3		23.1%	Improving	Lower by 13.8 points
Other targets							
Early childhood education and care	95%	93.9%	1.8	29.6%	31.3%	Improving	Lower by 62.6 points
Low achievement in reading, maths and science	15%	Reading: 19.6%; Maths: 22.2%; Science: 17.7%	Reading: -1.9; Maths: -0.2; Science: -1.2	n.a.	n.a.		
Employment rate of recent graduates	82%	75.5%	-1.9	n.a.	43.3%	Declining	Lower by 32.2 points
Adult participation in lifelong learning	15%	10.5%	1.4	3.3%	3.5%	Improving	Lower by 7 points

Sources: European Commission (2014, p. 84). TRP 2012 MK.

1.2 Vision for the VET system

During the reporting period the country has developed and adopted a significant body of strategies relating to human resource development (HRD). The vision for VET that was adopted, with wide stakeholder consensus, for the VET Strategy 2013–2020:

VET will become a key factor in the development of the workforce, in the establishment of an economy that makes better use of its human capital and evolves towards an information and knowledge base, in strengthening individual and social productivity, in the economic development and growth of the country, in the improvement of the quality of life, in achieving full social participation, in employment, in strengthening the employability and professional development of young people and adults, and realisation of mobility on a national and international level.

Developed with support from various international organisations, based on credible baseline analyses and with the participation of stakeholders through various consultation mechanisms, the various HRD-related strategies provide a comprehensive basis for policy planning, implementation and monitoring.

As a rule, the various leading ministries officially form inter-ministerial and multi-stakeholder working groups to advise the experts and officials developing the various versions of the strategic documents and action plans. Public consultation workshops for discussion of the final drafts and collection of public comments via online consultation are also well-established practices that are applied for most of the strategies mentioned in this section. Moreover, certain strategies benefit from special high-level consultation mechanisms, under the direct leadership of the Minister; this was the case for the VET Strategy. An additional occasion for consultation before such strategies enter the official government procedure is the discussion at the Innovation Committee at the Cabinet of the Vice Prime Minister in

charge of Economic Affairs. Leading ministries are responsible for securing the necessary coordination and synchronisation of the new sector strategies with other strategies and policies.

The most relevant strategies for VET are summarised in Table 3. Other relevant strategies have been analysed by the ETF project FRAME Skills for the Future, notably:

- the overarching education strategy: National Strategy for the Development of Education in the Republic of Macedonia (2005–2015);
- Steps Towards Integrated Education, the strategy mentioned in Chapter 3 of this report;
- Adult Education Strategy 2010–2015;
- Innovation Strategy 2012–2020;
- Industrial Policy of the Republic of Macedonia 2009–2020.

Table 3 Strategies with a direct impact on HRD

Strategy	Main objectives	Action Plan	Coordination
VET Strategy (2013–2020) Adopted 05/2013	<ol style="list-style-type: none"> 1. Strengthen the social inclusion function of VET 2. Improve the attractiveness of VET 3. Boost VET quality and relevance – guarantee of competitiveness 4. Good governance, resources, capacity and accountability of the future VET system 	Each pillar broken down by measures (and activities). Responsible entities indicated. Budget estimate by main activity for three years. Issue: funding is heavily dependent on donors.	Steering Council VET Strategy led by MoES
Entrepreneurial Learning Strategy (2014–2020) – ISCED 3–4, ISCED 5–6, non-formal, entrepreneurs Adopted 12/2014	<ol style="list-style-type: none"> 1. Long-term goals (2018–2020): public awareness; teachers’ competences for entrepreneurial learning; collaboration between stakeholders at national and local levels; material and technical conditions for entrepreneurial learning 2. Medium-term goals (2016–2018): develop and implement curriculum for competitive entrepreneurs; school conditions for entrepreneurial learning (virtual and real companies) 3. Short-term goals (2014–2016): integrate entrepreneurial learning outcomes as key competences into national curriculum at all levels 	Roadmap and detailed system of indicators (and sources of verification). General information on sources of financing.	MoES and Ministry of the Economy Strategy foresees a steering group for implementation
National Action Plan on Youth Employment 2012–2015	To promote more and better jobs for young men and women. Main priority areas: <ol style="list-style-type: none"> 1. Strengthen the labour market governance system (services) 2. Enhance youth employability (education and training in line with labour market needs; flexible provision; access to career guidance) 3. Foster youth employment through private sector development 4. Ensure the labour market inclusion of disadvantaged young people 	Each priority is structured by objectives with targets (indicators). Responsibilities are shared. Budget and sources of funding for each objective. Includes public and donor funding.	MoLSP

Implementation and monitoring of these action plans are complex owing to issues of coordination, institutional capacity, financial constraints and accountability.

The 2014 evaluation of international assistance provided for VET reforms considers that the VET Strategy:

1. is relevant to the needs and objectives of the country;
2. is aligned with EU policies (Bruges Communiqué);
3. provides a good basis for effectiveness, given its comprehensive scope and its relevance to the country's needs, identified from a broad and robust baseline analysis.

However, the report notes that the impact of the strategy will depend on continued political support, and warns of the risk that implementation will be sluggish owing to delays in the allocation of funds, and the technical and human resource capacities of the key institutions involved (Operational Programme HRD, 2013). The analysis carried out as part of the FRAME Review of Institutional Arrangements reports on concrete issues relating to the management of the public budget, notably the fact that the three-year planning of the MoES does not mention the needs of the VET Strategy, despite the thorough collaborative analysis between the financial expert of the VET Strategy team and the relevant department of the MoES (and the Ministry of Finance) on the detailed needs and cost estimates.

In 2015 the new concept and roadmap for non-formal adult education has been finalised for official approval. This concept defines the objective:

To support the development of non-formal adult education as a key part of the education system and reinforce its value and importance as a means of ensuring an open, creative and inclusive society, meeting labour market needs and providing a basis for individuals to develop the knowledge, skills and competences necessary to help them to achieve their aspirations and ambitions in life.

It identifies the following priority axes:

1. improve learners' motivation to participate in adult education;
2. incentivise employers to invest in education and training for their employees;
3. ensure that there is open and equal access to non-formal adult education for all;
4. deliver learning that is relevant to employers and learners;
5. deliver high-quality and effective non-formal adult education;
6. improve evidence-based education policy development and coordinate with other government policies.

1.3 Capacity for innovation and change

Government policy has made innovation a key priority. The Innovation Strategy 2020 has a strong focus on a modernised education and training system.

The research capacity relating to VET within a lifelong learning perspective is weak within the key state institutions owing to resource constraints and leadership issues. The absence of any system of graduate tracer studies in the VET system – centralised or decentralised – is a serious barrier for analysis. In acknowledgement of this constraint, the new Skills and Innovation Support Project, funded by the World Bank, will dedicate resources to establishing an Observatory of Skills and will launch activities to build capacity and carry out graduate tracer studies in VET and higher education (2015-2016).

A number of non-governmental organisations (NGOs), expert groups and research centres linked to universities carry out empirical analysis, surveys and studies in the areas of education and training, social inclusion and employment. The ETF cooperates closely with such experts and centres in the implementation of analytical projects. The level of mutual trust and collaboration between policy-making bodies – who decide on and support innovation mainstreaming – and such research capacities needs to be improved, for the benefit of soundly based policies and their monitoring.

Certain public VET schools at local level, within their remit and capacity, show motivation to generate and implement innovative solutions, in particular when supported by external experts and through networking with peer schools. Known examples relate to the introduction of entrepreneurial learning, extra-curricular activities with the local community, skills competitions with other schools, and provision of new flexible forms of training for new target groups.

1.4 Drivers of innovation and change

External factors – notably EU policies and the enlargement agenda – have inspired a number of key innovative developments in education and training. Combined with the impact of recent Twinning projects in VET, adult education and employment, the value of these external drivers should not be under-estimated.

The VET review conducted under the collaborative Bruges self-assessment process produced evidence of sluggish developments in key policy areas, and this contributed to a revitalisation of processes that had lost their internal energy. The NQF is a clear example: the findings from the 2012 round of the Bruges process stimulated the MoES to rapidly relaunch the old NQF working group to restart the process of reflection. In a period of less than six months in 2013, this renewed group was able to complete drafts that had been abandoned for years, and to adopt the Baselines of the NQF as well as the NQF Law.

There are a number of other examples of the impact of exposure to EU policies and experiences from international projects. The decision of the MoES to launch work on the Entrepreneurial Learning Strategy is closely linked with the conclusions of the Small Business Act (SBA) Assessment 2012. In addition, further reflection on the NQF and its implementation, as well as the Inventory and Analysis of Qualifications in 2014, is directly connected with the process of referencing the NQF to the EQF.

Several internal factors are driving sustainable change and innovation, including the following.

- The relatively high dynamism of the entrepreneurial learning agenda is related to the strategic need to overcome high unemployment and inactivity, and to address the problem of the high NEET rate. It is seen as an instrument that can play a part in boosting competitiveness. It should be noted that the entrepreneurial learning agenda enjoys particularly strong support from the President of the Republic, who chairs many award ceremonies for business plan competitions among students.
- The renewed focus on boosting practical learning in enterprises is a concrete initiative of the Chamber of Crafts in response to a need within its constituency.

1.5 Action and assessment of progress since 2010

The adoption of a body of HRD-related strategies, with action plans and inter-ministerial allocation of responsibilities, has established a sound basis for the coordinated and coherent implementation of a comprehensive programme of reforms addressing the key objectives and aspects of HRD policy: competitiveness and growth, social inclusion and cohesion, personal development, and citizenship.

Implementation of the VET Strategy faces constraints and barriers. The Steering Council needs to be empowered to fulfil its role and secure a higher level of delivery on the commitments by all the players involved.

The country's performance against the EU2020 headline targets is mixed. Progress has been swift in respect of early school leaving, while the distance from the EU28 average is substantial in respect of the employment target (over 20 percentage points) and the higher education attainment of the population (aged 30–34). The country's performance in respect of other indicators (of the ET2020 framework) highlights the need for continued efforts towards improvement, in particular in terms of adult participation in lifelong learning, early childhood education and care, and the employment rate of graduates.

2. EFFECTIVENESS AND EFFICIENCY IN ADDRESSING ECONOMIC AND LABOUR MARKET DEMAND

2.1 Economic and labour market factors that shape demand for skills

Improving economic outlook

Growth accelerated to 3.1% in 2013 and has been more favourable for job creation than in the past. After a good performance of 3.9% year-on-year in the first quarter of 2014, baseline growth is expected to strengthen further. Overall, the economy is projected to grow by about 3.5% in 2014 and to strengthen slightly in 2015. The International Monetary Fund (2014b) suggests that securing lasting growth and durable reductions in unemployment will require continued efforts to preserve macro-economic stability and promote a dynamic financial sector.

The strategy to strengthen and diversify the export base through foreign direct investment (FDI) mitigates a weak external environment. According to World Bank data on FDI as a share of GDP for the former Yugoslav Republic of Macedonia, the average value during the period 1994–2013 was 4%, with large oscillations between a minimum of 0.21% in 1995 and a maximum of 13.01% in 2001². In the reporting period of 2010–2013, FDI as share of GDP recovered from the decline registered during 2008–2009 and recorded an average of 3.65%, which falls within the normal range³ (Figure A2.1, Annex 2).

Economic growth strengthened more than the regional averages, supported by strong exports – notably from the special (free) economic zones – as well as rising domestic demand. The greater resilience of the domestic economy and the labour market to the still unfavourable global environment was partly associated with the operation of the new production facilities in the free economic zones, as well as with foreign investment in the construction sector. Other mitigating factors were the fiscal stimulus in the form of publicly funded construction work, agricultural subsidies, and the active labour market programmes that have been implemented for several consecutive years, and that are making a positive contribution to the local economy.

Analysed by sector, positive signals were mostly associated with agriculture, transport and storage, communications, and construction, as these sectors account for a significant number of employees who, either directly or indirectly, were the focus of fiscal incentives and economic policies that simultaneously encouraged economic and employment growth.

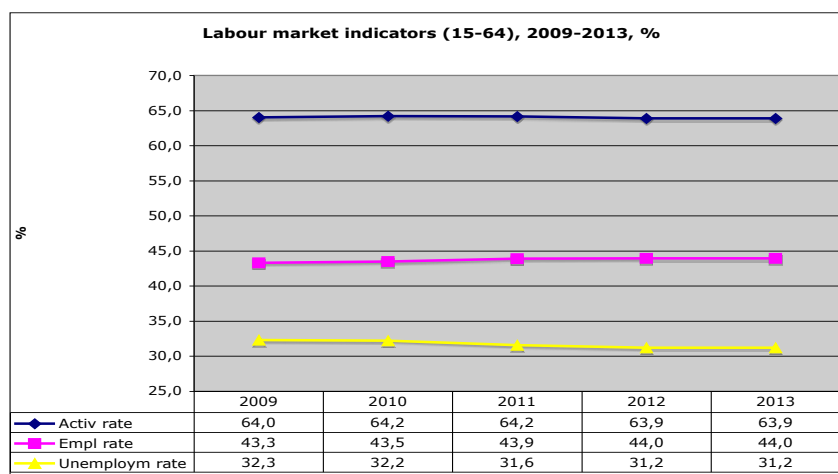
Labour market indicators

In 2013, most of the labour market indicators pointed to further positive trends (see Figure 2).

² http://www.theglobaleconomy.com/Macedonia/Foreign_Direct_Investment/

³ FDI is reported on an annual basis, i.e. how much new investment was received in the country during the current year. It typically runs at about 2–3% of the size of the economy measured by its GDP. To be classified as FDI, the share of the foreign ownership has to be equal to at least 10% of the value of the company.

Figure 2 Labour market indicators for the 15–64 age group, 2009–13 (%)



Source: Labour Force Survey (LFS) 2013 (SSO, 2014c). Graph: ETF.

The positive trend continued in the second quarter of 2014 (Table 4), with increases of 2 percentage points in both activity and employment rates for the 15–64 age group.

Table 4 Labour market indicators for the 15–64 age group, second quarter of 2014 (%)

	Total	Women
Activity rate	65.2	52.9
Employment rate	46.8	37.5
Unemployment rate	28.3	29.1

Source: SSO (2014g).

Data from the Labour Force Survey (LFS) for 2013 indicated that the number of employees increased by approximately 28 000 (4.3% increase) between 2012 and 2013. The increase was 6.4% between 2010 and 2013. In the second quarter of 2014, the number of employed people reached 687 465 (an increase of 1.33% compared with the second quarter of 2013), while the number of unemployed people decreased by 1.29% (to 270 325 persons) in the same period. The number of unemployed people decreased by roughly 15 000 (5.2%) between 2012 and 2013.

The growth in labour demand and in labour supply were positively associated. Thus, in 2013 the total active population grew by 1.4%. The increase in the labour force, with a simultaneous decline in the size of the inactive population, caused an upward shift in the activity rate, such that it reached an average of 64.9% for the 15–64 age group for the whole of 2013. However, women were much less active than men, with an activity rate 24 percentage points lower.

The faster growth of labour demand relative to the growth of labour supply caused a downward trend in the unemployment rate. Consequently, in 2013 the unemployment rate averaged 29%, and reached its lowest ever level. Although the unemployment rate is high in the population as a whole, workers with low levels of education and young people are particularly prone to unemployment. There is no gender gap in unemployment.

An increase is also registered in the employment rate, which in 2013 averaged 46% in the 15–64 age group. The gender difference is substantial, the rate for men being more than 17 percentage points higher than that for women.

Favourable developments were observed in terms of specific age groups (Table A2.1, Annex 2).

Unemployment decreased over the period 2009–2013, including for the most vulnerable age groups,

i.e. those aged between 15 and 24 and between 50 and 64 years of age. This is to a significant extent associated with the profile of the active labour market measures (ALMMs), which focus on job creation while increasing social inclusion.

Persisting significant challenges in the labour market

Despite these positive trends, the country's labour market faces persisting challenges, including low activity and high informal employment rates, significant gender differences, high youth inactivity and unemployment rates, and a substantial proportion of long-term unemployment (Table 5, Figure 3 and Figure 4).

Table 5 Long-term unemployment (%)

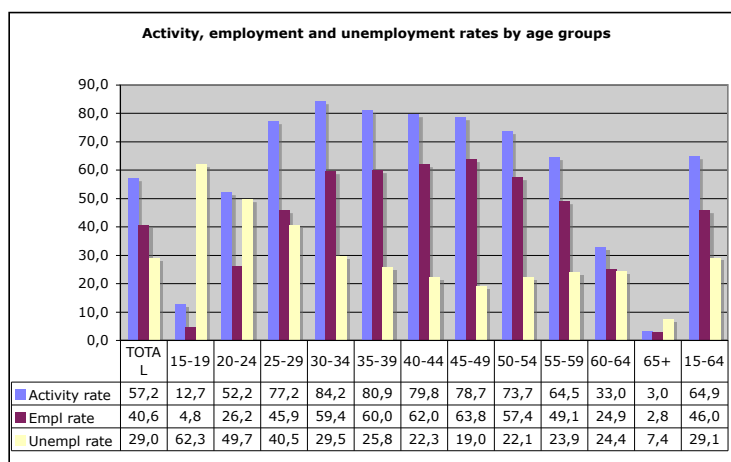
	Long-term unemployed as a proportion of the total unemployed population					Long-term unemployed as a proportion of the total population				
	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013
Total	81.9	83.3	82.6	82.1	82.5	26.3	26.7	25.9	25.5	23.9
Men	82.5	83.7	83.6	83.0	82.7	26.2	26.7	26.6	26.1	24.0
Women	80.8	82.7	81.0	80.7	82.2	26.5	26.7	24.9	24.5	23.8

Note: 'Long-term' refers to being unemployed for a year or more.

Source: LFS 2013 (SSO, 2014c). Graph: ETF.

The proportion of unemployed people who are in long-term unemployment shows no signs of falling. Bearing in mind that unemployment and inactivity are strong predictors of poverty (see Chapter 3), this high rate of long-term unemployment raises concerns. In contrast, employed individuals face a relatively low risk of poverty.

Figure 3 Activity, employment and unemployment rates by age group, 2013 (%)



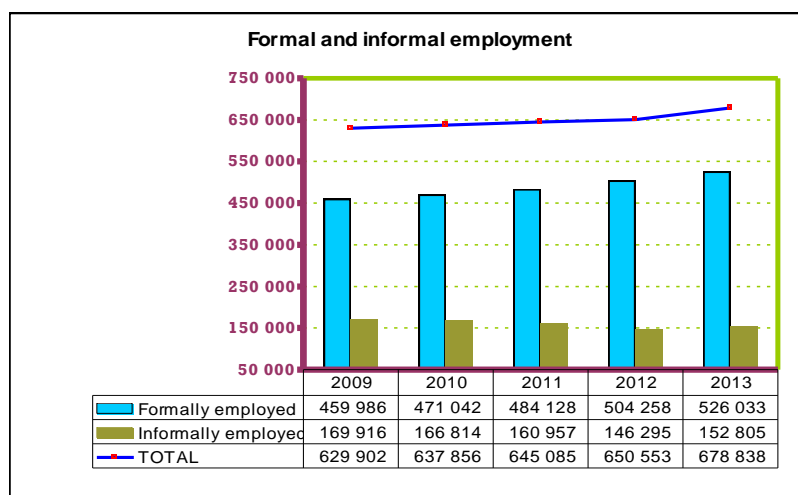
Source: LFS 2013 (T-5) (SSO, 2014c). Graph: ETF.

Formal and informal employment

Data from the LFS show that informal employment accounts for about a quarter of the labour force and is more widespread among males, with 26% of them working without a written contract.

Mojsoska-Blazevski et al. (2013) highlighted the effect of the country's labour taxation system on labour supply in the informal economy. The income tax system is likely to reduce the work incentives of low-productivity workers. The regressive structure at low wage levels (at or below the average wage) of the labour taxation system makes low-paid jobs unattractive to workers, and hence discourages labour supply, while it is expensive for employers. Moreover, high labour taxation makes working in the informal economy more attractive, and might be related to the large size of the informal economy.

Figure 4: Formal and informal employment, 2009-13 (number of persons)



Source LFS 2013 (SSO, 2014c). Graph: ETF

Wages

The distribution of the employed population according to their educational attainment and net pay confirms the advantage of reaching higher levels of education. The proportion of those with higher education who earn the lowest wages (MKD 8 001–10 000) is less than 5%, while this proportion triples to 15.2% for employed people with secondary education. The gap between the two educational attainment groups is even more accentuated (more than fourfold) when considering one of the higher wage brackets (such as MKD 20 001–25 000).

Table 6 Employed people by educational attainment and net pay, 2013 (%)

	8 001–10 000	10 001–12 000	12 001–16 000	16 001–20 000	20 001–25 000	25 001–30 000	30 001–40 000
Higher education	4.7	5.8	11.5	21.4	26.5	11.5	6.4
Secondary education (3–4 years)	15.2	20.2	21.8	14.1	5.8	2.4	1.2
Primary education	17.1	16.0	14.6	7.5	2.8	1.1	

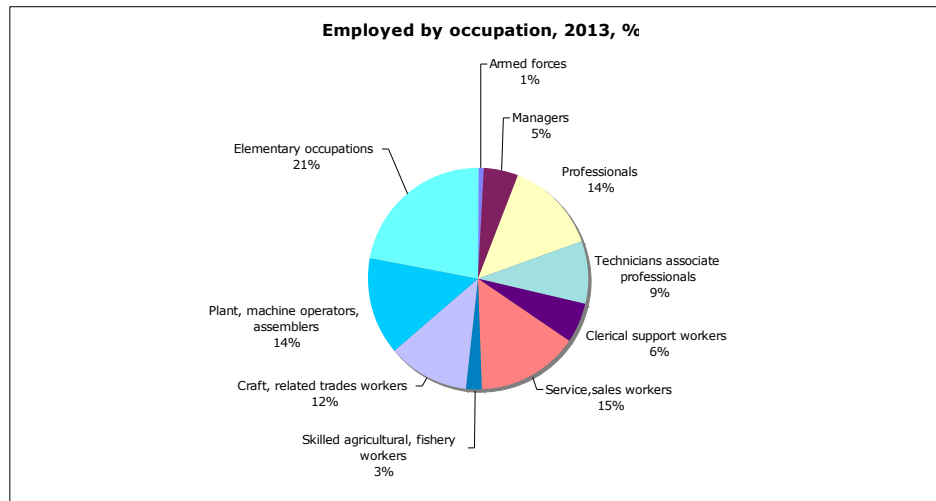
Source: LFS 2013 (SSO, 2014c). Calculation: ETF. This table is based on a selected part of the wage groups presented in the published SSO data. Lower and higher wage groups are omitted from this table by the author. Shaded cells indicated the highest shared by level of education.

Low pay⁴, which affected 10.8% of wage earners as a whole in 2012, is more prevalent among those working in International Standard Classification of Occupations (ISCO) groups 4–8 (13.9%) and ISCO 9 (23.6%), as well as younger workers (19.5%) and women (14.1%).

In 2013 approximately 80% of the employed population were in occupations requiring low or medium skills levels (Figure 5). The structure of employment by sector (Figure 6) indicates that manufacturing and agriculture account for the largest shares, followed by trade (wholesale and retail) and repair services. Public administration and education services together comprise a substantial proportion of employment.

⁴ It is usual to use two-thirds of the median wage as a benchmark to distinguish low-pay wages. In this case, all wages below MKD 8 000 are considered low wages (actually, wages below the range MKD 8 001–10 000). Specifically, two-thirds of the median wage is around MKD 9 000, which is the midpoint of this range.

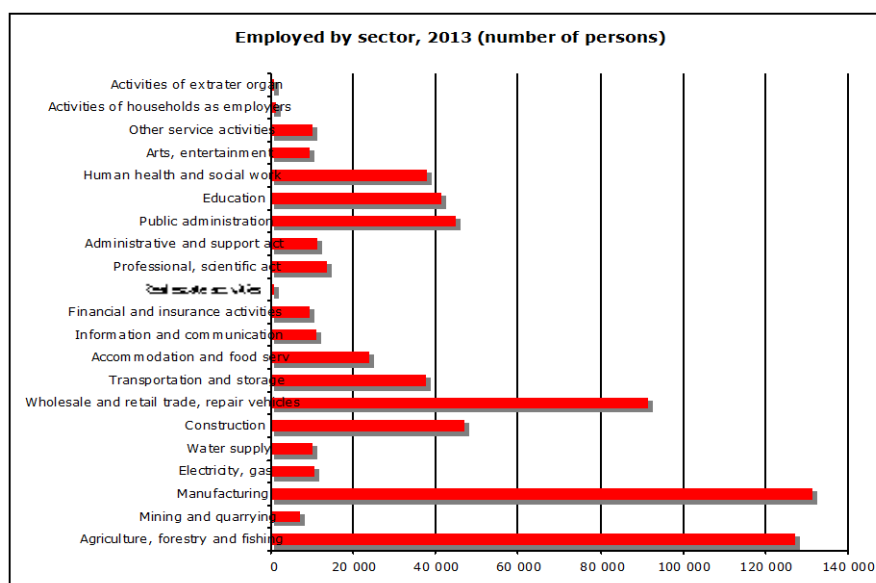
Figure 5: Employment by occupation, 2013, %



Source: LFS 2013 (SSO, 2014c). Graph: ETF

Data from the employers' survey (2013–2014) carried out annually by the ESA (2014) anticipate that the manufacturing sector will account for a large proportion (40%) of the approximately 10 100 new jobs forecasted for the 12-month period. The survey anticipates that medium-sized enterprises will predominate (over 46% of new jobs created), followed by small firms (approximately 30%) and large companies (23%) (Table A2.2, Annex 2).

Figure 6: Structure of employment by sector, 2013 (number of persons)



Source: LFS 2013 (SSO, 2014c). Graph: ETF.

2.2 Mechanisms for identifying skills demand and matching skills supply

Various mechanisms and methods are used by different institutions to capture and analyse aspects of the demand for labour and skills. The three main mechanisms summarised in Table 7 can be considered sustainable and systematic, since they are established and run by pertinent and well-resourced state institutions. Some of the mechanisms are more advanced in terms of evolution, and have developed methodological experience and their own capacities (e.g. Skills Needs Analysis). Others have been introduced recently, and realising their full potential will require greater and more

consistent attention in order to strengthen capacity (e.g. HERMAC model). The mechanisms indicated capture different time horizons, namely the long term (HERMAC model) and the short and medium term (Skills Needs Analysis, Job Vacancy Survey). This is very useful for human resource and skills development policy.

Table 7 Mechanisms and methods for identifying skills demand

Type and designation of method / model	Institution responsible	Started / periodicity	Main outputs	Methodology
HERMAC model	MoLSP	2013	Long-term forecasting of labour market development and policy analysis. Data is structured in 14 sectors (NACE rev.1.1). Analyses mismatch according to ISCO and ISCED.	HERMAC was established with EU support. It is based on the original model, HERMIN. Training provided to MoLSP staff in 2012–2013.
Skills Needs Analysis	ESA	2009 Annual	Reports, data tables, public presentations: forecast of jobs created following NACE rev. 1.1 classification horizon 6–12 months. Also sets of skills in demand, skills deficiencies.	Methodology and tools established since 2009, within CARDS project. Adjustments introduced in recent years on sample and questionnaire.
Job Vacancy Survey	SSO	2012 Quarterly	Press releases, data tables. Job vacancy rate by 18 sectors (B to S) (NACE rev. 1.1 classification).	Eurostat methodology

The data and results of analyses from the various sources are not currently explored in a collaborative or integrated way. Future reinforcement of the anticipatory potential of these instruments should require more collaboration, as well as the harmonisation of parts of the instruments, the possible integration of data and the articulation of results of analyses, in an effort to combine the aspects of analyses provided by the various mechanisms. Other aspects for further development could include the tailoring of results for key users (e.g. education and training providers, investors and enterprises, learners, job seekers), more user-friendly publication of results, and use of the processed analyses in career guidance and support to job seekers.

HERMAC (Twinning project, 2013) was introduced as a model for long-term labour market forecasting and allows an analysis of skills mismatch in the labour market. The model was designed and tested through a Twinning project ('Support to the National Employment Policy' – 2012–2013). In 2014, through the European Commission's Technical Assistance and Information Exchange (Taix), additional capacity building was provided in order to consolidate the skills of the national staff running the model. The experts from the Twinning project carried out the first analysis and delivered a report in 2013. This explored demographic development and labour supply, the long-term forecast for the demand for labour, the skills mismatch, and the replacement and expansion demand for labour.

HERMAC provides analysis of current and forecasted education–occupation mismatches. This feature is one of the extensions of HERMAC (in comparison with its original source, HERMIN), and allows detailed labour market analysis generated on top-down principles and based on bridging (crossing) data from the LFS on ISCO and ISCED classifications. This mismatch analysis is carried out in aggregate, as well as by 14 sectors (NACE rev. 1.1).

The annual employers' survey carried out by ESA (Skills Needs Analysis) is based on a representative sample (3 069 business entities) of private sector companies with more than 7 employees, stratified by activities in all regions. In 2013 the survey covered 38.1% of the total number of firms in the private

sector, accounting for over 62% of the employed population. The survey is conducted through direct interviews and completion of a questionnaire, and in the city of Skopje combines phone and direct interviews. The response rate is very high.

The Skills Needs Analysis seeks to identify anticipated changes in the labour market, focusing on anticipated new jobs and planned recruitment (within a 6–12-month horizon), skills and education level requirements of future recruitment, and skills needs of the employed population. The results are used directly in planning ALMPs and ALMMs, notably for orienting training budgets to qualifications that are in higher demand, and as a basis for preparing local action plans for employment. The continuity of the Skills Needs Analysis has helped to reinforce mutual trust between the ESA and employers.

In adjusting and revising the employment training offered to beneficiaries of ALMPs, the ESA also uses the results of other labour market studies, notably those conducted by certain chambers among their members and sectors. The ESA has found that there is substantial convergence between the results of the Skills Needs Analysis survey and those from other jobs and skills anticipatory studies.

In late 2014 the MoLSP initiated a series of focus group discussions with employers with the aim of exploring information and perceptions on the jobs and skills in demand. This type of research is, in principle, linked with another initiative of the MoLSP to stimulate the establishment and development of training capacities within interested enterprises. The results of this undertaking were not available at the time of writing this report.

The ESA's dataset on vacancies is cumulative (and not frequently updated), and has its origin in the employers' obligation to declare their vacancies to the ESA. Thus, it is not suitable as a source of data on actual vacancies. The alternative source is the Job Vacancy Survey, which has been carried out since 2012 by the SSO. This survey uploads the summarised results by sector (NACE rev. 1.1) and occupational group (ISCO) on a quarterly basis.

The SSO has carried out the LFS since 1996. The LFS is national in scope and representative of the whole population, and is carried out quarterly.

Other forms of data collection on skills demand have emerged among chambers (surveys and studies of sectors and members). A private recruitment agency ('Vrabutovanie') can deliver specific reports (data, graphs, trends) in real time on the changes in its database of job seekers and vacancies.

2.2.1 Jobs and skills in demand – summary results from the various sources

Using the results from available reports and datasets from the key mechanisms mentioned in Table 7, we present a summary of the demand for occupations by education level.

Short and medium term: Skills Needs Analysis 2013–2014 (Table A2.2, Annex 2)

Basic findings:

- Size of the surveyed companies: small (7–49 employees): 74.6%; medium (50–249 employees): 22.0%; large (250 or more employees): 3.4%. Their respective shares of the total number of employees are 23.3%, 44.2% and 32.5%.
- In terms of economic activity in the next 6–12 months, 32.3% of the surveyed companies foresee business/output growth; 59.2% expect a constant demand for their products and services; and a relatively small proportion of firms (8.5%) expect a contraction of their economic activity.
- In the next 12 months half of the surveyed companies are expecting/planning new recruitment, totalling over 10 100 jobs. It is not clear whether replacement is included in the figures. New jobs

are unevenly distributed in terms of company size: medium-sized companies account for the most, with 46.3% of total estimated new jobs, while small and large companies account for 30.4% and 23.3% respectively.

- The distribution of expected new jobs by sector is as follows: manufacturing: 40%; wholesale and retail: 23.1%; construction: 9%; transportation and warehousing: 6.9%; financial and insurance activities: 4.3%.
- The distribution of expected new jobs by levels of education is notable: lower secondary and primary education: 20%; higher education: 10%; secondary and post-secondary education: 70% (the vast majority). Distribution of anticipated new jobs by occupations and levels of education is a key output from the survey, and is summarised in Table A2.2 (Annex 2).

The survey provides useful qualitative information on employers' perceptions of the skills and competences that are in demand, and on the relative difficulty of recruiting personnel with these competences. The following points emerge.

- Employers note the need for appropriate vocational experience and ability to perform tasks in accordance with modern technologies and methods.
- Great emphasis is placed on the need for knowledge of and competence in: foreign languages (English, German, Italian); basic computer applications (MS Office, Auto Cad); advanced IT knowledge and skills (server administrator, CISCO, Java programmer, Oracle); sales and marketing; management skills; communication skills; and other personal and organisational competences (flexibility, reliability, teamwork, responsibility).
- Importantly, employers emphasise that they require certificates and diplomas attesting the acquired skills and qualifications.

Horizon: now

The Job Vacancy Survey (SSO, 2014b) for the third quarter of 2014 (Table 8) indicates a total vacancy ratio of 1.58% (6 973 vacancies in total). The highest absolute numbers of vacancies are in manufacturing, followed by wholesale and retail trade, transport and construction. The distribution of the vacancy ratios is slightly different, with the highest in transport and warehousing (3.31%), followed by construction (2.67%), manufacturing (2.3%), and arts and entertainment (1.86%).

With regard to occupational groups (ISCO), the vacancies confirm the findings of the Skills Needs Analysis, with the highest concentration of vacancies in ISCO groups 5, 7, 8 and 9. This signals a demand for secondary and lower secondary levels of education, theoretically corresponding to NQF levels 1 to 4, as well as 5 (post-secondary). It is also worth noting the visible share of group 3, technicians and associate professionals (11.1%).

Table 8 Job Vacancy Survey by occupational groups (ISCO), third quarter of 2014

Groups of occupations		Number of job vacancies	Share (%)
Total		6 973	100.0
1.	Managers	38	0.5
2.	Professionals	562	8.1
3.	Technicians and associate professionals	773	11.1
4.	Clerical support workers	413	5.9
5.	Service and sales workers	1 871	26.8
6.	Skilled agricultural, forestry and fishery workers	35	0.5
7.	Craft and related trades workers	729	10.5
8.	Plant and machine operators, and assemblers	1 316	18.9
9.	Elementary occupations	1 062	15.2
0.	Armed forces occupations	173	2.5

Source: SSO (2014b).

2.2.2 Skills mismatch

Key findings from the outputs of the HERMAC model

The outputs of the HERMAC model (Twinning project, 2013) allow the analysis of the mismatch between educational level (ISCED) and the level of education required by occupations (ISCO), based on LFS 2010 data and the baseline scenario of HERMAC. In basic terms, the analysis establishes a combination of education and occupation, by using the LFS individual data and computing the proportions of the total employed population in the country⁵ (Table 9).

Table 9: Combinations of educational and occupational levels and their proportions (%)

		ISCO 9	ISCO 4–8	ISCO 1–3
Educational level ISCED	ISCED 5–6	Strongly over-skilled: 0.58%	Over-skilled: 4.25%	Matched skills: 16.72%
	ISCED 2–4	Over-skilled: 9.66%	Matched skills: 33.97%	Under-skilled: 9.76%
	ISCED 0–1	Matched skills: 15.7%	Under-skilled: 8.86%	Strongly under-skilled: 0.48%

Source: Twinning project (2013, p. 38). Based on LFS 2010.

⁵ HERMAC uses a general objective (i.e., not based on self-perception) definition of skills mismatch. Based on the classification into one of the ISCO one-digit occupational groups HERMAC assumes one of the three educational levels (primary, secondary and tertiary). This assumption is based on the concept of an expected skill level defined within the ISCO definitions of occupational groups. Skill level describes the expected level of skills required in order to perform the tasks related to the occupation.

The analysis above indicates that in 2010, 19.1% of employed people were under-skilled⁶ (performed occupations for which their educational level was insufficient), while 14.5% were in the opposite mismatch situation, i.e., they were over-skilled. The majority (66.4%) held qualifications in line with the level required by their occupation.

This aggregate picture can be completed with a sectoral analysis (14 sectors – NACE rev 1.1), also provided by the same report (Twinning project, 2013). This sectoral mismatch analysis, presented in Table 10, is particularly relevant, as it indicates more clearly the sectors in which the most significant pockets of over- and under-qualification occur.

Table 10 Proportion of under- and over-qualified employees in selected sectors, 2010

Sector	Over-qualified employees	Under-qualified employees	Employees with matched qualifications
Agriculture	25.62%: at medium educational level	Not relevant	
Mining and quarrying	Not relevant	21.16%: at ISCO 4–8 10.63% at ISCO 1–3	
Manufacturing	Not relevant	14.84%: at ISCO 4–8 6.98%: ISCO 1–3	
Electricity, gas, water	Not relevant	15.43%: at ISCO 1–3	
Construction	5.00%: at medium educational level	34.78%: at ISCO 4–8	39.97%: at ISCO 4–8 (medium educational level)
Trade	8.40%: at higher educational level	10.37%: at ISCO 4–8 16.99%: at ISCO 1–3	
Hotels and restaurants	5.30%: at higher educational level 5.04%: at medium education level	14.01%: at ISCO 4–8 11.11%: at ISCO 1–3	
Transport	Not relevant	12.26%: at ISCO 4–8 10.29%: at ISCO 1–3	
Financial intermediation	25.23%: at higher educational level	7.39% at ISCO 4–8	30.90%: at ISCO 4–8 36.04%: at ISCO 1–3
Public administration	11.65%: at medium educational level	5.85%: at ISCO 1–3	
Education			77.88%: at ISCO 1–3
Healthcare		37.50%: at ISCO 1–3	41.08%: at ISCO 1–3

Note: medium educational level: ISCED 2–4; higher educational level: ISCED 5–6.

Source: Twinning project (2013). Annexes. Based on LFS 2010.

One striking conclusion is that there is sizeable proportion of under-qualification for ISCO 1–3 occupations in some sectors, and in healthcare in particular. The figures in Table 10 indicate that 37.5% of all those employed in this sector are in occupations classified as ISCO 1–3, but possess an educational level below the requirement for their given occupation. This problem principally concerns the nursing occupation, for which certain qualifications continue to be awarded through four years of formal secondary VET.

⁶ We maintain the terms ‘over-skilled’ and ‘under-skilled’ in this report to respect the original source (Twinning project, 2013). However, since the baseline notion used is ‘educational attainment’ (ISCED) we could refer instead to ‘over-education’ and ‘over-qualification’.

There is also a substantial proportion of under-qualification in ISCO 4–8 occupations in the construction sector. This situation might reflect the widespread recruitment of under-qualified employees for low-paid and precarious jobs, and could prompt concerns about safety and quality.

Findings from National Bank of the Republic of Macedonia

The results of empirical analysis by the National Bank of the Republic of Macedonia (NBRM) contribute to the estimation of the skills mismatch index of the country. The analysis indicates that after controlling for the business cycle, the mismatch between supply of and demand for skills significantly affects unemployment. The estimated coefficient of 0.65 indicates that nearly two-thirds of the movements in the mismatch between supply of and demand for skills are transferred into changes in the unemployment rate (NBRM, 2013a, pp. 28–29).

The same analysis concludes that although some of the mismatch between skills supply and demand in the labour market are cyclical and will be corrected with the economic recovery, this discrepancy has, to large extent, a structural character. Observed from the dynamics, the estimation of the skills mismatch index shows a decreasing trend.

These positive developments are probably a result of the education reforms, and in particular the introduction of compulsory upper secondary education, the support measures to broaden access to higher education, the implementation of ALMPs and ALMMs, and the recent (since 2011 and 2012) development of adult vocational training programmes that are intended to enhance skills and qualifications for employment.

Further development in adult vocational training (in qualitative and quantitative terms) will improve the matching of skills to existing jobs and the more efficient filling of available vacancies. The NBRM analysis underlines that care should be taken in the creation of jobs to ensure that the relative wages (by sector and occupation) remain sufficiently flexible in order to allow an adequate response in the event of a shortage of specific skills (NBRM, 2013a, pp. 28–29).

2.3 Potential of the VET system to influence economic and labour market needs

Responding to recommendations of the SME Policy Review (SBA Assessment, 2012) the MoES developed a comprehensive Entrepreneurial Learning Strategy and Action Plan (2014–2020). The strategy will contribute to a society with a ‘highly entrepreneurial culture and entrepreneurship spirit, one that transcends age and inspires everyone in society through creativity, innovation, initiative taking and a competitive attitude towards learning to succeed’. The objectives and expected outputs are structured by level of education – primary, secondary and higher – and also cover non-formal learning and entrepreneurs.

Practical progress was registered in 2012 and 2013 with the introduction of the elective and mandatory courses on Innovation and Business in 9th class and in upper secondary education.

Enhancing the relevance of VET for the labour market: mixed results

This section is relevant for the analysis of learning content in Chapter 4 (section 4.3.2) of this report.

Reforms in recent decades have been intended to enhance the effectiveness of VET provision, in particular by improving matching of programmes and curricula to the skills demands of the labour market. VET-4 programmes and curricula were revisited in 2007/08, and in 2012/13 a number of VET-3 programmes were fully redesigned.

Formal VET has been the focus of most reform measures and initiatives, supported by a substantial number of international partners, through bilateral and multilateral projects. Meanwhile, continuing VET – adult training and non-formal learning – has received only a marginal proportion of the support, and most of this has been in the past three years. This imbalance in the attention given to the different components of the VET system reflects the prevailing institutional vision and the relatively weak demand and influence of the social partners (representing employers and employees) and of sectoral business organisations in policy making and decision making. As a consequence, the potential of the VET system – which should be composed of mutually enriching formal and non-formal provision and open to flexible organisation of learning – to respond to longer-term as well as to short-term skills needs has for years been under-estimated and under-developed.

On the one hand, the features of formal VET integrate it perfectly with the secondary education system, an important feature that allows VET-4 graduates to progress directly to higher education. VET-4 is, therefore, not a dead-end pathway for young people, which partly justifies the persisting high proportion of young people enrolling in VET. On the other hand, formal VET, given its mission, structure and regulatory basis, is not a system endowed with the flexibility and capacity to rapidly respond to and meet the changing skill demands of the labour market and enterprises.

The two sides of the mission of formal VET – education and training for lifelong learning and personal development on the one hand, and training for employment on the other – are currently not integrated in a balanced way, as the former has a much stronger weight than the latter. Formal VET offers programmes and curricula that are structured in a top-down manner, with a weak association with occupational standards, and permitting very limited flexibility for adaptation to local skills needs or proposals from local enterprises. It is practically impossible to design and introduce, in an agile way, substantial variations to the curricula of existing formal VET programmes. The revision of the range of qualifications and VET programmes on offer is considered by all stakeholders to be a lengthy process that discourages many proactive practitioners. These difficulties are rooted in the various determining conditions: regulatory, technical-methodological and financial.

Technical-methodological constraints can be illustrated by the proven fact that approaches and methodologies that are newly introduced and tested within the framework of international cooperation projects are only partly disseminated in a sustainable way. In recent years there have been several attempts to introduce methodologies and guides for the development of occupational standards. However, the VET system currently lacks updated and credible occupational standards to support the development of new programmes for new profiles that are in demand. While many international projects do invest in training of national human resources to sustain innovations, financial and organisational constraints often lead to the under-utilisation of these trained individuals (ministerial staff, teachers, methodologists, advisers) in the reform of curricula and qualifications. Another important example of this type of constraint concerns the lack of systematic participation of representatives from leading and trend-setting enterprises in working groups dealing with VET technical matters. Sustainable reforms of VET qualifications and curricula will require more focused and targeted management of the knowledge base: approaches and methods, pools of trained staff and teachers, identification and dissemination of good practice throughout the system, and harmonisation of tools.

An example of good practice is the recent reform of VET-3 programmes (Twinning project), in which new programmes were implemented without delay in the academic year following the project's conclusion.

Some dimensions of the relationship between VET and the supply and demand of labour

Supply side

Despite these constraints, the secondary VET system plays a major role in training the workforce. In 2013 more than 60% of the graduates from secondary education came from VET (Figure A2.2, Annex 2), with 90% of this total represented by VET-4 graduates (the remaining 10% being VET-3 graduates). General education (gymnasias) accounted for 37% of graduates, and the remaining came from arts schools. Despite the gradual decline of this predominance of VET students in secondary education, their share remains high at approximately 57–58%.

Fields of study

SSO data on the distribution of VET graduates by qualification clusters (sectors) (Figure A2.3, Annex 2) show another side of the influence of VET in shaping the labour force. Two qualification clusters – economics, law and trade, and healthcare – represent over 40% of all secondary VET graduates. The mechanical and electrical engineering clusters together represent the second largest group in terms of the number of graduates, albeit that its size is much smaller than the first. Somewhat surprisingly, the qualifications relating to branches and sectors of substantial importance for growth and employment (manufacturing, transport and warehousing, construction) account for only a small proportion of graduates.

Paths after graduation

A third dimension of the potential of VET to influence the labour market can be measured by the relative effectiveness of VET graduates in their transition to further paths following school, whether to other options in education and training, or to economic activity and employment. A number of important issues are relevant when analysing this dimension.

- Reliable and systematic data and analysis on the paths of VET graduates to employment and further education and training are not available. The country is preparing to start piloting tracer studies of graduates from all levels of education from 2016. So far, very few higher education institutions systematically carry out tracer studies of their graduates. VET schools do not conduct such graduate surveys, and when school principals mention the relative success of their graduates, the data is based on informal sources.
- The majority of VET-4 graduates directly continue their studies in higher education: the group represents a share of not less than 60% of graduates, accordingly to the indicative data available.
- Graduates from VET-4 have only very limited further training alternatives apart from higher education, since post-secondary education and training and short-cycle higher education are still in the development stage. 'Vocational higher education' (old type of qualification) is marginal in terms of the qualification profiles offered (mostly in the medical sector) and the number of students. Short-term courses ('non-formal provision') are also still in development.

Demand and supply of profiles of qualification

A fourth dimension of this analysis could concern the relative matching between qualifications on offer in the VET system (formal, non-formal and post-secondary) and both existing vacancies and the jobs forecasted in the 6–12 months ahead. Three sources are helpful for a comparison, namely the Inventory and Analysis of Qualifications (ETF, 2014c), the Skills Needs Analysis (ESA, 2013) and the Job Vacancy Survey (SSO, 2014b) for the third quarter of 2014.

2.4 Action and assessment of progress since 2010

Progress is evident in the overall trends in labour market indicators in 2013, these having responded to growth and job creation. However, the labour market characteristics remain highly challenging.

The introduction of a new mechanism for long-term forecasting of the labour market and mismatch analysis needs to be coordinated with other mechanisms that are in place, and the institutions need to agree on a better way of integrating the various sources of data in order to allow systematic observation of the labour market and skills. Graduate tracer studies are not yet used in VET and adult learning, leaving many critical aspects of a large area of HRD poorly analysed.

New training programmes and qualifications designed to meet labour market demands need to reach out to more of the respective target populations, as all of them (non-formal learning, new VET-3 programmes, training within the framework of ALMPs) remain marginal as far as participation is concerned. The predominant part of the formal VET system (VET-4) has remained largely untouched in terms of its offer and the structure of programmes.

Mismatch analysis indicates the following.

- The substantial extent of under-qualification calls for action to encourage individuals to acquire qualifications through training (formal and quality-assured short-term programmes) and/or through the validation of skills and competences acquired through professional and life experience. Such validation is not yet developed in practice, although some recent legislation (such as the Law on the National Qualifications Framework) opens up prospects for the validation of outcomes of non-formal and informal learning.
- Enterprises and organisations (employers) can be encouraged to showcase good practice in employee training and retraining, and to enter into partnerships with providers of training (formal and non-formal).

3. EFFECTIVENESS AND EFFICIENCY IN ADDRESSING DEMOGRAPHIC, SOCIAL AND INCLUSION DEMAND

3.1 Demographic and social factors that shape the demand for VET

Education and labour market policies face issues relating to an ageing population, rather than with high demographic pressure. According to the most recent demographic data published by SSO in July 2014 (SSO, 2014n), the total population was estimated at 2 065 769 (31 December 2013), of which 1 030 928 were women. The last census (2002) registered a total of 2 022 547 persons (SSO, 2014i, p. 65).

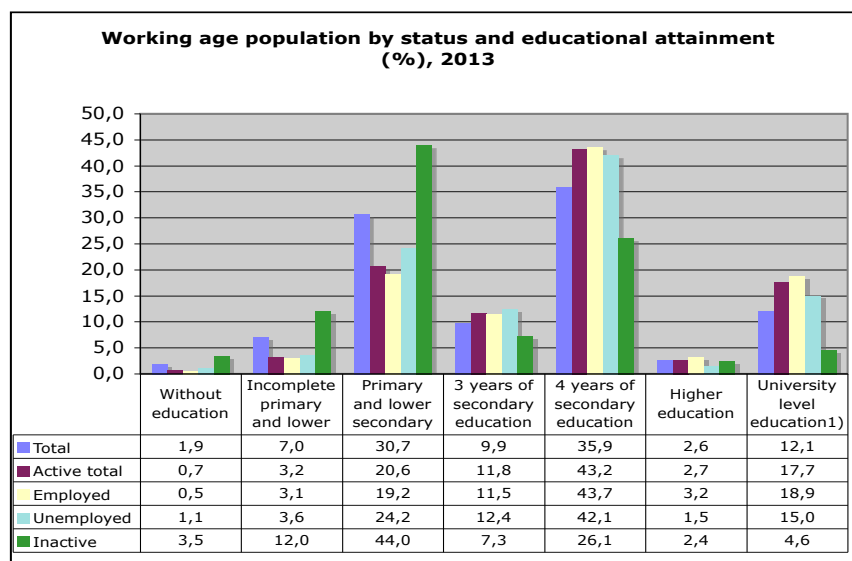
The distribution by age group has changed substantially since the 2002 census. The size of the 0–14 age group shrank significantly from over 21.0% to 16.9% of the population between the 2002 census and 31 December 2013. In contrast, the oldest group (65 and over) grew from approximately 10.5% to 12.4% of the population in the same period (calculation ETF, based on official data (SSO, 2014n)). The territorial distribution of the population is more urban (58% of the total) than rural.

The distribution of the different communities (on the basis of ethnicity and language) is important in the political context of the country. However, without a recent census, estimates arguable. According to the 2002 census, 25.2% of the population was Albanian (509 083 persons) living in the highest concentration in 15 municipalities. Other minorities were Roma, Turks, Vlaxhs and Serbs.

Educational attainment level of the population

As a result of the reduction in the share of the population with lower levels of education and the significant growth in higher education attainment, the overall structure of educational attainment of the population has improved (Figure 7).

Figure 7 Educational attainment of the working-age population, by activity status, 2013 (%)



Source: LFS 2013 (SSO, 2014c). Graph: ETF.

The proportion of the population with lower levels of education (lower secondary or less) is still substantial, comprising almost 40% of total working-age population, and approximately 23% of the employed population. However, 18.9% of employed people have higher education, while the largest group (43.7%) have four years of secondary education, showing that the employed population has slightly better educational attainment than the total working-age population.

The extent of under-utilisation of human resources is significant. This is one of the conclusions prompted by the distribution of educational attainment within the unemployed population: the proportion of medium and higher levels of education (at least three secondary years) is only slightly smaller than that for the employed and active population. The severity of under-utilisation of human resources is aggravated by the strong predominance of long-term unemployment. Moreover, there are signals that unemployment among those with higher education qualifications is growing, as the supply of this group increases.

Young people

Young people (aged 15–29 years) have a particularly important place in the country's current and future challenges. This group bears a great deal of responsibility for change, through better educational attainment and exposure to international mobility, than the average population; it is characterised by openness to democratic values and freedom of expression, of which the recent student movement (in late 2014) was an example. However, young people face tremendous difficulties in their transition to stable employment, which is a major challenge on the policy agenda. This age group accounted for 22.1% of the total population (31 December 2013).

The NEET rate for the 15–24 and 15–29 age groups improved noticeably over the period 2006–2013. However, even the most recent figures (2013) indicate that the situation is severe (25.2% for the 15–24 age group and 31.3% for the 15–29 age group). The female NEET rate for the 15–29 age group in 2013 is very high (34.6%), showing a significant disadvantage of more than 6 percentage points compared with the male indicator (28.1%). The features of NEET rate 15-24 are coherent with the features of the country's labour market indicators. Table 11 shows the NEET rate (2004–2013) for the 15–24 age group. It is almost double that of the average EU28 NEET rate.

Table 11: NEET rate of the 15–24 age group (total, males, females) compared with the EU28, 2004–2013 (%)

SEX	GEO/TIME	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total	EU28	12.8	12.7	11.7	10.9	10.8	12.4	12.7	12.9	13.1	13.0
Total	MK	:	:	41.3	33.1	30.7	27.7	25.5	25.2	24.8	24.2
Males	EU28	11.8	11.5	10.5	9.8	9.7	12.0	12.3	12.5	12.9	12.7
Males	MK	:	:	38.9	31.6	28.1	25.4	25.1	24.9	25.3	23.3
Females	EU28	13.9	13.9	12.9	12.1	12.0	12.9	13.2	13.3	13.4	13.2
Females	MK	:	:	43.8	34.6	33.5	30.1	25.9	25.5	24.2	25.2

Source: Eurostat data. ETF table. MK: former Yugoslav Republic of Macedonia.

The compounded disadvantage of this age group leads to exclusion and discouragement. The NEET rate signals substantial policy challenges, and underlines the need to seek complementary solutions beyond those measures typically used in dealing with unemployment. There has been steady progress, as the indicator improved by 16 percentage points between 2006 and 2013. The female NEET rate registered comparable improvement,

It is worth looking more closely at the evolution of the NEET rate by level of education (see Table A3.1, Annex 3). While there has been visible progress in the NEET rate for ISCED levels 0–2, in levels 3–6 there has been practically no improvement.

Early school leavers (EU headline indicator)

The country achieved a remarkable improvement of 11.4 percentage points between 2006 and 2013 (from 22.8% to 11.4%), and performs better than the EU28 average (12%). However, unlike in most EU countries, the female rate is slightly worse than the male indicator.

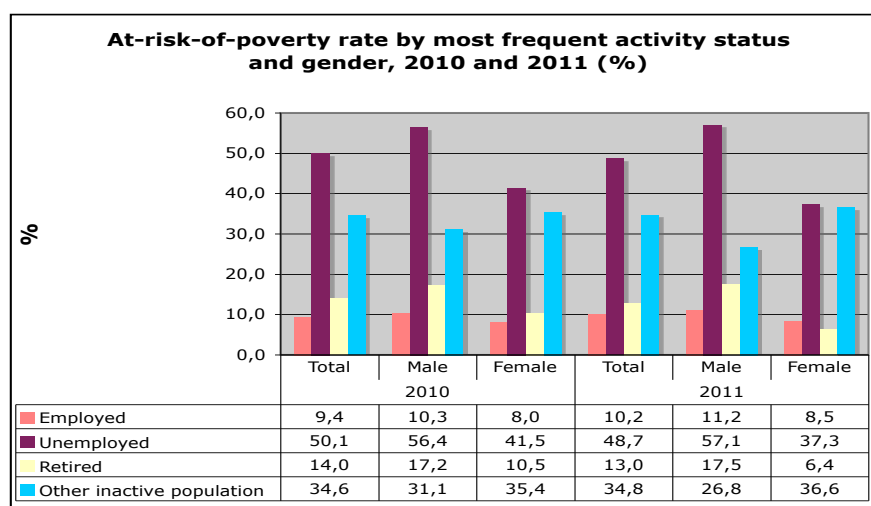
Poverty: a function of unemployment and low pay

Economic growth and increases in the employment rate (see Chapter 2) have contributed to an improvement in the income and living conditions of the population, but poverty persists. According to the Survey on Income and Living Conditions 2011 (SSO, 2014k), over a quarter of the population is considered at risk of poverty.

Unemployment, inactivity and low-paid employment are the main determinants of poverty. The poverty rate for employed people is 10.2% (2011), but part-time employed individuals have a much higher poverty rate of 26.0%. The incidence of low pay among wage employees is 10.8%.

The at-risk-of-poverty rate after all social transfers in 2011 was 26.8%. It is noticeable that the at-risk-of-poverty rate before social transfers and before pensions is much higher (43.9% of the population) (Tables A3.2 and A3.3, Annex 3). The risk of poverty and social exclusion is highest among the unemployed and inactive (non-retired) populations. In terms of gender difference, the indicator is higher for the male population.

Figure 8: At risk of poverty by most frequent activity status and gender, 2010 and 2011 (%)



Source: SSO (2014k p. 35). Graph: ETF.

Mojsoska Blasevzki et al (2013) argued that the country has a relatively good system of social protection and social assistance in place. The targeting of social policy is satisfactory, as social transfers considerably reduce the risk of poverty. However, at the same time it creates some disincentives for recipients to become self-sufficient. First, the lack of activation policies for the recipients of social assistance and unemployment benefit results in individuals having little incentive to take up jobs, and creates a high level of benefit-dependence. Second, disincentives arise as a result of the sudden withdrawal of social assistance and family benefits once a person accepts formal work. Third, the labour taxation system has a regressive structure, making low-paid jobs unattractive for workers.

Regional disparities

There are regional disparities in terms of economic growth, job creation, adult literacy and youth employment. Issues relating to ethnicity and language affiliation add to the regional and decentralisation agenda of the country.

Much of the planned job creation is concentrated in the region of Skopje, the capital city. The Skills Needs Analysis 2013–2014 (ESA, 2013) reports the following expected regional distribution of new jobs (12-month period): Skopje has the highest number of new jobs, with 40% (over 4 000) of the total jobs expected; Pelagonia: 17.1%; Eastern region: 13.8%; Vardar region: 10%; Northeast region: 6%; Southeast region: 6%; Southwest region: 3.5%; Polog: 3%

3.2 Delivering to the individual demands and aspirations of learners: access, participation, progression

The government has implemented a number of policies to increase participation in education and training at all levels. In terms of the target groups, objectives and instruments used, these policies can be classified as targeting:

- increased access for young people to secondary and higher education;
- access for unemployed people to skills training for employment and self-employment.

Participation in higher education increased sharply in the first decade of the 2000s as a result of scholarships, admission policies, the establishment of private universities and the provision of dispersed higher education studies (which involve university teachers teaching courses organised in the regions by central faculties). Figure A3.1 (Annex 3) shows the long-term trend in the number of students in higher education since 1960. However, in the 2000s the distribution of graduates by fields of study became strongly biased in favour of the humanities (social sciences, business administration, economics and law).

Data provided by the Torino process working group (TRP 14.49 and 14.50) show that net enrolment rates in primary and lower secondary education (ISCED 1–2) have continued to decline, from 91.41% (2009/10) to 90.26% (2013/14). The trend in ISCED 3 is positive, the rate having increased from 69.78% to 72.27% in the same period (Figure A3.2, Annex 3).

One of the major reforms in the education system has been the introduction of mandatory secondary education with effect from 2008/09. The positive impact on the transition to upper secondary education and on the sharp reduction of early school leaving is evident. Between 2004 and 2012, transition rates (from primary to secondary education) increased significantly from the baseline value of 85.3% to 96.0%. In 2013 the country outperformed the EU28 average for the headline Europe 2020 indicator on early school leaving. School directors report that the introduction of mandatory secondary education and the supporting measures has led to a significant decrease in the number of school dropouts.

This reform was followed by various measures to support its enforcement. The Law on Secondary Education imposes a penalty (EUR 1 000) on parents whose children are not enrolled in or do not regularly attend classes (Official Gazette, No. 49/2007). In recent years, as a support to the policy for establishing compulsory secondary education, the government has implemented several programmes and measures to increase enrolment in primary and secondary education, some of which are general while others are targeted towards vulnerable groups. These programmes include the following.

- Free books and free transport from home to school are provided for children enrolled in secondary education.

- A system of mentoring, tutoring and scholarships has been established for students from poor families, especially Roma students.
- Conditional Cash Transfers (CCTs) have been introduced for children from poor families who regularly attend secondary schools. The transfer is given when a child from a family that receives social financial assistance is enrolled and regularly attends a school, with the joint aims of strengthening the effectiveness and efficiency of the social safety net and enhancing the human capital of children from socially disadvantaged families. The total amount that children receive is MKD 12 000 (about EUR 200) per school year.
- Positive discrimination is applied to Roma children through a mechanism of 10% discount on the required entry points for secondary schools. The selection of the students is based on national enrolment criteria (minimum acceptable points)⁷.

In December 2013, in response to the diminishing share of enrolment in VET, the government adopted the Action Plan to encourage enrolment in secondary VET. Activities include cooperation with Macedonian Radio Television (MPT, the country's public broadcasting organisation) and the VET schools to broadcast a promotional series; scholarships offered to VET students by local self-governments; visits to VET schools by representatives of local businesses; student counselling; electronic promotional materials; and municipal VET days.

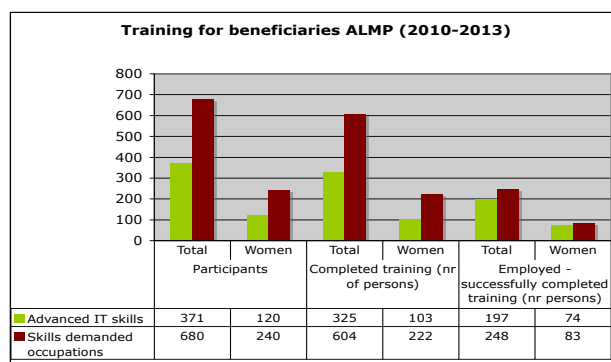
Access to VET is based on complete primary education (nine years of schooling), as presented in Table 1 and in Figure A1.1 (Annex 1) of this report. The proportion of upper secondary students in VET pathways is still dominant (58%), despite the downward trend (it was approximately 70% in 2001). Slightly fewer than half of the pupils in vocational education are females (44% to 48%), with differences according to study area.

The MoLSP and the ESA promote policies and measures to reduce unemployment and to stimulate the activation and employment of registered unemployed individuals. The main state body involved in providing adult education programmes is the ESA, which organises job-related training programmes and vocational guidance for unemployed adults. The ESA's Employment Preparation Programme (Operational Plan for Active Labour Market Measures) provides training to meet labour market needs with the aim of increasing the employability of registered unemployed people, and the training courses are provided by verified providers. The training profiles take account of the findings of the Skills Needs Analysis (ESA, 2013).

Since 2012 access to ALMMs has been reserved for unemployed people who are effectively seeking jobs. Figure 9 summarises the data on participation in training programmes within ALMPs (2010–2013). The figures show that the completion rate is relatively high (over 85%). Slightly fewer than half of trained beneficiaries obtain employment, and, interestingly, those who complete IT training are more successful in finding a job (61%) than those completing a course for an occupation in demand (41%). But the ESA reports that there are substantial difficulties in attracting candidates to these training courses, despite the campaigns and advertisements, and the financial support (transport, monthly 'scholarship') provided to each trainee.

⁷ Students are ranked on their average grades in primary education. The highest minimum criteria are for medical VET schools (70 points), gymnasias (60 points), and VET schools (60 points, and 35 for VET-3 programmes).

Figure 9: Participation, completion and employment of trainees in ALMPs, 2010–2013



Source: ESA (Torino process working group).

Figures on participation in training for 2014 are provided in Table A3.5 (Annex 3). As well as indicating the diversity of measures relating to training, the table also highlights the success of ‘motivational training’ aimed at enhancing job-seeking skills and increasing interest in using the ESA’s services. Basic business start-up training is the other measure in which there is strong participation. These are the two single measures in which actual participation exceeds that which was planned.

The ESA also highlights the problem of insufficient supply of training (relevant training providers in the regions), which hampers the effective organisation of programmes designed to meet demand.

Issues persist

Data provided by the MoES show that the provision of initial VET is virtually only available in urban areas. Table 12 shows the breakdown of VET student numbers per school by urban and rural areas (TRP 15.58).

Table 12: TRP 15.58: Average number of students per VET school in urban and rural areas

	2013/14	2014/15
Urban VET schools	678.24	642.47
Rural VET schools	64.00	131.00

Source: MoES (Torino process working group).

Despite the educational reforms and the increased provision of secondary (and tertiary) education, significant gaps remain in secondary school enrolment, attendance and completion rates in the former Yugoslav Republic of Macedonia compared with the EU28 countries. Moreover, the country’s achievements in international assessments are relatively poor. The most recent international assessment, the 2011 TIMSS (Trends in International Mathematics and Science Study), showed that 4th- and 8th-grade pupils in the country have very low achievements compared with those in the other 62 participating countries. Moreover, the declining trend in TIMSS achievements over time (1999 to 2003 and then 2011) does not match the increased spending on education and reforms that has been implemented over the past decade.

3.3 Delivering to socioeconomic and inclusion demand

ETF reports (2013a and 2013b) underline that several laws and strategic documents cover discrimination and promote equality of access to education. For instance, the Law on Secondary Education prohibits the display of religious and political party symbols in schools, prohibits discrimination, and guarantees minority-language instruction. Discrimination includes social, political and religious discrimination and discrimination based on social status (Articles 3 and 7).

The Concept for Nine-Year Primary School Education, developed by the BDE in 2007, introduced competences for inter-personal, inter-cultural, social and civic competences, as part of the basic principles for the functioning of primary education. Further inclusiveness measures and actions were set out in the Steps Towards Integrated Education strategy (2010) and the Indicators for school performance.

The National Action Plan for Education for the Decade of Roma Inclusion emphasises access for the Roma population to scholarships and tutoring, and also calls for a legal obligation for supplementary instruction to be delivered.

On a more operational level, specific measures for increasing the inclusiveness of education include the introduction of new elective courses at secondary school level on the themes of civic culture (in general secondary schools/gymnasias) and the culture of protection, peace and tolerance (in both general and vocational schools).

Issues

Despite the evident progress that has been made in recent years in broadening the understanding of social exclusion (except in relation to pupils with special needs) and in tackling such exclusion, there is still evidence of continuing discrimination against and exclusion of vulnerable groups from secondary education. ETF reports (2013a and 2013b) note that legislative and policy support for the diversity of students and the promotion of social inclusion is not effective in practice. For instance, there are separate public schools or separate classes in public schools for pupils with disabilities or pupils from ethnic (and linguistic) minorities. Similarly, the Steps Towards Integrated Education strategy argues that physical barriers were created between ethnic and cultural communities by the introduction of the right to education in the mother tongue. The discrimination takes the form of the selection of students by social group and social class and/or the choice of the occupational area/profile of students in relation to gender and ethnicity.

There are limited educational opportunities for pupils with special needs. This is mainly a result of a lack of the necessary physical capacity within schools, but is also due to the widely accepted notion that pupils with special needs should not mixed with 'normal' pupils. UNICEF found that only about 15% of school-age pupils with special needs are enrolled in education (UNICEF, 2013).

3.4 Action and assessment of progress since 2010

Education reforms in the country during the period 2007–2009 resulted in higher transition rates to upper secondary education and in a sharp decline in early school leaving rates. As a result, the country attained the ET2020 benchmark that measures progress in relation to early school leaving.

Participation in secondary VET remains high, with almost 60% of upper secondary students enrolled in VET-4 and VET-3 programmes. The rate of direct progression to higher education for graduates from VET-4 is very high.

Participation in higher education stabilised as a result of a combination of policy measures to ensure its attractiveness. Higher education continues to be associated with better performance in the labour market. Moreover, the difficulties involved in moving from school to work contribute to the decision by many youngsters to choose this career option.

4. INTERNAL EFFICIENCY OF THE VET SYSTEM

4.1 Quality assurance

4.1.1 Planning

Stakeholders and decision makers are aware of the paramount importance of quality-assured education and training. Quality assurance in education is composed of different instruments, legislation and responsible institutions, covering the formal system (at all ISCED levels) and the non-formal learning system. The secondary VET system follows the same school performance quality indicators that are used in general education. Attempts that have been made since 2012 to develop specific indicators for VET schools have so far been unsuccessful.

The MoES describes this system schematically as shown in Table 13.

Table 13: Quality assurance

Input level	Process level	Output level
<p>Verification of institutions for primary and secondary education and of providers of non-formal education</p> <p>Accreditation of institutions for higher education</p>	<p>Self-evaluation and integral evaluation (external evaluation) of primary and secondary schools. Integral evaluation is performed by the SEI.</p> <p>Counselling of parents by the Pedagogical Service in accordance with respective programmes.</p> <p>Self-evaluation and external evaluation of higher education institutions. External evaluation is performed by the Board for Accreditation and Evaluation of Higher Education. In addition, two rankings of the country's higher education institutions have been performed by a University Institute from China, commissioned by the MoES.</p>	
<p>Verification of programmes for primary and secondary education – performed by the MoES</p> <p>Verification of programmes for non-formal learning - performed by the CAE</p> <p>Accreditation of curricula and study programmes for higher education (Board for Accreditation and Evaluation of Higher Education)</p>	<p>Expert support through monitoring of educational institutions and counselling of teaching staff for the implementation of educational and training programmes. Competent authorities: BDE, VET Centre, CAE.</p> <p>Teacher training (initial and continuing) and training of trainers. Competent institution: higher education institutions (initial teacher training), BDE (continuing professional development), VET Centre, CAE.</p> <p>Development of 'local curricula': adjustment of the curriculum to the needs and specificities of the local communities. Updating of programmes in line with socioeconomic developments.</p>	<p>External assessment of students' achievements in primary and secondary education performed on annual basis</p> <p>Matriculation exams: State Matura, School Matura and final exam</p> <p>International measurements of students achievements (PISA⁸, PIRLS, TIMSS)</p>

Notes: PISA, Programme for International Student Assessment; PIRLS, Progress in International Reading Study; TIMSS, Trends in International Mathematics and Science Study. Source: MoES.

⁸ The country has not participated in PISA since 2000. A pilot was concluded in 2014 and in 2015 the country will participate fully.

Quality and quality assurance feature prominently among the four areas (pillars) of the VET Strategy. The strategy defines quality as being an overarching value in any education system or sub-system. Quality permeates all goals and measures outlined in the VET Strategy, and also embraces specific measures relating to the improvement of pedagogy, practical training and teaching. Quality in VET results in greater relevance of outcomes and attractiveness for learners, and ensures that learners acquire key competences. Quality requires improved management and support for the VET system, as well as established and clear procedures and instruments organised in a quality assurance system. The measures defined by the VET Strategy to improve quality and establish a well-organised quality assurance system include harmonisation with EQAVET, participation in PISA, a system of professional and career development for teachers and trainers, reinforcement of innovation and an entrepreneurial attitude on the part of VET teachers, and modernisation of student assessment.

School evaluation

School self-assessment has become a well-established practice, and is supervised by the SEI. Schools organise teams to perform the self-assessment (internal evaluation) every two years.

This process is based on indicators of achievement provided by the SEI, which, as part of the quality assurance process, monitors and evaluates schools' performance. The indicators for self-assessment are divided into the following groups: 1) curricula, teaching plans and programmes; 2) pupils' achievements; 3) teaching and learning; 4) pupils' support; 5) school environment; 6) school resources; and 7) school management. Based on the results of the self-assessment, including a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis, schools develop their school development programmes, which form the basis of the annual programmes. The self-assessment reports are published on the schools' websites.

The SEI implements external integral evaluation based on the same groups of indicators. The results of the evaluation are summarised in a grade and detailed in a report, accompanied by recommendations for improvement. VET schools underwent integral evaluation and reports were discussed in the ETF HRD Review 2012 (ETF, 2012).

Quality assurance of qualifications

The NQF Law (2013) establishes the quality assurance principles and procedures that apply to qualifications, notably the procedures for acquiring qualifications, and the degrees, diplomas, credentials and certificates that are awarded to participants who have acquired the qualification. Article 23 of the Law lists these procedures, most of which are currently in operation. Items 1, 8 and 11 are exceptions, while others require further improvement and assessment. Item 4 received strong support in the form of EU expertise in 2012/13 and has contributed much to the rapid growth of new verified programmes of non-formal training for the acquisition of qualifications.

1. Verification of qualifications
2. Verification and re-verification of the special programmes for adult education
3. Defining the competences of the bodies and institutions involved
4. Verification/accreditation of institutions that provide educational/study programmes
5. Assessment of the achievements of the pupils/students/participants in the programmes
6. Evaluation of the pedagogical and educational work of the teachers and associates
7. Issuing of public documents (degrees, credentials, certificates and diplomas)
8. Procedures and standards for the recognition and certification of prior learning

9. Evaluation of programmes and institutions, self-evaluation, external evaluation of institutions, or external auditing and publication of the results
10. Procedures for the validation and equivalency of degrees and diplomas for primary and secondary school education acquired abroad, and the recognition and equivalency of diplomas for higher education acquired abroad
11. International participation, cooperation and networking in European and global networks for the recognition of qualifications and quality assurance

All relevant bodies have a role in quality assurance of the NQF: MoES, VET Centre, CAE, BDE, National Examination Centre (NEC), SEI, Board for Accreditation and Evaluation of Higher Education, and the providers.

4.1.2 Assessment and evaluation

Pupils are assessed both through continuous evaluation by the schools and through external tests of two disciplines at the end of the year. These annual external tests are conducted by the NEC, based on questions proposed by the BDE (for the general part of the curriculum) and by the VET Centre (for the vocational subjects).

At the end of 2012/13, for the first time, external assessment was carried out of around 200 000 primary and secondary education students. The VET Centre prepared 191 050 questions on vocational subjects for this purpose. The Laws on Primary and Secondary Education were amended in 2012 to incorporate mandatory external student assessment for primary and secondary education. The VET Law was amended to reflect changes in the procedure for the adoption of occupational standards, and in student assessment.

At the end of secondary school, pupils take final examinations in selected subjects. Pupils from general education (gymnasias) and art schools can choose to register for the State Matura or School Matura; those from vocational education (four-year profiles) can choose between the State Matura and the Final Examination; and those from vocational schools (three-year profiles) take the Final Examination. Once they pass the examination, pupils from general, art and four-year vocational education are awarded a state diploma; pupils from general and art schools a school diploma; and pupils from vocational schools who have completed three or four years of education a vocational diploma. After obtaining a diploma of secondary education, pupils can enter the labour market or continue their education in higher education institutions.

The new VET-3 programmes include the following student assessment documents: Examination Programme for practical training part of the Final Exam; and Standard for Students' Achievements. None of the VET programmes are structured in units of learning outcomes as a basis for assessment.

According to the NQF Law, a multi-stakeholder committee will assess learner outcomes in non-formal education. The committee will be established by the president of the sectoral committee of qualifications, but as yet, no such committees have been formed.

The MoES has reached a preliminary agreement with OECD regarding participation in 2015 in PISA, from which the country has been absent since 2000. A pilot PISA study was carried out in 2014, but the results were not available at the time of writing this report.

4.1.3 Accreditation of VET providers and programmes

The MoES is responsible for the verification process for formal education (general and VET), while for non-formal learning, the responsibility is shared between the MoES (for providers) and the CAE (for programmes).

4.1.4 Qualifications

The NQF Law (Article 6) defines the requirements of a qualification: 'The qualification standard referred to in Article 5 of this Law shall comprise the following:

1. Title of the qualification,
2. Type of qualification,
3. Level or sub-level of the qualification,
4. Code of the qualification,
5. Credit value of the qualification,
6. Description of the qualification,
7. Contents of the qualification (entry requirements, number of mandatory and optional subjects (modules), method of verification and criteria for verification of the learning outcomes).'

The Glossary of the NQF clarifies that 'Descriptions of qualifications' are 'measurable indicators of learning outcomes relating to acquired knowledge, skills and competences'. Article 6 of the Law explicitly refers to inclusion of the assessment methods and criteria in the standard of qualification.

Do the existing VET qualifications meet these requirements?

The Inventory and Analysis of Qualifications and the analysis of selected cases, which was carried out in 2014 with ETF support, to establish an updated and systematised evidence base for the EQF Referencing process, found that only a few qualifications are approaching these requirements (ETF, 2014c). These are:

- 12 VET-3 qualifications developed by the EU Twinning project in 2013, based on occupational standards and learning outcomes; of these, 10 programmes are currently in operation in a number of VET schools;
- 1 VET-2 qualification prepared by the same project (no enrolment in 2013/14);
- over 50 of the 58 verified non-formal learning programmes, based on occupational standards; these programmes and qualifications have been verified since 2012.

The Inventory and Analysis of Qualifications (ETF, 2014c) took stock of 51 active VET-4 qualifications that can be placed in 14 (of the 16) sectors of the NQF. The majority of these programmes were adopted in 2007; 14 were elaborated between 2010 and 2013. As these programmes are not based on occupational standards and learning outcomes, the obvious conclusion is that the respective qualifications do not fully meet the requirement for qualifications laid down in Article 6 of the NQF Law.

The new VET-3 qualifications comprise the following documentation, which is to be used by teachers for student assessment.

- Occupational Standard
- Training Programme Curriculum (overview of subject teaching hours across years) and subject curricula
- Examination Programme for the practical training part of the Final Exam
- Standard for Students' Achievements.

The development of new occupational standards has faced financial and methodological difficulties, but the stakeholders currently have high hopes for the start of the NQF implementation to resume this work, based on better-resourced sector committees. The existing occupational and qualification standards are listed in Section A4.1 (Annex 4).

To date, the country has a total of 65 occupational standards in 14 sectors (out of 16 of the NQF) and 25 qualification standards in the same sectors. Two sectors of the NQF – sport and recreation, and arts – have no occupational or qualification standards. All the qualification standards were elaborated under the Twinning project (with Slovenia, 2013); 50 occupational standards were designed under the same project. Other occupational standards had already been elaborated in previous years.

Plans are in place for a complete revision of the qualifications and programmes in line with level descriptors. The country's institutions and social partners are expected to engage in the revision of qualifications and curricula for a wider range of occupations that are in demand, following the newly tested approach and methodology. Such an endeavour will depend on the leadership capacity of the VET Centre and the demand from market players. A new project funded by the World Bank, launched in 2014, includes a component that will address the reform of VET-4 programmes. The concept proposed by the VET Centre targets broadband profiles. Moreover, the advisers involved expect to modularise parts of these programmes, but this process will require closer coordination with the BDE, which has the leading role in the national curriculum.

The comprehensive Inventory and Analysis of Qualifications represents a first step towards a national register of qualifications. A national register of higher education qualifications has already been prepared with Tempus assistance, but was never disseminated for the information and guidance of different users.

In early 2013 the country became a member of the EQF Advisory Group, and in 2014 it began the EQF Referencing process. A roadmap towards EQF Referencing has been prepared, and the ETF, in cooperation with the MoES, facilitated three multi-day workshops for the EQF Referencing working group. The aim is to present the report to the EQF Advisory Group in 2015.

The referencing process includes self-certification to the framework of the European Higher Education Area. The country has reformed its higher education in line with Bologna principles, adopted the three-degree cycle, and the European Credit Transfer and Accumulation System (ECTS). By linking the reaccreditation of higher education institutions with the obligation to reform programmes in line with the learning outcomes approach, the country has taken a step towards the generalisation of the new paradigm.

The Inventory and Analysis of Qualifications carried out to support EQF Referencing shows evidence of transparent levelling of a number of qualifications, and also of the challenges that remain regarding a large proportion of VET qualifications (VET-4). The findings of this analysis need to be considered in relation to the effectiveness of the planned reforms.

At the same time, the Inventory and Analysis of Qualifications and the EQF Referencing debates have highlighted areas for improvement, in particular the following.

- There is a need to communicate the NQF and its purposes to the wider public, to employers and to learners, but also among the state bodies in charge of education and training.
 - The NQF contains many innovative features and non-traditional principles and concepts, and the relevant stakeholders need to fully understand the structure, descriptors, types of qualification, quality assurance, governance and overall objectives of the NQF.
 - There is a need for clarification and for coherent use of certain concepts, e.g. skills, modules, credit, assessment.
- There is a need to identify and define the level descriptors underlying the various sub-levels (so far no differentiation is expressed in level descriptors). This debate could lead to decisions regarding changes in the sub-levels.

- There is a need to debate the role and place of non-formal qualifications and their purpose for employment and inclusion, compared with initial formal VET qualifications. There is currently a poor understanding of the complementarities and differences, and there is a definite sense of competition between the two types. Stakeholders (employers, chambers, providers, methodologists and policy makers) need to engage in this debate with a view to achieving a more systemic coordination of the roles of the different qualification types.
- VET is classified up to a maximum NQF level of '5b', which creates discontinuity and academic bias against the trend to open up all educational levels for vocationally or professionally oriented qualifications in most European countries.
- The concept of quality assurance is mostly linked to the perspective of institutional programme accreditation. Further work could embrace the planned and acquired learning outcomes.
- In relation to governance, the architecture foreseen by the NQF Law is complex and potentially resource-intensive, and this could hamper the construction and sustainability of the whole setting. Building on existing capacities and knowledge will be an important starting point for developing an operational structure at government level. Another success factor will be effective cooperation between the key ministries on operational matters (such as timely validation and registration of occupational standards). Better-organised involvement on the part of enterprises and employers should also include workers' representatives (trade unions) from the relevant economic sectors.
- The future database of qualifications should be aligned with the specifications proposed for similar databases of EQF members in order to achieve compatibility with the European Learning Opportunities and Qualifications portal.

4.2 Policies for VET trainers and school directors

School directors are elected individuals with higher education who fulfil the conditions for teacher/associate, have at least five years' experience in educational work, and have passed the examination for director. From 2010 the NEC is responsible for training candidates for school directors. The NEC administers the examination for principals for public secondary schools and delivers transcripts. The training programme is modular, and covers organisational theory, people in the organisation, the role of the director as pedagogical leader, planning and decision making, and legislation and finance. The assessment is conducted by an examination committee consisting of the NEC, the MoES, and a higher education institution with doctoral studies in the relevant areas.

Teachers in public primary and secondary schools have the legal status of public servants. According to the laws covering primary and secondary education, a teacher is responsible for the teaching and learning processes in schools. Primary and secondary school teachers are also responsible for the assessment of pupils' achievements, for providing support and guidance to pupils who need additional assistance and to high achievers to enable them to continue their development, and for school activities.

The teaching qualifications required for VET are a university degree and a professional examination. A person with a non-pedagogical higher education qualification must pass the examination on pedagogical-psychological and methodology skills at an accredited higher education institution. For practical classes, teachers can have specialised secondary or college education with pedagogical-psychological and methodical training, and must successfully pass an examination.

In 2010 the teacher's portfolio was introduced to facilitate the collection of evidence of teachers' work and achievements, including teaching plans and materials, tests for pupils' assessment, training certificates or other certificates of work, participation in working groups, and project work results. All teachers are now responsible for building their professional portfolios, which are kept in schools to be

used as part of the teacher-evaluation process, which is overseen by the SEI. This new development has already prompted some proactive teachers to seek more in-service training opportunities in order to develop their careers.

The indicator TRP 14.77 reveals a reduction in the number of younger teachers (with one and five years of professional experience) in the 2014/15 academic year. This signals a trend for a lower intake into the profession, and consequently, an ageing staff profile and diminished attractiveness of the profession. The trend is in line with the overall decrease in the number of students enrolled (Figure A3.2, Annex 3).

The pupil–teacher ratio in primary and secondary schools is decreasing owing to the lower numbers of pupils in education, particularly in rural areas. According to data provided by the Torino process working group, the overall pupil–teacher ratio for secondary schools declined from 14 (2009/10) to 12 in 2013/14 (TRP 14.45). The MoES has clarified that no reliable data is available on the ratio specifically for VET schools.

Teacher training

Four state universities provide initial education for school teachers:

- Pedagogical Faculty (where instruction is provided in Macedonian, Albanian and in Turkish languages) and the Institute of Pedagogy at the Faculty of Philosophy in Skopje;
- Faculty for Humanitarian Studies and Art in Tetovo;
- Pedagogical Faculty in Bitola;
- Faculty of Education in Štip.

Subject teachers can undergo their initial education at the faculties for teachers at universities in Skopje and Tetovo.

Continuing professional development for teachers in VET schools is overseen by two bodies: the BDE plays a major role for teachers of general subjects, while the VET Centre leads activities relating to teachers of vocational subjects. The VET Centre's responsibilities include participating in accreditation procedures for training programmes on vocational subjects and practical work; proposing measures for improving the quality of teaching and for the assessment of teachers of vocational subjects; and ensuring support for VET through the provision of counselling, instruction and mentoring for teachers and trainers of vocational subjects. The VET Centre has an adviser who deals specifically with teachers' professional standards and development.

The most recent update of the Bruges review reports a case of good practice relating to competence development for in-company mentors and professionals dealing with practical training for VET students in companies ('Standard for professional cadres and associates for implementation of practical training with employers'). This initiative is part of the Action Plan for Practical Training (2013) of the Chamber of Crafts, and is carried out in partnership with the VET Centre. The initiative includes: a) the adoption of the Standard for in-company mentors; b) a register of verified companies that are interested in hosting practical learning (having a certified mentor, as well as equipment, space and conditions up to the standard); c) training of trainers (cascade method) from among dynamic candidates from the chambers and interested employers. The training programme includes aspects of pedagogy for adults and young people, safety, communication, student motivation, and monitoring of progress in learning. A United States Agency for International Development (USAID) project is supporting financially the piloting of the Standard in six municipalities and in Skopje until 2015. The initiative faces the usual constraints, such as a lack of interest from many companies, and technical

and other issues relating to the application to companies of the existing mandatory standards for training.

International projects and NGOs provide support and finance for VET teacher-training programmes. Data provided by the VET Centre (Table 14) show a surge in the numbers of teachers trained during the EU Twinning project (Support for the Modernisation of the Education and Training System, September 2011 to October 2013):

Table 14: Number of courses and teachers in VET teacher training, 2010–2014

	2010	2011	2012	2013	2014
Training courses	3	3	10	89	4
Teachers	88	87	204	338 +90 in-company mentors	104

Source: VET Centre (Torino process working group).

The Twinning project carried out a needs assessment of teachers' professional development and delivered training to teachers and methodologists on the implementation of the newly designed VET-3 curricula and on the development of standards and learning outcomes, among other topics.

The EU Twinning project in the VET Centre included a substantial teacher-training component. But not all teachers delivering the new VET-3 curricula have received the necessary training, either during or since the Twinning project, a problem that has complicated the application of the new principles of this learning-outcomes-based curriculum.

In the area of adult learning, the CAE has reported satisfaction with the training of trainers programme implemented by the Twinning project 'Support for capacity building of the Centre for Adult Education...' (2013), which has resulted in a unique pool of trainers of trainers of adults. In 2013 three new programmes for the training of trainers of adults were verified.

4.3 Teaching and learning

4.3.1 Teaching and learning environment

The teaching and learning conditions of many VET schools are not entirely satisfactory as a result of a long-standing lack of investment in materials and infrastructure. Administrative inefficiencies have also contributed to the slow pace of improvement in the material conditions of VET schools. One example is the delay in the procurement and delivery of the equipment and materials that should have accompanied the new VET-3 programmes put in place following completion of the EU Twinning project (Support for the Modernisation of the Education and Training System) in 2013.

Motivated principals and teachers have overcome difficulties by establishing partnerships with NGOs and employers, or by running income-generating activities that allow them to introduce improvements in the school and teaching. VET schools that are implementing programmes in the economy, law and trade sector have used business-simulation games and projects to support practical learning activities. New initiatives under the Action Plan for Practical Training supported by the Chamber of Crafts include partnerships between VET schools and companies for student training.

The 'Computer for every pupil' project has been one of largest investments in education in the country. The introduction of information and communications technologies (ICT) in schools has emphasised the importance of computer literacy and the new opportunities to use ICT in teaching and learning. As some subjects have received digital content to be used in classrooms, many teachers have been trained to use ICT and new software. Teachers have also been given laptops to enable them to

prepare their own teaching materials. Although there is a legal obligation for teachers to deliver at least part of teaching and learning content (30%) using ICT, few teachers are confident about using ICT to innovate the teaching and learning process. A need for further support and follow-up training has been identified, particularly among those teachers who are still not comfortable working with computers. Such assistance would contribute to a wider use of electronic interactive materials, as the application of digital content is still limited. The inadequate or insufficient use of computers was highlighted as one of the main findings in the integral evaluation of schools by SEI.

4.3.2 Learning content

Teaching in secondary schools is organised in two semesters (180 instructional days), and activities include individual and group work.

Responsibility for the design of VET curricula is shared between the BDE (for general subjects) and the VET Centre (for vocational subjects). In this shared process, the views of the BDE prevail, in the event of conflicting opinions over reforms of the structure and content of the vocational part of curricula. This situation occurred with the newly designed curricula of the 12 VET-3 programmes, in which the BDE decided to replace one full year of the IT course with history, geography and other content. This decision will have an adverse impact on the learning achievement in a competence that is important for employment, which is the goal of VET-3 programmes.

Formal VET (VET-3 and VET-4) programmes abide by the educational standards (BDE, VET Centre), and Standards for assessment (NEC and VET Centre).

The VET-4 curriculum is structured as follows: general subjects: 47.3% of workload; vocational subjects: 34.2%; practical training: 9–22%; elective subjects: 6.4%. In the VET-3 curriculum the proportions of general and vocational subjects are 20–40% of the total content. The allocation of theoretical and practical learning varies in the curricula of various types of programmes, as summarised in Table 15.

Table 15: Allocation of theoretical and practical training in curricula

	VET-3	VET-4	Verified non-formal education programmes
Classroom/theoretical learning	67%	90–78%	15–30%
Practical learning	33%	9–22%	<ul style="list-style-type: none"> - 60–75% at workshops in companies - 1 month's practice in companies - 10% assessment

Source: Inventory and Analysis of Qualifications (ETF, 2014c).

The newly adopted VET-3 curricula are competence-based. Thus, professional competences from the occupational standards are translated into the curriculum; the catalogue of knowledge includes key and professional competences; and students' assessment is based on learning outcomes.

The adaptability of VET curricula to the changing skill requirements of enterprises and the economy as a whole remains weak, in particular in formal VET. Schools have limited freedom to include local content, and introducing substantial changes in existing programmes and launching new programmes for new occupations are lengthy processes. With the exception of the work done by the Twinning project in VET (2012 and 2013), there has been no relevant progress in the development of new occupational and qualification standards. As mentioned in Chapter 2 of this report, technical-methodological and resource constraints have hampered such developments. Leadership and governance issues have also played a negative role.

According to information gathered during the 2012 Bruges review, three types of practice-based learning are used in VET-3 and VET-4: practical training, summer practice and professional practice.

Table A4.2 (Annex 4) provides data showing that curricular practical learning takes place predominantly in the school context, in laboratories and workshops. Professional practice in the work context is available for only a small proportion of students.

4.3.3 Parental involvement

The Pedagogical Service carries out parent and student counselling, and provides support. Schools communicate with parents by electronic means, for example e.g. by SMS (text messages) to notify them of student absences.

The Parents' Council is an advisory body that serves to enhance the cooperation and links between schools and the families of students. The Council was formed by parents to ensure that the interests of the students are respected by the school. It provides opinions on the draft school development programme and on the annual work programme; discusses the report on school work; proposes programmes for the improvement of teaching standards; gives consent to directors' proposals for the introduction of higher standards; reviews parents' complaints relating to educational activities; and elects representatives of the school board.

4.4 Efficiency in the use of resources

The analysis and wide consultation with stakeholders undertaken in 2012 for the development of the VET Strategy (2013–2020) (MoES and ETF, 2013) identified the financing of VET as one of the most important concerns for all stakeholders. The prolonged under-funding of development of the VET system has resulted in many schools needing refurbishment and re-equipment. Moreover, the current financing system for public VET, which is amalgamated with the financing of general education, does not allow the estimation of the cost per student of initial VET (nationally and by sectors); this compromises informed decision making regarding changes in the supply of VET programmes.

The municipalities receive block grants from the MoES, and these are generally used for salaries, student transportation and heating costs, while development initiatives are left under-funded. Schools often cover some of their operational costs from revenues from the provision of services. Municipalities are similarly dissatisfied with this methodology, and call for reforms that address specific features of VET schools, local needs, and disparities in the costs of training.

In addition to state funding, VET benefits from resources (in terms of finance and expertise) through projects, which are usually implemented by international donors, and special funds from different government ministries. Some schools organise income-generating activities, such as training for external users, the provision of various services, and the production and sale of products.

Public expenditure on education as a share of GDP has fluctuated between 4.50% and 4.31% in the reporting period. Spending on education as a proportion of government expenditure decreased in 2013 and 2014 (Table 16).

Table 16: TRP 14.87: Public expenditure on education as a proportion of total public expenditure (budget of MoES), 2010–2014 (%)

	2010	2011	2012	2013	2014
Public expenditure on education as a proportion of GDP	4.5	4.73	4.47	4.61	4.31
Public expenditure on education as a proportion of total government expenditure	17.5	17.7	18.0	16.1	16.2

Source: MoES (Torino process working group).

In both 2013 and 2014 the proportion of expenditure allocated to secondary education was less than 12% of the total budget of the MoES, and substantially lower than the proportions allocated to higher

education (over 56%) and primary education (14%) (Table A4.1, Annex 4). This can be explained by the decentralisation of education financing.

As indicated in Chapter 3, the negative trend in the results in international students' assessment (TIMSS) signals a degree of ineffectiveness in the use of resources.

4.5 Action and assessment of progress since 2010

The adoption of the NQF legislation, the progress achieved in referencing to the EQF, the implementation of reformed VET-3 programmes, the initiatives of the Chamber of Crafts to revitalise practical training in enterprises, the surge in non-formal learning in the context of the Twinning project and the country's resumed participation in international students' assessment studies (TIMSS and PISA) reflect a new determination on the part of the MoES, and have great potential to boost dynamism in the education and training reforms.

The adoption of the NQF for Lifelong Learning (Law and Baselines) in 2013 and the EQF Referencing process have stimulated new reflection among stakeholders on issues and areas that require further work in terms of coherence and understanding by education and training practitioners (among others). The following issues are particularly relevant:

- governance of the NQF and the necessary reinforcement of the role of employers;
- capacity building of the state bodies that will coordinate and facilitate NQF implementation processes;
- clarification of the rationale for sub-levels and their descriptors;
- level descriptors and their meaning and implications for the overall objectives of education and training for the future;
- clarification of complementarity and purposes of the qualification types outlined in the NQF Law, towards a more systemic vision in relation to qualifications;
- renewed reflection on the quality and transparency of qualifications in the light of the NQF requirements on qualifications;
- methodology for transparent allocation of qualifications in the NQF.

The Inventory and Analysis of Qualifications (2014) can be a starting point for a much-needed database of qualifications, which is considered necessary evidence for the successful referencing to the EQF.

There is now sufficient momentum for a new reform of qualifications that are aligned with the NQF and that meet current and future labour market needs. Predictable resources, steering, expertise and collaboration are indispensable factors, and experience shows that they are, for now, in short supply. Donors' technical assistance (World Bank, EU, British Council ETF and others) is considered indispensable to implement the reforms.

5. GOVERNANCE AND POLICY PRACTICES IN THE VET SYSTEM

The stakeholders of the education and training system are diverse and can be grouped as shown in Table 17.

Table 17: Governance of education and training: stakeholders

Ministries	Public agencies	Councils	Social partners and associations
Cabinet of the Prime Minister MoES MoLSP Ministry of Finance	BDE VET Centre CAE SEI NEC ESA Autonomous: SSO	<u>Permanent</u> Economic and Social Council VET Council Council for Adult Education Council for Steering VET Strategy <u>Non-permanent working groups and councils with consultative role on specific strategies</u> EQF Referencing working group	<u>Employers</u> Chamber of Crafts Economic Chamber Business Confederation Chamber of Commerce of Macedonia Chamber of Commerce of South-West Macedonia <u>Trade Unions</u> Autonomous Association of Trade Unions Union of Education Science and Culture <u>Local</u> ZELS

The employers' organisations have varying levels of interest in and contributions to VET. The Chamber of Crafts is the most active and competent, followed by the Economic Chamber, the Organisation of Employers and the Business Confederation. Several chambers and associations have their own training centres (vocational skills, management skills, IT).

The VET Centre and CAE have recruited additional staff in 2012 and 2013, allowing both to strengthen their capacity in meeting their statutory functions.

5.1 Defining the vision and strategy for VET

The MoES is entrusted with the leading role in defining, implementing and monitoring policies in education and training (formal and non-formal). It shares functions with the MoLSP as regards the implementation of training programmes for unemployed people and job seekers; the identification of these groups is entrusted to the MoLSP.

In designing sector strategies, the leading ministries are responsible for organising the stakeholder consultation mechanisms, which have often taken the form of working groups comprising representatives from a range of ministries and agencies, as well as from some of the social partners. Moreover, ministers may organise high-level inter-ministerial groups to advise on coherence with other

policies and strategies; this was the case with the development of the VET Strategy. This practice of establishing non-permanent working groups has been widely used for the development of many strategies, and for their monitoring, as a way of securing participation, ownership and coordination. The effectiveness of such working groups varies, depending on the respective leadership and monitoring mechanisms.

Since November 2013 the monitoring of the VET Strategy implementation has been the responsibility of the Steering Council, led by the MoES. However, the powers of this group are very limited when it comes to following up the delivery of the outputs assigned in the Strategy Action Plan to the various entities and ministries. The Steering Council lacks influence, notably in relation to adjusting the Action Plan and its milestones to the real context; and in giving advice to the various budgetary units involved regarding their responsibility as set out in the approved Action Plan.

The Ministry of Finance actively participates in the discussion and revision of final drafts of action plans, given their budgetary implications, and can dictate changes.

The Cabinet of the Vice Prime Minister in charge of Economic Affairs has a prime strategic role in the area of education and training, given the importance of VET and higher education for competitiveness and growth. The Cabinet of the Prime Minister has named entrepreneurial learning as one of the priorities for reforms in education and training, and the President of the Republic chaired the presentation event for the Entrepreneurial Learning Strategy in December 2014.

The VET Council and the Council for Adult Education have an important strategic and advisory role, although their effective contribution is poor, owing to resource constraints, weak leadership and – in some cases – the absence of representation from the ministries.

MATRIX 1. DISTRIBUTION OF RESPONSIBILITIES

	Objective setting	Implementation	Monitoring
Who is responsible?	Cabinet Prime Minister MoES MoLSP	MoES MoLSP	MoES MoLSP Steering Council VET Strategy ESA
Who is accountable?	MoES MoLSP	VET Centre ESA	ESA
Who is consulted?	Social partners (some) Ministries and their agencies ZELS	VET schools Social partners	Ministries and agencies VET schools SSO
Who is (only) informed?			

MATRIX 2. MODE OF ACTION/DECISION MAKING OF THOSE RESPONSIBLE

	Objective setting	Implementation	Monitoring
Full autonomy/unilateral			
After (obligatory) consultation*	Yes		
If consultation, with whom? (Please list)	Other ministries, public agencies		

*Consultation could be both because of an obligation to involve and for accountability purposes.

5.2 Effectiveness and efficiency in addressing economic and labour market demand

Table 18: Players and roles

Players	Assigned roles/competence
MoLSP	Long-term labour market forecast and related skills mismatch analysis (since 2013), based on the HERMAC model
ESA	Short- to medium-term skills needs analysis: annual, based on employers' survey
Chambers	Some: surveys and studies on jobs and skills for their sectors and constituencies
VET schools – career centres	Information on occupations and study paths for pupils and graduates: effectiveness varies depending on capacity
Research centres of universities and NGOs	Studies and empirical analysis on labour market, social inclusion, education and training, often with international funding
SSO	LFS, Job Vacancy Survey and other systematic data-collection mechanisms

There is wide consensus among stakeholders that the findings and conclusions from the sources listed in Table 18 are not sufficiently integrated, accessible or processed in line with the needs of various key users. The relative fragmentation of the information and the poor dissemination of reports and data justify the complaints by stakeholders in the education and training sector about the opacity of this information system for decisions regarding the revision of training profiles and content, and the levels of qualifications to be developed to meet future demand.

One of the weaknesses frequently emphasised by VET stakeholders is the long-standing under-development of sector committees for skills and qualifications.

5.3 Effectiveness and efficiency in addressing social and inclusion demands

The MoES and MoLSP share important roles as far as policy definition and implementation is concerned. The MoLSP covers employment and social policy, including active and passive labour market policies, as well as policy on pre-school education.

The ESA is the key institution in charge of implementing and monitoring passive and active labour market policies, while a number of NGOs are vital players in the implementation and monitoring of programmes addressing inclusive education, integrated (ethnic and language) education, training for unemployed job seekers, and basic skills education for adults.

5.4 Internal efficiency and effectiveness of the VET system

Quality Assurance

- MES, VET Centre, CAE: verification of providers and programmes
- SEI: integral evaluation of schools

Curriculum development and approval

- Formal VET: MoES (policy, legislation), BDE (general education element), VET Centre (vocational element)
- Non-formal VET: MoES (policy, legislation), CAE

Student assessment

- MoES, NEC, VET Centre, CAE, schools and providers (of non-formal education)

Teacher professional development

- MoES, VET Centre, CAE, BDE

Financing

- Ministry of Finance, MoES, municipalities
- MoLSP, ESA

Governance of the NQF (NQF Law, Article 15)

The competent authorities, institutions, bodies and committees for the development, checking, adoption, recognition and classification of qualifications in the NQF are:

- National Board for the Macedonian Qualifications Framework (not yet formed)
- MoES
- MoLSP
- BDE
- VET Centre
- CAE
- sector qualification committees.

The National Board for the NQF will be established in 2015–2016. The MoES has initiated the procedure to put in place an NQF Unit, and such a unit is included in the new systematisation of the ministry (2015). However, at the time of writing, the unit is not yet operational, and nor have staff been allocated to it.

The MoLSP is responsible for the approval of occupational standards, but this function is not sufficiently well organised. As result, a large number of new standards are in operation, but have not been officially approved. There are great hopes that the implementation of the NQF in 2015 will contribute to solving this issue of institutional capacity. At the time of writing, a cooperation agreement between the MoES and MoLSP is in preparation, dealing with aspects of occupational standards and other questions relating to the NQF.

5.5 Assessment of progress since 2010

Governance of the VET system from a lifelong learning perspective and in relation to employment policy has established formal as well as ad-hoc mechanisms for dialogue and for the coordination of policies and strategies. The MoES and the MoLSP are the leading state actors in the HRD domain. The state agencies that are in charge of implementing the policies and related measures and programmes play an important role in governance. Multi-stakeholder councils are statutory bodies that aim to support these agencies in their strategic decision making, steering and reporting.

Ad-hoc inter-ministerial working groups are established by ministerial order for the purpose of discussion and consultation on new strategies. This practice has produced results, as it fosters systematic exchanges at the technical/middle-management level of the institutions and promotes a degree of coordination across ministerial boundaries, and often includes non-state actors (such as social partners).

The institutional setting for governing the NQF as foreseen in the NQF Law (2013) is clear; the law outlines the missions and functions of the ministries involved, as well as of the bodies and committees to be established for the NQF.

Analyses of institutional arrangements and capacity, such as the report of the FRAME project (ETF, 2014d), have highlighted some of the issues that affect the effective functioning of governance in HRD policies.

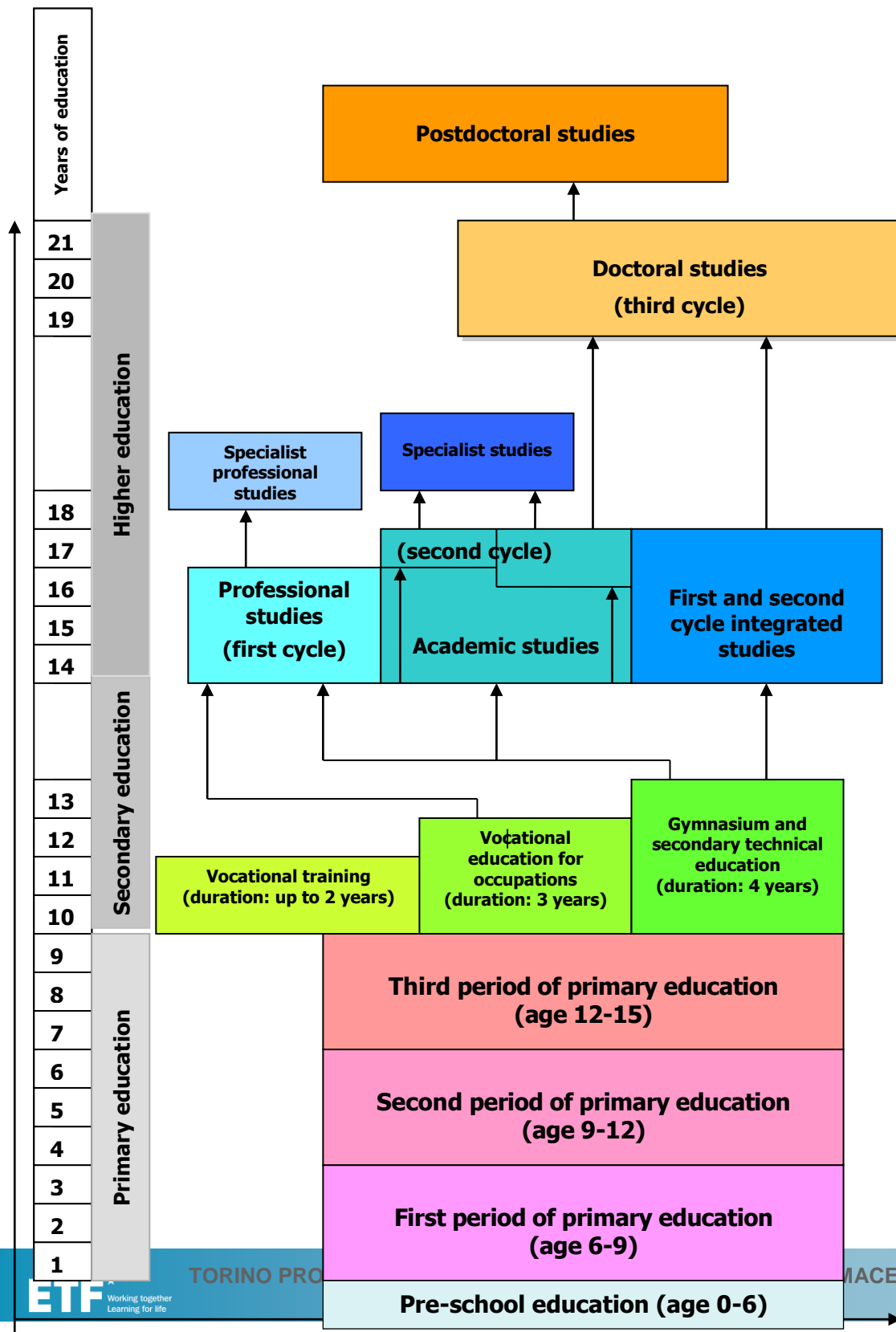
- Capacity of the institutions is an issue: there are insufficient human resources with the required profiles and skills (notably, effective communication in English), and this results in frequently overload of the most skilled staff.
- There is a degree of ambiguity in the understanding of roles and interactions, in particular as regards the articulation between the responsibility for the sector policy and the policy implementation functions.
- Some agencies are deeply involved in the implementation of several projects supported by donors, which in certain circumstances leads to blurred staff functions (between project activity and the state function of the institution).
- Some of the statutory multi-stakeholder councils simply do not operate, owing to capacity limitations of the institutions involved and to financial constraints. This adversely affects the quality and systematisation of policy dialogue that is crucial in HRD policies. Lessons learnt from the inefficient functioning of these councils can suggest which issues ought to be avoided and which solutions put in place when establishing new councils and boards that are resource-intensive and based on systematic cooperation between state bodies, as well as with social partners and the world of work (businesses, trade unions).
- There is significant room for improvement in the effective use of performance monitoring of institutions and policies.

The important objective of establishing an effective system and mechanisms for skills anticipation and matching is recognised as a high priority by the state and by the social partners, learners and education and training institutions. A network approach, based on synergy of resources, methods and databases, could be appropriate for the country. Such an approach is probably the only efficient way to create a better-integrated information system on jobs, skills and qualifications, which was prioritised by all participants of the FRAME Skills 2020.

ANNEXES

Annex 1: Chapter 1

Figure A1.1: Diagram of the formal education system



Section A1.1: VET PROVISION

Distribution of VET programmes in the network of public schools

According to data from the MoES (Public call for enrolment of students in public secondary schools for the school year 2012/13), VET programmes in the electro-technical sector are offered in the largest number of schools (20), as show in the following list (number of schools indicating where the respective occupational areas/curricula are taught; one school can offer training in several occupation areas): 11 agriculture/veterinary; 8 forestry/wood processing; 7 geology/mining and metallurgy; 25 machine engineering; 20 electro-technical, 15 chemistry/technology; 17 textile/leather fabrication; 4 graphic; 9 personal services; 8 construction/geodetics; 11 traffic; 12 catering/tourism; 17 economy, law and trade; 16 medical; 3 sports general school; 6 art education.

Thirteen private secondary schools operate in the country, of which six offer vocational education (in the fields of economy, law and trade, medical, personal services, traffic and catering/tourism) (SSO, 2012a).

VET-4 programmes absorb the majority of all VET students, as the figures in Table A1.1 show. The objective of the table is to show the structure of enrolment in VET, including higher VET.

Table A1.1: Overview of students in all levels of VET (2011)

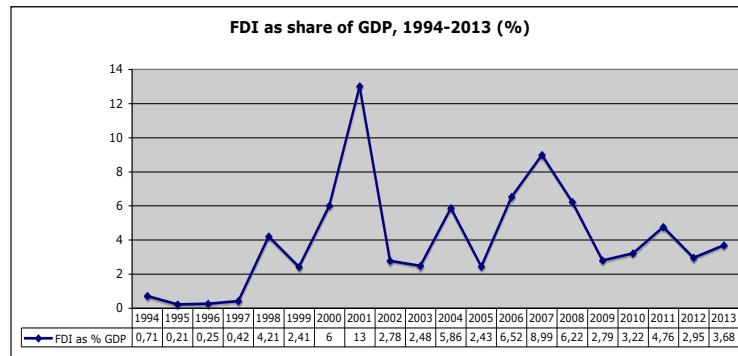
Levels	Levels of VET	Number of students	Share by level (%)
Secondary vocational education	Vocational skilling (two years)	163	0.29
	Three-year secondary VET	5 058	8.88
	Four-year secondary VET	48 882	85.85
	Special secondary schools	287	0.50
Post-secondary vocational education	Specialisation	449	0.79
	Master exam	0	0
Higher vocational education*	Higher vocational schools	2 102	3.69
Total		56 941	100.00

Note: * Does not include students enrolled in vocational study programmes at universities who are not among the students of the vocational higher schools.

Source: SSO (2012b).

Annex 2: Chapter 2

Figure A2.1: FDI as share of GDP, 1994–2013 (%)



Source: The Global Economy, at http://www.theglobaleconomy.com/Macedonia/Foreign_Direct_Investment/

Table A2.1: Labour market indicators, 2009–2013 (%)

Age	Activity rate					Employment rate					Unemployment rate				
	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013
Total	56.7	56.9	56.8	56.5	57.2	38.4	38.7	38.9	39.0	40.6	32.2	32.0	31.4	31.0	29.0
15–24	35.0	33.3	32.1	33.6	33.6	15.7	15.4	14.4	15.5	16.2	55.1	53.7	55.3	53.9	51.9
25–49	79.5	80.4	80.2	79.5	80.2	55.4	55.7	56.5	55.8	58.0	30.3	30.7	29.6	29.9	27.7
50–64	57.2	57.5	58.3	56.7	58.5	42.4	42.6	43.1	42.8	44.9	25.9	26.0	26.2	24.4	23.2
65+	3.9	4.1	3.3	3.8	3.0	3.4	3.8	3.1	3.4	2.8	12.3	6.3	6.8	9.4	7.4
15–64	64.0	64.2	64.2	63.9	63.9	43.3	43.5	43.9	44.0	44.0	32.3	32.2	31.6	31.2	31.2
Men															
Total	69.6	69.8	68.8	68.7	68.5	47.5	47.5	47.0	47.1	48.7	31.8	31.9	31.8	31.5	29.0
15–24	43.4	42.2	39.9	40.5	39.9	20.6	19.5	17.7	18.1	18.9	52.7	53.9	55.5	55.2	52.5
25–49	93.4	93.9	92.7	92.6	92.5	65.6	65.7	65.3	64.9	67.0	29.7	30.1	29.6	29.9	27.5
50–64	75.0	75.1	75.6	73.4	74.1	54.9	55.2	55.1	54.7	56.9	26.9	26.5	27.1	25.5	23.2
65+	5.5	6.0	4.4	5.2	3.8	5.0	5.5	4.0	4.7	3.4	9.9	8.3	9.2	10.3	11.0
15–64	77.6	77.7	76.8	76.6	76.6	52.8	52.8	52.3	52.4	52.4	32.0	32.1	31.9	31.6	31.6
Women															
Total	43.7	44.0	44.7	44.3	45.8	29.4	29.8	30.9	30.8	32.5	32.8	32.2	30.8	30.3	29.0
15–24	26.2	24.0	23.9	26.2	27.1	10.6	11.2	10.8	12.6	13.3	59.4	53.3	54.8	51.8	51.0
25–49	65.0	66.4	67.3	65.9	67.4	44.8	45.5	47.4	46.3	48.6	31.1	31.5	29.5	29.8	27.9
50–64	39.8	40.3	41.5	40.2	43.1	30.2	30.2	31.3	31.1	33.1	24.1	25.1	24.6	22.4	23.1
65+	2.5	2.5	2.4	2.6	2.3	2.1	2.5	2.3	2.4	2.2	16.6	2.3	3.0	7.9	2.5
15–64	50.0	50.4	51.2	50.8	50.8	33.5	34.0	35.3	35.3	35.3	32.9	32.5	31.0	30.5	30.5

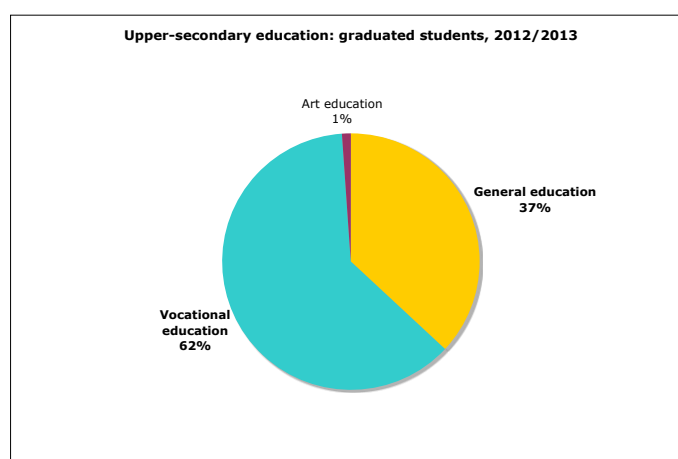
Source: LFS 2013 (SSO, 2014c).

Table A2.2: ESA – Summary of distribution of estimated new jobs by levels of education

	Lower secondary / primary education	Secondary education and higher vocational education	Higher education
Proportion of total new estimated jobs	20%	70% (61.6% – simply secondary education)	10%
Occupations	Workers for basic functions, including: tobacco processing, textile production lines, shoemaking, quarries and mines, clothing manufacture, hand packing, building construction and labouring, masonry, gardening, loading and unloading, retail distribution.	<p>1) With higher vocational education / secondary: salesmen, tobacco processing technician, construction technical (for high and low building construction), provider of medical equipment, textile technician, mining facilities handler, medical nurse, electrical technician, mechanical technician, administrator, pharmaceutical technician, graphics technician, telecommunications equipment operator, mechanical engineering technician, surveying technician.</p> <p>2) Secondary education: Tailor, textile tailor, tailor vendor, locksmith, carpenter, welder, tinsmith, turner, waiter, cook, confectioner, baker, shoemaker, truck driver, taxi driver, maintenance construction worker, bricklayer, stonemason construction worker, fitter of construction elements, fitter of metal constructions, car mechanic, electrician, processor of fruits and vegetables.</p>	Programmer, computer scientist, civil engineer, architect, architect-designer, mechanical engineer, technologist, pharmaceutical engineer, electrical engineer- constructor-project electrical engineer, electronic engineer, transport engineer, <i>Technology, engineering</i> ; food technologist, pharmaceutical engineer-technologist, accountant, broker, graphic designer, economist (finance, insurance, banking, management), lawyer.

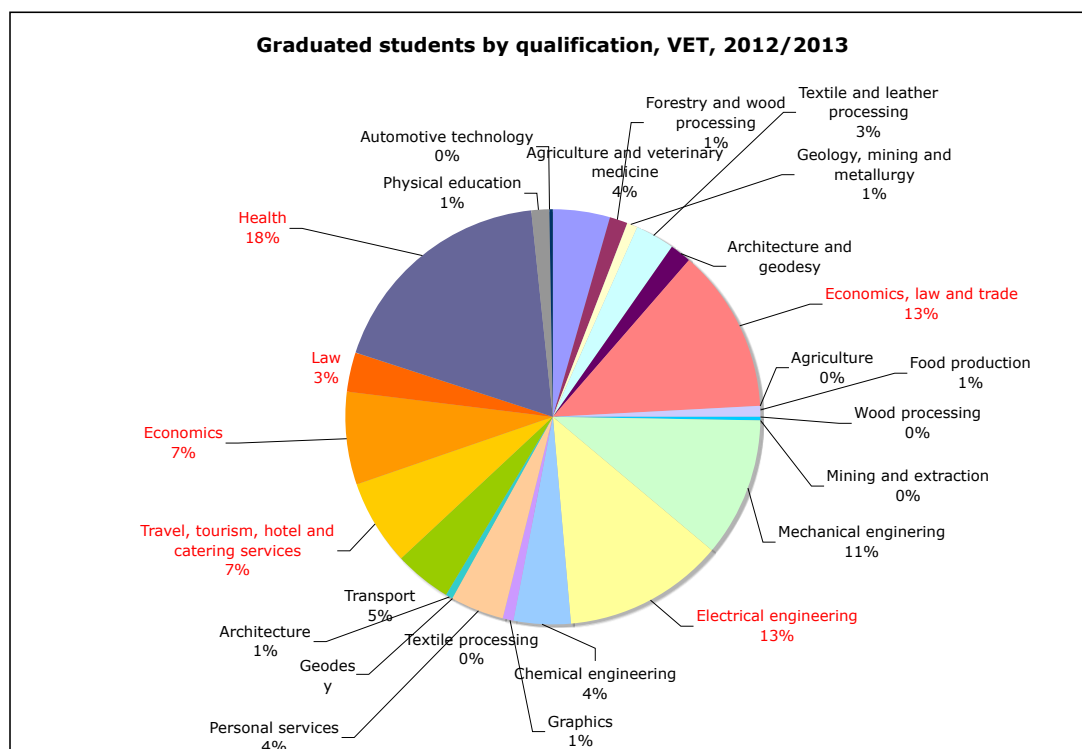
Source: ESA (2013).

Figure A2.2: Graduates from secondary education, 2012/13 (%)



Source: SSO (2014g, pp. 50–51). Graph: ETF.

Figure A2.3: Graduated VET students by qualification clusters, 2012/13 (%)



Note: The graph uses the designations of clusters/groups of qualifications provided in Table 38 of the SSO source. Apparent inconsistencies in the designations used (such as repetitions, fragmentation) are not explained in the source.

Source: SSO (2014g, pp. 50–51). Graph: ETF.

Annex 3: Chapter 3

Table A3.1: NEET rate by level of education and gender, 15–29 age group, 2006–2013 (%)

TOTAL	2006	2007	2008	2009	2010	2011	2012	2013
Pre-primary, primary and lower secondary education (ISCED levels 0–2)	22.0	17.3	16.4	12.7	12.8	11.3	11.3	10.1
Upper secondary, post-secondary non-tertiary, first and second stage of tertiary education (ISCED levels 3–6)	22.8	20.7	19.5	20.1	19.0	20.4	20.8	21.1
MALES								
Pre-primary, primary and lower secondary education (ISCED levels 0–2)	16.4	12.7	11.6	7.8	9.3	8.6	8.4	6.7
Upper secondary, post-secondary non-tertiary, first and second stage of tertiary education (ISCED levels 3–6)	24.0	22.0	19.5	20.7	19.3	20.0	21.8	21.4
FEMALES								
Pre-primary, primary and lower secondary education (ISCED levels 0–2)	27.9	22.3	21.4	17.8	16.5	14.1	14.3	13.8
Upper secondary, post-secondary non-tertiary, first and second stage of tertiary education (ISCED levels 3–6)	21.5	19.3	19.5	19.5	18.6	20.7	19.8	20.9

Source: Eurostat data. ETF table.

Table A3.2: Poverty and social exclusion indicators, 2010–2011

	2010	2011
At-risk-of-poverty rate, % of population	27.0	26.8
Number of persons below at-risk-of-poverty threshold	555 600	551 700
At-risk-of-poverty threshold of single-person household – annual equivalent income in denars	60 000	64 800
At-risk-of-poverty threshold of four-person household (two adults and two children aged less than 14) – annual equivalent income in denars	126 000	136 080
At-risk-of-poverty rate before social transfers and before pensions, % of population	44.1	43.9
Inequality of income distribution S80/S20	11.3	10.6
Inequality of income distribution, Gini coefficient	40.9	38.5

Source: Survey on Income and Living Conditions 2011 (SSO, 2014k, p. 34).

Table A3.3: At-risk-of-poverty rate before and after social transfers, 2010–2011 (%)

	2010	2011
At-risk-of-poverty rate after social transfers	27.0	26.8
At-risk-of-poverty rate before social transfers	44.1	43.9
At-risk-of-poverty rate before social transfers (except pensions)	30.5	30.4

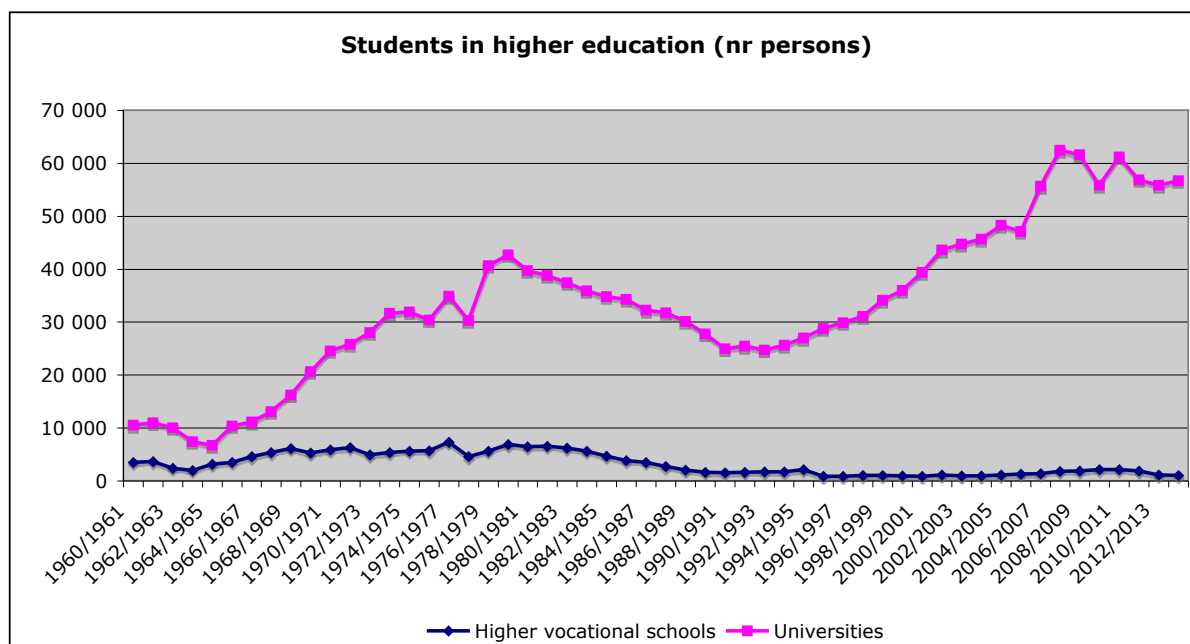
Source: Survey on Income and Living Conditions 2011 (SSO, 2014k, p. 35).

Table A3.4: Proportion of population aged 0–59 living in households with very low work intensity, by gender, 2010–2011 (%)

	2010	2011
Total	24.5	20.0
Males	24.3	19.3
Females	24.6	20.8

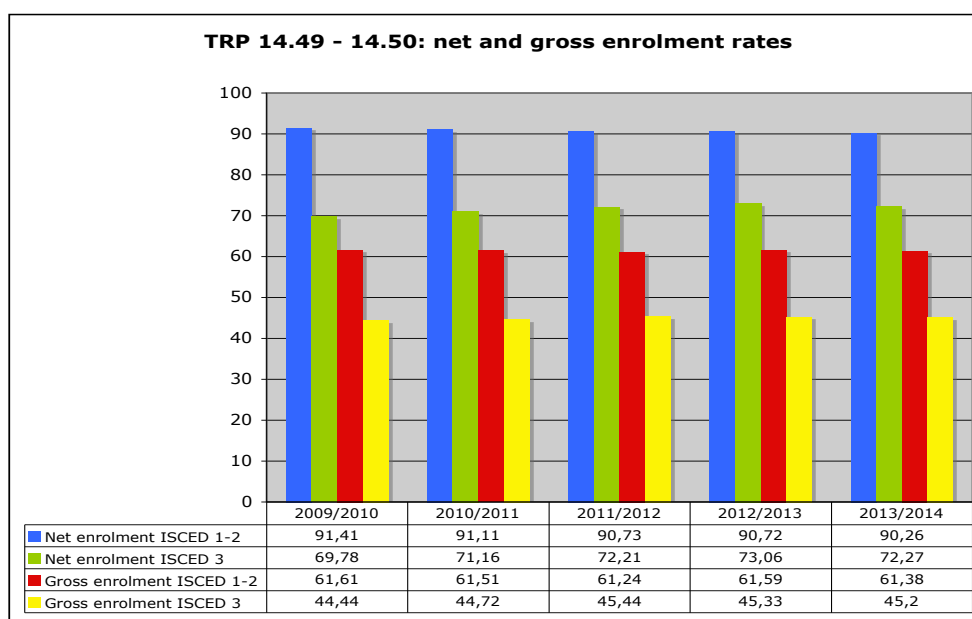
Source: Survey on Income and Living Conditions 2011 (SSO, 2014k, p. 37).

Figure A3.1: Number of students in higher education (1960–2013)



Source: SSO (2014m, p. 10). Graph: ETF.

Figure A3.2: TRP 14.49 and 14.50: Net and gross enrolment rates 2009/10–2013/14 (%)



Source: SSO (Torino process working group).

Table A3.5: Number of people participating in ESA training – planned and actual figures, 2014

Type of training	Purpose	Target	Actual
Training at known employer	To provide registered unemployed persons with three months' training related to defined job positions and based on training plans prepared by participating employers, who are obliged to retain at least 50% of the individuals trained.	1 125	544
Subsidised training at known employer	To provide three months of employment preparation training coupled with a period of subsidised employment to unemployed persons aged 50–59, young people up to 29 years with primary/secondary education, and long-term registered unemployed persons.	170	145
Training for occupations in demand in the labour market	Training provided through programmes of the MoES or verified adult education programmes with a duration of three months of training and one month of practical work experience.	232	202
Training for occupations in demand in the transport sector	One month of training in a licensed motoring school leading to a 'D' category driving licence and an opportunity for employment after completion.	30	30
Training for advanced ICT skills	Courses of 3–6 months to upgrade ICT skills in design, graphic design, 3D animation and post-production, Java web development, Cisco Certified Network Associate (CCNA) Routing and Switching or Microsoft Certified Solutions Associate (MCSA).	100	100 (est.)
Practical work (internship)	Three-month internships for practical work experience with private sector employers for individuals up to the age of 29 years with secondary education or a university degree.	319	237
Education for starting a business	Basic business start-up training implemented through the ESA's Self-Employment Programme.	1 000	1 050
Motivational training	Training and advice provided by the ESA to help unemployed people improve their job-seeking skills and motivation to use the ESA's services.	3 000	4 136

Source: ESA

Annex 4: Chapter 4

Table A4.1: TRP14 89: Proportion of public expenditure (budget of MoES) on education by level, including VET, 2013 and 2014

2014		
	Expenditure (MKD)	Proportion (%)
Primary education	503 456 000	13.77
Secondary education	431 974 000	11.82
Higher education	2 054 704 000	56.21
Pupil standards	228 354 000	6.25
Student standard	436 653 000	11.95
Total budget MoES	3 655 141 000	100.00
2013		
Primary education	502 111 300	13.85
Secondary education	420 191 072	11.59
Higher education	2 043 606 612	56.36
Pupil standards	251 899 007	6.95
Student standard	408 035 290	11.25
Total budget MoES	3 625 843 281	100.00

Source: MoES (Torino process working group).

Table A4.2: Number of VET students participating in practical learning

	2010/11	2011/12
Practical training (school laboratories)	40 466	39 787
Of which: VET-4 students	37 039	36 369
Summer practice	10 839	10 847
Of which: VET-4 students	8 891	9 066
Professional practice	3 005	2 366
Of which: VET-4 students	2 503	n.a

Source: MoES.

Section A4.1: List of Occupational and Qualification Standards

Source: ETF (2014c).

Note: All occupational standards marked 'twinning' have been developed within the framework of the twinning project Support for the Modernisation of the Education and Training system, MK 07 IB SO 03, and all of them are at level III, except for the occupational standard for Assistant electrical fitter, which is marked with level II.

Part 1 – List of existing occupational standards clustered according NQF sectors

Geology, Mining and Metallurgy

- Operator of mining machines in surface exploitation, twinning
- Operator of mining machines in underground exploitation, twinning
- Operator of mining machines in underground coal exploitation, 2011, level II
- Geo-driller, 2010, level III

Civil Engineering and Geodesy

- Façade worker, twinning
- Gypsum/plaster worker, twinning
- Dry construction fitter, twinning

Graphic Industry

- Visual application producer, twinning
- Typographer of conventional printing techniques, twinning
- Typographer of nonconventional printing techniques, twinning

Economics, Law and Trade

- Salesperson – demonstrator, twinning
- Salesperson – telemarketing, twinning
- Bank worker, 2010, level IV
- Accountant, 2011, level III

Electrical Engineering

- Electrician of high voltage installations to 1kV, twinning
- Electro-mechanic for home appliances and devices, twinning
- Electro-mechanic for winding, twinning
- Electro-mechanic for driving gear, twinning
- Electro-mechanic for cooling and thermal devices, twinning
- Electrical fitter of electrical-power facilities (plants and lines), twinning
- Assistant electrical fitter, twinning, level II

Agriculture, Fishing and Veterinary

- Producer of garden products, twinning
- Producer of flower crops, twinning

Personal Services

- Hairdresser, twinning
- Makeup worker, twinning
- Cosmetics worker, 2010, level IV
- Manicurist/pedicurist, 2011, level III

Mechanical Engineering

- Auto mechanic worker, twinning
- Milling machine operator, twinning
- Metal-turner, twinning
- MIG (Metal Inert Gas)/MAG (Metal Active Gas) welder, twinning
- Gas installation fitter, twinning
- Heating installation fitter, twinning
- Water supply and sanitary installation fitter, twinning
- TIG welder, twinning
- Welder (manual electric arc welding and flame welding), twinning

Traffic, Transport and Storage

- Hoist operator, twinning
- Forklift operator, twinning
- Freight forwarder, 2010, level IV

Textile, Leather and Similar Products

- Tailor of textile material, twinning
- Tailor of footwear, twinning
- Assembler of upper with lower parts of footwear, twinning
- Sewer of textile material, twinning
- Sewer of footwear, twinning
- Garment worker, 2010, level IV

Food Service Industry and Tourism

- Confectioner, twinning
- Cook, twinning
- Waiter, twinning
- Front desk worker, 2011, level IV
- Tourist agency worker, 2010, level IV

Chemistry and Technology

- Meat sorter, twinning
- Dairy worker, twinning
- Meat and meat products processor, twinning
- Salesperson of meat and meat products, twinning
- Producer of milk and dairy products, twinning
- Chemical process operator, twinning
- Operator in the pharmaceutical industry, twinning
- Operator of pharmaceutical active substances, twinning
- Cosmetics processor, twinning
- Producer of bread and bakery products, 2014, level III

Forestry and Wood Processing

- Furniture and interior carpenter, twinning
- Carpenter for construction carpentry (joinery), twinning
- Wallpaper worker – decorator, 2010, level III

Healthcare and Social Protection

- Physiotherapy technician, 2011, level IV
- Nurse, 2011, level IV

Sectors to be identified as yet

- House maintenance worker, 2014, level III
- Chimney worker, 2014, level III

Part 2 – List of existing qualification standards clustered according NQF sectors

Note: All qualification standards marked 'twinning' have been developed within the framework of the twinning project Support for the Modernisation of the Education and Training system, MK 07 IB SO 03, and all of them are at level III, except for the qualification standard for Assistant electrical fitter and Gypsum/Plaster worker, which are marked as level II.

Geology, Mining and Metallurgy

- Mining machines operator, twinning

Civil Engineering and Geodesy

- Gypsum/plaster worker, twinning, level II
- Dry construction fitter, twinning
- Decorator of wall surfaces – façade worker, twinning

Graphic Industry

- Typographer, twinning
- Graphics designer, twinning

Electrical Engineering

- Assistant electrical fitter, twinning, level II
- Electrician and electrical fitter, twinning
- Electro-mechanic, twinning

Agriculture, Fishing and Veterinary

- Gardener – florist, twinning

Personal Services

- Hairdresser, twinning

Mechanical Engineering

- Welder, twinning
- Pipeline fitter, twinning
- Metal processor, twinning
- Auto mechanic, twinning

Traffic, Transport and Storage

- Operator of machines for transfer of material, twinning

Textile, Leather and Similar Products

- Garments worker, twinning
- Footwear maker, twinning

Food Service Industry and Tourism

- Waiter, twinning
- Confectioner, twinning

Chemistry and Technology

- Milk processor, twinning
- Butcher, twinning
- Process operator, twinning

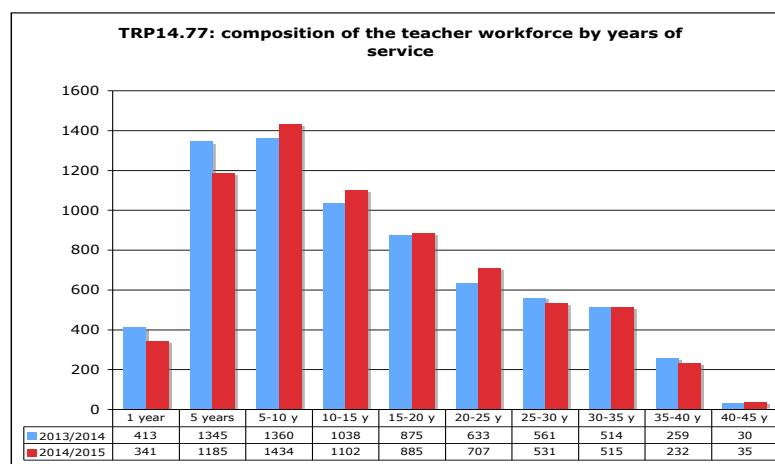
Forestry and Wood Processing

- Carpenter, twinning

Economics, Law and Trade

- Salesperson, twinning

Figure A4.1: TRP 14.77: Composition of the teacher workforce by years of service



Source: MoES (Torino process working group). Graph: ETF.

ABBREVIATIONS

ALMM	active labour market measure
ALMP	active labour market policies
BDE	Bureau for Development of Education
CAE	Centre for Adult Education
CCNA	Cisco Certified Network Associate
CCT	Conditional Cash Transfer
EBRD	European Bank for Reconstruction and Development
ECTS	European Credit Transfer System
EQAVET	European Quality Assurance in VET
EQF	European Qualifications Framework
ESA	Employment Service Agency
ETF	European Training Foundation
EU	European Union
FDI	foreign direct investment
GDP	gross domestic product
HLAD	High Level Accession Dialogue
HRD	human resources development
ICT	information and communication technologies
IMF	International Monetary Fund
IPA	Instrument for Pre-Accession Assistance
ISCED	International Standard Classification of Education
ISCO	International Standard Classification of Occupations
IT	information technology
LFS	Labour Force Survey
MCSA	Microsoft Certified Solutions Associate
MKD	Macedonian denar
MoES	Ministry of Education and Science
MoLSP	Ministry of Labour and Social Policy
NEC	National Examination Centre
NGO	non-governmental organisation
NQF	National Qualifications Framework
OECD	Organisation for Economic Cooperation and Development
PIRLS	Progress in International Reading Literacy Study
PISA	Programme for International Student Assessment
SEI	State Education Inspectorate
SME	small and medium-sized enterprise
SSO	State Statistical Office

SWOT	strengths, weaknesses, opportunities, threats
TIMSS	Trends in International Mathematics and Science Study
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
VET	vocational education and training
ZELS	Association of Units of Local Self-Government

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