



Republic of North Macedonia  
Ministry of Education  
and Science



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# **DEVELOPMENT CONCEPT**

**for the establishment of a  
Regional VET Centre in North Macedonia**

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Regional VET Centre in North Macedonia



BRIDGING THE SKILLS GAP  
TO CREATE NEW AND BETTER JOBS

## PROJECT TITLE

Bridging the Skills Gap to  
Create New and Better Jobs

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# NORTH MACEDONIA - the ROAD to REGIONAL VOCATIONAL EDUCATION and TRAINING CENTRES

## 1. THE CONTEXT

**INCREASED NEED for ADULTS + UPSKILLING for YOUNG PEOPLE**



## 2. NEW PRINCIPLES



## 3. OBJECTIVES → EXCELLENCE IN VET!

### REACHING NEW BENEFICIARIES



### Improve RELEVANCE of EDUCATION



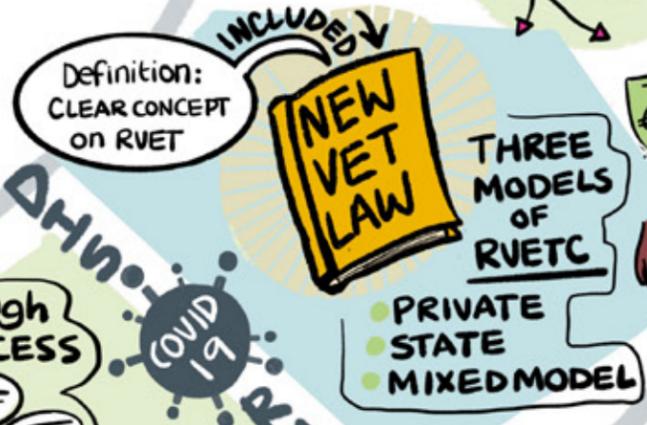
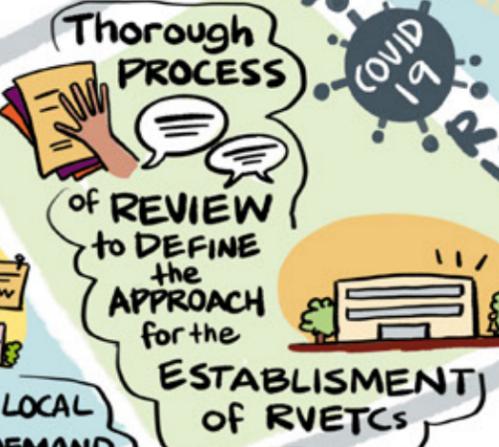
## 4. HOW WE GET THERE

- CLEAR POLITICAL COMMITMENT** - EDUCATION STRATEGY 2018-2025
- AMBITIOUS and CLEAR MILESTONES**

## 5. THE STEPS



- RESOURCES and ADVICE for REFORM**
  - EU funds
  - Donors
  - International Expertise, particularly ETF



### ENHANCE INNOVATION



# List of abbreviations

<b>AE</b>	Adult Education
<b>AEC</b>	Adult Education Centre
<b>AI</b>	Artificial Intelligence
<b>BDE</b>	Bureau for Development of Education
<b>BSG</b>	Bridging the Skills Gap to Create New and Better Jobs
<b>CoE</b>	Center for Excellence
<b>CoVEs</b>	Centers of Excellence
<b>CPD</b>	Continued professional development
<b>CVET</b>	Continued Vocational Education and Training
<b>E@E</b>	Education for Employment
<b>ESA</b>	Employment Service Agency
<b>ETF</b>	European Training Foundation
<b>HR</b>	Human Resource
<b>IVET</b>	Initial Vocational Education and Training
<b>MAWP</b>	Multiannual Work Plan
<b>MoES</b>	Ministry of Education and Science
<b>MQF</b>	Macedonian Qualifications Framework
<b>NFE&amp;AL</b>	Non-formal education and adult learning
<b>NQF</b>	National Qualification Framework
<b>PPP</b>	Public-Private Partnership
<b>RVETCs</b>	Regional Centers for Vocational Education and Training
<b>SME</b>	Small and medium -sized enterprises
<b>SSO</b>	State Statistical Office
<b>TF</b>	Training Fund
<b>UNDP</b>	United Nations Development Programme
<b>VET</b>	Vocational Education and Training
<b>VET Centre</b>	Centre for Vocational Education and Training
<b>VNFIL</b>	Validation of the non-formal and informal learning
<b>WBL</b>	Work based learning

# 1. The process of preparation of the Model

## 1.1. Model development explained

**T**he concept for developing Regional Centres for Vocational Education and Training (abbrev. RVETCs), which covers the formal, non-formal, adult education and validation of the non-formal and informal learning (VNFIL) was prepared upon initiative from the Ministry of Education and Science. At first it was supported by the European Training Foundation, and lately by the UNDP. The objective is to establish a self-sustainable and forward-looking VET concept, which is integrated into the national educational system, but also into the regional and European VET environment, with clearly distinguishable mechanisms for provision of educational and vocational learning outcomes.

The concept was prepared with the participation of members of a Working Group, under the guidance of the Ministry of Education and Science. For that purpose, several research materials<sup>1</sup>, as well as international experi-

ences were used<sup>2</sup>. This combined approach helped to integrate different viewpoints and to create a comprehensive document for the VET reform in the Republic of North Macedonia.

The development of the Concept begins with a short introduction to the environment in which the RVETC should be placed, identifying the challenges as seen from a holistic perspective of the clients, (e.g., students, parents, adult learners, companies, and people with learning difficulties), partners and users of the services of an RVETC. The Centre is then placed into the context of the Government reform in VET and adult education, and a section will look into the main features of the environment in which the centre is to be placed. International examples of best practice will be drawn from different models, which may inspire the work of generating a suitable model for the Macedonian environment.

The RVETC concept is then explained in its key functional elements. First the type, expected role and main functions of the Centre, then the management and administration, outlining the anticipated roles and respon-

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1 The research and materials used are appropriately listed throughout the text of this document.

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2 A chronological overview of the events and activities leading to the preparation of this document is provided in Annex 1

sibilities of the different functions, then follows a section on the resources (human resources, finances and equipment /facilities). The recommended partnerships will then be listed. The processes of the RVETC describe the overarching planning and implementation systems of the Regional VET Centre. The results and quality assurance section propose the introduction of a systematic monitoring and evaluation system that will meet basic international quality standards.

## 1.2. The vision and drivers of the RVETC concept

This concept provides guidelines for further steps towards more attractive, efficient, and effective VET as well as vision for further development.

The new Regional VET Centres are foreseen with the new Education Strategy for 2018-2025. It is expected that with their establishment the efficiency of the VET reforms will be improved by centralization of investments and concentration of results, as well as promotion and dissemination of VET innovations based on good international practices<sup>3</sup>.

The vision of the Regional VET Centres may be expressed in the following way:

**To accomplish and provide higher levels of specialization, leading towards recognition of VET excellence on national and international levels, thus contributing to the development of relevant educational policies, encompassing sector cooperation, entrepreneurship, labour market, and other related areas.**

The Regional VET Centre represents a shift from a traditional VET schooling system<sup>4</sup>, characterised by centralised governance, ruled by central directives, in a bureaucratic set up, with centralised budget, staff is centrally allocated, and each VET school teaches according to binding curricula, to a (semi)-autonomous VET Centre. This new status is seen in three different key areas:

**External governance**, which is based on overall objective setting, an external evaluation based on external quality management, an

overall budget for the institution, autonomy in terms of hiring and firing staff, and autonomy also in the organigram and the curricula;

**Internal management** of the work programme, added with self-evaluation according to a quality management system, an internal budgeting process. The institution has autonomy in terms of staffing and autonomy in terms of curricula and organigram (i.e., the institution can adapt the organisational structure and the contents of the curricula to the local needs);

**Business-education cooperation** often take the form of individual vocational schools which are better positioned to build links with local businesses and SMEs. Local employers may be alumni who are likely to employ school graduates and their families. It can be argued that engagement with SMEs should be the work of every vocational school. However, schools could be supported in this work by a centre with expertise in business-education liaison, and such a centre could broker some kind of reciprocal sharing of the benefits between schools, for example with respect to specialist placements. Sharing can be an efficient way of widening access to expensive modern equipment and optimising the use that is made of it. However, sharing may also be designed to support the blending of different functions, for example trainees engaging in research and researchers engaging in commercial innovation.

The so-called the Fourth Industrial Revolution ('Industry 4.0') is one of the most important drivers for understanding the changing role of VET policies and systems, as it is shaping new content and forms of jobs, skills and occupational requirements. Emerging disruptive technologies are gaining ground in production chains and added-value networks<sup>5</sup>. Automation, virtual intelligence, artificial intelligence (AI), big data and robotics are already part of our lives and working environments. Globalisation, environmental sustainability challenges, demographic changes and increasing inequalities are key factors to be taken into account when looking at the future of jobs and skills in the context of the digitalisation of the economy worldwide.

Reskilling and upskilling the workforce is vital in the present digital era<sup>6</sup>. This is why reforming networks of public VET institutions is becoming a strategic task for governments and

3 Education Strategy for 2018-2025 and Action Plan. <http://www.mon.gov.mk/index.php/2014-07-23-14-03-24/vesti-i-nastani/2549-2018-2044>

4 Centres of Vocational Excellence An engine for vocational education and training development, ETF 2020, p.99

5 The World Economic Forum (WEF) website: [www.weforum.org/agenda/archive/fourth-industrial-revolution](http://www.weforum.org/agenda/archive/fourth-industrial-revolution)

6 Centres of Excellence – an engine for vocational education and training development, ETF 2020

national institutions, that they in cooperation with private actors may be able to respond to the current and future high-quality skills requirements of employers, industries and innovation ecosystems operating in national and regional labour markets. This leads to defining new roles and missions for VET establishments which should be capable of acting as hubs to introduce technological and digital innovations, boosting creativity and taking the lead on the way new curricula should be designed and delivered.

According to OECD<sup>7</sup> “Vocational Education and Training (VET) ensures skills development in a wide range of occupational fields, through school-based and work-based learning. It plays a key role in ensuring lower school dropout rates and facilitates the school-to-work transition. In a changing world of work, well-designed VET systems can play a crucial role in developing the right skills for the labour market, not only for youth but also for adults in need of up-skilling or re-skilling”.

This places RVETC in a new role to provide entrepreneurial and other key competences for lifelong learning. This may enable RVETCs to become more attractive, responsive, inclusive and relevant. Overall, these issues progressively enhance vocational excellence as a key goal in the current VET policy reform of North Macedonia. This shapes the ambition to deliver high-quality skills within a lifelong learning perspective, promoting research and innovation.

The RVETC may take on the role of an “innovation hub” aiming at bringing together people with different backgrounds. In this scenario, creativity and brainstorming create a structure in which individuals interact with others. Hubs invite people to step out of the routine and openly interact with new people until something happens. Within the community everyone is encouraged to engage with everyone else, which is the most challenging aspect of the hubs. In this way hubs are different from those organisational models that only provide business support without a traditional incubator. They have an active role in the innovation eco-systems, combining structured organisational models and support programmes.

The RVETC may act as a “VET Leader”. VET leaders are those that design vocational education and training futures and will have attributes such as: risk-taking, initiative and inno-

vative behaviour, networking, partnership and alliance building abilities and a capacity for futuring, i.e., envisioning future trends, strategic resourcing, and being pro-active.

A Regional VET Centre is, according to international practice<sup>8</sup>, a larger establishment with broader activities than a local VET institution, including more target groups and a range of responsibilities towards the regional community, such as training and human resource development in different sectors, career guidance, support to entrepreneurship and start-ups, innovation. It operates in an autonomous way by a decentralisation of power, including budgetary responsibility and financial independence from national authorities in order to meet regional and local labour market needs and develop higher degree of accountability among local stakeholders. High emphasis is placed on ensuring high output standards, applying a culture of quality and quality assurance systems from the business world.

Social partners are increasingly involved in the power structure of the Regional VET centre, through councils and committees as well as active participation and involvement in the learning process and its evaluation.

Most recent examples of Regional VET Centres show an increasing focus on active participation in the development of an innovation culture in the region, supporting entrepreneurs and start-ups in all stages, bringing together students and business owners in learning community.

An important feature of the Regional VET Centre (RVETC) is its focus on lifelong learning, supporting inclusion and counselling and guidance to people in different age with different cultural backgrounds entering or re-entering the labour market, by creating an environment in which people from different disciplines can talk, share their knowledge and encourage entrepreneurship by setting up and sharing laboratories and creative room concepts.

Responsiveness to the needs of companies and society is another important feature of the Regional VET centre, building on partnerships with technically outstanding and research-based clusters with actors from the academia and industry, as well as corresponding infrastructures for education, research, technology transfer and start-ups.

7 <http://www.oecd.org/education/innovation-education/vet.htm>

8 See CEDEFOP publication *Exploring leadership in vocational education and training*, 2011, p.7ff

The main principles behind the RVETC concept may be represented in the following way (Graph 1).

GRAPH 1.

Broad range of activities	Decentralisation/ financial independence	Culture of quality	Social partner involvement
Innovation culture	Lifelong learning	Responsiveness to companies	Partnerships

The Regional VET Centre may play an important role in connecting education and training systems to the broader drive for innovation, economic growth and competitiveness, the so-called “**Smart Specialisation**”, which defines a process of diversification through local concentration of resources and competences in a certain number of new domains that require new resources, new technologies and new competences.<sup>9</sup> The “Europe 2020” Strategy and, in particular, the “Agenda for New Skills and Jobs”, recognise that anticipation and matching approaches and methods can help develop a skilled workforce with the right mix of skills in response to labour market needs, in a way that promotes job quality and lifelong learning. New activities sparked by smart specialisation, emerging industries and traditional sectors alike are affected by innovations and technological development and need competitive workers with modern skills that meet the requirements of high-tech and knowledge intensive industries. All countries need to ensure:

- (i) that skill shortages and mismatch do not inhibit growth;
- (ii) a workforce with a skills mix needed for innovation (e.g., soft skills, digital skills, entrepreneurship key competences); and
- (iii) flexible provision of lifelong learning to adapt to demographic changes and future skills needs and avoid job loss.

The Regional VET Centre needs to monitor and predict future skills, develop lifelong learning, enhance the skills and competences for employability, improve the quality of retraining and advanced training services. These drivers influence the way in which the Regional VET Centre organises its activities, the partnerships it should build and the services it should offer in the future. Smart specialisation is opening up opportunities, based on matching smart specialisation priorities,

for regions to collaborate with EU and other regions in competitive priority areas. Targeting high-value-added activities in areas such as the digital or green economies as well as innovative technology and manufacturing processes in traditional sectors unlocks new training and mentoring pathways to support the move, by SMEs in particular, from low- to high-value-added activities.

The Regional VET Centres are also expected to **provide additional expertise, know-how, information and services to other training providers**, which will help to improve their performance (become excellent); examples include CPD for teachers, assessment tools, instructional materials and labour market intelligence. Most of these services could (and may already) be provided by other organisations, such as national methodological centres or private companies, or by each school independently. However, a case can be made for scaled-up provision across a group of schools, as this promises to combine economies of scale with the responsiveness that comes from keeping services close to users.

Realising that all features may not be available immediately, but may be developed over time, the European Commission has provided a 3-stage development model for the Centres of Excellence<sup>10</sup> (CoVEs), which may be applied here. The different stages of the development of a Regional VET Centre into a Centre of Excellence have been addressed by the European Commission in the “Maturity model for CoVE development”.<sup>11</sup>

9 Ibid, p.112

10 See example in Annex 2

11 *Mapping of Centres of Vocational Excellence, ET 2020 Working group on vocational education and training (VET), European Commission 2019*

Phases	I Phase Setting up Foundations for RVETC	II Phase Developing added value	III Phase Achieving Excellence
Characteristic	This stage is characterised by activities that improve on what VET normally does, with close linkages to the labour market.	This stage is characterised by engagement with regional strategic development and collaborating with a wide range of stakeholders.	This stage is characterised by co-creating skills ecosystems, and local innovation and regional development. It has a strong VET internationalisation dimension and self-reflection on excellence.
A) improvements in teaching and learning processes	<ul style="list-style-type: none"> <li>▪ attuning the curricula and programmes closely to the needs of the labour market,</li> <li>▪ offering CVET alongside IVET based on LLL principles,</li> <li>▪ applying innovative pedagogies to improve VET quality,</li> <li>▪ provide occasional pathways to higher level VET</li> <li>▪ encouraging CPD of teachers and trainers,</li> <li>▪ building awareness of the education and VET as related to international European and national quality standards, and</li> <li>▪ setting self-assessing internal practices towards above mentioned standards.</li> </ul>	<ul style="list-style-type: none"> <li>▪ playing an active role in skill anticipation mechanisms to ensure a close match of VET to the labour market needs,</li> <li>▪ Increasing the integration of both IVET and CVET on lifelong learning principles,</li> <li>▪ adopting more systematic approaches to innovating teaching and learning methodologies,</li> <li>▪ develop pathways to higher level VET systematically,</li> <li>▪ linking innovations in teaching and learning closely linked with CPD,</li> <li>▪ implementing a quality management system and seeking third party certification to validate it.</li> </ul>	<ul style="list-style-type: none"> <li>▪ engagement in synergetic relationships with skill anticipation mechanisms,</li> <li>▪ conducting research or engaged with others in conducting research into effective teaching and learning methodologies,</li> <li>▪ providing trans-national joint curricula,</li> <li>▪ having pathways to higher level VET as an intrinsic part of the educational offer,</li> <li>▪ feedback mechanisms have been established between CPD practice and research,</li> <li>▪ guidance and validation services are offered as an integral part of VET to all students,</li> <li>▪ different management systems are integrated (e.g. quality, innovation, social responsibility, environment, health and safety, etc.), and</li> <li>▪ third party accredited certification has been sought in order to validate their implementation.</li> </ul>

Phases	I Phase Setting up Foundations for RVETC	II Phase Developing added value	III Phase Achieving Excellence
B) improvements in cooperation and partnerships	<ul style="list-style-type: none"> <li>▪ arranging placements in companies,</li> <li>▪ some provision of equipment and expertise by companies,</li> <li>▪ creation of new knowledge on an ad hoc basis or as a by-product of other activities and fed back into practice,</li> <li>▪ participating in international projects- mainly in the area of mobility.</li> </ul>	<ul style="list-style-type: none"> <li>▪ creating a two-way reciprocal relationship with businesses in sharing equipment and expertise,</li> <li>▪ participating in innovative hubs-technology diffusion centres and business incubators,</li> <li>▪ creating and disseminating knowledge through different kinds of projects, and</li> <li>▪ participation in international projects focused on mobility and innovation.</li> </ul>	<ul style="list-style-type: none"> <li>▪ a coherent and well-coordinated approach to partnerships,</li> <li>▪ applying sustainable funding models which involves strong and reliable contributions for the private sector,</li> <li>▪ using funding to integrate different management systems (e.g. quality, innovation, social responsibility, environment, health and safety, etc.) to assure excellence and sustainability of the VET services provided.</li> </ul>
C) improvements in governance and financing	<ul style="list-style-type: none"> <li>▪ ad hoc partnerships based on time-bound projects,</li> <li>▪ resource contributions made ad hoc from the private sector, and the use of funding to implement short term projects to address specific problems.</li> </ul>	<ul style="list-style-type: none"> <li>▪ becoming member of numerous regional and national networks,</li> <li>▪ developing sources of funding in private sector,</li> <li>▪ using funding to implement a quality management system to assure, control and ensure continuous improvement in the VET services provided.</li> </ul>	

The above-mentioned features of the 3 stages will be incorporated into the description of the RVETC concept and its main functions, as shown below in chapter 5.

## 2. Introduction to the North Macedonian challenges behind setting up the RVETC concept

The objectives of this concept development links directly with the priority 2.7. of the Education Strategy 2018-2025:

**“To support MES in the activities towards better provision of the VET Education up to the needs of the employers.”**

The development of a concept is an important step in the process of establishing a Regional VET Centre in North Macedonia, and the approach takes into account the complexity of the environment, such as the status of the existing provision (formal and non-formal VET), the skills gaps that exists in different sectors of the economy, urgent demands for supply of labour force in particular areas of the economy.

The concept also looks abroad, to examples of countries where these centres have been established, or are in the process of being set up, looking at pitfalls and challenges in the establishment process.

The Macedonian background for the decision to set up regional VET centres lies in the following identified shortcomings of the current VET system:

- Insufficient attractiveness of the VET (with exception of certain professions, like medicine, economics and law), especially of the two and three-year vocational education and lack of modern post-secondary education;
- Many general subjects in the VET curricula (around 42%) dominate with theory and offer only a very small percentage of practical learning (average of 20-30%); employers are not motivated to hire students for practical training in their companies;
- The gap between the supply of VET and the demand on the labour market, which gets complicated additionally due to the lack of flexibility and efficiency of the VET system for developing qualifications and its procedures for adjusting the VET curriculum to the labour market requirements;
- Teachers have a lack of knowledge of the modern technologies relevant to the subjects they teach, in addition to the lack of motivation of the teachers and the weak system for professional and carrier development;
- Low efficiency of VET school administration (among others due to inadequate

professional attitude of some of the principles), which suffers additionally due to lack of support from employees and unmanned services (e.g., IT administrators, carrier counsellor, special educator etc.);

- Limited possibilities of the VET system to provide inclusive education, to accept and adequately integrate students with special educational needs.

All the above-mentioned challenges have been confirmed during the previous ETF-conducted research<sup>12</sup>, and adequate examples have been identified for the three focus regions where public VET Centres are planned to be set up. For some of them certain steps have already been taken, as well as a series of laws that has been adopted.

**One group of challenges are linked with the innovation capacity**, which is a determining factor for economic growth and employment, but not traditionally linked with VET and AE. The transfer into a knowledge-based economy is essential for the further growth of these sectors. One of the measures of the Innovation strategy (B.1.) is to adapt education policy to develop the skills needed for innovation. Another relevant measure in the Innovation Strategy is B.3: increase the quality of vocational training and promote lifelong learning.

OECD performed an analysis of the national innovation system<sup>13</sup> and at the beginning the Ministry of Education and Science took the lead as implementing body of the activities of the National Innovation Strategy, which included:

- Participate in the preparation of action plans based on the Innovation Strategy;
- Submit proposals to the Government on policy in the area of innovation activity, and innovation activity programmes;
- Monitor and analyse European and global trends and standards in innovation activity;
- Monitor the implementation of existing operations in the innovation activity and propose measures in accordance with the development potential of the North Macedonia;
- Steer and engage in international cooperation;

- Conduct research, surveys and economic and technological inquiries in order to assist the shaping of government policy in aid of Innovation activity.

A working group<sup>14</sup> for preparing a Smart Specialisation Strategy for North Macedonia was launched in 2018. The working group coordinates all activities under the abovementioned framework. At the event, the provisional roadmap for the remaining stages has been agreed and it is expected that the final strategy document will be published soon. The Strategy will link with the framework for EU enlargement and neighbourhood countries, with particular focus on the mapping of economic, innovative and scientific potential and the entrepreneurial discovery process, as the country prepares for carrying out these two phases.

**Another set of challenges** lies in the implementation of the VNFIL concept, **Non-formal and informal Education and Adult Learning**. The Methodology for the process of validation of non-formal and informal learning has been developed. As well 10 advisors and 15 participants from relevant institutions about the VNFIL processes are trained. A new Law on Adult Education has been developed, which will regulate the VNFIL system for the first time. However, a considerable amount of work lies in implementing the VNFIL system on a national scale, and the RVETCs may act as appropriate instruments for introducing the VNFIL concept. This involves:

- Speed-up the process of non-formal education and adult learning (NFE&AL) programmes and service providers' verification, regularly update the catalogue of verified programmes and providers;
- Strengthened support of the process of establishing and operationalization of the system of validation of results from non-formal and informal learning, as a system to allow identification, documentation, assessment and certification of competencies that learners have already acquired. This system will allow for their horizontal and vertical mobility within the education system and the labour market;
- Adjusting the programmes according to the needs and the specific characteristics of process of adult learning;
- Improve learners' motivation to participate in NFE&AL through awareness raising, provision of information, guidance, support

12 Establishing Regional VET Centres in the Republic of North Macedonia, ETF 2019

13 [https://www.oecd.org/south-east-europe/programme/FYROM%20Innovation%20System\\_Assessment\\_for%20publication.pdf](https://www.oecd.org/south-east-europe/programme/FYROM%20Innovation%20System_Assessment_for%20publication.pdf)

14 <https://s3platform.jrc.ec.europa.eu/-/the-first-workshop-on-smart-specialisation-in-north-macedon-1?inheritRedirect=true>



and incentives for adult learners, validation of their prior learning, as well as enhancing career development opportunities;

- Introduce a system of partial qualifications, modular model of adult education and programmes for adults with special educational needs; provide key competences within the adult learning courses;
- Establish quality control of NFE&AL particularly through introduction of monitoring, external quality evaluation mechanisms;
- Introduce mechanisms for incentivising employers to invest in education and training particularly through promotion of partnerships between employers and adult education providers;
- Identify local NFE&AL needs (by municipalities) and ensure training provision at regional and local levels;
- Improve legal base and funding schemes of Adult Learning;
- Realise the Programme for completion of secondary education by adults with an increase of the number of involved municipalities.

In adult education, in the past period the Adult Education Strategy 2016-2020 prevailed, and in 2018 the new Adult Education Strategy for 2019-2023 was adopted. Both documents identify large scope of challenges for this system. Some of these challenges are external such as the demographic and educational structure of the population, the economy and the finances of the country, but also there are internal challenges as well, such as the attractiveness and participation of this type of education, policy and management, relevance

and quality, human resources (teachers/trainers/andragogists).

In addition to the stated challenges in the development of the Concept, 19 Benchmarks for Centres of Excellence in Vocational Education and Training (CoVE), set by the European Training foundation (ETF) were considered. Centres of Vocational Excellence in Vocational Education and Training are intended to be world-class reference points for training in specific areas for both initial training of young people as well as for continuing up-skilling and re-skilling of adults, through flexible and timely offer of training for the skills needs of companies. They operate locally, being closely embedded in the local innovation ecosystems and clusters and bringing together a wide range of local partners, such as providers of vocational education and training, employers, research centres, development agencies, and employment services (among others), to develop „skills ecosystems“ that contribute to regional, economic and social development, innovation, and smart specialisation strategies.

Benchmark for Centres of Excellence in Vocational Education and Training (ETF Network for Excellence).

- **CoVE 1:** Providing people with labour market relevant skills, in a lifelong learning continuum approach. Combining offers of initial VET qualifications, with offers of continuing training (for up skilling and re-skilling).
- **CoVE 2:** Providing higher level VET programmes; developing pathways to higher level programmes in conjunction with higher education institutions.

- **CoVE 3:** Establishing business-education partnerships for; apprenticeships, internships, sharing of equipment, exchanges of staff and teachers between companies and VET centres, etc.
- **CoVE 4:** Working together with local SME's by sharing equipment and creating incentives for staff to engage in applied research and development projects with the involvement of the VET learners, and by providing SMEs with technical support, tools, methodologies and training to improve their apprenticeship offer and up-skilling/re-skilling offer for adults.
- **CoVE 5:** Development, introduction or presence of Joint VET curricula together with other VET providers and companies in various countries bringing the very best know-how from each partner and facilitating recognition.
- **CoVE 6:** Development, introduction or presence of internationalisation strategies to foster trans-national mobility of VET learners as well as teachers and trainers, with or without Erasmus+ support. This could also include preparatory work to facilitate mobility such as teaching programmes or courses on EU studies to better understand Europe's integration process and its place in a globalised world (e.g. inspired on the Jean Monnet actions).
- **CoVE 7:** Development, introduction or presence of innovative teaching and training methodologies, including those based on digital technologies (e.g. MOOC's, simulators, etc.)
- **CoVE 8:** Development, introduction or presence of innovative curricula and pedagogies focused not just on technical skills but also transversal competences, e.g. entrepreneurship.
- **CoVE 9:** Investing in the continuing professional development of teachers and trainers, for both pedagogical skills as well as technical skills.
- **CoVE 10:** Development, introduction or presence of project-based learning that brings inter-disciplinary approaches and VET learners from different fields of study (e.g. design, marketing, engineering) to solve real work problems/challenges.
- **CoVE 11:** Providing guidance services, as well as validation of prior learning.
- **CoVE 12:** Development, introduction or presence of business incubators for VET learners to develop their entrepreneurship skills and projects.
- **CoVE 13:** Acting as or supporting innovation hubs and technology diffusion centres, which might support companies of any size, while sharing equipment and creating incentives for staff to work together with local SME's in applied research and development projects, with the involvement of the VET learners.
- **CoVE 14:** Supporting the attraction of foreign investment projects by ensuring timely provision of skills for companies investing locally.
- **CoVE 15:** Development, introduction or presence of "International VET campus/academies" for learners, teachers and trainers, leaders in VET institutions, as well as for people considering future vocational study options. These could be focused on specific occupational fields, or products.
- **CoVE 16:** Participating in national and international Skills competitions, aimed at raising the attractiveness and excellence in VET.
- **CoVE 17:** Contributing to creation and dissemination of new knowledge in partnership with other stakeholders, e.g. through joint R&D with universities, R&D units in companies, research bodies etc.
- **CoVE 18:** Making use of EU financial instruments and Funds to support infrastructure investments to modernise VET centres with advanced equipment (including simulators, and high-tech equipment).
- **CoVE 19:** Developing sustainable financial models that combine public funding, and income generating activities for the Centres of Vocational Excellence.

# 3. Placing the RVETC in the context of Government reform programmes and strategies

The establishment of the Regional Centres for Vocational Education and Training is supported by the priorities of the Program of the Government of the Republic of Northern Macedonia in the direction of:

- Education strengthens the economy
- The key is in the teacher / trainer / coach
- Focus on dual education
- Debate with the business community
- Functional analysis of the network of secondary vocational schools
- Functional Centres for Vocational Education and Training
- Investing in equipping education.

The vision for functionality of the RVETC in the next 10 years is through the beginning of a reform that leads to: self-sustaining and advanced vocational education and training, which is integrated in the national education system, but also in the regional and European space with clearly recognized mechanisms for providing educational and expert output results.

In order to overcome the challenges in VET and AE, the Government set four priorities

for reforming and developing the VET system, out of which the following are very important for the concept and establishment of the regional VET centres in the Republic of North Macedonia:

- Priority I. Harmonizing VET with the needs of the labour market
- Priority II. Improving the learning environment and the quality of VET
- Priority III. Increasing the scope of VET
- Priority IV. Improving human resources capacities

In that direction are the priorities for learning and education of adults:

Priority I. Increasing the qualifications of adults (knowledge, skills and competencies)

Priority II. Improving the content and quality of adult learning and education

Priority III. Improving legislation, organization and management of adult learning and education

The relevance of these 7 priorities for the RVETC concept development is shown in the tables below by highlighting the relevant expected outcomes.

Education Strategy 2018-25	
VET priorities	Relevance for RVETC development
<b>Priority I. Harmonizing VET with the needs of the labour market</b>	
1.1. VET system can adjust rapidly to the changing needs for skills of the labour market;	The RVETC should be in a position to react quickly to respond to regional and local labour market needs, by short decision-making processes, rapid development and approval of curricula and financially beneficial conditions
1.2. Learning in the VET system is organized in a more flexible and effective way towards obtaining competencies and results in accordance with the defined standards;	Introducing VNFIL will bring more flexibility into the VET system, so that previous knowledge and experience is recognised and the learner may start the learning process in accordance with own prerequisites.
1.4. The VET system is constantly informed on the demand for labour force, types of qualifications and skills, and this information is used for the development of VET;	Close cooperation with local labour market authorities will ensure updated local LMI which the RVETC may use to constantly adapt training provision.
1.6. Post-secondary Vocational education is reformed in accordance with the MQF.	The RVETC is to become a focal point for developing and offering post-secondary programmes;
<b>Priority II. Improving the learning environment and the quality of VET</b>	
2.1. The efficiency and efficacy of the VET system are improved concerning the expenses and the importance of the system on the local, regional and national labour market;	The RVETC will offer different functions, which directly target specific gaps in the local, regional and national labour market –and which are set up as quality controlled cost centres within the RVETC.
2.2. The learning process is sustained with all resources necessary for achieving the planned learning outcomes;	Required resources for the learning process are specified and provided for in the RVETC budget plan.
2.4. The VET students acquire practical skills relevant to the needs of the working environments;	WBL is an integral part of the functions, and coordinated by professional staff in the RVETC
2.5. The business community takes active participation in the implementation of VET;	Business community is actively involved in the management and implementation of services of the RVETC
2.8. The efficiency of the VET reforms is enabled by the centralization of investments and concentration of results;	By centralising investments in RVETCs a better quality is expected in terms of results.
2.9. Promotion of introduction and dissemination of innovations in VET based on best national and international practices.	RVETCs will reflect the newest innovations in VET through a planned strategic approach based on best national and international practices.
<b>Priority III. Increasing the scope of VET</b>	
3.1. The students that complete VET are able to make informed decisions concerning education or their career	The RVETC includes a career centre designated to support students in making informed career decisions;
3.2. A larger number of students are enrolled in VET and they progress well in their studies;	The RVETC concept attracts a broader range of students in LLL studies, with individual progression routes through the learning system.
3.3. The attractiveness and respect of vocational areas and VET are generally improved;	The RVETC concept aims to raise the image of VET, offering employable skills.
3.4. The conditions for including students from correctional facilities into VET have been improved.	RVETCs may offer a wide range of LLL study options for students from correctional facilities in specially adapted programs.

Education Strategy 2018-25 VET priorities		Relevance for RVETC development
Priority IV. Improving human resources capacities		
4.1. Professional competencies of teachers are being constantly improved;		RVETCs will have an institutionalised CPD system for upgrading professional competencies of teachers.
4.2. Teachers are motivated to demonstrate better performance;		RVETCs will have autonomy to spend revenues on e.g. teacher benefit systems.
4.3. Principals of all VET schools satisfy the minimum requirements of professional competences;		RVETC will have standardised minimum requirements for principals.
4.4. Education and training is accompanied with complete scope of support services necessary for students' quality learning process.		RVETCs will offer a range of support services, such as career guidance, WBL support, innovation centre etc. that may support each individual learner in a quality learning process.

Education Strategy 2018-25 Adult education priorities		Relevance for RVETC development
Priority I. Improve qualifications (knowledge, skills and competences) of adults		
1.1. Opportunity to validate competences acquired through non-formal and informal learning is provided to all citizens thus improving attractiveness of Lifelong Learning and increasing competitiveness of labour force;		RVETCs will offer VNFIL services to citizens and be able to offer a range of LLL skills development programs.
1.2. Education attainment level of population is increased;		The RVETC will act as a regional hub for educational attainment in a LLL perspective
1.3. Key competences of adults are improved;		The RVETC will be able to offer training in key competences, in accordance with identified LLL gaps;
1.4. Learning opportunities of adults with special educational needs are improved;		The RVETC will be able to offer specially adapted programs to adults with SEN, by specially trained teachers;
1.6. Motivation of adults to participate in courses is improved;		RVETCs will offer courses for improving skills that are demanded by the local business community;
1.7. Opportunities of ALE are enhanced due to improved policy;		RVETCs will offer VNFIL, post-secondary and adult learning skill development programmes in accordance with the improved policy in VET and AE.
1.8. Enrolment in ALE is increased and contributes particularly to regional and local development		RVETCs have targeted promotional activities specifically targeting ALE;
Priority II. Improve Content and Quality of Adult Learning and Education Provision		
2.3. Quality of ALE provision is improved as a result of strengthened professional competences of Adult Educators;		RVETCs will have CPD systems for upgrading skills of adult educators;
2.4. Relevance of the Adult Education to the Labour Market needs is increased.		RVETCs will draw on local and regional business communities to identify exact labour market needs, from which training courses may be developed and offered to the local/ regional labour market.
Priority III. Improve Legislation, Organisation and Management of Adult Learning and Education		
3.3. Opportunities and options for establishing preconditions for increased investments in ALE are identified.		RVETCs will have financial autonomy to offer financial schemes for increased investments in ALE;

## Operational grounds

In the Education Strategy 2018-2025, in the part concerning VET: Priority II **increase Enrolment of Pupils and Improve Inclusiveness and Interethnic Integration in Secondary Education, there is a Measure 2.7** Establish VET Centres of Excellence with Activity 2.7.1: **Develop a Concept on VET Centres of Excellence.**

<b>2.7</b>	<b>Establish VET Centres of Excellence</b>	<ul style="list-style-type: none"> <li>▪ Efficiency of VET reforms is ensured through centralisation of investments and concentration of results</li> <li>▪ Introduction and dissemination of VET innovations based on the best international practices is promoted</li> </ul>	<ul style="list-style-type: none"> <li>▪ 5 VET Centres of Excellence officially established, fully equipped for provision of high-quality VET and piloted</li> </ul>
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In the ESRP<sup>15</sup> under strand 3.2.3 “Strengthening the employability of the labour force and building flexible lifelong learning pathways”, 3.2.3.1. “Objective: Development, modernization and improved attractiveness of VET” section e.

<b>e/ Establishing Regional Vocational Education and Training Centres</b>	<p>Establishment of three regional vocational education and training centres that would offer opportunities for formal and non-formal education, post-secondary education and adult education. The regional centres will contribute to the optimization of investments into vocational education and training - including the procurements for the vocational education and training (infrastructure and equipment), will introduce modern and flexible curricula with a possibility to continue with traineeship in companies, opportunities for validation of non-formal and informal education, training and retraining for employed and unemployed persons. The regional centres will have a greater autonomy and freedom to innovate and adapt to the needs of the industry and the employers.</p>	MoES, VETC, AEC, employers	2019 – 2022	<ul style="list-style-type: none"> <li>▪ 30.895€</li> <li>▪ 2019 MoES budget</li> <li>▪ 160.162€</li> <li>▪ Draft 2020 MoES budget</li> <li>▪ 2.600.000 €</li> <li>▪ IPA II – Sectoral budget support</li> </ul>
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Additional policy frameworks exist in the form of “the Communication on the European Education Area by 2025<sup>16</sup>, which is underpinned by six dimensions: quality, inclusion and gender equality, green and digital transitions, teachers, higher education, a stronger Europe in the world. Initiatives will inter alia look at ways to enhance quality, notably with regard to basic and digital skills and to make school education more inclusive and gender sensitive and improve school success. They will help strengthen understanding of climate change and sustainability, foster the greening of education infrastructure, support the teaching

profession, further roll out European Universities and enhance connectivity among education and training institutions.

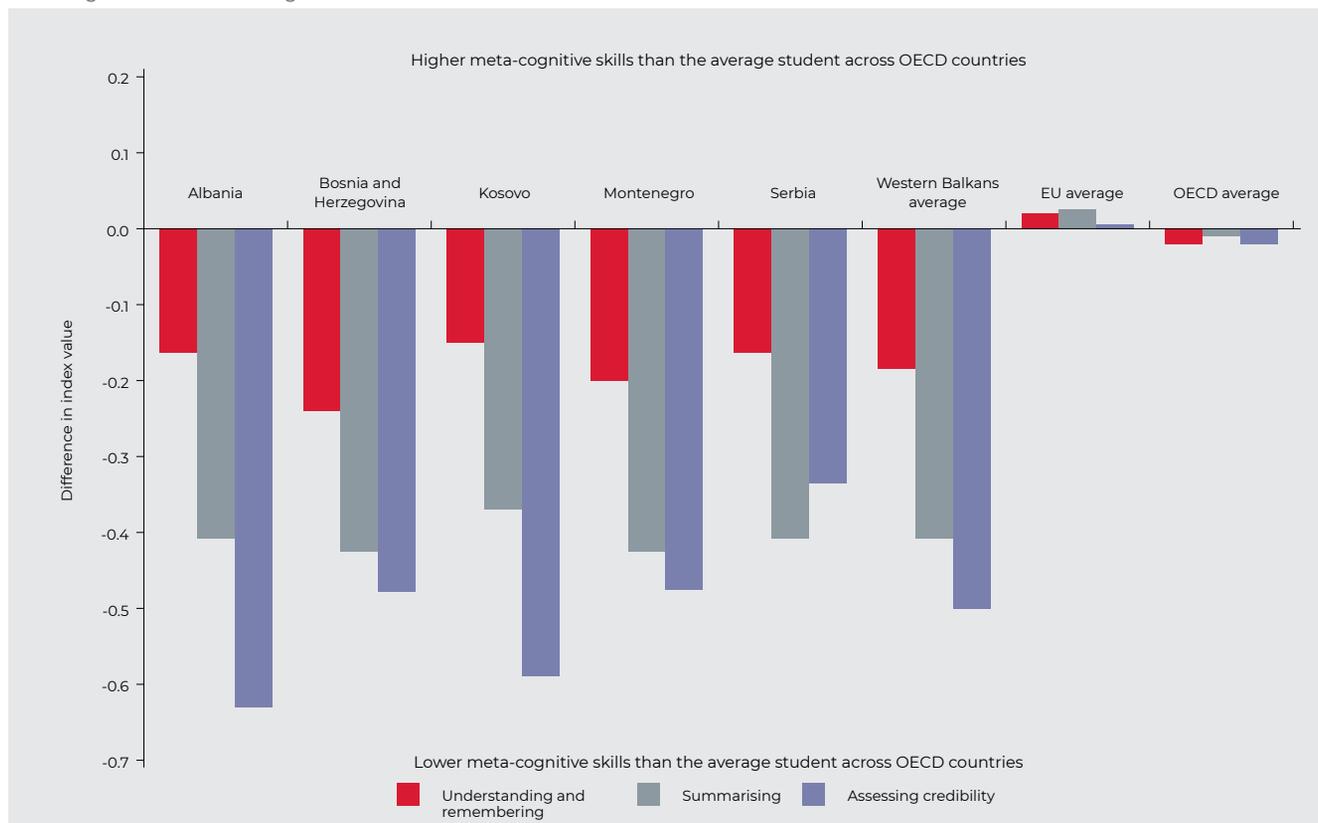
The Communication sets out the means and milestones to achieve the European Education Area by 2025, supported by Europe’s Recovery Plan (NextGenerationEU) and the Erasmus+ Programme. In addition, it proposes a framework for cooperation with Member States and engagement with education stakeholders, including a reporting and analysis structure, with agreed education targets, to encourage and track reforms. Efforts to establish the European Education Area will work in synergy with the European Skills Agenda, the renewed Vocational Education and Training policy and the European Research Area.

<sup>15</sup> Employment and Social Reform Programme

<sup>16</sup> [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_20\\_1743](https://ec.europa.eu/commission/presscorner/detail/en/IP_20_1743)

**GRAPH 2.**

Meta-cognitive skills in reading



Source: Education in the Western Balkans: Findings from PISA

The Digital Education Action Plan (2021-2027) proposes a set of initiatives for high-quality, inclusive and accessible digital education in Europe.

Another important dimension is the development of entrepreneurial skills, which has been on the EU policy agenda for some time<sup>17</sup>, со препорака до стручните училишта:

- extend entrepreneurship to all fields of study in vocational education: link practical training in specific fields of study with the objective of entrepreneurship, and provide support for students interested in starting up a business.
- make use of methods based on real experience (project work with real enterprises or with the local community, student mini-companies, etc.).
- ensure access to experts (from businesses, business associations, and NGOs) who can provide training and ongoing support.

Education systems in the Western Balkans are below the OECD and the EU averages in terms of students' meta-cognitive skills. PISA 2018 defines meta-cognitive skills as knowing how to guide one's own understanding and learn in different contexts. Having meta-cognitive skills is crucial in modern societies because they help individuals navigate, interpret and solve unanticipated problems (OECD, 2020<sub>[3]</sub>).<sup>18</sup> Lack of such skills suggests that students from the region might be less discerning and critical of the information that they access, which is an important asset for the labour market (Graph 2).

<sup>17</sup> Entrepreneurship in Vocational Education and Training Final report of the Expert Group, European Commission 2009

<sup>18</sup> OECD (2020), Education in the Western Balkans: Findings from PISA, PISA, OECD Publishing, Paris, <https://dx.doi.org/10.1787/764847ff-en>.

# 4. Local context analysis

## 4.1. Legal context analysis

The RVETC is placed as a part of the existing legal framework. The establishment of RVETCs is regulated with **Article 5 of the Law on Vocational Education and Training**, which introduces RVETCs as one of 3 types of VET institutions (schools, centres and regional VET centres). However, the Rulebook on the accreditation process for becoming a RVETC as a separate by-law is foreseen to be developed. The **Law on Secondary Education** has elements that guide its establishment, such as section 1 Basic provisions, article 2, which mentions that “private schools” offer secondary education. **The Law on Concessions**, subchapter Public Private Partnerships and the **Law on Innovation** article 4, states that innovation activities involve, among others transfer of technologies and/or knowledge for innovative products, technologies, processes and services – the RVETCs can thus take on the role of technology parks that promote specific knowledge and skills for new technological processes.

### 4.1.1. Accreditation of an RVETC

**The accreditation of an RVETC** may follow three different pathways:

**In the State Model** the RVETC may be established by applying the Law for Secondary Education and Law for Vocational Education and Training and the Law for Adult Education.

**In the Mixed Model** the RVETC (all types all collaboration between VET schools and companies, including PPP) may be established by applicable existing legal framework, such as:

- Law on Concession and Public and Private Partnerships No. 07-3620/1 of 24 September 2014 – this would apply mainly to the development of educational infrastructure<sup>19</sup> (Educational facilities – primary, secondary, tertiary: - Dormitories- Classrooms- Recreation facilities- Entire campus infrastructure);
- Law on Financing of the Units of Local Self-Government, 61/2004 of 13.09.2004.
- Law on Open Citizen Universities for Life-Long Learning, 36/2011, 41/2014, 145/2015, 55/2016 and 64/2018- covering institutions

<sup>19</sup> [https://economy.gov.mk/Upload/Editor\\_Upload/JPP/fatmire/PPP%20Diagnosti%20report%20final%20eng.pdf](https://economy.gov.mk/Upload/Editor_Upload/JPP/fatmire/PPP%20Diagnosti%20report%20final%20eng.pdf)

that perform public service as an activity in the field of formal education of young people and adults (primary education for adults, secondary education for adults, vocational training, vocational education for occupation, technical education and post-secondary education for adults, re-training and additional training) in accordance with the Law on Adult Education, as well as non-formal education of young people and adults aimed at training for work, various social activities or personal development in accordance with the Law on Adult Education;

- Law on Innovations, No. 79/2013, 137/2013, 41/2014, 44/2015, 6/2016, 53/2016, 190/2016 and 64/2018. This Law regulates the innovation activity, principles, goals and organization of the application of the results of the innovation activity, scientific research activity, technical and technological knowledge, inventions and innovations, as well as the establishment, status, competencies, management and management, financing, work supervision, as well as other issues related to the work of the Fund for Innovation and Technological Development.
- Law on Recognition of Professional Qualifications, No. 07-5272 / 1, December 29, 2010. This Law regulates the procedure and the bodies competent for issuing a license for providing services by foreigners in the Republic of Macedonia, the procedure and the bodies competent for recognition of professional qualifications for regulated professions recognized by the principle of automatism (hereinafter: sectoral professions), as well as the procedure and the bodies competent for the recognition of professional qualifications for regulated professions that enter the general system of the Republic of Macedonia (in hereinafter: the general system of regulated professions).

VET governance systems are moving from centralised models and modes of steering policies towards hybrid models characterised by the increasing inclusion of governmental and non-governmental actors in VET policy making within the policy cycle at different governance levels.

**In the Private Model** the RVETC may be established through a host company, national or international organizations, which may accredit the Centre in accordance with internal quality standards, in the case where a Centre is accredited to deliver services in accordance with

a licence agreement of an accreditation body. The following legal framework may also apply to this category:

- Law on Recognition of Professional Qualifications, No. 07-5272 / 1, December 29, 2010
- Law on Innovations, No. 79/2013, 137/2013, 41/2014, 44/2015, 6/2016, 53/2016, 190/2016 and 64/2018).

#### **4.1.2. Relevant legislation for the operation of a regional VET Centre**

The following legislation may additionally be governing the functioning of the Regional VET Centres, depending on which functions will be included into its portfolio of services:

- Law on Secondary Education
- Law on Vocational Education and Training
- Law on Use and Disposal of Goods in State Ownership and Goods in Municipal Ownership
- Law on Education of Adults
- Law on Education Inspection
- Law on National Qualifications Framework
- Law on Teachers and Non-Teaching Staff in the Primary and Secondary Schools
- Law on Higher Education Institutions for Education of Teaching Staff in Pre-School, Primary and Secondary Education
- Law on Bureau for Development of Education
- Law on the State Examination Centre
- Law on Companies
- Law on Protection of Competition.

#### **4.2. Methodology for analysis of demand and supply**

The methodological approach has already been developed by ETF, e.g., in the publication “Skills demand and supply in North Macedonia – an analysis at regional and local levels”.

The research for this analysis should employ both quantitative and qualitative methods. The main part of the quantitative analysis will be performed using data from official sources. The datasets will be selected on the basis of the identified level of the data's quality. In some cases, datasets are not readily available and may be obtained through additional processing of existing data (e.g., by the SSO and

ESA). This may particularly be the case for collecting data on the number of employees by regions disaggregated by activity sector.

Complementary to the quantitative analysis, a local skill needs questionnaire should be designed and distributed in order to obtain more detailed information and insights, and to confirm or supplement some of the findings from the quantitative analysis.

The research should aim to cover both the **skills demand**:

- Existing labour market information from a number of sources, including the State Statistical Office (SSO), the Employment Service Agency (ESA) and specific analyses of employers' needs. It gathers additional insights on skills demand and supply problems at the municipal level to produce a reliable description of economic needs and social context in the three regions under review.

and **the skills supply**:

- A parallel assessment focused on the capacity of VET providers (initial VET and continuous training) in the target regions. That assessment should investigate and propose scenarios in which the quality, quantity and mix of skills offered by vocational schools and adult education providers can be better aligned with labour market and social needs.

As VET-qualification requirements should be tailored to the regional, or even local, labour market, it is essential to take a closer look not only at country-wide trends, but also to regional trends. Furthermore, the technical standards may vary, e.g., more modern in the hubs, and less modern in rural areas. This also recognises that other donors may be engaged in regional or local level developments.

Due to the increasing importance of digitalisation and its strong impact on the economy and the labour market, particularly in terms of competence requirement, a particular focus may be put on the implications of digitalisation on employment and transition into employment in recent years.

The external analysis will cover the following target groups in the five selected regions:

- Active business entities (companies/employers);
- Municipalities/local economic and social councils;
- Organisations of employers and chambers of commerce; and

- The Employment Service Agency (ESA) – including local employment offices.

Bringing the results from the two previous working steps together will allow a first and preliminary assessment of possible gaps in the VET & AE-sector provision, which will then be discussed and tested with the stakeholders in order to identify the most important needs in relation to demand and supply. The larger the gap between supply and demand the more promising are additional training opportunities. In such case, it is recommended to employ a statistical analysis to identify such needs.

It is, nevertheless, important to account for differences by region, gender and, in particular, VET-qualification on the one hand, and economic development by region and trade/branch. This also concerns the technical standards of companies and employers in the region.

The identified future needs will be broken down in specified future needs of VET schools and AE centres, based on the detailed analyses of the present situation of VET schools and AE centres and the identified future needs. This comparison of training needs with present infrastructure in VET schools and AE centres will result in a detailed list of requirements in relation to school buildings, technical infrastructure and possibly also train-the-trainer requirements, particularly if areas are covered which are not yet trained (adequately to modern standards). A more detailed analysis and specification will take place by a joint review of existing supplies (buildings, technical equipment) with experts from the subjects. Eventually, the identified future training and the specified requirements concerning buildings, technical and classroom equipment as well as train-the-trainer-needs, if applicable, will be prioritised and included into a concept and strategy for implementation.

Additionally, these investment and funding needs should be reviewed in the light of different funding opportunities and strategies, especially in relation to government policies. Among other options, we will consider PPP-options to involve and strengthen the role of the private sector in the future VET/AE-sector in North Macedonia.

### 4.3. Results of analysis of demand and supply

The results of analysis undertaken in connection with the preparations for establishing

Regional VET Centres in North Macedonia build on two different analyses conducted during 2020. The first is conducted by ETF and published under the title “Skills demand and supply in North Macedonia – an analysis at regional and local levels.” The focus of this analysis was the 3 regions of Southwest, Polog and Northeast. The recent Covid-19 pandemic may have an impact on the future trends in the listed sectors. The second analysis was conducted by UNDP during 2020 under the “Bridging the Skills Gap to Create New and Better Jobs” project. A summary of the above analyzes is given in Annex 3, and the answers to the questions of the relevant stakeholders regarding the establishment of the RCSO are given in Annex 4.

#### 4.4. Selection of RVETC institutions

##### Selection process

Several criteria should be taken into consideration for the selection of vocational schools to join the RVETC. Special attention should be paid to the implementation of European and international practices into the establishment of the VET Centres of excellence. This will be regulated in appropriate secondary coordination.

Starting criteria important for the selection process of the Regional VET Centres:

- a. Identification of options **through research** – it is a precondition that specific options are developed after the research has been completed, so that such options may be tested for costs, practicality, and acceptability.
- b. It is crucial to **conduct consultations with relevant stakeholders**, as additional and relevant information may be acquired. E.g., information concerning the changes in the need of skills or unused resources within the schools or the service providers. Additionally, the consultations may help in identifying social advantages as well as the costs that might arise from the selection.
- c. A main issue will be to **include those stakeholders that play a leading role or that are anticipated to be beneficiaries in the selection process**. If the schools, service providers or the business community help in the shaping of the Regional VET Centres development, it is more probable that the Regional VET Centres will meet their needs and will be drivers of changes/im-

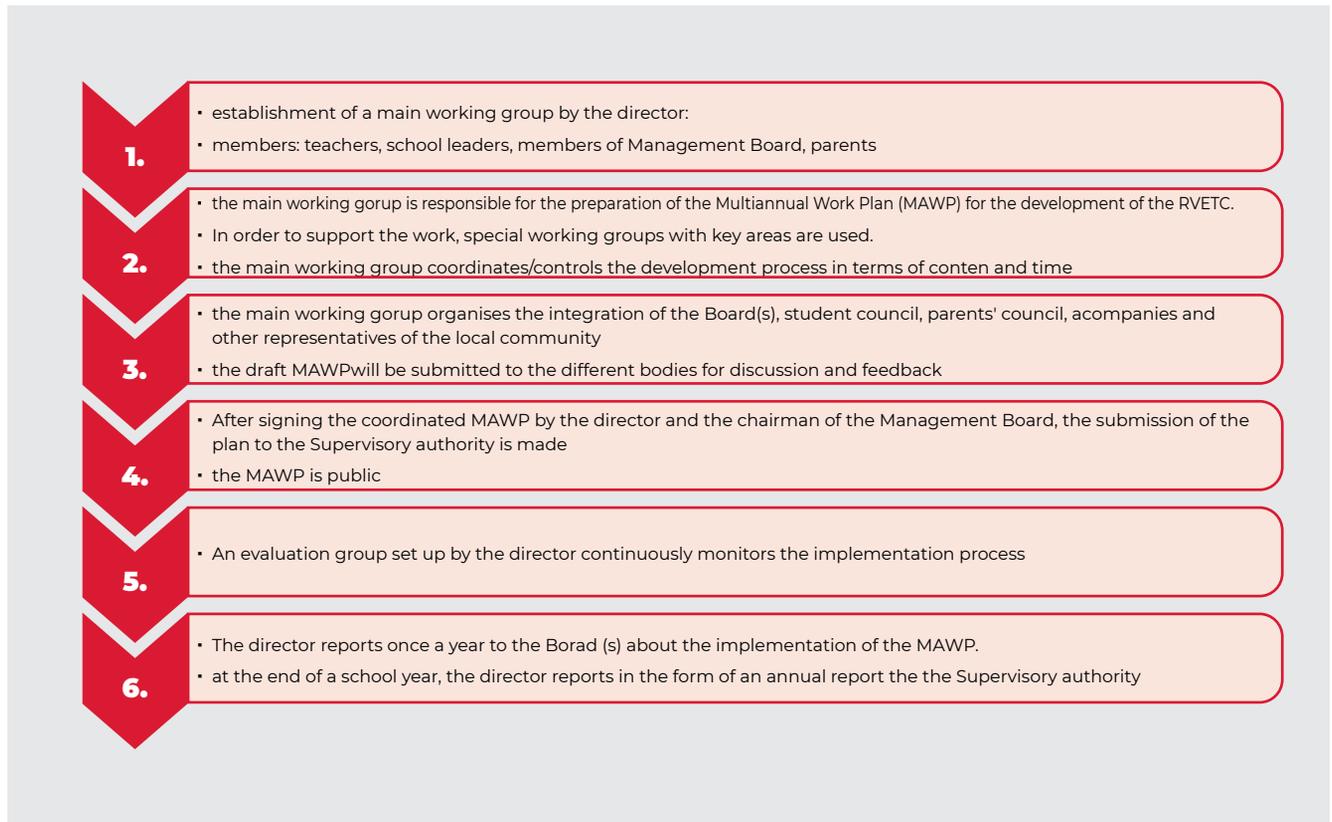
provements of the vocational education in the region. One of the options is to allow schools in their partnerships with the interested parties to submit joint offers for development of the Regional VET Centres. As alternative approach, and in some cases of national interest, would be that the Ministry of Education and Science conducts the negotiations concerning the scope and the mission of Regional VET Centres with one or more schools.

- d. The decisions for selection of schools that will grow into Regional VET Centres should take into consideration not only the immediate /urgent needs of certain schools and the local needs of the labour markets, but also the needs of **other schools and employers in the region, as well as the strategies, i.e., the approach to the supply and demand for skills in the other regions**.
- e. **Estimation of capacities for establishing a culture of excellence in the vocational training and education**, in the processes of modernization of education, and rapid harmonization with the needs of the industry.

Possible criteria for selection of Regional VET Centres:

- Importance:** the selection of vocations/sectors and educational profiles/qualifications that will be offered against the regional needs, possible partners, beneficiaries, clients etc.
- Efficiency:** cost/benefit analysis, investment per graduated student in the next three to five years, diversification of services, expected profit, tax capacity, comparison to the “regular” VET providers.
- Effectiveness:** expected number of enrolled persons per year per vocation/sector and type of students (formal and non-formal education, initial and continuous VET, young and adult) as percentage of the total population for the adequate age group, estimated employment rate etc.
- Impact:** the expected impact on the socio-economic situation in the region, reduction of poverty and unemployment rates, migration, economic productivity etc.
- Sustainability:** potential for development, possible future resources, and scope of financing, generating revenues, continuous attractiveness of the sector (for the students/participants as well as for the employers) aligned with sustainable development goals.

GRAPH 3.



#### 4.5. Analysis of the role of the RVETC in the region

The fast-paced development in the economy as well as in vocational centres requires a continuous updating or adaptation of goals, so that a constant examination of work programmes must always take place here. The abolition or the re-entry of educational programmes and, in particular, the introduction of new technologies in individual professions, always lead to necessary development adjustments. This adaptation process is a continuous process of redefining the role and functions of the RVETC in the local and regional community.

This section describes the methodology to be applied when defining or redefining the roles and functions of a regional VET Centre. The most important developments of the RVETC are set for the future and information on the current work of the centre is presented. This means that the creation of an RVETC development plan is of central importance for every center and according to this great importance, it is the task of the director/principal to

carry out the management task in the control of the development process. The development is to be designed as a participatory process involving all relevant actors.

In the preparation of the development plan distinguish between a “medium-term work plan” for a term of four years and an “annual plan or work plan”.

The sequence of activities necessary to define or redefine the role and functions of a RVETC is illustrated in this model **Graph 3**.

A task force, consisting of representatives of all personnel, municipal authorities, members of boards and other relevant expertise. This task force will be tasked to draft a Multiannual Work Programme for the development of the RVETC. First, a series of workshops will be conducted to explain and discuss the different parts of the work programme and the appropriate methodologies to be applied in the drafting process. The workshops may be arranged as practical exercises in parts of the drafting processes, such as e.g., determining the vision and mission of the RVETC, and the task forces will be given assignments to complete before the next workshop.

Following the process of review of the existing capacities, as well as a review of the specific demands of the region – the vision, mission and priorities will be set, as well as the appropriate organizational structure, mapping of their operations, their roles, flow of work, procedures, among others, will be analysed. This will be followed by the identification and development of an institutional framework based on existing structures, their functions, and areas for improvement. The institutional framework that will be drawn up will include the interdepartmental communications, functionality, human resource's structure, respective roles and responsibilities, inputs and outputs for the improvement and monitoring of the Multiannual Work Plan.

The Multiannual Work Plan report, which cover e.g., a 4-year period, will be presented to the key actors, stakeholders, and the public in order to gather their feedback and adjustments. The purpose of the consultation will be to present the main findings of the MAWPs, and to discuss and plan an optimal solution to the integration of the management and administration of the public Regional VET Centre.

More details of the development of multiannual and annual plans are given in section 8.

#### 4.6. Results of analysis on role of RVETC

According to the UNDP analysis, responses from the focus group interviews show that the role of the private RVETC is seen in the possibility of creating professional staff, according to the needs of the labor market within the region, where participants involved in non-formal education will gain the required knowledge, skills and competencies through the implementation of short special education programs of adults. According to Macedonian Employers' Organization and Business Confederation of Macedonia, the business led RVETC will be fully competent in the future to offer also formal education, in the form of post-secondary education from fifth to sixth level, but also regular vocational education from second, third and fourth level in certain sectors according to NQF. The municipalities believe that the Republic of North Macedonia needs RVETC, which will contribute to innovative and new technology transfer, as well as further training of employees in companies, i.e., to prepare workers for jobs in a company. Their

opinion is based on the fact that the offer of knowledge provided through the formal educational process in secondary vocational education is scarce, while companies need trained workers who will do their job professionally, and they themselves will be better paid and motivated to remain in the country, and that such a center will introduce new freedom and opportunity for retraining of workers, in accordance with the requirements and expectations of the labor market. According to the companies surveyed, the role of the RVETCs are to:

- Introduce young people to real work activities and tasks and become acquainted with the most important things needed to start a job.
- RVETC would be an implementer of policies related to the forms of vocational education and training, as well as a direct participant in all processes of their improvement. Its goal would be to build an appropriate infrastructure for sustainable development according to the needs of the real sector.
- Acquisition of vocational education and training, retraining, additional training, improvement of knowledge and skills in the field, recognition of previous learning.
- As a training center with all the technical and material conditions, it should educate staff with the necessary competencies that are in demand on the market in that region.
- Recruit staff for the work process that could be used immediately.
- Acquisition of knowledge and skills that are lacking in the market.
- Unemployment training, development and innovation, career orientation of employees.

The specific role of each Regional VET Centre will depend on the actual needs of the region where it is placed/ or on the needs of the sectors it will serve. This is the reason behind the regional analysis, as outlined in section 4.5.

# 5. The key functional elements of the RVETC

## 5.1. Type of organization

The analysis of the role of the RVETC in the region ( see above in section 4.3, as well as Annexes 3 and 4) will determine which role(s) the organisation the RVETC should take on in order to meet the demands in the local and regional community. Looking beyond the North Madonian context several organisational models may be chosen, which serve different types of purposes in the capacity building of a local or regional community. A regional VET centre may even be a combination of several types of organisational models, e.g. having a commercial centre and serving initial VET on a government scheme, while also serving municipal employment promotion schemes.

This concept paper does not support the idea that “one-size-fits-all”, insisting on bringing forward one particular type of organisation, into which all possible conditions should be moulded. Instead, as a starting point, three different types of organising RVETCs will be suggested. A recent ETF paper<sup>20</sup> points to good multilevel governance in VET as a model

<sup>20</sup> Governance arrangements for vocational education and training in ETF partner countries Analytical overview 2012 – 17, ETF 2019, p5ff

for VET policy-making management based on

**coordinated action to effectively involve VET public and private stakeholders at all possible levels (international, national, sectoral, regional/ local, provider) in objective setting, implementation, monitoring and review.**

Good multilevel governance in VET aims to reinforce the interaction and participation of stakeholders while improving the relevance, accountability, transparency, coherence, efficiency and effectiveness of VET policies. A possible way to reform VET governance settings is **to continue to enhance the role of industrial actors** on the horizontal level (across national, sectoral and regional layers), while **empowering the role and autonomous management of VET institutions** on the vertical level. Both political will (at national level) and increased capacity of local actors will be required to deconcentrate, delegate or devolve power to regions or local levels.

The choice of model will depend on the political will at national level as well as the level of capacity of regional or local actors to take on the responsibility to govern a RVETC. Whatever

er legal form is chosen, it will need to provide the basis for the following powers:

- Authorising VET providers to enter into commercial relations with private economic operators and sign contracts independently.
- Establishing academic freedoms for VET providers, including curriculum and programme development, selection of training methods and instruments, introduction of innovative teaching and learning methodologies and techniques, instruction schedules, etc.
- Defining new management and governance mechanisms, including multi-level and multi-stakeholder schemes.
- Defining methods and norms for RVETC financing and ensuring opportunities for multichannel funding.

### 5.1.1. State model of RVETC

The first model is the **State model**.

The researchers suggest that there are two types of drivers for the development of centres of excellence in the vocational education and training, namely the pressure from the industry to provide skills that match the changing needs of the labour market and the need to ensure functionality of the network by all providers of skills and services, with an emphasis on the coordination, cooperation and strategic development.

This model for introduction of Regional Vocational Education and Training Centres constitutes an upgrade, i.e., transformation of already existing secondary vocational schools into Regional Vocational Education and Training Centres.

#### 5.1.1.1. Current situation with the initiated reform for the establishment of RVETC

In the period of preparation of this concept, amendments to the Law on Secondary Vocational Education were adopted, in order to introduce Regional VET Centres in three pilot regions in the country (Southwest, Polog and Northeast Region) through transformation of the following selected secondary vocational schools: VET School Mosha Pijade in Tetovo, VET School Vancho Pitosheski in Ohrid and VET School Kiro Burnaz in Kumanovo.

New standards for space and equipment have been prepared and approved for 8 qualifications in 5 professions, as follows:

- RVETC “Mosha Pijade” in Tetovo, electrical profession - electrical technician for computer technology and automation and mechanical profession - mechanical technician for motor vehicles,
- RVETC “Vancho Pitosevski” in Ohrid, catering and tourism profession, catering technician, waiter and cook and
- RVETC “Kiro Burnaz” in Kumanovo, chemical - technological profession - food technician and agricultural - veterinary profession - agro-technician and phytomedicine technician.

In addition, the qualifications were also defined for realization of adult education programs and for validation of non-formal and informal learning within the Regional Vocational Education and Training Centres, as follows:

- For VET School Vancho Pitosheski - Ohrid, in the catering and tourism profession, for the qualifications: waiter and chef.
- For VET School Mosha Pijade - Tetovo, in the electrical profession for the qualifications: web editor and operator for maintenance of computer systems and networks, and in the mechanical profession for the qualifications: locksmith and car mechanic.
- For VET School Kiro Burnaz - Kumanovo, in the agricultural - veterinary profession, for the qualification: Safe operation of tractors and tractor machines and in the chemical-technological profession for the qualifications: Dairy products maker and Pastry maker.

In that regard, the takeover of the local vocational schools at central level has been regulated:

- With a decision for taking over the founding rights and the obligations of the Municipal Catering and Tourism School Vancho Pitosheski - Ohrid („Official Gazette of RNM“ No. 281 dated 26.11.2020)
- With a decision for taking over the founding rights and the obligations of the Secondary Vocational Municipal School Kiro Burnaz - Kumanovo („Official Gazette of RNM“ No. 281 dated 26.11.2020)
- With a decision for taking over the founding rights and the obligations of the Secondary Vocational Municipal School Mosha Pijade („Official Gazette of RNM“ No. 284 dated 27.11.2020).

Pursuant to the Law on Employees in the Public Sector, the three RVETCs started conducting a Functional Analysis for RVETCs, followed

by the development of the Rulebook on Internal Organization of the RVETCs, the Rulebook on Job Systematization of the RVETCs and the Organizational Charts of the RVETCs.

In the case where one institution, the RVETC offers services both in vocational education (formal) and adult education (non-formal) disparities may occur in financial and technical support. The state designs, implements and coordinates the 4 types of policies<sup>21</sup> related to the functioning of the RVETC:

- VET institutional arrangements, which includes specific and detailed regulations and guidelines on cooperation arrangements and partnerships regulated by current legislation, VET strategic framework (e.g. annual and multiannual planning, roles of municipalities, defining the functions, etc)
- Strengthening social dialogue and social partnership in VET, which includes regulations regarding councils and advisory bodies, interministerial cooperation groups
- VET financing, providing detailed guidance on financial regulations, monitoring and evaluation, cost-sharing financial mechanisms; multichannel financing options; formula funding and etc. The state model RVETCs will be under the budget of the Ministry of Education and Science.
- Vocational school governance, management, autonomy and accountability. This may include centralised management information system, coordination of occupational standards and curriculum development as well as regulatory guidelines of regional VET centres.

The implementation of this model places the main responsibility for VET and AE on the State institutions. The Government, provides governance and funds and supervises. The mandate of RVET Centers is to achieve certain targets on behalf of the government by delivering VET programmes and administering public education funds. In order to deliver education and training RVET Centers may contract out VET providers and services of all kinds. Usually they can draw their administrators from business, finance and insurance. The RVETCs will comply with: the Law on Secondary Education, Law on Vocational Education and Training, Law on Adult Education, Law on Administrative Servants, Law on Employees in the Public Sector, Labour Law, etc.

Regarding the management of the RVETCs

and their relationship with the Ministry of Education and Science the following pending issues need to be addressed: approval and validation of the multi-annual strategic plans, including the annual work plans, the method of regional educational planning, revision and rationalization of the school network, support of regional economic policies, etc.

In addition, the relations between the RVETCs and other regional schools for vocational education and training should be regulated, including the mechanisms for coordination of service provision, opportunities for concluding agreements between schools, mechanisms for teacher exchange, etc.

A separate segment is the regulation of the relations in the area of cooperation with the business community, such as providing training services, renting equipment, building contractual relationships, etc.

In terms of financing, it is necessary to consider how the multi-annual budget planning of the Regional Vocational Education and Training Centres will be provided and how the school companies will be managed so as to ensure that the educational component will not become a secondary function. For that purpose, clear quality assurance and monitoring mechanisms need to be established in terms of how the Regional Vocational Education and Training Centre will manage the generated funds, including the forecasting and inclusion in the multi-annual strategic plans of the RVETCs, and they should be monitored annually. More specifically, it is necessary to develop and determine the coordination and monitoring role of the Ministry of Education and Science.

In terms of the legal framework, it is especially necessary to identify the bylaws that need to be modified in order to ensure the functionality and efficiency in the operation of the RVETCs. The bylaws refer to personnel issues related to the basic and additional functions of the RVETCs, the possibility of redefining the work tasks of teachers, the right to establish short-term contracts with external personnel, the possibility to hire qualified persons from the private sector (in the future also for the position of a principal based on experience in the sector that offers excellence in vocational education and training), regulating the relations with the business community, such as hiring specialists from the private sectors part time teachers in the RVETC etc.

The possibility of engaging professionals in the fields of qualifications leading to excellence within the RVETCs as teachers and trainers

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21 Ibid, p.51



should be considered. This will enable saving resources and strengthening the cooperation with the business community.

In order to enhance the list of approved occupational standards and qualification standards, RVETCs give an initiative to upgrade the existing methodologies and develop new occupational standards and qualification standards. Furthermore, they are also obliged to upgrade or introduce new educational profiles within the qualifications they realize, which lead to excellence in the vocational education and training.

#### **5.1.1.2. The role of RVETCs in the field of adult education and validation**

In the sectors where the RVETC leads to excellence in vocational education and training, the RVETC in accordance with the Law on Adult Education verifies its own adult education programs, and publishes them on the official websites, whereby they become public. This facilitates the conducting of the trainings by the training providers, as the process ends with the verification of the institution in accordance with the Law on Adult Education.

If certain adult education providers have initiatives for new, more specific programs from the sectors that lead to excellence, they can follow the established procedure in accordance with the Law on Adult Education.

If the adult education providers implement a program that is published on the website of the RVETC, their trained candidates are obliged to prove their knowledge, skills and competences, regardless of the manner in which they were acquired, by taking exams,

i.e., based on an assessment of their knowledge, skills and competencies before a Commission established by the RVETC.

The exams that lead to the acquisition of a qualification, i.e., part of a qualification, are organized by the institution, i.e. by the institution for adult education that has conducted the program for acquiring knowledge, skills and competences.

The assessment of the knowledge, skills and competencies is carried out by the Assessment Commission in a manner determined by an act adopted by the Minister, at the proposal of the Adult Education Center and the RVETC.

The Commission is comprised of three members, one of whom is an assessor from the ranks of the employees/hired persons at the service provider, registered in the Catalogue of Assessors, and two members are from the ranks of the employees/hired persons in the RVETC registered in the Catalogue of Assessors.

The assessment of the knowledge, skills and competencies for the adult education programs implemented by the RVETC is conducted by the Assessment Commission in a manner stipulated in the Law on Adult Education. The Commission is comprised of three members, one of whom is an assessor from the ranks of the employees/hired persons in the RVETC, registered in the Catalogue of Assessors, and two members are external assessors. The external assessors are appointed by the Center, from among the assessors registered in the Catalogue of Assessors.

The master exam and the exam for professional competence are taken in accordance with the regulations that regulate the respective activity.

The RVETC, after examining the candidate which has been trained by the verified institution, issues a certificate which ensures quality and compliance with the EU recommendations for distinction between the trainer and the verifier of the achievements.

For the knowledge, skills, abilities and competencies acquired from the special programs that lead to the acquisition of qualification, i.e., part of qualification, a certificate of professional qualification is obtained, with a supplement to the certificate which lists the modules and the learning outcomes from the qualification standard acquired by the participant. The certificate is issued by the RVETC.

For the professional qualification obtained through the validation process, the participant receives a certificate for professional qualification with a supplement to the certificate which lists the modules and the learning outcomes from the qualification standard acquired by the participant. The certificate is issued by the RVETC.

For the validated knowledge, skills and competencies from the module/s of the qualification standard, the participant receives a certificate for module/s of qualification with a supplement to the certificate which lists the learning outcomes within the module of the qualification standard (acquired by the participant).

The name, content and form of the certificates and the supplement of the certificates are prescribed by the Minister upon the proposal of the Adult Education Center and the RVETC.

The RVETC keeps records of the certified candidates and verified institutions for the qualifications that lead to VET excellence.

### 5.1.2. Mixed Model of RVETC

The second model is **the Mixed Model**

This is a further step away from a centralised governance structure, as it is jointly governed by government and one or several stakeholders. Here, most management powers are delegated to providers. The providers' legal status has changed and they have emerged as non-profit companies (as in the United Kingdom) or self-owning institutions (as in Denmark). Delegation of management power can be accompanied by the delegation of techni-

cal functions such as curriculum development and, sometimes, testing of graduates. As long as the national skill standards are well established and trainees' knowledge and skills are rigorously assessed, curricula can be developed by schools themselves, provided that instructors are qualified.

In the management model central governance of the national VET system is combined with the full autonomy of training providers, a change in the providers' legal status is not the major precondition for full delegation of responsibilities to them. A decentralized structure can be introduced, and the advantages associated with it can be utilized, *with the providers remaining public institutions* (as in the Netherlands and the United States). The German-type **dual training system** features a combination of enterprise-based training, conducted mostly during actual work, and school-based theoretical instruction. School-based instruction is administered directly by government. This system requires thorough coordination of interests, resources and action on both sides. None of the actors in the German-type dual system has actually substantial management power over the whole system; instead, each actor has the power of participation and control. As in any other system based on consultation and coordination rather than direct subordination, the decision-making process in the dual training system is slow and essentially requires a consensus.

In this category the **public-private partnerships** are also found. A Public-Private Partnership (PPP) is a collaborative arrangement between two or more public and private sector entities, who intend to work towards achieving economic progress and addressing social needs through their shared resources, experience, and expertise. PPPs are established to strengthen industry-institute linkages for enabling the engagement of training institutes with private industries to conduct demand-driven training courses and to acquaint VET teaching staff with the latest technology and techniques being used by the private sector. PPP initiatives are expected to move towards a more performance-based budgeting model where supplementary skills investment by the private sector will be available. The main purpose of such performance-based budgeting is to allow the public TVET institutes to have access to external funds based on their own performance. Such funds may be generated by way of an increase in the collection of non-government funds, savings from industrial training courses, and income-gener-

ating activities like the sale of products and services, as well as partnership programmes like PPP.

### 5.1.3. Private- led Model of RVETC

The third model is the **Private- led Model**

A Private Vocational Training Institution is a vocational training institution under ownership of a social organization, a socio-professional organization, a private economic organization or individual, or a vocational training institution invested and constructed by a social organization, a socio-professional organization, a private economic organization, or an individual;

Organizations establishing private-led RVETC shall cooperate with competent authorities in formulation of strategies, planning, and policies on vocational education development within their competence; and observe the implementation of the policies and regulations of vocational education as prescribed.

The private -led RVETC<sup>22</sup> has autonomy in its organization and personnel, finance and assets, training and technology, international cooperation, training quality assurance as prescribed; ensures accountability to the competent authorities, students and the social for the organization and management of its training activities and quality.

## 5.2. The role of the RVETC in the local and regional community

The options for the types of regional VET centres may be classified into 2 major types: 1) regional VET leader and 2) regional VET Centre hub.

The RVETC may act as a **“VET Leader”**. VET leaders are those that design vocational education and training futures and will have attributes such as: risk-taking, initiative and innovative behaviour, networking, partnership and alliance building abilities and a capacity for future, i.e. envisioning future trends, strategic resourcing, and being pro-active.

The Regional VET leader is a centre specialized for one vocation/sector (e.g. tourism) or

several related sectors; it has a tight collaboration within the sector/sectors (management, finances etc.). It meets the needs for skills in the growing sectors and offers trainings for knowledge and skills needed to the sector/sectors for the employed and unemployed – up to the 5B level as per the Macedonian Qualification Framework (MQF) as well as VNIL. In time it may grow into a national VET leader.

As explained in section 1.2, the RVETC may take on the role of an “innovation hub”. The Regional VET Centre (hub) acts as coordinator and supporter of all or some of the schools in the region; It has an established tight collaboration with other schools, e.g. service agreements or joint ownerships over the “regional centre”. It responds to the priority needs of all schools in the region (**Graph 4**)

- Establishes cooperation with the schools and the business community for on the job learning,
- Additional support for students with special educational needs,
- Continued professional development,
- Adult education,
- VNIL,
- Development of curricula and materials.

In time it may assist in coordination and rationalization of the supply of VET and adult education.

## 5.3. The main functions of the Regional VET Centre

Although only a thorough analysis of the demands and supply, as well as a long-term strategy may give recommendations regarding the specific functions needed to for the optimal operation of a RVETC, some indications may be found in the 19 Criteria to identify Centres of Vocation Excellences eligible for joining the ETF Network of Excellence.

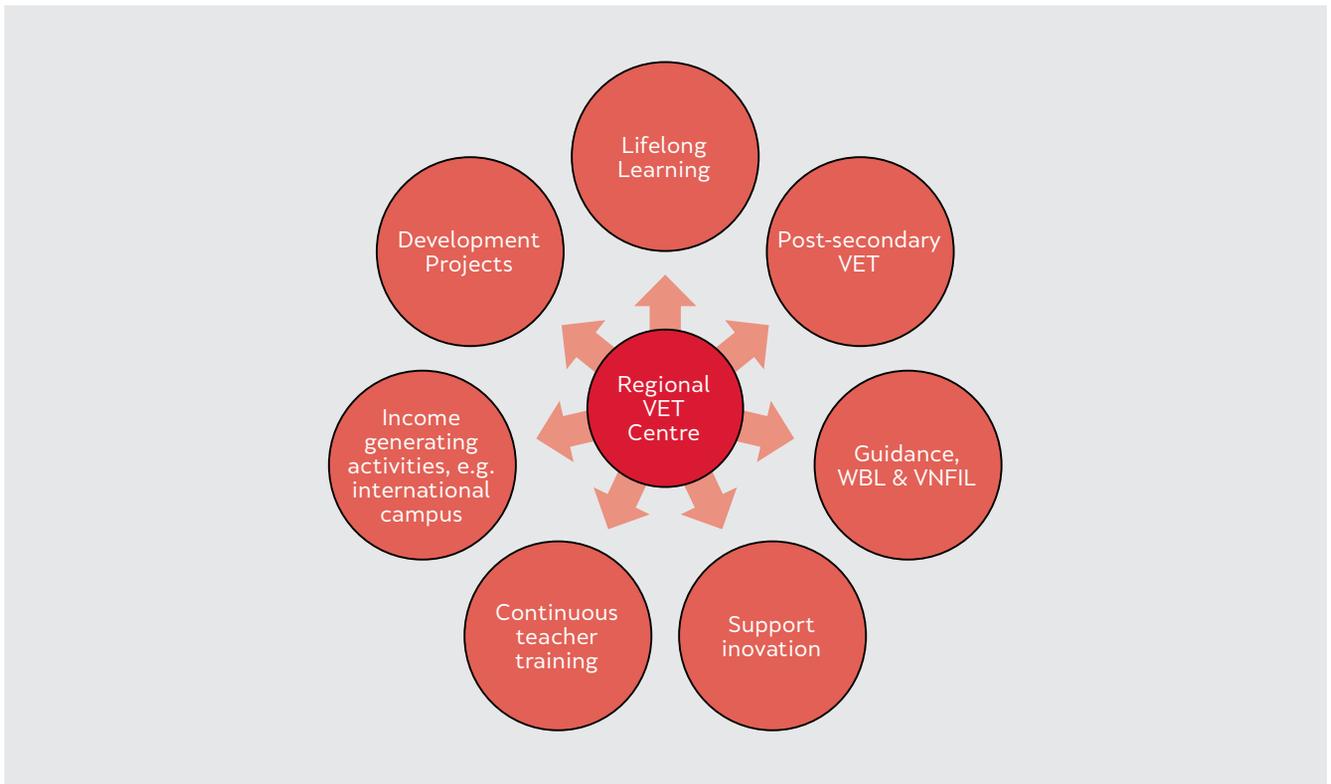
The different functions are shown in this model: **Graph 3**.

**Function 1: Providing people with labour market relevant skills in a lifelong learning continuum approach. Combining offers of initial VET qualifications, with offers of continuing training (for up-skilling and reskilling)**

This function combines with a number of

<sup>22</sup> More details about the private model can be found in the document „DEVELOPMENT CONCEPT for establishing a Regional Center for Vocational Education and Training led by the business in the Republic of Northern Macedonia“ <https://skills4future.mk/wp-content/uploads/2021/01/Development-Concept-For-The-Establishment-Of-Business-Led-Regional-Vet-Centre-In-North-Macedonia-MKD-.pdf>

GRAPH 4.



different CoVE criteria<sup>23</sup>, that combined may lead to a successful service delivery, such as:

- Working together in business community, collaboration with local SME's by sharing equipment and creating incentives for staff to engage in applied research and development projects with the involvement of the VET learners, and by providing SMEs with technical support, tools, methodologies and training to improve their apprenticeship offer and up-skilling/re-skilling offer for adults;
- Development, introduction, or presence of Joint VET curricula together with other VET providers and companies in various countries creating Excellence of Knowledge in specific sectors which provides the very best know-how from each partner and facilitates recognition of Excellence;
- Development, introduction, or presence of innovative teaching and training methodologies, including those based on digital technologies (e.g., MOOC's, simulators, etc.);
- Development, introduction or presence of innovative curricula and pedagogies focused not just on technical skills but also transversal competences, e.g., entrepreneurship, Climate Change and Digitization;
- In the sectors where the RVETC leads to excellence, the RVETC verifies adult education programs, whereas the other VET providers can be verified only as an institution offering training. If there is an initiative for a new program from the sectors that lead to excellence, the RVETC will develop such program and verify it with the AEC. The RVETC, after examining the candidate which has been trained by the verified institution, issues a certificate which ensures quality and compliance with the EU recommendations for distinction between the trainer and the verifier of the achievements;
- Provision/support of the formal vocational education (two-year, three-year, four-year, and post-secondary education – VB level: according to MQF) with the support of VET Centre, Adult Education Centre, and Bureau for Development of Education;
- Provision/support of the inclusive education and formal and non-formal VET;

23 ETF Working Paper Criteria to identify Centres of Vocation Excellences eligible for joining the ETF Network of Excellence

- Cooperation with educational institutions, and with the local community and business community;
- Provision/Support of learning by working;
- Provision/Support of Adult Education (formal and non-formal)
- Analysis and identification of the need for work force and skills on the labour market in the region and collaboration with relevant institutions;
- Initiating changes of the curricula and lesson plans for the current qualification in the formal education and proposing new qualification;
- Proposing and developing of special curricula and materials for the non-formal education and the adult education;
- Participation in the creation and enforcement of public policies (investments, environmental protection, education, human resource management etc,) on local and regional level;
- Provision/support of educational services for the needs of companies and individuals;
- Provision/support of specific services for the needs of companies and individuals (e.g., general training for safety and health at the working place, research, analyses, innovations, programming, installations, repairing equipment, transport services etc.);
- Support in the creation and development of excellence in each vocation;
- Providing of European orientation of the VET, with provided transparency and competitiveness of the acquired competencies, adjusted to the needs of the international labour market;
- Providing of conditions for regular labour market research in cooperation with the social partners of Regional VET Centre.

### **Function 2: Providing Post-secondary VET programmes**

- Providing higher level VET programmes;
- Provision/support of post-secondary programmes;
- Developing pathways to higher level programmes in collaboration with higher education institutions.

### **Function 3: Providing guidance services, WBL as well as validation of prior learning.**

This function is combined with the following other functions:

- Development, introduction, or presence of internationalisation strategies to foster trans-national mobility of VET learners as well as teachers and trainers, with or without Erasmus+ support. This could also include preparatory work to facilitate mobility such as teaching programmes or courses on EU studies to better understand Europe's integration process and its place in a globalised world (e.g., inspired on the Jean Monnet actions);
- Participating in national and international Skills competitions, aimed at raising the attractiveness and excellence in VET;
- Establishing business-education partnerships for VET and AE candidates (apprenticeships, internships) sharing of equipment, exchanges of staff and teachers between companies and VET centres, etc.
- Provision/Support of mobility of students and VET participants;
- Validation of the non-formal and informal learning;
- Follow up of students/participants in the formal / non-formal education until their completion of the vocational education in the regional centre;
- Carrier and professional guidance of students/participants in the formal/non-formal education.

### **Function 4: Acting as or supporting innovation hubs and technology diffusion centres, which might support companies of any size, while sharing equipment and creating incentives for staff to work together with local SME's in applied research and development projects, with the involvement of the VET learners.**

This function is combined with the following other functions:

- Development, introduction, or presence of business incubators for VET learners to develop their entrepreneurship skills and projects;
- Development, introduction or presence of project-based learning that brings interdisciplinary approaches and VET learners from

different fields of study (e.g., design, marketing, engineering) to solve real work problems/challenges;

- Supporting the attraction of foreign investment projects by ensuring timely provision of skills for companies investing locally;
- Contributing to creation and dissemination of new knowledge in partnership with other stakeholders, e.g., through joint R&D with universities, R&D units in companies, research bodies etc;
- Creating mechanisms for coordination of the process for provision of resources (material, financial, human etc.) for VET on central, regional, and local level as well as with all other relevant stakeholders (donors and development partners, business community and others);
- Networking in various platforms (local, regional, central, and international) for improvement of operations and services;
- Establishes regular coordination with all relevant stakeholders (Ministry of Education and Science, VET Centre, Bureau for Development of Education, Adult Education Centre etc.);
- Provision/support of consulting services and trainings for employment and self-employment (e.g., incubator for support of micro, small and medium companies i.e., mentorship, entrepreneurship trainings, preparing a business model, trainings for strengthening of the business capacities, social entrepreneurship, social responsibility...).

#### **Function 5: Investing in the continuing professional development of teachers and trainers, for both pedagogical skills as well as technical skills.**

This function is combined with the below functions:

- Development, introduction, or presence of innovative teaching and training methodologies, including those based on digital technologies (e.g., MOOC's, simulators, etc.);
- Development, introduction or presence of innovative curricula and pedagogies focused not just on technical skills but also transversal competences, e.g., entrepreneurship;
- Development, introduction, or presence of project-based learning that brings interdisciplinary approaches and VET learners from

different fields of study (e.g., design, marketing, engineering) to solve real work problems/challenges;

- Provision/Support of enhancement and mobility of teachers and trainers, providing a pool for mentors in companies for the practical training of students as part of the formal education (formal VET education).

#### **Function 6: Developing sustainable financial models that combine public funding, and income generating activities for the Centres of Vocational Excellence.**

This function is combined with the below functions:

- Development, introduction, or presence of "International VET campus/academies" for learners, teachers and trainers, leaders in VET institutions, as well as for people considering future vocational study options. These could be focused on specific occupational fields, or products;
- Provision/Support of capacities for identification of needs for equipment, contemporary techniques, and technologies for VET (technical specification, public procurement etc.);
- Independent financial operation and allocation of funds for the functions of the Centre;
- Preparation of multi-year development plan and annual program of the Centre;
- Give for temporary use or under lease of training premises, equipment, and resources to other educational institutions, companies, or individuals;
- Providing conditions for production and placement of own services and products on the labour market.

#### **Function 7: participating in development projects**

- Making use of EU financial instruments and Funds to support infrastructure investments to modernise VET centres with advanced equipment (including simulators, and high-tech equipment);
- Participating in international educational programs, networks, and mobility through realization of projects for development of innovations, creativity, critical thinking, problem solving etc.

# 6. Governance and management

## 6.1. Transitory measures

**Transitory measures** will be taken to make the Regional VET Centres operational within the exiting legal framework until a specific legal frame has been set up for Regional VET Centres. This implies that the selected model for introduction of Regional VET Centres (at least in the beginning) is an upgrade of the already existing VET schools into Regional VET Centres.

In order to establish a healthy and productive climate and avoid potential conflicts of interest among the authorisations of the Ministry, the municipality, the Management Board of the VET Centre and the VET Centre itself, it is necessary to prepare a comparative overview of the tasks, functions and authorizations of all factors in order to provide better workability.

According to the existing regulation, the Regional VET Centres are established, with a Government's Decision, from the municipal VET schools, which deliver curricula and lesson plans for vocational education and training upon proposal from the Ministry of Education and Science, and upon prior consent from the founder of the municipal school (Of-

ficial Gazette of the Republic of Macedonia No.275/19). The principals of the municipal schools as per Article 5 para 1 of the same Law continue to perform their duties until the expiry of their mandates.

With the establishment of the Regional VET Centre's Management Board, the current principal's mandates are renewed, and thereby the transitory period is completed, and the Regional VET Centre is operational.

Besides the state Regional VET Centres, other Regional VET Centres may be established provided they meet the criteria set with the legal provisions.

The financing and the management will be determined by the legal entities in accordance with the viable legislation.

In the transitory period, the Regional VET Centres will harmonize their organization, work, statute, and other acts with the legislation. In order for them to be able to fully implement the laws and secondary regulations the administrative capacities will have to be enhanced in the selected schools which will be turned into Regional VET Centres.

The Working Group for the Regional Centres established by the Minister of Education and

Science stands that in the transitory period the managing of the Regional VET Centres should be in the hands of the existing School Board until the establishment of the Management Board of the Regional VET Centre. During the piloting period it is planned that an evaluation of the effects from the reform will be conducted in order to identify the weaknesses and to build strategies to overcome them. Special attention will be paid to the analysis of the management and administration and finding of adequate solutions (e.g., in some countries there are school boards responsible for the formal education and management board for the centres).

## 6.2. Methodology for analysis of management and administration needs

A well-known methodology for analysing organisations is the “Functional Analysis”, which is based on a function as a series of related activities, involving one or more entities, performed for the direct, or indirect, purpose of fulfilling one or more missions or objectives of the organisation, generating revenue, servicing the customers, producing the products and services, or managing, administering, monitoring, recording, or reporting on the activities, states, or conditions of the entities of the organisation. All types of functions whether it is a manufacturing, finance, or service, can be segmented into two broad categories. Each of the various functions can be assigned to one or the other of these categories, and in some cases, a function may be assigned in both categories.

### Business category

Functions in this category consist of those activities which are directly involved in producing the products, providing the services, generating the revenues and the profits of the firm, or managing those areas. This category has been termed the operational one. The functions in this category have also been termed line functions.

### Administrative, support or overhead category

This category contains those functions which service the organisation as a legal entity and provide for its day-to-day wellbeing. The administrative category usually contains functions such as personnel, buildings and maintenance, executive management, general

accounting, etc. These functions have been termed staff functions.

Developing a functional model requires the following steps (Graph 5):

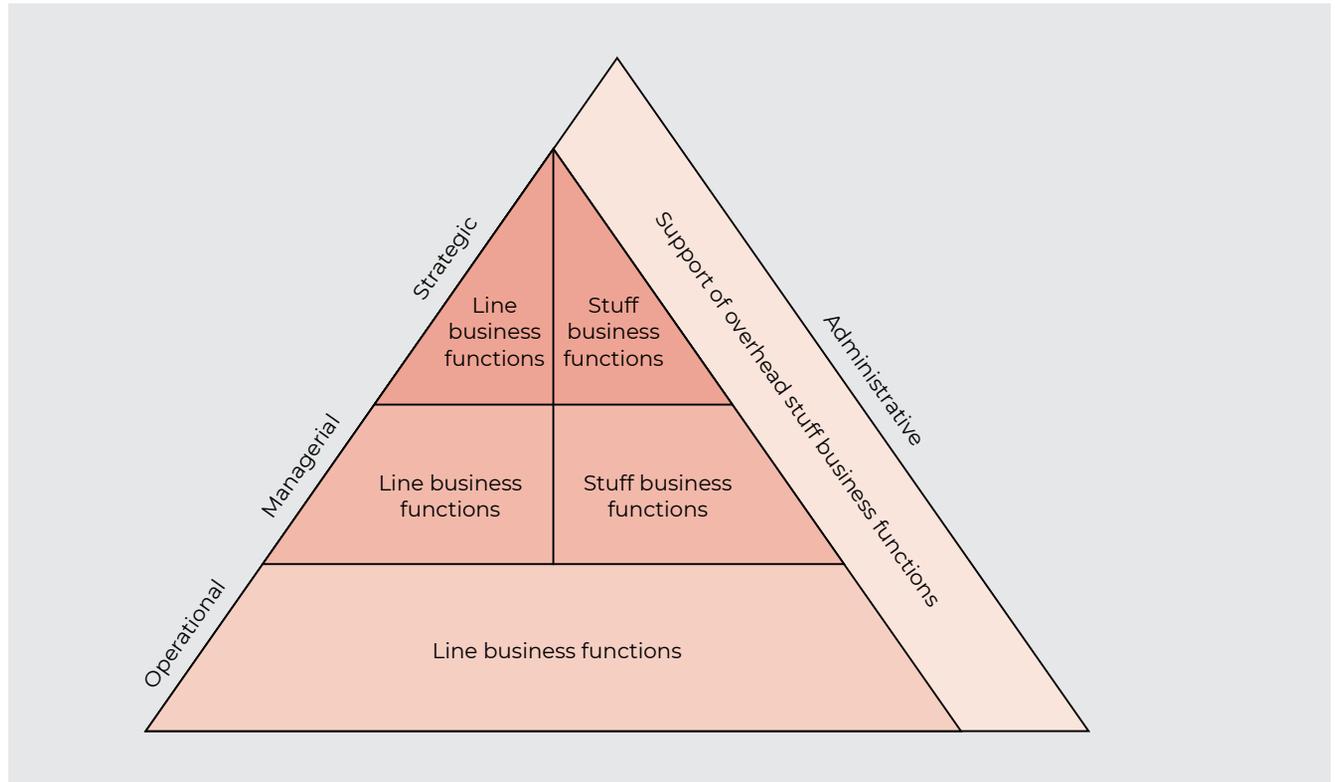
1. Working from a corporate table of organization, the user interviews, and the functional area descriptions, the analyst is able to identify the individual functions of the organisation, develop detailed descriptions of each function, the role of those functions within the organisation, and the functions which interact with the subject function. Since each function plays a unique role, it must interact with other functions which play other roles.
2. Determine those interactions by examining those functions to which the subject function has a direct or immediate relationship.
3. Make each functional box in the table of organization into a functional entity. Care must be exercised at this point to ensure that each of these functional entities represents a single, unique function, not a combination of functions. All sub functions should be broken out into separate boxes for clarity of presentation.
4. Arrange these functional boxes with the names of the functions within each box in a rough sequence corresponding to the business life cycle being depicted.
5. Draw the relationships between each set of functions as they relate to each other during the particular life cycle being depicted.
6. Add the name of each relationship to each relationship symbol and note the flow of the lines connecting the relationship symbols to the functional entities. Unlike the typical entity-relationship models, the relationships will not normally be bi-directional. That is, the flow will normally pass from function 1 to function 2, but not necessarily from 2 back to 1.

## 6.3. Foreseen Management Board composition and functions

According to the foreseen general and additional functions that need to be met by the Regional VET Centres, there is an open possibility for existence of School and Steering Board. Stated boards will act according to the legal frames and will play a crucial role in the harmonization with the social partners, the

**GRAPH 5.**

Two categories of business functions



care for establishing of a culture of excellence in the vocational education, the processes of modernization of life-long learning, handling climate changes towards more sustainable life style, following European and international practices as well as equal representation of key stakeholders in the policy making.

For various issues there will be consultations with the various institutions such as: Bureau for Development of Education, VET Centre, Adult Education Centre, Ministry of Labour and Social Policy, Ministry of Economy, Innovations and Technological Development Fund, National Agency for European Educational programs and Mobility, directors of VET Schools on regional levels and other stakeholders.

Therefore, it is important that each member takes active participation and demonstrates analytical skills, open-mindedness to new idea, readiness for testing of new ideas and processes, provision of information, following new trends in education, life-long learning, educational profile/qualification, labour market on local, national and regional level, familiarity with influence of climatic changes, need of digitalization, European and international practices.

The functions of the management boards of the RVETC may be summarized in the following headings:

Nominative management, **strategic management, goal-oriented management, management of programme, management of process, management of knowledge, management of human resources, financial management, marketing management, sales management, management of quality, project management, management of change, management of organisational culture, conflict management, management of time, network management**). Of these, some are regarded as more important than others, for the running of a Regional VET Centre<sup>24</sup>:

- **Strategic management** is at the top of the list, which means that its implementation is necessary in the managerial practice of organisations for adult education. During interviews managers have said that implementation of this model is directly related to environment characteristics, which means that phases of strategic manage-

<sup>24</sup> Adult education centres as a key to development – challenges and success factors, DVV International 2017, p.200



# 7. Resources

## 7.1. Human resources

The deployment of human resources in the RVETC will largely depend on which type of organisation will be set up, either a State Model, a Mixed Model or a Private Model. Three main tasks are related to the setting up of a human resources plan:

- Conduct functional Analysis of all functions of the RVETC,
- Preparation and adoption of a Rulebook for Internal Organization of the Regional VET Centre,
- Preparation and adoption of the organizational chart of Regional VET Centre,
- Preparation and adoption of the Rulebook for post allocation of the Regional VET Centre.

### 7.1.1. Human resources plan

#### 7.1.1.1. The State Model HR plan

In the State Model the eligibility criteria for some positions should follow current legislation governing positions in the State. The following positions are anticipated, subject to the completion of a strategic plan for the

RVETC and further functional analysis, having in mind that this description is preliminary, and will need to be adapted in each RVETC in accordance with the focus of the Multiannual Work Plan. So, all the new responsibilities and functions of the Regional VET may be expressed in the following managerial hierarchy:

1. Director
2. Deputy Director
3. Middle Managers:
  - 3.1. Formal Education Manager
  - 3.2. Adult Education and VNIL Manager
  - 3.3. Networking and Cooperation Manager
  - 3.4. Science, Innovation and Economy Manager
  - 3.5. Business/ICT and Marketing Manager

#### 1. Director

A Director<sup>25</sup> is the administrative body of the Regional VET Centre and is responsible for the legality and material and financial operations of the Regional VET Centre.

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<sup>25</sup> The criteria for selecting of a Director are given in Annex 5

The Director of the Regional VET Centre, i.e. the managing body of the private regional VET Centre (in the future) organizes and manages: educational process on all levels, activities of harmonization with the labour market and collaboration with the business community and social partners, processes for enhancement of competencies of various target groups through an inclusive process, processes for accomplishing standards of excellence etc., and makes independent decisions, represents the Regional VET Centre before third parties and is responsible for the legality of its operations.

The Director selects an assistant director and managers according to set criteria, which among others, stipulate submitting operational programs by each candidate.

## **2. Deputy Director**

The director appoints an assistant director from the teachers or expert staff for the new positions aligned with the criteria for selection of director. The selection and the number of positions for assistant directors are in accordance with the needs of a given Regional VET Centre by clearly defined tasks and authorizations. More information on the criteria for selecting a Deputy Director is provided in Annex 6.

## **3. Middle Managers**

According to the needs of the Regional VET Centres it shall have managers for: formal education, adult education and validation, networking and cooperation, science, innovations and economy, business, and marketing. The criteria for selection of managers should be open to the possibility of hiring external experts for the RVETC.

### **3.1. Formal Education Manager**

Organizes and manages the educational process and other activities, controls the administrative and technical staff for their regular execution of tasks; gives adequate expert advice to teachers in the realization of instruction, preparation of tests, assignment, plans etc.; monitoring of realization of curricular and extra-curricular activities; executing activities of instruction that match the Manager's expertise; responsible for the collaboration with the Council of parents.

### **3.2. Adult education and VNIL Manager**

Organizes the adult education (AE) and VNIL; provides conditions for accreditation of the HE institution and VNIL; prepares special curricula for adult education; monitors the execution of curricula for adult education; monitors, controls and provides for career development of the AE staff; organizes final exams for the AE participants; monitors, controls and provides for career development of the staff responsible for VNIL; organizes and monitors all stages of the VNIL process; follows the news in the AE and VNIL; communicates and collaborates with other managers in the Regional VET Centre.

### **3.3. Network and Collaboration Manager**

Participates in the preparation of plans for regional and cross-border cooperation: participating in the initiation and development of regional, cross-border, international cooperation; participates in the preparation of development projects and in the execution of such projects, participates in the processing of general acts and informative analytical material, contact with donors and foundations abroad for the realization of projects, records accomplished results, participates in the proposal of strategies for strategic partnership with foreign companies and organization for attracting foreign investors. Participation in the Erasmus + projects for mobility of teachers and students, as well in the Regional Challenge Fund.

### **3.4. Science, Innovations Productivity/Research Manager**

Coordinate the development of new concepts and programmes for the centre. They analyse customer needs and expectations to determine business opportunities, develop business opportunities in target segments, review market needs and opportunities, and develop customer relationships. The R&D coordinators also explore new and emerging innovative business processes / models deployed in the industry, including new concepts and principles of digitization, factors to consider assessing the viability of digital innovation for a given organisation learning context, the success factors for implementation of learning innovation and the methods to implement digitisation processes in alignment with learning approaches.





central administrative department and is supporting individual departments and functions in the RVETC as well. The Head of Admin oversees all activities related to recruitment, funding, quality assurance, marketing or public relations, is responsible for budgetary/financial administration, project management and human resources management. The Head of Admin may work in a general capacity or undertaking tasks from all of these areas.

The head of Administration is responsible for the overall administration of the Centre. He/she is part of the top management level of the Centre, work on a collegiate basis and ensure a collaborative and continuous exchange of information to effectively manage the ongoing development of the Centre. In close cooperation with the Centre Director and his/her team of administration staff he/she ensure that the Centre will perform its task in line with all related laws and regulations.

The head of Administration is responsible for all human recourse related tasks. Together with the team of HR officers and in close cooperation with the related divisions/departments he/she will ensure the strict observance of all HR/HRD procedures.

A main aspect of the work of the head of Administration is the quality assurance of the whole Centre. He/she is responsible for the active involvement of all Centre staff in the process of development of a development plan. Together with the Accountant/office manager and in cooperation with all related divisions and departments the Head of Administration will ensure a proper financial planning and a transparent accounting system according to applicable laws and regulations. The Head of

Administration is responsible for the collection of all requested financial- and HR- data to ensure that reports will meet the requirements of the superior authorities.

### Head of Operations

The Head of Operations is responsible for the overall cooperation between the Center, private sector and regional and local community. He/she is part of the top management level of the Centre, works on a collegiate basis and ensure a collaborative and continuous exchange of information to effectively manage the ongoing development of the Centre. In close cooperation with his/her team and the Director he/she develops and implements a sustainable link between the Centre and all stakeholders and promote the Centre as the regional focal point for professional and innovative knowledge transfer, VET and employment.

The Head of Operations is responsible for fulfilling the skills development mission of the Centre. He or She supervises the whole education and training process to ensure that it's in line with Steering Board guidelines, national and international regulations and instructions.

The Head of Operations is part of the top management level of the Centre, works on a collegiate basis and ensure a collaborative and continuous exchange of information to effectively manage the ongoing development of the Centre.

The Head of Operations works closely together with a team of education departments. Together with them he/she leads, guides and

supervises all teachers and instructors. He or She has excellent communication skills which enable him/her to communicate effectively with trainees, clients, teachers and instructors of the Centre.

The Head of Operations is responsible for the development and implementation of Centre public relation strategy to ensure that the Centre and its services is perceived from regional community as well as from the regional economy.

The Head of Operations is responsible for the collection of all requested data related to trainees and graduates to ensure that reports will meet the requirements of the superior authorities.

### **Office manager**

is employed to audit accounts, provide financial advice, undertake accounts administration and general office work. The office manager supports the organisation, in day-to-day functioning through general office support, financial management, program and administrative support. The Office Manager maintains a positive working environment through organization and support of team members. Primary duties include bookkeeping, insurance billing, payroll and administrative support. The Office Manager should be a team player and seek ways to enhance services through supporting team members and the overall functioning of the organisation.

### **Training and development officers**

are responsible for identifying staff training and development needs, and for planning, organizing and overseeing appropriate training. They provide consultancy and advisory services on learning solutions and interventions. He/she liaises and collaborates with various stakeholders to understand critical requirements and objectives so as to diagnose workplace performance gaps and evaluate learning opportunities. He/she then designs and implements bespoke learning solutions and interventions to drive business results, workplace performance improvement and behaviour change. He/she evaluates the impact and effectiveness of learning solutions and interventions, and develops long-term implementation plans as well as manages and fosters relationships with stakeholders and vendors to ensure effective, sustainable implementation.

### **Adult education lecturers**

Teach academic and vocational subjects to adults of all ages and academic abilities. Lecturers need to be able to work with people from all backgrounds, attending staff meetings, liaising with other professionals/employers.

Adult education lecturers and tutors teach a broad range of subjects. There are no set academic requirements for entry into the profession. However, a degree related to the respective subject is usually necessary. Requirements can vary between employers. Although it is possible to become a lecturer without a teaching qualification, chances of securing a role and progressing in career improves if the person does have one.

### **Learning facilitator**

The Learning Facilitator delivers learning products and services in a variety of environments, using multiple learning delivery modes and methods. He/she assesses learning needs and adapts the facilitation approach to reflect desired learning outcomes and learner needs. She/He is responsible for knowledge and skills transfer by delivering learning content, facilitating group discussions and responding to queries. She/He drives learner development and commitment to continuous learning by actively providing feedback and learner support. She/He evaluates curriculum effectiveness and recommends improvement areas by collecting learner feedback as well as analysing learning delivery approaches and materials. The learning facilitator is qualified for and works across the fields of both formal and non-formal education in a teaching, facilitating and supporting role to groups of learners.

### **Career counsellor**

The career counsellor in an RVETC provides professional guidance service to all referred clients on a one-to-one group basis including workshops on a wide range of guidance and information issues to target groups within the centre. This includes personal development, stress and time management, progression routes, information on courses, rights and entitlements, study skills, CV preparation and interview skills. The counsellor also maintains up to date and accurate information on local, national and European education and training opportunities through a drop-in information service to the general public.

The counsellor cooperates with the local em-

ployment services on referrals from the unemployment system, advocates and networks on behalf of clients with a range of local and national agencies such as third level institutions, higher education institutions, Probation Service, and the national learning networks, among others. The counsellor builds strong links with local employers, local enterprise offices and liaise with municipal and regional authorities, participates in initiatives and programmes to develop services and supports for clients including local adult education networks such as local drugs task force, local disability services and partnership services for the unemployed.

### **Research & Development coordinators**

Coordinate the development of new concepts and programmes for the centre, often in close collaboration with universities, other education and training partners and industry. They analyse customer needs and expectations to determine business opportunities, develop business opportunities in target segments, review market needs and opportunities, and develop customer relationships. They also build long term customer relationships and propose solution offerings that anticipates customers' needs and exceeds expectations. The R&D coordinators also explore new and emerging innovative business processes / models deployed in the industry, including new concepts and principles of digitization, factors to consider assessing the viability of digital innovation for a given organisation learning context, the success factors for implementation of learning innovation and the methods to implement digitisation processes in alignment with learning approaches.

### **Assessor**

The assessor is responsible for conducting assessments which measure learner competence and development and managing the award of certifications and accreditations. He/she facilitates data collection and analysis, using this to measure learner competence and development and establish overall trends and performance gaps. He also provides inputs on the overall effectiveness of the curriculum to facilitate continuous improvement.

### **Communication officer**

The communication officer develops, writes and edits marketing and communications materials, including press releases, blog posts and social media content. He/she promotes

communications and marketing materials through appropriate social channels, tracks analytics and create reports detailing successes and failures of communications campaigns, ensure that all communications and marketing material aligns with brand standards and maintains digital media archives including photos and videos. He/she also works with communications team members to conceptualize and implement communications strategies and campaigns, responds to media inquiries and perform media outreach to achieve brand placement in publications.

### **7.1.1.3. The Private Model HR Plan**

The HR- plan of the Private Model has a leaner structure, with fewer employed on the management level and a larger volume of part-time employees/contracted experts which carry out functions on a temporary basis. As examples of existing company or university cost centres show<sup>26</sup>, a typical Private HR model consists of one director, one administration staff, 2-3 part-time lecturers and a network of temporary hired experts for specific tasks, according to the functions needed. The positions mentioned under 7.1.2.2. will be applicable once the cost centre has been firmly established.

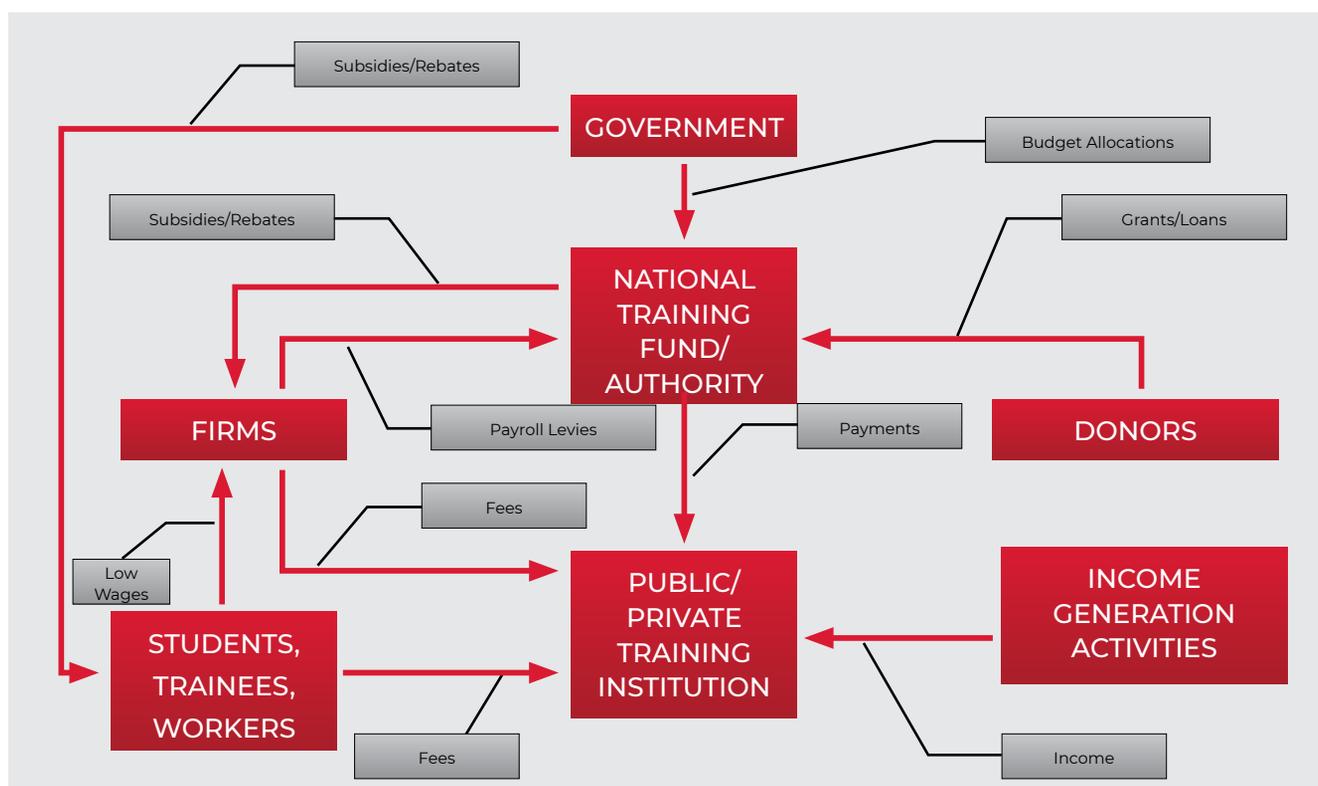
## **7.2. Finances**

The **formal education** within the Regional VET Centres will continue to be financed as per the existing provision for financing of state schools or of adult education centres. The funds for the financing of the operation of these programmes within the Regional VET Centres shall be provided from the Central Budget of the Republic of North Macedonia. The Regional VET Centre may earn its own revenues and may receive donations as per the viable legislation. The Regional VET Centre may participate in financing of educational research conducted by other institutions.

The remaining functions after the transitory period are planned to be provided from several sources, such as MOES, municipalities (the municipality of the Regional VET Centre as well as other municipalities), self-financing (training of candidates, execution of projects, establishing real companies, donations, concessions...), the business community, school

<sup>26</sup> Capacity assessment of 2-3 existing TPs in the country, and provide criteria that will serve as a basis for building stronger partnerships with businesses in order to utilize more effectively available funds for innovation and digitalization of processes, Sonja Ristovska & Niels Haderup Kristensen, UNDP 2020

GRAPH 6.



companies, etc. in the following period, it will be necessary to work on finding a financing model, which will be regulated additional with secondary coordination.

Upon preparation of the new systemic laws, the Law on Secondary Education, the Law on VET and the Law on Adult Education the following areas of interest should be stipulated:

- **Autonomy in signing agreements with:**
  - External experts for various needs
  - Companies that will provide training programs, services for development of business plans and other services
  - Contracts with private stakeholders for renting of premises and equipment.
- The capacity to manage the budget within a multiple year planning. The Regional VET Centres receive/get funds from various sources. These centres should be able to manage their own budgets in accordance with the multi-year program of operations, which goes beyond the principle of one-year (budget) planning.
- Determining the ownership of assets – clarification of the principles of ownership over assets that the Regional VET Centres will take over from the previous organization

(school) or which they have earned upon establishment and commencement of operations as Regional VET Centre (e.g. how they can use and appropriate these assets).

- Financial responsibility – determining the type of financial accountability that the Regional VET Centres have concerning the hired staff, services delivered to third parties, activities of the employees.
- Management with various grant programs .

There are several models of financing which may be applied. These are shown in this diagram **Graph 6**.

**The Training Fund:**

A ‘training fund’<sup>27</sup> is a dedicated stock or flow of financing outside normal government budgetary channels for the purpose of developing productive skills for work. The overall purpose of training funds (TFs) is to raise the productivity, competitiveness and incomes of enterprises and individuals by providing them with needed skills. Many TFs are financed by levies on enterprises but may also be based on public contributions and donor financing.

27 A review of National Training funds, World Bank 2009

Type	Main purpose	Financing sources
1. Pre-employment training fund	Finance the expansion and delivery of initial training before employment.	Payroll levy - revenue generating
2. Enterprise training fund	Provide incentives to increase in-service training of workers within enterprises.	Payroll levy - incentive schemes
3. Equity training fund	Increase opportunities for skills acquisition by disadvantaged groups not covered by enterprise schemes.	Public subsidy, levy or donors

Source: A review of National Training Funds, World Bank 2009, p.6

Three main types of training funds can be differentiated by purpose: pre-employment training funds that finance pre-employment training, enterprise training funds that finance in-service training of workers, and equity training funds that target disadvantaged groups.

#### a) Pre-employment training fund:

Core funding for pre-employment training in training institutions constitutes the primary and most traditional use. This pertains mainly to formal sector occupations and employment.

#### b) Enterprise training fund:

The second use can be for training of workers in enterprises, through apprenticeships, on-the-job training or training off the premises. This constitutes the bulk of training provided through training levies. In North Macedonia, the discussion on enterprise training funds are still on a very premature level, and the engagement and interest of companies is still to be researched.

#### c) Equity training funds:

Training funds may open a funding window to train the unemployed or disadvantaged groups. Such training traditionally has been regarded as a government responsibility, but competitive contracting for such training is becoming a preferred mechanism to finance it.

In North Macedonia public funding of Operating Plan for Active Programmes and Measures for Employment is channelled through the Employment Service Agency of the Republic of North Macedonia (ESA). It is complemented by EU financial assistance (IPA) and funds raised by the ESA itself. The distribution of the money into specific training-related programs follows an annual plan, based on expressed needs and interests. The ESA is responsible for implementation of the needs assessment activities. Programmes in the recent years included training and support to

single mothers, victims of domestic violence, Roma, youth under 27, long-term unemployed. In terms of the programmes' objectives, they encompassed training for self-employment, in-service-training in companies, training for basic and advanced IT skills, employment preparation training, etc. The training offered in many programmes is a direct response to employer needs.

The analysis of the findings obtained by the Government of the Republic of North Macedonia, on the other hand, shows that according to them, the financing of the RVETC should be based on self-financing, while the state can help financially when it comes to important goals of social importance.

The MLSP proposes the development of a team for attracting investors, i.e., a department for research of the international economy and their interest in expanding in North Macedonia. This means to investigate which foreign investors would open companies in the Republic of North Macedonia, to communicate with them and to analyse their interest in cooperation in order to provide professional and competent staff who will be employed in those new companies in the future, and at the expense of that, investors to financially and materially support RVETC.

Examples of sharing of training costs may be found in different forms in countries around the world. Here are some examples<sup>28</sup>:

a) Government-Employer financing arrangements:

- Enterprises have no legal obligations regarding training and its financing (e.g., Canada, the Netherlands, Sweden, the United Kingdom, and the United States).
- Employers voluntarily take significant re-

<sup>28</sup> Gasskov, Vladimir (ed.): *Managing Vocational Training Systems. A Handbook for Senior Administrators.* Geneva: International Labour Office 2000

sponsibility for legally recognised financing of employee training (e.g., Germany, Japan and Switzerland).

- Employers and unions set up training development funds under the training clauses of collective labour agreements (e.g., Belgium, Denmark, and the Netherlands).
- Governments offer training incentives to enterprises (e.g., Chile, Germany, the Republic of Korea, Pakistan, and the United Kingdom).
- Governments introduce compulsory training schemes (e.g., Denmark, France, India, Ireland, the Republic of Korea, Pakistan, Malaysia, Nigeria, Singapore, and various Latin American countries).
- Governments and enterprises co-finance paid educational and training leave for workers (e.g., Belgium and France)

b) Government incentives for enterprise training

- Up to a certain threshold, enterprise training expenditure is deductible from taxable profits or from other taxes. Thus, within established limits, governments bear the cost of training conducted by employers (as in Chile, Malaysia, and the Republic of Korea).
- Enterprises are exempt from import taxes on training equipment (as in Pakistan and the Republic of Korea).
- When enterprises build training centres, they are offered low-interest government loans and they are exempt from appropriation, property and land taxes (as in the Republic of Korea).
- State subsidies are offered to enterprises for training and upgrading employees, or cost sharing is applied (as in the United Kingdom and Belgium).

### 7.3. Facilities and equipment

The Regional VET Centre should be equipped with cutting edge technology. Close dialogue with the supporting industries and organizations is strongly recommended in order to meet the exact and continuous needs of the particular sector. For specific one-time needs it is recommended to use equipment and premises of the companies or university labs.

The procedures for purchasing of new equipment and for adaptation of facilities is explained below.

Based on regional development strategies, regional skills needs analyses conducted, SSO data and other sources, as well as consulta-

tion with the identified RVETCs, local industry and other local stakeholders, a decision paper should first be drafted which defines which specialisations should be realised in which locations on the potential and the demand. After approval of and based on the decision paper, equipment lists will be drawn up, in close collaboration with the teaching staff and under consultation of experts from local industry. This will be cross-checked with the equipment needs of existing curricula and consider future demands.

Then follows a mapping of the current state of play of the electrical and infrastructural capacities, connections, Internet etc. for installation and operation of the teaching equipment.

- Preparation of questionnaire to the focal persons in each of the Regional VET centres, send to each individual institution for them to return descriptions of the current capacities, connections, internet etc. in rooms used for the reformed curricula.
- Analyse feedback and map all information in an excel sheet.
- Check received descriptions on site when conducting field visits, for correction and editing of the information given.

A list of facility adaptations and teaching equipment needs within the available budget will be submitted to the funding body. A proposal for the distribution of the teaching equipment will be drawn up, specifying the teaching equipment into lots, if applicable, and an Action plan for distribution with advice on the necessary preconditions for successful installation of the teaching equipment per institution will be delivered. The results from the needs analysis process and outputs will be presented in a draft Needs Analysis Report.

The next step in the process is the development of the technical specifications for the procurement and installation of equipment, as well as market research on possible suppliers of the equipment, in accordance with best practice guidelines.

The expected results are a Needs Analysis Report, which will identify and prioritise the teaching equipment needs, which will serve as a starting point for specifying the required teaching equipment. A Market research report will further collect reliable market information, aiming to identify sufficient number of potential suppliers, and to determine the estimated budget breakdown. The details of the technical specification for tender supply will be developed on the basis of findings, tailored

GRAPH 7.



to the specific needs of the selected Regional VET centres, and in compliance with current procurement regulations. An additional capacity building programme is designed as a tool for the successful transfer of ownership over the project results to the beneficiaries.

The main steps of the overall equipment and facility procurement process is summarised below **Graph 7**.

#### 7.4. Partnerships

The network of partnerships around the RVETC should be both flexible and well-supported with resources in order to maximise its impact and enable innovation. The timeframe of the network should be carefully considered, recognising that networks may be temporary or more long-term. They may be emerging or shifting in form and purpose. They may exist as an initial phase of a broader or longer strategic plan, such as establishing and embedded a culture of collaboration. Networks may be established at the point of project planning in order to carry out that activity but may also make lasting connections of which project activity may be one part.

The development of the network is guided by the actors with ownership, recognising that more active / connected actors may be best used as ambassadors to strengthen, broaden, or steer the development of the network. It is understood that networks can inform decisions about the optimum distribution of resources across / within adult education systems, including the extent to which budgets

are centralised or decentralised.

The RVETC needs to cooperate with municipalities, vocational schools, companies, local self-government, and chambers, other RVETCs in Europe, technical faculties, development offices, and trade unions.

The development of the network of partnerships may happen in a series of incremental steps, since the RVETC services may be built up gradually, starting with some basic core services, which can then be expanded into start-up of other services, until the entire range of functions are covered.

**First step** is suggested as the establishment of the RVETC, where the core services are developed in close partnership with the companies, government authorities and agencies, as well as educational partners that need to be involved in order to develop the core services. The aim is to set up a portfolio of training programs. In parallel to starting these activities, a partnership is suggested to be established with the benchmark companies to be involved in the delivery/WBL part, so that initial planning can take place regarding the areas where the companies can contribute to the mix of services, such as training programmes, description of innovation centre activities, management of the RVETC.

**Second step** is to approach the companies in the target sectors in order to identify their specific needs, present the services and agree on the way forward. A preliminary list of companies are the companies that have provided positive feedback on the establishment of the RVETC. Partnerships may here also be rele-

vant with the chambers of commerce and industry, employers' associations.

The **third step** involves setting up partnerships with other service delivery institutions that may complement partnership. Relevant institutions to approach are VET institutions offering textile training, which is not covered by any of the core partners, as well as VET institutions that may be included into the hub, offering services or expertise that is not currently available in the RVETC.

It would also be relevant here to involve national licencing bodies, accreditation authorities and government institutions for recognition of courses and programmes, that meet the needs of the industry.

**Fourth step** is the involvement of national/ European and international funding bodies, in order to seek funding for innovative activities in the realisation of the tasks of the RVETC in any of the service areas of the Center.

**Fifth step** concerns recruiting the participants for the education and training, as well as VNFIL – Adult education services –for which different partnerships may be envisaged, such as partnering with media companies, local employment offices, NGOs.

A summary of the indicative distribution of different roles and responsibilities of partnerships is shown in this model.

Processes	BoD	Curriculum development	Program development	Training of mentors	Financing of equipment, costs & activities	Work Based Learning	Accreditation	Assessment Evaluation Supervision
Partners								
Government		✓			✓		✓	✓
Municipalities	✓					✓		
Companies		✓	✓	✓	✓	✓		✓
Local self-government	✓				✓			✓
Uni. faculties	✓	✓	✓				✓	✓
VET schools					✓	✓		
Chambers	✓	✓	✓	✓	✓	✓		✓
Trade unions	✓					✓		✓
Development offices/parks		✓	✓	✓				
NGOs	✓	✓	✓					
Other RVETCs in Europe		✓	✓				✓	
Accrediting bodies							✓	✓

# 8. Processes

**P**rocesses are standardized activities that are carried out in the RVETC on a regular basis. They should be described in detail and the descriptions be kept in the “Quality Handbook” of the RVETC.

According to the current legislation, the Regional VET Centres come from existing vocational secondary schools. It is necessary for them to obtain additional autonomy compared to the secondary schools, so that they would be able to accomplish efficiently and effectively the basic as well as the additional functions stipulated for the regional VET Centres.

The Regional VET Centres should have specific authorisation which will not overlap in authorizations and will respect the principles of avoidance of conflict of interest in the following processes:

1. Preparation of annual and multi-annual programs
2. Planning of functions on a short and long run
3. Planning of human resources for the regional VET centre

4. Planning of new qualifications<sup>29</sup>
5. Planning of mechanisms for quality assurance and information
6. Financial planning

## **1. Preparation of annual and multi-annual work plan**

As a transitory measure the basic areas of the structure of the annual program (AWP) will be determined additionally by MoES, VET Centre, AEC and BDE. In the transitory period, the Annual program for the academic 2020/21 will be adapted in accordance with the needs of the Regional VET Centres.

Each RVETC will be obliged to prepare a four-year strategic plan with:

- activities, time frame, responsibilities, financial implications for each activity
- procedures for preparation and adoption of the annual program and the strategic plan.

A separate secondary legal act will regulate and define the contents, the procedures and deadlines for submission and approval of the four-year MAWP of the regional VET Centre.

<sup>29</sup> More information on the Occupational Standards and Qualifications Standards processes in Annex 8.

Also, the monitoring and evaluation of the operations of the regional VET centre will be regulated.

Multiannual Work Plan (MAWP) development is to be designed as a participatory process involving all relevant actors.

In the preparation of the MAWP distinguish between a “medium-term school plan” for a term of four years and an “annual plan or work plan”.

The medium-term plan ensures, through its rather long-term investment that individual objectives - particularly those with short maturities - are clearly important components of a targeted holistic development planning (vision). The annual plan is based on the objectives of the medium-term work plan and specifies the development work especially for the coming school year.

A general organizational sequence of the work programme can be described as follows:

- The starting point for the entry into a work programme development is the setting up of a “main working group” (task group) by the director/principal or the head teacher.
- The main task group’s task is to develop a design for a MAWP and, in particular, to control the process of development. In support of development, the Working Group sets working groups on specific issues.
- The draft proposal submitted is submitted to the centre’s board/ committees for approval, and, after signing by the director/principal or the headmaster and the head of the centre board, is submitted to the head of the local educational office or the superior service for approval.
- After the MAWP has been approved, an evaluation group (special group) will be set up to ensure continuous monitoring and review of ongoing work. The director/ principal is responsible for the annual reporting obligation in the form of an annual report against the centre board and the supervisory authority.

## 2. Planning of functions on a short and long run

A **Functional analysis** should first be conducted for each Regional VET Centre to be established, since each will have unique functions in accordance with the environment which they will serve. Functional Analysis is a technique used to identify the labour competencies inherent in a productive function. Such function may be defined at the level of an oc-

cupational sector (e.g., education), an institution, a group of institutions or a whole sector of production or services. Functional analysis may be developed with different initial levels: an occupational sector (education); mainstream occupations at various sectors (professional subject teacher); or an occupation (teaching instructor of practical training). It is thus evident the flexibility of functional analysis. Although it was designed as a wide-scale analysis tool, it may also be useful to analyse occupations in certain subsectors or even at specific organisations.

Functional analysis is not an exact method whatsoever. It is a working approach to the required competencies by means of a deductive strategy. It begins by establishing the main purpose of the productive function or service under study and then questions are asked to find out what functions need to be performed in order for the previous function to be achieved. Ideally, this is carried out on a group of workers who are familiar with the function object of the analysis. Its worth as a tool comes directly from its representative quality. Functional analysis, just like any other methodology which analyses occupations, becomes the basis for the creation of not only competency standards, but also training programmes.

The method of functional analysis is the first stone in the creation of **labour competency standards**. As such, it is in the root of the description of the occupational areas that are the object of standardisation. The integration of competency standards with their different components –units of competency, elements, evidence of performance, performance criteria, field of application, and evidence of knowledge and assessment guidelines – is the basis for designing competency-based training curricula.

## 3. Planning of human resources for the regional VET centre

Human resource planning is a process through which the right candidate for the right job is ensured. For conducting any process, the foremost essential task is to develop the organizational objective to be achieved through conducting the said process.

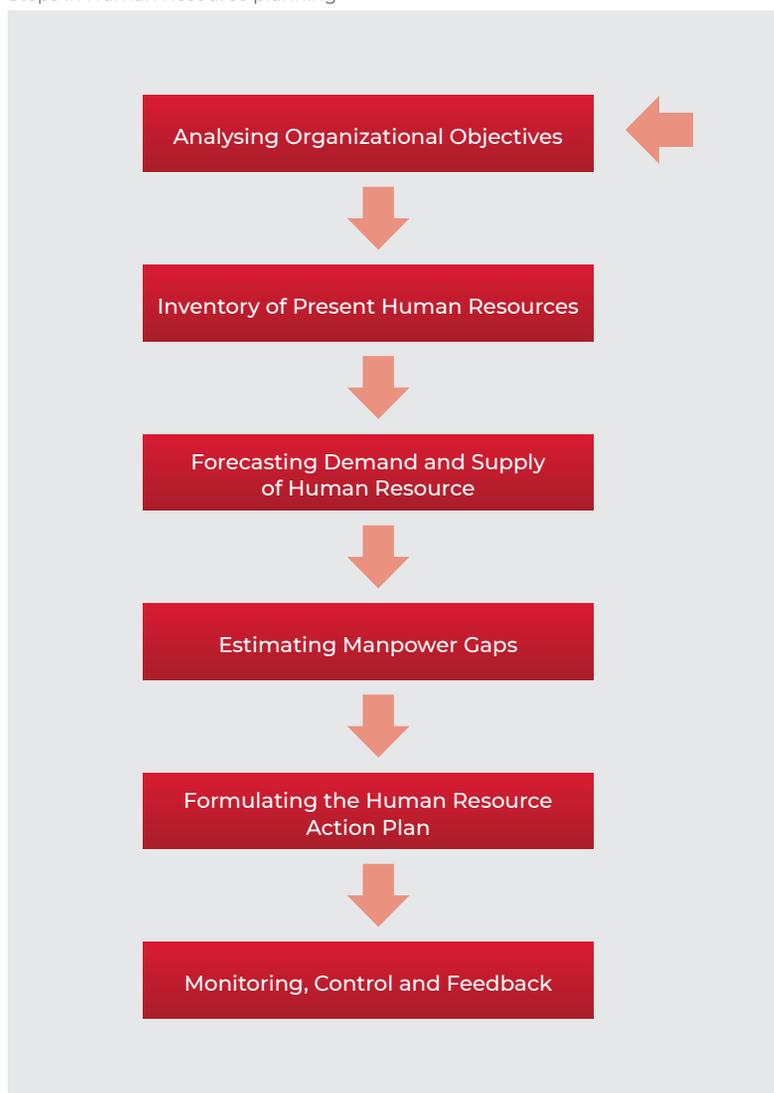
Six steps in human resource planning are presented in the figure below. **Graph 8**

### ■ Analysing Organizational Objectives

The objective to be achieved in future in various fields such as initial VET, post-secondary VET, commercial activities, career

**GRAPH 8.**

Steps in Human Resource planning



guidance etc. gives the idea about the work to be done in the organization.

■ **Inventory of Present Human Resources**

From the updated human resource information storage system, the current number of employees, their capacity, performance and potential can be analysed. To fill the various job requirements, the internal sources (i.e., employees from within the organization) and external sources (i.e., candidates from various placement agencies) can be estimated.

■ **Forecasting Demand and Supply of Human Resource**

The human resources required at different positions according to their job profile are to be estimated. The available internal

and external sources to fulfil those requirements are also measured. There should be proper matching of job description and job specification of one particular work, and the profile of the person should be suitable to it.

■ **Estimating Manpower Gaps**

Comparison of human resource demand and human resource supply will provide with the surplus or deficit of human resource. Deficit represents the number of people to be employed, whereas surplus represents termination. Extensive use of proper training and development programme can be done to upgrade the skills of employees.

■ **Formulating the Human Resource Action Plan**

The human resource plan depends on whether there is deficit or surplus in the organization. Accordingly, the plan may be finalized either for new recruitment, training, interdepartmental transfer in case of deficit or termination, or voluntary retirement schemes and redeployment in case of surplus.

■ **Monitoring, Control and Feedback**

It mainly involves implementation of the human resource action plan. Human resources are allocated according to the requirements, and inventories are updated over a period. The plan is monitored strictly to identify the deficiencies and remove it. Comparison between the human resource plan and its actual implementation is done to ensure the appropriate action and the availability of the required number of employees for various jobs.

**4. Planning of educational contents for the formal and non-formal education**

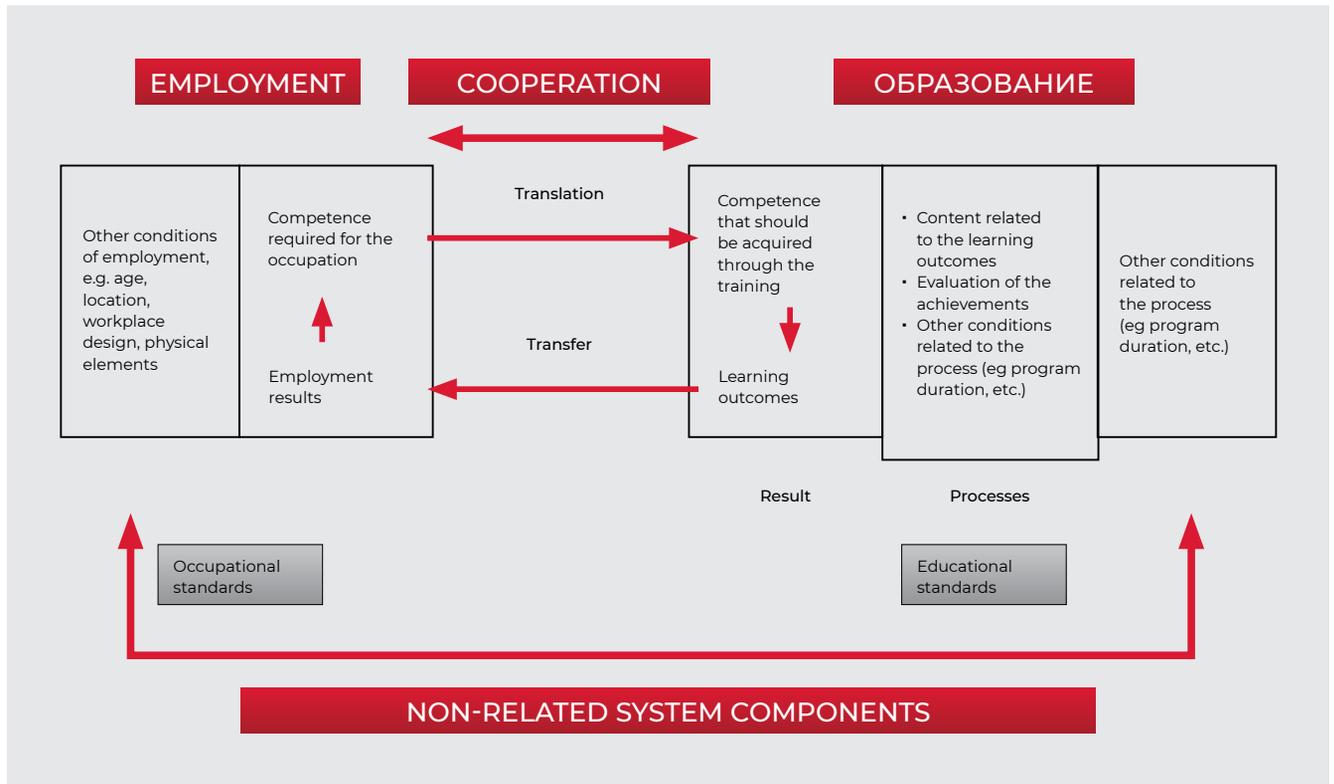
The planning process is described in the following model **Graph 9**.

- The process of developing new educational qualifications that is applied in RNM is described in detail in Annex 8.

**5. Planning of mechanisms for quality assurance and information**

Control of quality in VET is regulated with the provisions of the Law on amendments and supplements to the Law on secondary education, Law on amendments and supplements to the Law on secondary education, Law on amendments and supplements to the Law on secondary education, Law on education inspection and Rulebook on integral inspection,

GRAPH 9.



Source: Adapted from an unpublished paper by Bob Mansfield and Hermann Schmidt, 1999

Law on vocational education and training and Indicators for quality of the work of school. Control of the quality in VET is carried out internally (self-evaluation) and externally (integral evaluation).

The Ministry of Education and Science (MoES) has the leading role in defining, implementing, and monitoring policy in education and training (formal and non-formal). The Ministry of Education and Science runs accreditation procedures for VET providers. Curricula for secondary education are developed by the Bureau for the Development of Education and/or the VET Centre and are approved by the Minister of Education and Science. The implementation of curricula for secondary education is supported and monitored by the Bureau for the Development of Education and the VET Centre.

The EQAVET + quality assurance system<sup>30</sup> can be applied at both system and VET provider levels and can therefore be used in the RVETC to assess the efficiency of VET provision. It is adaptable to the different national systems, and it can be used in accordance with national legislation and practice. The Framework complements the work on the quality assur-

ance aspects of the European Qualifications Framework (EQF) and the European Credit System for VET (ECVET). It builds on earlier European level work on quality assurance systems (such as the Common Quality Assurance Framework – CQAF and European Network for Quality Assurance in VET – ENQA-VET).

The Framework<sup>31</sup>:

- includes the need for regular monitoring (involving internal and external evaluation mechanisms) and reporting on progress;
- uses common quality criteria and indicative descriptors to underpin the monitoring and reporting arrangements;
- stresses the importance of common indicators to support the evaluation, monitoring and quality assurance of VET systems and providers.

It is accompanied by a set of 10 indicators<sup>32</sup> which may be used as a “toolbox” by the RVETC as they work on adapting and developing their VET provision. The indicators are

31 The EQAVET Framework, Council Recommendation on vocational education and training (VET) for sustainable competitiveness, social fairness and resilience, Brussels, 25 November 2020)

32 The indicators are detailed in Annex 7.

30 EQAVET+ Indicators' Toolkit by EQAVET

not designed for benchmarking but rather to support a culture of quality assurance in VET.

The EQAVET+ indicative descriptors aim to support Member States, as they deem appropriate, when implementing the EQAVET Framework. They can also be applied to school-based provision; apprenticeships, life-long learning programmes, in-company training, and non-formal and informal learning. The additions comment on how to apply each stage of the quality assurance cycle to these aspects of training/learning. In some cases, the addition simply adds further information to the existing EQAVET indicative descriptors; in others, new indicative descriptors are offered.

### Criteria for data collection

- Existing data should be used when/where possible but not at the expense of their validity and accuracy
- The administrative burden, the resources and time needed for the collection of data are important factors, i.e., the indicators should be able to be collected and analysed cost-effectively and provide current information in a timely and punctual manner.
- Indicators should be able to be measured consistently over time and, thus, continuity needs to be established in the national monitoring system.
- Need to be aware of practices that may affect data quality or lead to unintended consequences from the use of the indicators, i.e., the “backlash effect” in teachers and trainers’ practices as a result of learners’ performance in external evaluation.
- Trade-offs are sometimes necessary, e.g., when reconciling provision funding and completion /dropout rates.

### Methods for data collection

- Administrative sources
- Annual census of VET organizations/institutions
- Systematic gathering of data for administrative needs- administrative data (e.g. financing of VET, teachers and trainers qualifications) and records ( e.g. enrolment records)
- Surveys on representative sample of target

population and aimed to collect information on particular questions

- Examination results and surveys on achievement levels relevant to national qualifications
- Indirect sources of VET data
- General population census
- Household surveys, labour force surveys.

### Information dissemination

Following collection and processing of the data the next step is to disseminate facts and figures that are vital to building support for a policy, a programme or an intervention in the field of VET. Since graphics are such useful interpretive tools, it is worth taking into consideration different modes of visualizing data, i.e. to encode information on visual displays. In other words, the display of information with graphs and other types of charts can be very effective because, if they are done properly, they allow people to visualize the data being cited which makes the information presented more real and understandable, mostly for the non-specialist stakeholders and public in general.

### RVETC quality management activities

Tasks of an internal quality assurance system<sup>33</sup> can be described as follows:

- a. description of processes: this is one of the most prominent requirements for all kinds of external recognition of quality in a VET organisation. The internal quality assurance system sets up and describes the operational processes and their quality objectives together with the individual responsibilities for the management and control of each operation, giving a whole picture of the organisation;
- b. (self-) assessment: the internal quality assurance system develops and/or provides the necessary instruments and tools for collecting information and assessing results from staff, students and external stakeholders. As a horizontal task the quality assurance system is based on consistent principles for collection and evaluation of information in different units and departments of the VET organisation and for different operations;
- c. monitoring and change management: the

<sup>33</sup> Handbook for VET providers, Supporting internal quality management and quality culture, CEDEFOP 2015

quality assurance system puts into effect the institutionally agreed quality assurance processes through continuous monitoring, regular assessment, evaluation and proposals for adaptation, improvement and change;

d. documentation: this is another basic requirement for any type of external recognition of the institution. The internal quality assurance system has to ensure the documentation and storage of all documents guiding operations of the VET institution both internal and those addressed to its external stakeholders.

A fully-fledged documentation system in a VET institution should store under safe conditions at least the following records:

- i. mission statement and quality policy of the VET institution;
  - ii. descriptions of the main processes and definitions of related (personal) responsibilities;
  - iii. tools and instruments used for assessment and evaluation;
  - iv. records of assessments and evaluations undertaken;
  - v. records of all suggestions, complaints and subsequent investigations made;
  - vi. minutes and results of discussions to improve quality of organisational processes and programme and service delivery.
- e. communication: as a cross-cutting function, a quality assurance system within a VET institution should ensure internal communication with staff, teachers/trainers and students as well as communication with relevant stakeholders from outside, such as general schools, employers and employment agencies.

when it comes to a private RVETC;

- b. RVETCs can be financed from the Budget of the Republic of North Macedonia in accordance with the Law on Secondary Education, if they are established in public vocational schools for qualifications of social interest, and through allocated block grants in line with the Law on Financing Local Self-government Units;
- c. RVETC can be financed from own sources of the local self-government, in line with the Law on Financing Local Self-government Units, where the municipality gives an explanation for the budget and states the programme that shall provide the funds;
- d. RVETCs can also be financed by the provision of educational services to citizens that are not determined to be in the interest and need of the state, as is regulated in the Law on Secondary Education ;
- e. Business led RVETCs can be financed through participation in projects;
- f. RVETCs can be financed with cooperation with the Economic Chambers, via the industries or with the support from the Government and foreign funds;
- g. Training participants who improve their skills for qualifications or re-qualifications of their own initiative, should personally cover the expenses for the trainings;
- h. Another way of ensuring funding for RVETCs can be found in the Law on Innovation Activities which states that innovation activities, among else, include transfer of technologies and/or knowledge for innovative products, technologies, processes, and services, so that educational service providers, in this case RVETC, can have the role of technology parks for specific knowledge and skills for new technological processes.

## 6. Financial planning

There are no direct references to RVETC financing in the legal framework, however, elements may be found in different parts. The Law on Financing Local Self-government, the Law on Civic Universities for Lifelong Learning, the Law on Innovation Activity and the Law on the Use and Disposal of Goods Owned by the State and the Municipalities.

Some options are listed here:

- a. RVETCs can be financed in accordance with the Law on Financing Local Self-government Units via specific grants used for financing a specific activity, particularly

Summary of financing model options:

Financing Model No.	Description	Option 1	Option 2
1.	Government grants	article 10 of the Law on Financing Local Self-government Units	article 12 of the Law on Financing Local Self-government Units
2.	Government budget	Law on Secondary Education, article 101,	article 103 of the Law on Secondary Education
3.	Local self-government budget	article 4 of the Law on Financing Local Self-government Units	article 23 of the same law
4.	Open university fees	Law on Open Civic Universities for Lifelong Learning in chapter IV Financing the functioning of the open civic universities for lifelong learning in article 16	
5.	Project participation	National projects	EU/International projects
6.	Cooperation financing	cooperation with the Economic Chamber	via the industries/government funds/international funds
7.	Private user funding	cover own expenses	
8.	Technology Park funding	article 4 of the Law on Innovation Activities	

The financial planning is closely linked with the multi-annual and annual work plan, as the instrument for realisation of the agreed tasks and activities for the coming work period.

# Annex

## Annex 1 – Chronological overview of the process

The Ministry of Education and Science, on November 23, 2018, established a Working Group that worked in partnership with experts from the European Training Foundation. In the first phase until December 2018, work was done on developing capacities for the new reform. In the second phase, the research on the demand and supply of skills from vocational education and training was conducted in the period between March - June 2019. In the third phase, from July to September, comments, suggestions and guidelines were provided for the promotion of the document education and training in the Republic of Northern Macedonia". In December 2019, the Government of the Republic of Northern Macedonia adopted a decision for selection of three schools in the Northeast region, Southwest region and Polog region. On March 20, 2020, the Development Concept initiated by the Ministry of Education and Science was launched by holding over 30 virtual meetings involving several educational institutions and the three schools. On May 22, 2020, a draft Development Concept was developed and shared within the institutions (MES, BDE, CSOO, COV, schools). Internal coordination was organized during June 2020, in July 2020 the draft Development Concept was translated into English, in the period August-November online meetings were held with ETF, E@E and UNDP on all open issues. In December, cooperation was agreed with UNDP to hire an international expert to finalize the Draft Development Concept. The first proposals were submitted by the expert on January 26, 2021. During 2021, the Concept for development of RVETC and a new draft Law on VET were worked in parallel.

Connected with the development of the concept several consultations with stakeholders have been conducted, involving focus groups. The responses from these focus groups have been incorporated into the shaping of this concept.

## Annex 2 – Developed, established and operational model of the Center of Excellence in VET in Bratislava<sup>34</sup>

		Setting up foundations	Developing added value	Achieving excellence - The self-reflexive CoVE
		Improving on what VET normally does, with close linkages to the labour market	Engaged with regional strategic development and collaborating with a wide range of stakeholders	Co-creating local skills ecosystems, and local innovation and regional development. Strong VET internationalisation dimension.
Activities cluster	Learning and training	Curricula and programmes closely attuned to needs of the labour market.	Playing active role in skill anticipation mechanisms.	Establishing a synergistic relationship with skill anticipation mechanisms.
		Continuous VET offered alongside initial VET based on lifelong learning principles.	Increasing integration of initial VET (IVET) and continuous VET (CVET) based on lifelong learning principles.	The centres integrate provisions for life-long learning; minor or no difference between initial VET (IVET) and continuous VET (CVET).
		Improving VET quality through innovative pedagogies.	Adopting more systematic approaches to innovations in training and learning.	Conducting research on the effectiveness of innovative methodologies for instruction and learning.
		Transition to higher level VET only on case to case basis.	Pathways to higher level VET being systematically developed.	Developing of joint trans-national curricula.
		Continuous professional development of teachers and trainers.	Innovations in training/instruction/ learning being linked to continuous professional development.	Transition to higher specialized level of VET as part of the offer.
				Feedback mechanism established between practice of continuous professional development + research and development.
				Guidance and validation services form an integral part of the VET offer to all students and participants.

<sup>34</sup> CoVEs - <https://ec.europa.eu/social/BlobServlet?docId=21767&langId=ga>

		Setting up foundations Improving on what VET normally does, with close linkages to the labour market	Developing added value Engaged with regional strategic development and collaborating with a wide range of stakeholders	Achieving excellence - The self-reflexive CoVE Co-creating local skills ecosystems, and local innovation and regional development. Strong VET internationalisation dimension.
Activities cluster	Cooperation and partnership	Inclusion in companies, companies providing part of the equipment or experts.	Two-way, reciprocal relationship with the business community.	Leading role in innovation hubs, technology diffusion centres, business incubators.
			Participating in innovation hubs, technology diffusion centres, business incubators.	The VET students and participants have the possibility to be engaged in incubators.
		New knowledge gained in specific conditions or result of conducting other activities.	Creation of knowledge.	Creation of new knowledge connected with organized programs/research centres.
		Participation in international projects (mobility and innovations).	Participation in international projects (mobility and innovations).	International activities including international campuses/academies; Becoming key player in foreign investment projects.
	Governance and financing	Large number of focused specific partnerships that come from specific conditions.	Membership in numerous regional and national networks.	Coherent and well-coordinated approach to partnerships.
		Collaboration with resources from the private sector for specific urgent needs.	Developing sources of financing from the private sector.	Sustainable financing model which includes strong and meaningful participation in the private sector.

## Annex 3 – Summary of the conducted analyses of ETF and UNDP

### The ETF Skills demand and supply analysis showed the following characteristics:

- Tight labour market opportunities are reflected by the level of unemployment rates in all three regions that are higher than the country average. In the examined regions the unemployment rates are projected to remain higher than the national level. The most worrying situation is expected to be that of the Northeast region, where the unemployment rate will remain over 32%.
- The economic situation of the 3 regions (before the Covid-19 Pandemic) is characterised by the following features:
- All three regions have a substantially smaller GDP per capita than the national average. However, the Southwest region is slowly progressing towards convergence with the national level. The Polog region remains at the same level (about half of the national), while the GDP of the Northeast region is falling rapidly.
- Significant changes in the structure of employment by sector in Southwest, Polog and North-east have occurred in recent years. Thus, some sectors are facing a sharp decline, while others are growing rapidly. In some cases, specific sectors in a given region are waning due to the transfer of the workforce to other expanding sectors, as is the case in the Polog region where the agriculture, forestry and fishing sector is declining while the areas of manufacturing and accommodation and food service activities are growing rapidly. These structural changes in the economy are typically the result of modernisation, and possibly indicative of a stronger demand for higher skills. In the case of the Southwest region, several sectors are declining or growing only slowly. A marked decline in the transportation and storage sector is observed, while solid growth is seen only in construction. In this case, the development of employment sectors appears to be inhibited by inconvenient external conditions, in particular the under-developed transportation infrastructure.

Significant changes in employment during the period 2016-2018 are seen in in this table:

Sector	Southwest	Polog	Northeast
Total	3365	1864	1299
Agriculture, forestry and fishing	-221	-1604	-207
Mining and quarrying	532	NA	NA
Manufacturing	403	2399	86
Electricity, gas, steam and air conditioning supply	-563	-185	NA
Water supply, sewerage, waste management and remediation activities	309	-485	-12
Construction	-12	-154	852
Wholesale and retail trade, repair of motor vehicles and motorcycles	1743	-380	-185
Transportation and storage	-557	384	-290
Accommodation and food service activities	135	1585	375
Information and communication	-119	347	197
Financial and insurance activities	66	65	NA

Sector	Southwest	Polog	Northeast
Real estate activities	NA	NA	NA
Professional, scientific and technical activities	-135	586	371
Administrative and support service activities	21	123	124
Public administration and defence, compulsory social security	409	-367	-220
Education	863	-1082	-244
Human health and social work activities	846	-49	191
Arts, entertainment and recreation	-98	374	27
Other service activities	-151	-39	-93
Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use	NA	NA	NA
Activities of extraterritorial organisations and bodies	NA	NA	NA

Source: Trends in the Number of Employed People by Sector and Region (Annual Change), 2016–18, ETF 2020

A general trend is the decrease in all regions in agriculture, forestry and fishing, electricity, gas, steam and air conditioning supply as well as “other service activities”.

Polog:

- Increasing employment in manufacturing sector (annual increase of 2399);
- a decrease in agriculture, forestry and fishing (-1 604).

Southwest:

- the most significant increase in employment among the 3 regions (3365);
- Increasing employment in wholesale and retail trade, repair of motor vehicles and motorcycles (annual increase (1743);
- Mining a moderate increase (532);
- A moderate increase in Human health and social work activities (846).

Northeast:

- A moderate increase in construction (852);
- A minor increase in Accommodation and food service activities (375);
- A minor increase in Professional, scientific and technical activities (371).

As explained in the ETF analysis, the forecast trends in sectoral employment presented reveal that by 2020 the electricity, gas, steam and air conditioning supply sector in Polog could be suffering from a shortage of employees. Similarly, also in Polog, the sector of water supply, sewerage, waste management and remediation activities could experience a deficit of workers over the next few years.

The decrease in employment in agriculture, forestry and fishing in Polog will lead to a figure of 5 766 workers in this sector (1.79% of the population in the region) in 2020, compared to 2 602 in the Northeast region (1.48%) and 4 943 for the Southwest region (2.25%). In Polog, by 2020, 6.90% of the population are expected to be employed in the manufacturing sector, which is comparable with (though somewhat higher than) the figure for the Northeast region (5.31%).

Looking at the supply side, the following table describes the number of unemployed in the 3 regions, indicating their educational background.

ESA	Total	Without education and with primary education	Incomplete secondary education	Secondary education	Higher education	Bachelor	Master	PhD
Southwest	8.688	4.123	1.177	2.214	147	964	62	1
Polog	21.797	12.238	1.676	5.480	175	2.053	173	2
Northeast	14.472	7.237	1.920	4.099	125	1.052	58	1
<b>Total (three regions):</b>	<b>44.977</b>	<b>23.598</b>	<b>4.773</b>	<b>11.793</b>	<b>447</b>	<b>4.069</b>	<b>293</b>	<b>4</b>

Source: ETF Skills demand and supply in North Macedonia, p.34

The highest number of registered unemployed are those with the lowest education level, namely jobseekers without education or with only primary education. The second largest group of unemployed people are those with secondary education, and the third largest group of unemployed are those with a bachelor's degree.

This diagram illustrates the differences between the 3 regions regarding type of educational background of unemployed:

As can be seen from this diagram Polog has the highest percentage of unemployed with only primary education (28%), whereas Northeast unemployed (25%) and Southwest (24%). The percentage of unemployed with incomplete secondary education is highest in Southwest (6,7%), followed by Northeast (6,6%) and the lowest in Polog (3,9%). Unemployed with a secondary education is highest in Northeast (14,15%), and on the same level in Polog and Southwest (12,6%). The number of unemployed with a post-secondary education is very small, as the numbers of graduates are also small, however the percentage of unemployed postgraduates is highest in Southwest (0,8%). Unemployed Bachelors are highest in number on Southwest (5,5%), then Polog (4,7%) and lowest in Southeast (3,62). Master unemployment and PhD unemployment is almost insignificant.

On a general level, the unemployment rate of annual graduates (2016-2018) is 50%, of which 26,23% have only primary education, 5,3% has incomplete secondary education, 13,1% has completed secondary education, 0,5 post-secondary higher education, 4,52% bachelor's degree, 0,33% Master degree and PhD almost 0%.

Concluding, this points to a significant part of the unemployed population in the 3 regions with only primary education, and a high number of secondary education graduates in unemployment.

Looking at job vacancies in the 3 regions<sup>35</sup>, in comparison with the national level, they are highest in the Southwest region, with an average value for the given period of 1.67%. This figure is slightly higher than the national average and markedly exceeds the vacancy rates given for the other two regions: Polog (1.05%) and Northeast (1.11%). This finding supports the assumption that in less developed regions the demand for skills is generally lower than in more developed areas.

### The UNDP analysis

This analysis focused on 3 main sectors, construction, textile and energy, showed the following demands:

In the **textile sector** there is a need for both post-secondary and specialist skills, such as:

<sup>35</sup> ETF, p.38

- post-secondary / specialist training for: machine service technician, computer design and modeling of clothing and model designers, CAD operator (for modeling, grading and tailoring), while adult education programs should include courses for: tailor, basic textile seamstress, complete model seamstress, and ironer;
- maintainers of special machines and vending machines, service technicians, operators;
- Companies expressed that they face a shortage of trained staff to service and maintain machines, computer-aided design and modelling.

In the **construction industry** there is a deficit of skills that will be realized through post-secondary / specialist education programs, as follows:

- Reinforcement-specialist, hydro-insulator and process organizer, construction ceramic, concrete-asphalt, mason -specialist and painter-plasterer, plasterers, while, through the adult education programs, courses are needed for: tiler, chimney sweeper, facade and installer for dry construction, plumbers, etc.;
- Skills regarding following the trends of construction materials, embedding construction materials;
- Companies expressed that training is necessary in all areas, but due to the lack of labour market staff from the profile of masons, painters, gutters, drone gauges, the focus of training should be oriented towards them. Construction machine operators are especially lacking.

In the **energy sector** demanded skills are certain in the electrical energy profession, especially for:

- electrical installers, installation and maintenance of air conditioners, argon welders, electrician, electro-mechanics for electronics, electro-mechanics for software, electro-mechanics for telecommunications .

In the power industry for:

- Renewable energy, electricians for high current, electronics, PLC controllers.

The companies in the electricity industry and renewable energy believe that training is most needed in the field of gasification and heating, but of course, in all other areas by strengthening the application of modern machinery and technology.

A recent survey of employers by the World Bank (2016) throws additional light on which types of jobs will be mostly needed in the future in North Macedonia. The skills most in demand by firms, according to the World Bank's survey of employers (2016) are mainly technical skills, relating to specific jobs. In addition, workers are also expected to have many transversal skills, e.g., team working skills, communication skills, and time management skills. However, when employers are asked about the technical skills that are in short supply, they are unable to articulate exactly which technical skills are in insufficient supply but instead mention socio-emotional skills and similar skills. They also usually complain about the job applicants' lack of work experience. According to the same survey the main sectors experiencing demand constraints for workers are the fast-growing and export-oriented sectors in the economy. These sectors report a lack of the following occupations: plant and machine operators, crafts and related trades workers, clerical support.

## Annex 4 – Responses from stakeholders to the establishment of Regional VET Centres

Based on the analyses conducted ESA has provided the following response with regard to the future role of Regional VET centres in addressing skills shortages:

### Employment Service Agency of the Republic of North Macedonia:

Region	Covering the lacking skills	Evidence for the needs for such skills provision
Southwest	Manufacturing, catering: special crafts such as welders, argon welders and locksmiths, as well personnel required by the tourist services sector, where the skills of receptionists, waiters and cooks should be raised to a higher level.	The difficulty of recruiting skilled workers into the labour market as well as concerns over the fulfilment of work tasks at a higher professional level.
Polog	Manufacturing and crafts: textile workers, welders, electricians, metal processors, mechanics, woodworkers.	A lack of workers to fit such profiles.
Northeast	Graduate technologists, IT workers, managers (almost all sectors), tailors, welders, metal processors, cooks, waiters, drivers.	The situation in the labour market.

Source: ETF, p.43

In the Southwest region, the skills required to fulfil job tasks at a higher professional level were emphasised. In the Polog region the main issue was seen as a lack of people with the necessary skills, while in the Northeast region it was perceived that there was a problem with the labour market in general.

### Organisations of commerce and employers' organisations

These consist of the Association of Chambers of Commerce (more than 23 000 members), the Economic Chamber of North Macedonia (more than 15 000 members), the Economic Chamber of North-West Macedonia (more than 1 700 members), the Organisations of employers (1 012 members) and the ICT Chamber of Commerce – MASIT (114 members).

The attitude of the organisations of employers/ chambers of commerce is complementary to the views of ESA. The role of ESA in the transition from education to employment is clearly important. In addition, the recruitment of new workers with a specific education profile channelled through vocational schools and adult education providers deserves particular attention in securing stronger links between the 'skill producers' and the 'skills users' in the labour market. Chambers of commerce/organisations of employers are particularly useful for their support in the development of regional VET centres, which they consider as playing the role of workforce brokers. It is expected that they will be equally committed to cooperating with the Regional VET centres that will be established in these and other regions of the country.

### Municipalities, planning regions and social councils

The ETF analysis showed that as with ESA, the municipalities/local economic and social councils support the development of regional VET centres in their region. The specific sectors and profiles to be covered by the regional VET centres are almost the same as those falling within the ambit of ESA. In addition, for the Northeast region, the construction and health sectors were also listed. The urgency of the need to establish regional VET centres was considered the same as it was in the previous focus groups – short or medium term.

The UNDP analysis showed that 90% of the municipalities / planning regions believe that there is a long-term need, and also indicate the need to establish a multi-sectoral RVETC in the future. Of these, 85% answered that they would be involved in the process of meeting this need, through mentoring, providing space for practical training, involvement in the initial planning process, as well as logistical and intermediary involvement. The remaining 5% answered that they have no idea how they could help in this process but would be involved according to the needs and conditions.

Only 10% of the municipalities / planning regions do not see the long-term need for training / retraining (especially in construction, textile industry and renewable energy), as well as the need for transfer of innovation / technology, because they believe that the labour market is changing daily, big investors come and big companies go bankrupt, migration can in one year withdraw profiles that have been built for years. Hence, the labour market is a very dynamic category and should be viewed from all sides. At the moment, there is a need in many categories - but the question is whether those branches will survive in the future.

### **Employers' responses**

In the ETF analysis, when looking at companies' answers, there were few comments on the problems with general/key and technical/professional skills among their current employees. The main observation was that for employees on lower organisational levels, computer skills and soft skills, in general, need to be improved. Companies assessed the quality of adult education and training services provided both by vocational schools and by other providers (adult education centres, workers' universities, etc.) with an average rating of around 3 on a scale of 1 to 5. Therefore, in order to meet employers' expectations, the quality of the education and training services provided for their employees by VET institutions must be further improved.

In the UNDP analysis 100% of the companies surveyed believe that the opening of such a regional VET centre in the Republic of North Macedonia will contribute to innovative and new technology transfer, as well as further training of industry employees, that is, to prepare workers for jobs in a company. Their views are based on the opinion that regular education is based on outdated forms and does not provide enough expertise i.e., that state initiatives have so far proved to be insufficiently effective. There is also a problem with the excessive bureaucratization of the education system, poor conditions for development, insufficient communication with the private sector, etc.

Therefore, they recommend establishing a business led RVETC, i.e. RVETC within a company, because the companies themselves know best what they need, how to provide it and what conditions to create. According to one of the companies this initiative is not for providing basic knowledge and general education, but for quickly responding to the demands of world markets and changes in the desires of new generations, and it can only succeed if it is set on the basis of the concept of the interests of the real sector and youth. The RVETC should, according to some companies of this survey, be a separate legal entity, in close cooperation with the private businesses, which will have other forms of organization and work, in order to provide a broad private and public interest, which would initially be formed as a single sector, to further, depending on the needs and opportunities of the labour market, grow into a real multi-sector centre.

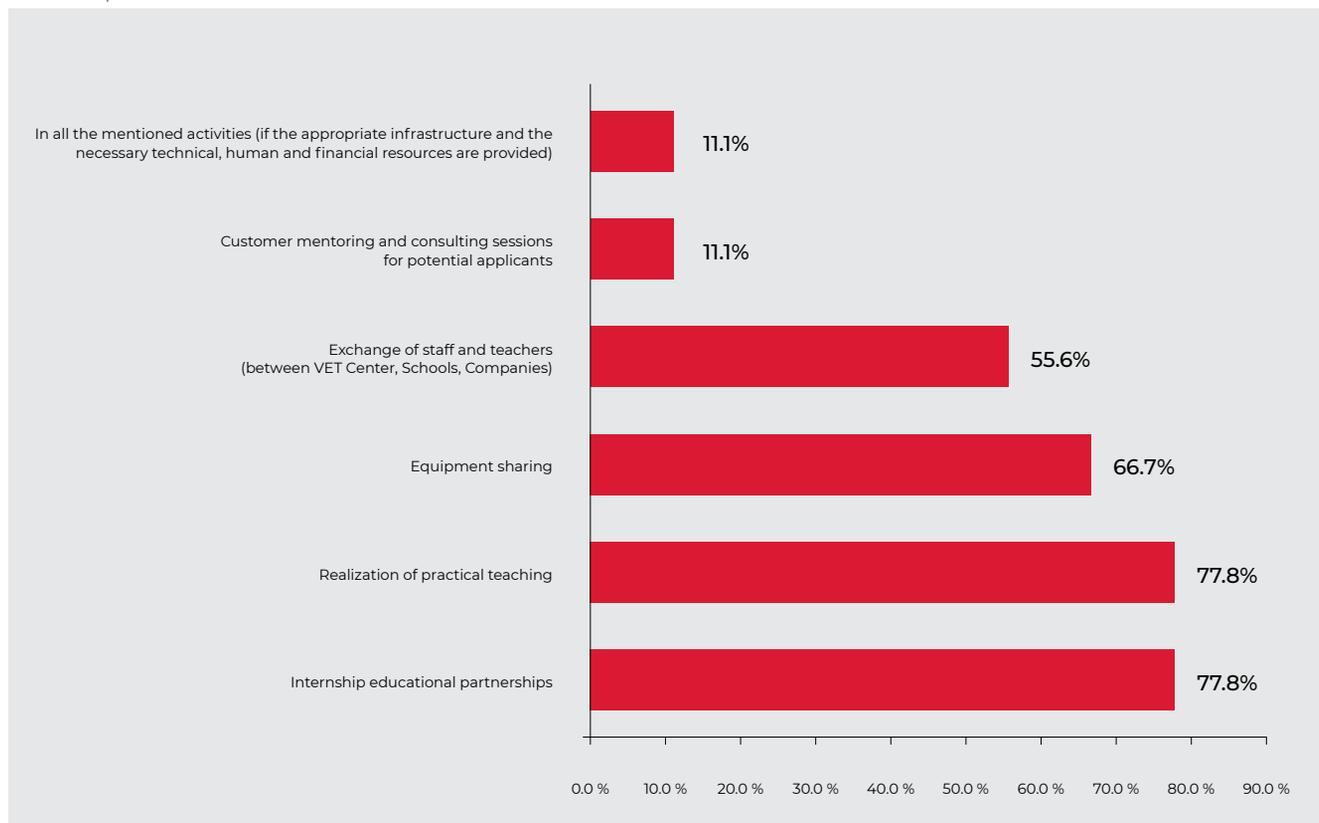
### **Technology Parks**

From the UNDP analysis the Technology Parks have a role in the establishment of a business led RVETC, where 60% of the analysed institutions believe that technology parks have a key role in the establishment of business-led RVETC and that they will provide direct interest to industry, that they are an incentive for the academic community and all this should receive strong support from the state (in that context is the idea of VET College, as an academic support of the technology park)

From the analysis of the interest of the surveyed institutions for partnership and manner of partnership with RVETC we came to the following data (**Graph 10**):

**GRAPH 10.**

Partnership with RVETC



Source: Survey Questionnaire for Technology Parks, October 2020 - MS Excel

## Annex 5 – Possible Criteria for Director of RVETC

### Director of the Regional VET Centre

As a director of a Regional VET Centre is selected a person who, besides the general criteria stipulated with the Law, shall meet the additional and special criteria.

#### Special conditions:

To have acquired at least 240 credits as per ECTS or to have completed a VII/1 degree of education in the sectors of excellence of the Regional VET Centre;

To have at least 7 years of working experience in the education and to have passed the director's exam; or to have at least 7 years of working experience on a managerial position in a legal entity and to have passed the secondary school director's test;

To have passed the management module for the Regional VET Centres or to be a certified trainer for the module. (MoES/NEC will validate the certificates of the members of the working group for master-trainers for the management module with Regional VET Centres.

As competent persons the master-trainers, who were directly involved in the development of the concept/model for the regional VET centres will be included in:

- Training process of other persons and stakeholders,
- Mentorship of future trainers for the module for director of the regional VET centre.

As key experts, the master trainers will be involved in:

- The process of informing stakeholders on the operations and
- The development of regional VET centres.

To have one of the following internationally accepted certificates for active knowledge of the English language, not older than 5 years:

- TOEFL IBT – minimum 74 points,
- IELTS – minimum 6 points,
- ILEC (Cambridge English: Legal) – minimum B2 level,
- FCE (Cambridge English: First) – passed,
- BULATS – minimum 60 points or
- APTIS – minimum B2 level.

To have prepared a draft-program for operations of the Regional VET Centre for a period of 4 years.

#### Additional criteria (evidence based – certificates, participation on training, conferences, recommendations etc.):

To have micro and macro knowledge of the sectors or sub-sectors;

To know the international development trends in the sectors or sub-sectors;

To know the key trends, the development and the drivers of change in the sector/sub-sector;

To have good analytical skills;

To have experience in national or international projects relevant to the sector or sub-sector.

## Annex 6 – Possible Criteria for Deputy Director of RVETC

### Assistant director of the Regional VET centre

As an assistant director of a Regional VET Centre is selected a person who, besides the general criteria stipulated with the Law, shall meet the additional and special criteria.

Special conditions:

To have acquired at least 240 credits as per ECTS or to have completed a VII/1 degree of education in the sectors of excellence of the Regional VET Centre;

To have at least 5 years of working experience in the education and to have passed the director's exam; or to have at least 5 years of working experience on a managerial position in a legal entity;

To have one of the following internationally accepted certificates for active knowledge of the English language, not older than 5 years:

- TOEFL IBT – minimum 30 points;
- IELTS – minimum 6 points;
- BULATS – minimum 60 points;
- KET (Cambridge English) – passed or
- APTIS – minimum B2 level;

To have prepared a draft-program for operations of the Regional VET Centre for a period of 4 years.

Additional criteria (evidence based – certificates, participation on training, conferences, recommendations etc.):

To have micro and macro knowledge of the sectors or sub-sectors;

To know the international development trends in the sectors or sub-sectors;

To know the key trends, the development, and the drivers of change in the sector/sub-sector;

To have good analytical skills;

To have experience in national or international projects relevant to the sector or sub-sector.

## **Annex 7 – Ten indicators RVETC should use to plan quality mechanisms and information**

The ten indicators that should be used by the RVETCs for the planning of quality mechanisms and information are the following:

### **Indicator 1. Relevance of quality assurance systems for VET providers**

- (a) share of VET providers applying internal quality assurance systems defined by law/at own initiative
- (b) share of accredited VET providers.

### **Indicator 2. Investment in training of teachers and trainers**

- (a) share of teachers and trainers participating in further training
- (b) amount of funds invested.

### **Indicator 3. Participation rate in VET programmes**

Number of participants in VET programmes (1), according to the type of programme and the individual criteria (2):

- (1) For IVT: a period of 6 weeks of training is needed before a learner is counted as a participant. For lifelong learning: percentage of population admitted to formal VET programmes.
- (2) Besides basic information on gender and age, other social criteria might be applied, e.g. early school leavers, highest educational achievement, migrants, persons with disabilities, length of unemployment.

### **Indicator 4. Completion rate in VET programmes**

Number of persons having successfully completed/abandoned VET programmes, according to the type of programme and the individual criteria.

### **Indicator 5. Placement rate in VET programmes**

- (a) destination of VET learners at a designated point in time after completion of training, according to the type of programme and the individual criteria (3).
- (b) share of employed learners at a designated point in time after completion of training, according to the type of programme and the individual criteria (3) For IVT: including information on the destination of learners who have dropped out.

### **Indicator 6. Utilisation of acquired skills at the workplace**

- (a) information on occupation obtained by individuals after completion of training, according to type of training and individual criteria.
- (b) satisfaction rate of individuals and employers with acquired skills/competences.

### **Indicator 7. Unemployment rate according to individual criteria**

- (4) Definition according to ILO and OECD: individuals aged 15-74 without work, actively seeking employment and ready to start work.

### **Indicator 8. Prevalence of vulnerable groups**

- (a) percentage of participants in VET classified as disadvantaged groups (in a defined region or catchment area) according to age and gender.
- (b) success rate of disadvantaged groups according to age and gender.

**Indicator 9. Mechanisms to identify training needs in the labour market**

- (a) information on mechanisms set up to identify changing demands at different levels.
- (b) evidence of their effectiveness.

**Indicator 10. Schemes used to promote better access to VET**

- (a) information on existing schemes at different levels.
- (b) evidence of their effectiveness.

## Annex 8 – Planning of new qualifications

### Types of qualifications<sup>36</sup>

The type of qualification describes how the qualification should be grouped according to its purpose, the type of document issued and the programme leading to the qualification, as well as its scope (value in credits). The Law on NQF provides for two types of qualifications:

- **Educational qualification** is a qualification acquired within the formal education system with the required scope of qualification and documented with a diploma / certificate. Educational qualifications are acquired by completing education for publicly adopted educational programmes and achievements of the required learning outcomes.
- **Vocational qualification** is a qualification acquired for part of the publicly adopted educational programmes (modules, courses, etc.), by completing special adult education programmes, or by recognizing non-formal learning. The achieved learning outcomes are documented with a certificate. They contain competencies that are relevant to the labour market and are included in one or more occupational standards.

### Process of developing new educational qualifications

The Vocational Education and Training Centre is the competent institution for developing educational qualifications in the vocational education.

Developing a new qualification is a process comprised of six phases that leads to the design of competency-based curricula that are relevant in the labour market.

Phase 1: Occupational analysis - preparation for proposing a new qualification

Phase 2: Developing occupational standard(s)

Phase 3: Developing qualification standard(s)

Phase 4: Developing a syllabus

Phase 5: Developing teaching and examination programmes

Phase 6: Reaccreditation of the qualification

### Developing a new educational qualification by phases

#### Phase 1: Occupational analysis - preparation for proposing a new qualification

The proposer:

- Conducts labour market analysis of the need for a new qualification
- Fills in a template for a proposal for developing a new qualification (pursuant to Article 6 of the Law on NQF)
- Submits the template to the Ministry of Education and Science (unit for NQF)
- Decision on the initiative

The submitter of the initiative, based on the positive opinion of the Sectoral Committee, submits a request to the Vocational Education and Training Centre to develop a qualification.

#### Phase 2: Developing occupational standard(s)

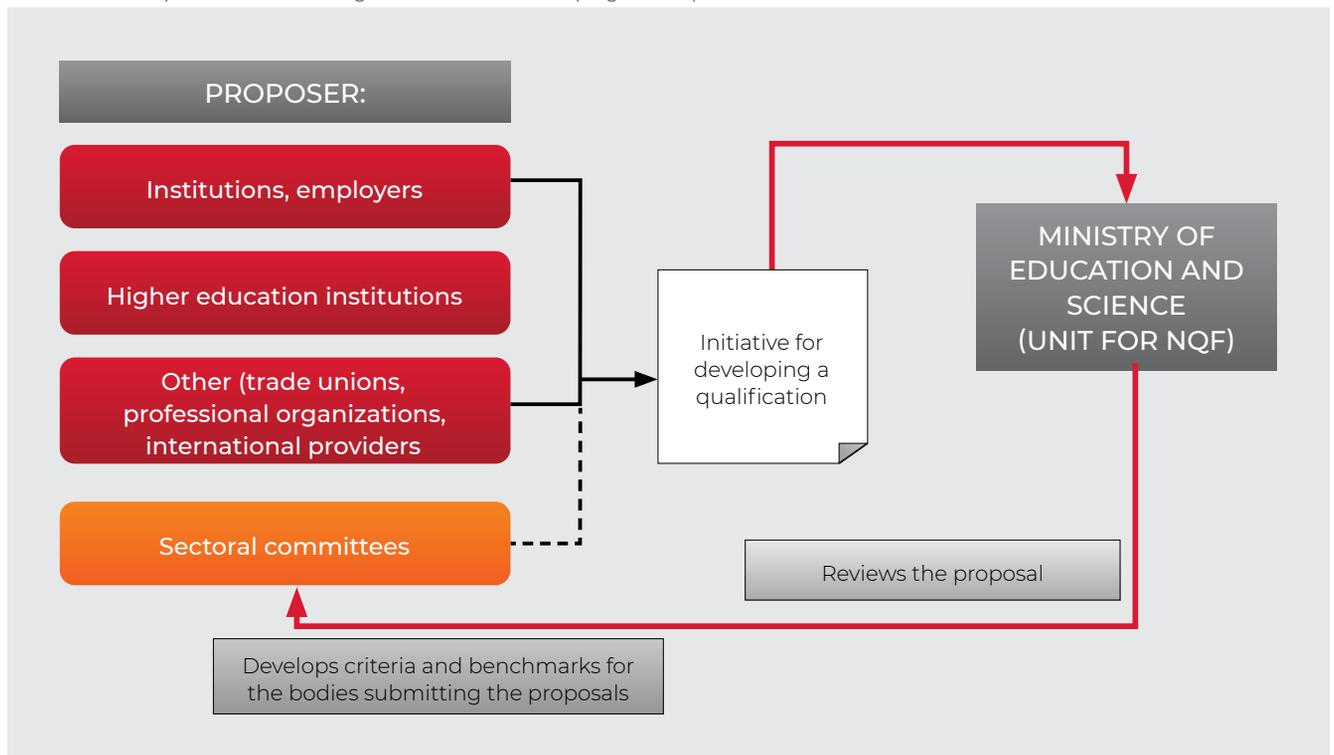
Developing national occupational standards is the second phase of the process of developing an educational qualification.

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<sup>36</sup> Law on National Qualifications Framework, Article 11.

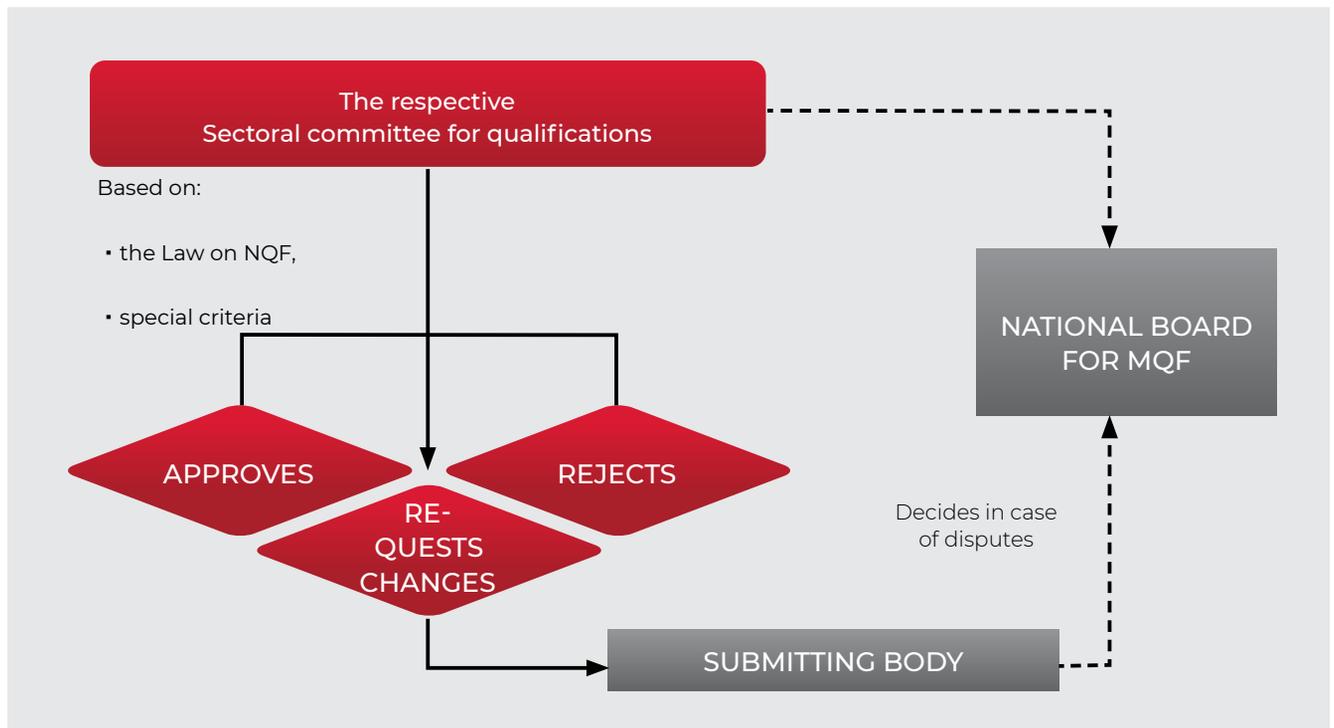
**GRAPH 11.**

Flowchart of the process of submitting an initiative for developing a new qualification<sup>37</sup>



**GRAPH 12.**

Decision on the initiative<sup>38</sup>



37 Manual for development of new qualifications for the NQF, developed within the Twinning Project "Further Improvement of the System for Development and Implementation of the National Qualifications Framework NQF"-MK 13 IPA SO 02 15.

38 Manual for development of new qualifications for the NQF, developed within the Twinning Project "Further Improvement of the System for Development and Implementation of the National Qualifications Framework NQF"-MK 13 IPA SO 02 15.

Occupational Standard (OS) is a set of activities and tasks that by their content and type are so organizationally and technologically related and interconnected that can be performed by one person who possess the appropriate knowledge, skills and competencies.

One of the competencies of the Vocational Education and Training Centre in the RNM is to develop occupational standards, as a basis for development of a certain qualification.

### Characteristics of OS

National occupational standards are characterized by the following:

- They identify the main roles and responsibilities within the defined occupation;
- Define the knowledge and skills that a person needs to possess in order to successfully perform their working tasks;
- Provide a description of what the person should achieve, not how to do it;
- Include relevant professional skills, planning and problem-solving skills, ability to work with others, and use of information technology;
- Include all statutory or legal obligations;
- Include all occupational health and safety requirements;
- Include all relevant environmental aspects that are very important to the occupation.

Occupational standard is developed based on the Methodology on Occupational Standards.<sup>39</sup>

In accordance with the Procedures for initiation, organization, development and adoption of occupational standards<sup>40</sup>, the process of developing occupational standards takes place in five steps:

1. Submitting an initiative for development
2. Organisation in charge of the development
3. Development (preparation)
4. Adoption of OS
5. Monitoring and innovating the OS.

### Phase 3: Developing qualification standard

Qualification standard is a standardized description of the qualification and represents the content and structure of the given qualification. It includes all the data required to determine the level, scope and belonging to a particular sector, as well as the data required to ensure and promote a high-quality qualification.

Once a new qualification is approved and the necessary occupational standards are developed, the third phase of developing a qualification standard (QS) is initiated, in accordance with the methodology for development of qualification standards.<sup>41</sup>

Qualification standard is developed by a working group established by the Vocational Education and Training Centre.

The structure and content of the qualification standard is in accordance with the **qualification standard template** which consists of 21 elements (Article 6 of the Law on the National Qualifications Framework).

The developed qualification standard is submitted by the VET Centre, through the Unit for NQF in the MES, to the relevant sectoral committee for review. After reviewing the qualification standard, the sectoral committee can accept it or return it for further development to the Vocational Education and Training Centre. The qualification standard is considered accepted if it is voted by a majority of the total number of members of the Sector Committee and an expert opinion is prepared for it. The accepted qualification standard and expert opinion is submitted by the Sectoral Committee to the National Board for MQF for approval. Based on the explana-

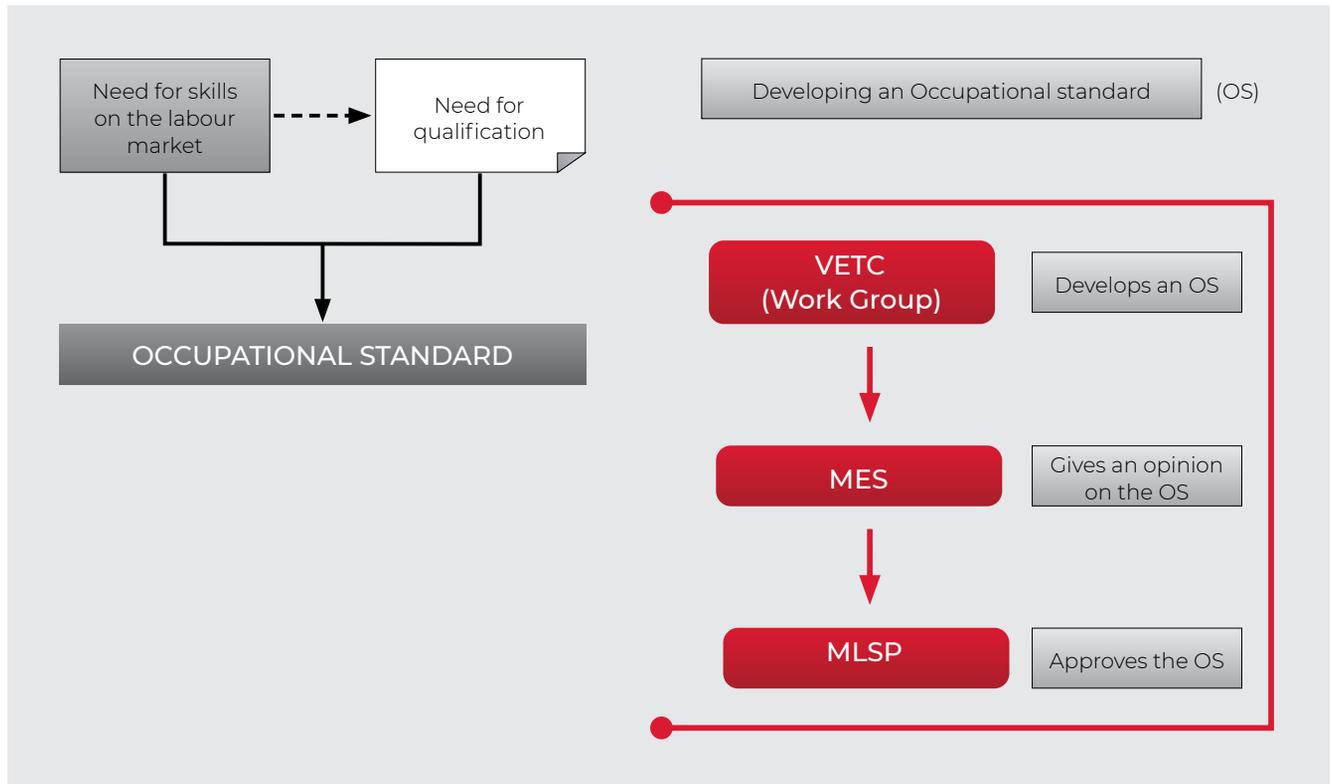
<sup>39</sup> Approved by the Ministry of Labour and Social Policy with a Decision no. 08-5015/1 dated 25.07.2017.

<sup>40</sup> Decision no. 07-300/2 dated 09.04.2015

<sup>41</sup> Approved by NQF at the session held on 06.12.2017 .

### GRAPH 13.

Flowchart of the OS development process<sup>42</sup>



tion of the proposer and the expert opinion of the Sectoral Committee, the National Board for MQF approves the QS and adopts a decision to include the QS in the Macedonian Qualifications Framework. The approved qualification is assigned a code.<sup>43</sup>

#### Phase 4: Developing a syllabus

After the adoption of the qualification standard, the 4th phase of developing a syllabus is initiated. Syllabi for reformed technical education (level IV) are developed in accordance with the Methodology for development of syllabi in technical education and in accordance with the adopted syllabus template. Syllabi for the other levels of education (level II and III) are developed in accordance with the template adopted by the Minister of Education and Science.

Syllabus consists of a standardized structure approved by the Ministry of Education and Science and it defines the subjects/module; the order of their teaching (study) by grades, years or other time units; the number of weekly classes for each subject; the total time load upon students per year; the number of credits at the level of subject, year and qualification. The Bureau for Development of Education (BDE) and the Vocational Education Centre (VET) are responsible for developing the general education and vocational areas of the syllabus. The syllabus is adopted by the Minister of Education and Science.

#### Phase 5: Developing teaching and examination programmes

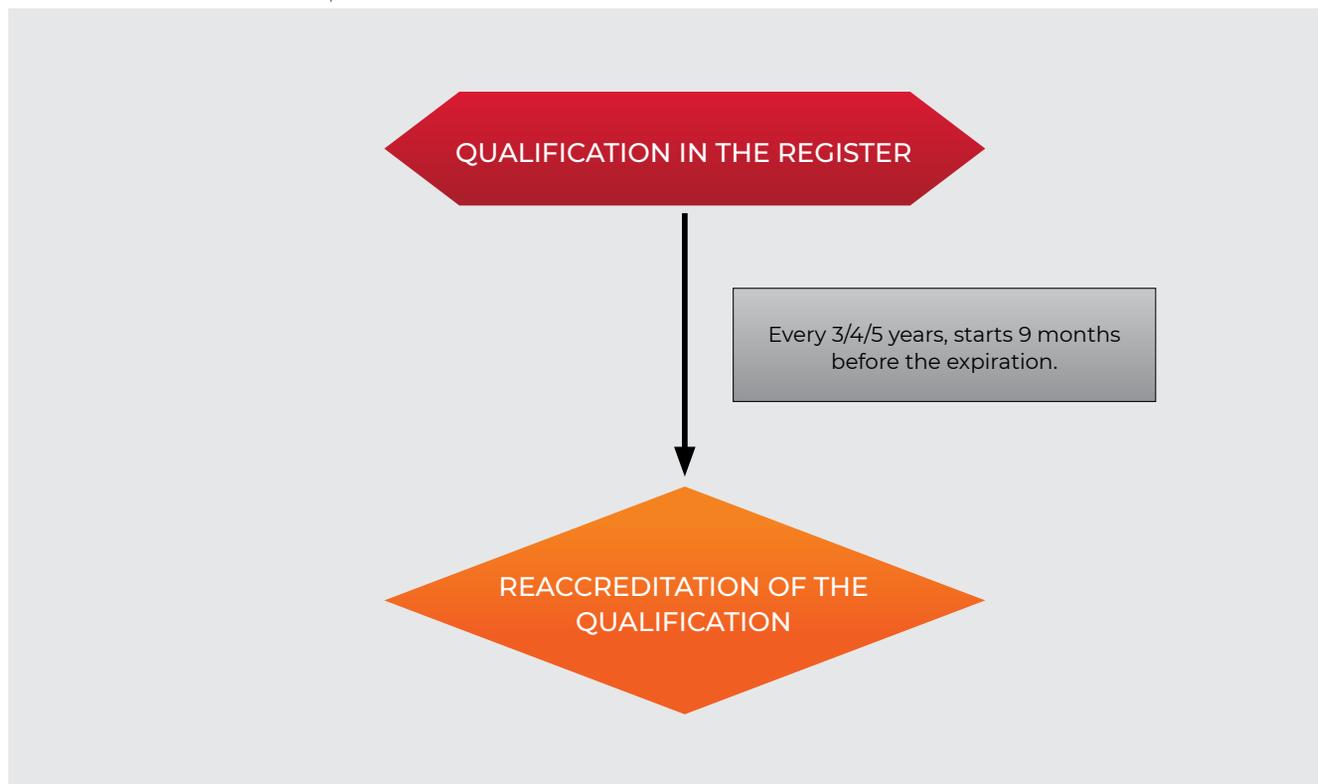
After the adoption of the syllabus for a certain educational qualification, the development of curricula is initiated. The general education curricula defined in the syllabus in the area of general education are developed by the BDE, while the curricula defined in the syllabus in the area of vocational education are under the competence of the Vocational Education and Training

<sup>42</sup> Manual for development of new qualifications for the NQF, developed within the Twinning Project "Further Improvement of the System for Development and Implementation of the National Qualifications Framework NQF"-MK 13 IPA SO 02 15.

<sup>43</sup> Manual for development of new qualifications for the NQF, developed within the Twinning Project "Further Improvement of the System for Development and Implementation of the National Qualifications Framework NQF"-MK 13 IPA SO 02 15

**GRAPH 14.**

Flowchart for reaccreditation of a qualification



Centre (VETC). Curricula for reformed technical education are developed in accordance with the methodology for preparation of modular curricula based on competencies<sup>44</sup> and a template adopted by the Minister of Education and Science.

Curricula for vocational education for occupations (level III) and vocational training (level II) are prepared in accordance with the curricula template adopted by the Minister of Education and Science.

For each qualification for completion of the educational process of one educational qualification, examination programmes are developed in accordance with the adopted template for examination programmes for State Matura or final exam.

The examination programme for the educational profile/qualification enables the preparation of Matura and final exams that are aimed at improving the quality of education. The results of the students' achievements will serve as a basis for diagnosing the students' success.

Examination programme is the basis for preparation of tests for the State Matura and the final exam, which will enable the differentiation of students, i.e., will ensure selective progression to higher education or joining the labour market.

**Phase 6: Reaccreditation of the qualification<sup>45</sup>**

A qualification is valid for 4 years. After the expiration of 4 years, it is reaccredited. The reaccreditation procedure should start nine months before the expiration of the validity of the approved qualification.

44 Adopted with a Decision of the Minister of Education and Science no. 24-627/1 dated 19.10.2018.

45 Manual for development of new qualifications for the NQF, developed within the Twinning Project "Further Improvement of the System for Development and Implementation of the National Qualifications Framework NQF"-MK 13 IPA SO 02 15



**BRIDGING THE SKILLS GAP**  
TO CREATE NEW AND BETTER JOBS

