4. Structural reform priorities 2017-2019

4.1. Identifications of key obstacles to competitiveness and inclusive growth

Macedonia relies largely on exports as main growth driver, having in mind that internal market is not sufficiently big to ensure high economic growth rates in long term. In the period 2010 - 2015, the export of goods reached an average annual growth of nearly 14%, and the participation of goods with higher technological value such as machinery, equipment and chemical products is significantly increased on the account of decreased participation in the export of goods with lower processing level like iron, steel and raw materials. Also, the structure of industrial production notices increase of participation of sectors involving the companies in the free economic zones like Manufacture of motor vehicles, Manufacture of machinery and equipment, Manufacture of electrical equipment, etc.

The Government strategy for attracting foreign direct investments led to a number of established foreign companies in Macedonia as a result of simplification of the business environment, investments in the free economic zones and fiscal incentives. The country's legal and regulatory framework is conducive to business sector and in global terms, the country ranks 10th out of 189 countries according to Doing Business report 2017 and is ranked better than its regional peers.

Still, economic performance of the country could be much improved. Macedonia still faces high unemployment rate, as last available statistical data show that 23.4% of population is unemployed, though compared to 2008, it is lower by nearly 10 pp. Though the government has invested much effort in attracting FDIs, which resulted in about 17,000 new jobs, foreign companies are facing constraints posed by shortages of skilled labour across sectors. Improvements have been noticeable over the last few years, especially with regard to better learning outcomes at the primary level and the effect of compulsory enrolment in secondary education. However, automotive firms, for example, continue to have difficulty filling not only management and technical positions, but also lower-skills positions.¹

The youth unemployment is decreasing as level of education is increasing, yet it is twice as higher than the average, 48.2%. In 2014, 25.2% of youth between 15 and 24 years of age were neither included in the educational system nor were employed. Forty percent of youth in Macedonia find job in 1 to 3 years after exiting the educational system, and average transition time from education to employment is 6 years.²

This challenge of matching skills with labour market needs has been noted in the Inventory and Analysis Report of existing qualification that has been prepared within National Qualification Framework Referencing Process according to the European Qualification Framework. The report states that reformed qualification in 3-years VET based on learning outcomes and existing qualification in non-formal education are partially based on learning outcomes and that there is a need for modernisation of 4-year qualification in TVET, post-secondary education and Higher Education.

Educated and skilled workforce contributes to the increase in productivity of enterprises, which is especially important for small and medium-sized enterprises (SMEs) as major contributors to job creation and inclusive economic growth in the country. Growth-oriented SMEs integrated into global value chains are key to boosting productivity, innovation and competitiveness. In Macedonia, SMEs represent majority of firms, account for 3/4 of total employment and contribute to over 70% of total private sector value added.

Creating innovation and technology driven economy is key challenge. According to European Innovation Scoreboard, Macedonia is modest innovator. The R&D expenditure accounted for only 0.44 percent of GDP in 2014\(^1\), which is far below the EU 28 average of 2.03\% in 2014.\(^4\)

The established Fund for Innovation and Technology Development provides opportunities to companies, yet capacities needs to be developed for absorption of RDI grants, enhance business-academia cooperation and increase investment readiness. This should lead towards expanding the economy’s productive capacity, job creation and economic growth.

The OECD SME Policy Index Report 2016 on SEE\(^5\) finds that Macedonia is one of the most advanced economies in the region in promoting its SME sector. Its institutional framework and operational environment continues to have a high level of EU SME policy convergence. Although it has solid policy framework in place, it needs to make further efforts to ensure the proper delivery of services meeting the needs of SMEs.

Though the digitalization of the country has advanced, the private sector and wider community in general cannot still bear the fruits of consistent application for delivery of different government e-services that will simplify the way of getting needed information and decrease time spent and uncertainty while searching individual institutions’ portals. On the other side, there is also lack of consistent information on efficiency and effectiveness of implementation of different policies affecting the improvement of local and regional competitiveness. Proper monitoring and evaluation of how policies are being implemented and their costs should strengthen and streamline the collaboration between central and local governments and improve funds allocation on local level.

Further efforts are needed for improving managerial and entrepreneurial capacities of the SMEs in order to increase their productivity and economic limits, especially in sectors such as ICT, tourism, food, etc., in which the country has potential for creation of products with higher added value. Having in mind that the global information technology development actually presents the forth industrial revolution, establishing linkages used for networks and consortium building initiatives for accessing new and bigger tenders, markets and clients by Macedonian companies is important for enabling them to become part of the global supply chains and significantly contribute to increase the country’s export.

What needs to be improved is collaboration between industry and universities, which is very limited and low level of technology transfer. Companies are more directed towards buying new technology or innovative solution instead of having their own commercially oriented researches. This may be in close relation to previously mentioned challenge of educational outcomes, i.e., how much the graduated students are equipped with practical knowledge, entrepreneurial skills, and possibilities to research and innovate. Also, it can directly contribute to increase the cooperation between domestic and foreign companies, having in mind that currently around 500 domestic companies cooperates with foreign ones, the value of cooperation being about EUR50 M during 2015, but is far lower than the value of imported goods by the FDIs that is around EUR 1.2 billion. Improving their productive capacities provides companies with opportunity to increase their share in export and in the global market.

Expecting export to be the key driver of the long-term economic growth, improvement of the transport infrastructure is critical for Macedonia. Hence, large investment projects in road infrastructure are either ongoing or in final phase, and activities have started for improving the railway transport. The improvement of railroads needs to be stepped up on both corridors, especially east-west one, to diminish the consequences of frequent disruption at the south border-crossing having negative impact on costs for some of the exporting companies by forcing them to look for more expensive alternative routes and often environmentally not friendly (roads).

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Improving the performance of the energy sector is crucial to sustaining economic development and improving competitiveness in South East Europe (SEE)⁶. Power supply in the region is projected to tighten significantly during the next few years, which will constrain economic activity and affect the quality of life of the citizens if not addressed in a timely fashion. Thus, it is essential the integration of Macedonia into the regional power market by investments in power transmission and institutional development that would support market participation.

In addition, efforts need to continue to facilitate cross-border economic activities. According the OECD Competitiveness Report 2016 for SEE countries, Macedonia leads the region in trade policy and facilitation. Still, there is a room for improvement in transport and logistics considering the fact that two corridors are crossing the country, north-south Corridor 10 and east-west Corridor VIII. According to the report, transport and logistics can boost the trade performance by making the delivery of goods easier, faster and safer. Therefore, cross-border bottlenecks need to be overcome to reduce the costs and time of transport thus contributing directly to companies’ competitiveness.

Agriculture export accounted for 11.1% and import 10.6% of the overall exports and imports of the country in 2015. The agriculture sector is not utilized to its potential as the sector is fragmented, weakly equipped and with relatively obsolete technology. The climate changes impose another important issue of land irrigation. Dealing with these issues will have direct impact on production of higher processed products, increasing yields and physical volume of agricultural production and should lead towards increased share in export.

Tackling above mentioned challenges would influence positively on job creation. However, having unemployment rate of about 24% points to another aspect of the problem of employability. The share of early school leavers of population aged 18-24 is 11.4% in 2014 according to SSO data⁷. It is close to EU 27 average of 11.2% in the same year⁸, however needs to be decreased especially among the Roma population. The target according to Europe 2020 is this share to be under 10%.

In addition, there is a need to activate people with a risk of difficult employability in the labour market by improving their skills as unemployment is mostly structural and reflects the shortage of skilled labour. Accent should be put on those that have more difficulties to enter the labour market, especially youth and women.

In line with above overview of main obstacles to competitiveness and inclusive growth, number of measures are identified across sectors, as listed under section 4.2.

### 4.2. Summary of reform priorities

| **Public Finance Management (PFM)** |
| Measure 1: Public Finance Management Reform Programme – this measure is linked to the fourth policy guidance from the Joint Conclusions of the Economic and Financial Dialogue from May 2016 "Adopt a credible public finance management reform programme." |
| Measure 2: System (IT platform) for co-ordination, management, monitoring and evaluation of funds on regional and local level (SiReRa) |

| **Energy, transport and telecom markets** |
| Measure 3: Joint border railway station Macedonia - Serbia |
| Measure 4: Upgrading and rehabilitation of transport Corridor X |
| Measure 5: Upgrading and rehabilitation of transport Corridor VIII |
| Measure 6: Construction of 400kV Overhead Transmission Line SS Bitola 2 to Macedonia-Albania border and SS 400/110 kV Ohrid |
| Measure 7: Modernization of the transmission network and power system management) |

| **Agriculture sector development** |
| Measure 8: Improvement of Irrigation Systems |
| Measure 9: Consolidation and defragmentation of agricultural land |

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⁸http://ec.europa.eu/eurostat/web/europe-2020-indicators/europe-2020-strategy
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<td>Measure 13: Development of National Portal for e-services</td>
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<td>Measure 14: Adoption of a National Strategy for SMEs (2017-2022) with an action plan (2018-2020)</td>
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<td>Measure 15: Improvement of the infrastructure and the access to funding for research, development, and innovations</td>
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<td>Measure 17: Upgrading the customs clearance facilities of road border crossings Tabanovce (IPA 2012) and Kafasan (IPA 2013)</td>
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<td>Measure 19: Profiling of unemployed persons and designing an Individual Employment Plan 2 - this measure is linked to the sixth policy guidance from the Joint Conclusions of the Economic and Financial Dialogue from May 2016 “Strengthen the provision of activation measures especially for vulnerable youth, women and long-term unemployed and further improve the capacity of the Employment Service Agency for profiling and personalised counselling of job seekers.”</td>
<td>Employment and labour markets</td>
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### 4.3. Analysis by area and structural reform priorities

#### 4.3.1. Public Finance Management

Good public finance management (PFM) is vital for preserving macro-economic stability, effective use of country's resources and poverty reduction. PFM covers all components of the budget process: strategic planning, medium term expenditure framework, annual budgeting, revenue management, public procurement, control, accounting, reporting, auditing and oversight.

Macedonia weathered well the double deep recession supported by expansionary fiscal policy. The expansionary fiscal policy revealed some PFM weaknesses such as missing of fiscal targets for four years in a row and underperforming of capital expenditures. Public debt is expected to rise further having in mind the planned investment projects.

A slow-down of the EU and the global economy growth and increased uncertainty imposes the need for strengthening the public finance management, creating enough fiscal space for dealing with future unforeseen challenges and improve public investment efficiency by supporting projects that contribute for increasing the country competitiveness and economic growth.

In relation to above said, The European Commission (EC) in its Country assessment⁹ of the Economic Reform Programme 2016-2018 (ERP) points out that the authorities have not yet adopted a comprehensive Public Finance Management Programme. Implementation of the policy guidance¹⁰ adopted at the Economic and Financial Dialogue in May 2016. The EC notes that although the fiscal deficit has declined significantly (from 4.2% in 2014 to 3.5% in 2015) the fiscal target for 2015 was missed again. The Government remains committed to fiscal consolidation, but does not identify concrete supporting measures. Efficiency of public spending remains impeded by weaknesses in budget planning and there is again capital investments underperformance (in 2015 capital expenditure implementation was 84%, the percentage being close to those in previous two years). Additionally, the EC points out to lack of clear prioritisation among number of projects financed either by donors or national budget, and of regular and timely information on the state of their implementation, which could have a major

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impact on economic growth. On the other side, prioritization of investment projects will contribute to avoid debt stabilisation risks.

The Public Expenditure Financial Accountability (PEFA) report from 2015, notes that a good PFM system is the one in which revenues are maximized, so as to provide resources for delivery of public services, and in which available funds are spent as efficiently and effectively as possible for the delivery of those services. According to the PEFA report, maximizing tax revenues should be considered, given the structure and rates of tax, for which there is a need to upgrade the electronic systems used for tax management and linked in a new integrated system. In relation to efficiency and effectiveness, although there is some improvement in medium-term fiscal and budgetary planning in the preparation of three-year fiscal strategy and the national Economic Reform Programme 2015-2017, these documents look only at fiscal aggregates, and do not include detailed plans for the development of particular areas. Public investments are heavily dependent on external finance from International Finance Institutions, and are subject to rigorous cost-benefit analysis (CBA). Yet, there is no procedure to ensure that investments are subjected to CBA before being undertaken, or to keep track of their performance during and after project implementation. The Public Procurement Bureau does not keep records of the extent to which contracts are modified during their execution, and there has been no reporting of the returns actually achieved. The development of a new integrated Financial Management Information System is already a priority for the country. The Budget and Treasury systems that only operate within the Ministry of Finance are not fully integrated and budget users do not make any direct input during the budget preparation and execution. A new system should as well ensure that all the necessary financial control procedures as established under the Public Internal Financial Control (PIFC) legislation, have been implemented. In addition, the report notes that steady progress is being made in the implementation of PIFC on the EU model, and efforts should continue to extend the coverage, while current internal and external audit work should focus more on identifying ways to improve the delivery of services, rather than simply checking on whether regulations are being correctly followed.11

Though the progress is being made, national and regional partner institutions are not yet in position to fully implement the new regional development policy according to EU requirements. The biggest challenge that still exists is distribution of budget funds for equal regional development (ERD). The horizontal and vertical coordination in the area of ERD is still not efficient, and there is lack of inter-institutional coordination during the preparation and execution of national programmes supporting ERD. There is a lack of appropriate mechanism for identifying expenditures of supported project and distribution of finances for planned projects in different planning regions12 (there are eight planning regions in the country). In same direction goes the EC statement in the 2015 Progress Report where it notes “distribution of capital funds to municipalities needs to be carried out in a more transparent and coordinated manner”.

Measure 1: Public Finance Management Reform Programme

Short description of the measure

Public Finance Management Reform Programme covering the period until 2020 is currently being drafted. It is based on recommendations provided within Public Expenditure Financial Accountability report, Sigma report on the Principles of public administration baseline measurement including public finance management13, WB Public Expenditure Review14 and IMF Article IV report15.

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12http://www.vicpremier-ekonomija.gov.mk/?q=node/667
13http://www.oecd-ilibrary.org/docserver/download/5jm0xw47v6f7-en.pdf?expires=1482240711&id=id&accname=guest&checksum=1C97E0A61202E211BFA2CADF074D90
The Programme envisages improvement in several segments within public finance area such as: strengthening and implementation of medium term budget framework including budget planning, introducing integrated information system for PFM, improving compliance, efficiency and effectiveness of public procurement system, modernizing tax system and improving revenue collection, increasing quality of customs procedures and services, further improvement of public internal financial control and of external audit efficiency.

Implementation of activities in the frame of above-mentioned priorities is planned to be supported by IPA 2 funds.

**Activities per year**

**2017**: Adoption of Public Finance Management Reform Programme 2017-2020

**Budgetary impact**

**Expected impact on competitiveness**

The Programme will be a base for implementation of measures that will contribute to strengthening institutional capacities for preparation and execution of mutual coordinated economic policies that should tackle key structural challenges for increasing economic growth and job creation.

**Potential risks**

Programme not to be adopted due to prolonged political crisis.

**Measure 2: System (IT platform) for co-ordination, management, monitoring and evaluation of funds on regional and local level (SiReRa)**

**Short description of the measure**

In 2014, a feasibility study was developed on the organizational, legal, technical, financial and procedural framework for establishing the SiReRa System. The System will be an IT platform that will integrate all development projects in the country and will provide a comprehensive picture of public investment in different regions. The structure of the system consists of four components:

1) Systematic data for all development planning documents (current and old archived) at national, regional and local level,

2) Database of professionals employed in state and local administration whose work involved or may be involved in activities for development at local, regional and national level,

3) Database of foreign professionals (experts and associates) whose work involved or may be involved in activities supporting development at local, regional and national level,

4) Financial matrix providing smoothness in the allocation of funds.

The System includes:

- Database of relevant documentation for national, regional and local development, including strategies, programs, projects with development component within several areas: regional development, transport, agriculture, health, education, environment etc. This database will be supporting a platform for the process of adjustment of programs and measures according to the current situation.

- Database with municipal projects (realized, in phase of implementation and ready for funding that can use funds from the IPA instrument), primarily large infrastructure projects.

- Statistical monitoring and overview of the development level of regions at any time based on the level of implementation of the programs and projects with developing character in every moment. This is very important for the policy making process, program design and funding of projects for balanced regional development.

**Activities per year**
2017: Establishing legal, organizational and technical environment for functioning of the system

2018: Functional electronic system on national level (phase I)

2019: Functional electronic system on local (municipal) level (phase II)

Budgetary impact

The establishment of the system is 3.5 million EUR

Expected impact on competitiveness

The establishment of the system will contribute to continuous monitoring of the level of development of regions in order to have timely and efficient adjustment of the programs and measures for regional development leading to increase in regions' economic potential.

Expected social outcomes

Increased economic potential of the regions is closely linked to creating new jobs and improve living standards of the population.

Potential risks

Inadequate skills and capabilities of the institutions for operation with IT systems.

Insufficient cooperation between institutions at local, regional and national level.

4.3.2. Energy, transport and telecoms markets

Republic of Macedonia has a strong need for improvements in its transport infrastructure.\(^{16}\) Good connectivity with the rest of the world and within the country is critical for a small, open and land-locked economy, where exports are expected to play an important role in driving long-term economic growth. During 2010–15, net exports contributed on average to 0.04% in annual GDP growth, indicating significant room for increase in that share. As a landlocked country, Macedonia is particularly dependent on a well-developed transport network to reduce the economic distance to export markets and to lower the costs of transportation arising from poor road conditions.\(^{17}\) Key elements of this network are also extensions to the core trans-European transport network, specifically the Orient/East-Mediterranean Corridor (north-south connection [Corridor X] from Austria to Turkey, and east-west connection [Corridor VIII], which connects Albania to the Black Sea ports in Bulgaria). The road transport network plays a particularly critical role in the development of the economy, as it carries the bulk of the country’s exports and goods (in 2014, 93% of freight was carried on roads).

However, Macedonian road network is worse than in most countries with a similar income level. The World Bank’s Logistics Performance Index (LPI) shows that Macedonia’s logistics and infrastructure scores rank among the lowest in the region. Road quality is below average in the region according to the World Economic Forum’s Global Competitiveness Report. Road density in Macedonia is not low by regional standards, but the share of paved roads is among the lowest according to the World Bank World Development Indicators. A recent IMF report (IMF, 2015) on Western Balkan countries also identifies improving infrastructure as one of the top five priorities in Macedonia.

The energy infrastructure of the Republic of Macedonia enables exploitation of domestic energy resources, import and export of energy, processing of primary energy and production of final energy, transport and distribution of energy. The energy infrastructure of the Republic of Macedonia comprises of coal, oil and oil products, natural gas, electricity sector and sector for heat production.

Republic of Macedonia has started the process of liberalization of the electricity market and at this point there is a regulated and liberalized electricity market for large customers (companies). In 2015, the government delayed the full opening of the electricity market, i.e. for small

\(^{16}\) REPUBLIC OF MACEDONIA SELECTED ISSUES, International Monetary Fund, November 2016

\(^{17}\) World Bank - Macedonia Partnership Country Program Snapshot April 2016
businesses and households. Full liberalization of the electricity market is expected to be completed by 2020.

Greater utilization of renewable energy sources (RES) and improving energy efficiency are one of the major strategic objectives in the energy sector for the Government of Macedonia. This is very important for energy security and environmentally clean energy supply for the country, and for creating the conditions for sustainable energy development in Macedonia and in the region.

In order to create conditions for reliable operation of the network, data transmission for remote regulation and video surveillance of all objects connected to the transmission network revitalisation and modernisation of the transmission network is needed. Also in order to overcome "bottlenecks" in the network that restrict access of generators to the regional market of electricity, interconnection between Macedonia and Albania brings significant benefits. This reduces the production cost, both in national systems and on regional level. Additionally, both systems will benefit from reduction of imported energy and reduce the overflow reservoirs (final effect means "liberation" of existing "green energy").

Improving the performance of the energy sector is crucial to sustaining economic development and improving competitiveness in South East Europe (SEE). Power supply in the region is projected to tighten significantly during the next few years, which will constrain economic activity and will affect the quality of life of the citizens if not addressed in a timely fashion. Thus, essential is the integration of Macedonia into the regional power market by investments in power transmission and institutional development that would support market participation.

It is necessary to intensify/continue with activities for rehabilitation and modernization of existing and construction of new modern infrastructure for production and use of energy, as well as to improve efficiency in production, distribution and use of energy. Optimal utilization of domestic resources for electricity production is of particular importance as well as increasing the use of renewable energy sources.

Communications accounted for approximately 3.4% of Macedonia’s GDP in 2015. The Macedonian telecommunications market is developing rapidly. There are currently two mobile carriers and ten fixed-line operators, all privately owned.

The Law on Electronic Communications, introduced in 2005, has provided stable and consistent regulation of the communication sector. It has been harmonised with the EU legal regulatory framework package since 2002, thus enabling full liberalisation of the market.

The Government of the Republic of Macedonia has supported the development and liberalisation of electronic communications services to ensure these services are available at affordable prices in an effort to achieve mass broadband internet usage. Increased competition in the telecommunications sector established the necessary infrastructure for efficient, safe and timely delivery of high quality digital content and services.

According to data from the State Statistical Office in Macedonia, in January 2016, approximately 92.5% of the enterprises were connected to broadband internet.

**Measure 3: Joint railway border station Macedonia - Serbia**

**Short description of the measure**

The construction of a joint railway border station Tabanovce between Macedonia and Serbia will provide for efficient and fast passage of passenger and freight traffic at border crossings by reducing the control procedures performed by officials of the two countries. The controls will be made from a single “one stop shop” during the movement of the train. Pursuant to Directive 2012/34 of the European Parliament and the Council of 21 November 2012 for establishing a single European railway area, in February 2015 Agreement was concluded for establishing border procedures between both countries by the Ministers of Transport, and in June 2016...
protocols were concluded between the relevant authorities of Macedonia and Serbia (police, customs, inspection services, etc.).

**Activities per year**

**2017:** Preparation of feasibility studies, main design and tender documentation and submission of application to WBIF for investment grant

**2018:** Selection of a construction company, concluding the contract and commencement with contraction works

**2019:** Construction works

**Budgetary impact:**

Project preparation: 380,000 EUR, WBIF

Construction: around 3.5 MEUR WBIF Investment grant

**Expected impact on competitiveness:**

The objective of the Project is to improve the international rail transport between the railway networks of the two neighbouring countries, and to establish and implement the legal and institutional framework for a gradual market opening of the rail transport in South East Europe, based on gradual achievement.

The measure will contribute to reducing delays at borders by streamlining and shortening of the border-crossing procedures via Single window method of providing services and to increase competitiveness of the rail sector compared to other transport sectors.

**Expected social outcomes**

The measure will contribute for facilitating transport of passengers at this border crossing.

**Potential risks**

Untimely completion of works

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**Measure 4: Upgrading and rehabilitation of the transport Corridor X**

**Short description of the measure:**

By upgrading and rehabilitation of Corridor X the entire road Corridor X will be completed at a highway level and together with the rehabilitation of sections along Corridor X the capacity and overall efficiency of the E-75 North - South road will improve. Upgrading and modernization of railway Corridor X is also envisaged.

**Activities per year:**

In road and railway infrastructure, the following activities are envisaged:

**2017**

- Construction of the road section Demir Kapija– Smokvica - length of 28.3 km.
- Rehabilitation and upgrading of the section Smokvica - Gevgelija - total length of 10.15 km.
- Rehabilitation and upgrading of the left section of Kumanovo - Miladinovci highway- length app. 22.5 km
- Renewal of railway section Negotino – Nogaevci- length of 30 km.
- Modernization of 10 railway stations along Corridor X.

**2018**

- Rehabilitation and upgrading of the right section of the Kumanovo-Miladinovci highway-length app. 22.5 km
- Procurement and installation of equipment for automatic regulation of the speed of trains (ETCS) and the radio stations controller (GSMR) along Corridor X Tabanovce – Gevgelija.

**2019**

- Construction of road A1 and Pan-European Corridor Xd Gradsko – Prilep - First section - length of 10.2 km, second section - length of about 15 km.
Budgetary impact

Section Demir Kapija – Smokvica = 210 MEUR (IPA, EBRD, EIB and Budget of RM)
Section Smokvica-Gevgelija = 4.153 MEUR construction + 0.518 Contract for supervision (85% IPA, 15% budget support)
Section Gradsko – Prilep = 31.8 MEUR (EBRD) and 41 MEUR (IPA 2) (assumed value).
Kumanovo - Miladinovci = 5.1 MEUR construction + 0.60 MEUR Contract for supervision. (85% IPA, 15% budget support)
Negotino - Nogaevci = 10 MEUR - loan from the European Bank for Reconstruction and Development (EBRD).
Railway stations = 2.4 MEUR (85% IPA, 15% budget support)
Procurement and installation of equipment for automatic regulation of the speed of trains = 0.5 MEUR, radio stations controller = 0.3 MEUR. (WBIF)

Expected impact on competitiveness

With the construction and rehabilitation of these sections, the entire Corridor X will be built at a highway level. This will significantly improve the competitiveness of the country in terms of increasing traffic, increase traffic safety and reduce travel time. The effect will be to improve the transport of goods for domestic and transit carriers as well as reduce travel time. It will also provide a stronger integration with the markets of the region and connecting with the common EU market.

By restoring the sections of the railway line will allow increasing the speed limit to 120 km/h, which will reduce the time and cost of travel and will improve the competitiveness of passenger and freight rail versus road transport on Corridor X. It will also reduce the time and cost of moving goods and passengers around train stations by setting up separate entrances for passengers and cargo. The improved control of movement of trains will enable the safe and secure use of rail transport, both for transporting passengers and freight traffic.

Expected social impact

In the short term, there will be significant improvement in the employment of local population in the regions associated with the construction and rehabilitation of the sections. The employment effects of the project Demir Kapija - Smokvica is presented as number of jobs is the following: Number of jobs directly created during implementation phase is 4,165 persons with average duration of these jobs of 48 months. During operational phase, 87 persons will be employed with average duration of these jobs of 276 months.19

In the long term this project will affect a better geographical connection, it will accelerate the transport of passengers and goods in this section both for domestic and for transit carriers. The project will contribute to improving the safety and security of passengers.

The renewal of the sections will significantly improve passenger safety in passenger rail transport. Railway stations will be modernized according to EU best practices in order to meet the demands and needs of passengers including passengers with special needs. The improved control of movement of trains will enable the safe and secure use of railway transport, both for transporting passengers and goods.

Potential risks

Untimely completion of construction works

Measure 5: Upgrading and rehabilitation of the transport Corridor VIII

Short description of the measure

Upgrading and rehabilitation of road and railway Corridor VIII.

Activities per year

19 Source the CBA of the Project for Construction of the section Demir Kapija - Smokvica
Structural reform priorities 2017-2019

2017
- Construction of highway A2 section Kicevo – Ohrid- length of 57 km
- Reconstruction of the railway section from Kumanovo to Beljakovce (30.8 km)
- Construction of new and reconstruction of the existing railway section from Beljakovce to Kriva Palanka (34 km).
- Preparation of main design with tender documentation for construction of new railway section from Kriva Palanka to Deve Bair, border with Bulgaria
- Preparation of the main design for construction of new section from Kicevo to Lin, border with Albania length of 62.6 km

2018
- Construction of highway A2 section Kicevo – Ohrid
- Reconstruction of the railway section from Kumanovo to Beljakovce
- Construction of new and reconstruction of the existing railway section from Beljakovce to Kriva Palanka

2019
- Construction of highway A2, section Trebenisht – Struga- length of 8.5 km,
- Construction of expressway A2, section Rankovci – Kriva Palanka
- Reconstruction of the railway section from Kumanovo to Beljakovce.
- Construction of new and reconstruction of the existing railway section from Beljakovce to Kriva Palanka.

Budgetary impact
Kumanovo- Beljakovce: loan from EBRD for construction works: EUR 46,400,000, supervision of the construction: EUR 2.5 million by a WBIF grant, preparation of main documentation EUR 1.5 million WBIF grant.
Beljakovce Kriva Palanka: construction works-loan from EBRD EUR 145 million, supervision of the construction: EUR 3.0 million WBIF grant and EUR 4 million from the loan, preparation of main documentation EUR 2.7 million WBIF grant.
Krina Palanka-Deve Bair border with Bulgaria, preparation of the main design with tender documentation EUR 3.0 million grant funds through IPA.
Kicevo-Lin, border with Albania, for preparation of the main design with tender documentation EUR 8.0 million IPA grant.
Construction of highway A2, section Kicevo - Ohrid, EUR 374 million (90% EXIM Bank and 10% Public Enterprise for State Roads)
Construction of highway A2, section Trebenisht – Struga: EUR 45 million EBRD loan.
- Construction of the expressway A2 section Kriva Palanka - border with Bulgaria: EUR 30 million EBRD loan.

Expected effects on competitiveness
By the construction and completion of the railway Corridor VIII travel time between Skopje and Sofia by rail will be reduced for about 1 hour in relation to the current travel time compared to road traffic. The time of regional travel between Kumanovo and Kriva Palanka by rail will be reduced for approximately 35 minutes from the current travel time of approximately 50 minutes by road. The rail link between Macedonia and the Black Sea will be shortened for approximately 200 km, while the one between Macedonia and Istanbul for approximately 150 km. The capacity for transporting cargo will be increased by obtaining capacity for crossing of 10 freight trains in each direction, which is equivalent to 400 road trucks. The measure will provide direct rail route
between Macedonia and Bulgaria, avoiding the need to pass through Serbia, as well as facilitation of trade with Bulgaria.

The construction of the road sections along Corridor VIII will significantly improve the competitiveness of the country in terms of improved connectivity of this region of Macedonia and integration of this region with the entire trans-European network. It will provide efficient access to ports in Bulgaria and Albania, as well as access to potential markets in the East and connection of the TRACECA Corridor\(^20\).

Trade exchange between Bulgaria, Macedonia and Albania will be facilitated and better connections with the regional district of inclusion of Corridor VIII to the main southern Italian ports and this area will be provided.

**Expected social impact**

In the short term, new jobs will be created during the phase of construction of the road and railway sections along the entire road Corridor VIII. In the long term, it will provide better geographical connectivity, thus accelerating the transport of passengers and goods for both domestic and transit carriers. The measure will contribute to improving the safety and security of passengers.

**Potential risks**

Untimely completion of construction works and submission of project documentation.

### Measure 6: Construction of 400kV Overhead Transmission Line SS Bitola 2 to Macedonia-Albania border and SS 400/110 kV Ohrid

**Short description of the measure**

This project is a part of an initiative to establish a major East - West electricity transmission corridor between Bulgaria, Macedonia, Albania and potentially Italy (via a planned submarine cable). This section (Bitola to Macedonia - Albanian border, with substation at Ohrid) is part of the Macedonia/Albania section of that corridor. The overall objective of the project is the construction of a high voltage 400 kV electricity transmission line between Sub Station Bitola 2 and Macedonia - Albanian border, with the construction of a new 400/110 kV substation near Ohrid. This project, which has been identified as a priority for the creation of the regional electricity market in SEE, and will contribute to the stability and security of the electricity system of the Balkans, not only for the two countries directly concerned, but also for the electricity systems of the region by closing a 400 kV ring between Albania, Greece and Macedonia.

**Activities per year for the following components of the project:** Overhead Transmission Line Bitola 2 SS to Ohrid SS, Ohrid SS, Extension of Bitola 2 SS and Smart Grid Improvement

- **2017:** Starting of tendering process
- **2018:** Starting construction works
- **2019:** Proceed with construction works

**Budgetary impact**

The total cost of the implementation is 49 MEUR. The project is financed by MEPSO and does not influence the annual budget of Macedonia.

**Expected impact on competitiveness**

Direct benefits\(^21\) for MEPSO from construction of this interconnection is reflected by revenues from: reduced electricity losses (approximately EUR 1.9 million/year), decrease of undelivered electricity (approximately EUR 1,500/year), increased production of electricity (average of EUR 700,000/year), efficient dispatching and balancing generators (average EUR 400,000/year), increased transmission capacity and greater transit of electricity (approximately EUR 20

\(^20\) TRACECA is an abbreviation of Transport Corridor Europe-Caucasus-Asia

Electricity interconnection between Macedonia and Albania brings significant benefits to overcome “bottlenecks” in the network that restrict access of generators to the regional market of electricity. This reduces the production cost, both in national systems and on regional level. Additionally, both systems will benefit from reduction of imported energy and reduce the overflow reservoirs (final effect means "liberation" of existing "green energy").

In terms of the project impact on the national and regional transmission network, we can expect the following effects:

- creating 400 kV contour Albania - Macedonia - Greece,
- increased transmission capacity of the network to support the forecasted load growth and transit of electricity and connection of new production capacities,
- improved reliability of the regional network, security of supply and stability of the transmission system,
- reduction of technical losses in electricity transmission system,
- Improved quality of power supply (normalizing the voltage profile, stabilize the flow of power and frequency fluctuations, etc.)
- support the development of a regional electricity market in South East Europe and creating opportunities for trade with Bulgaria and Italy and
- reducing the cost of providing spare capacity and enabling support in emergencies.

In the feasibility study, the impact for Macedonian economy is estimated at 37.8 MEUR on a 15-year perspective.

**Expected social outcomes**

Because of lot of preparatory and construction works the Project will engage local companies. In addition, the outcome of this Project is to improve the electricity supply quality and this will open better environment for doing business and raise an employment.

**Potential risks**

Problems with land acquisition.

**Measure 7: Rehabilitation and Control Project (modernization of the transmission network and power system management)**

**Short description of the measure**

A significant part of the Macedonian 110 kV transmission network was built during the 60’s and 70’s. Most of the lines and the equipment in substations are approaching the end of their lifecycle. Transmission lines and other equipment, which are estimated to have diminished performance, operational reliability and safety (technical faults, frequent outages, and deteriorated condition) need to be rehabilitated.

The investment for revitalization and modernization of the transmission network and power system management consists of four components:

- Revitalization of seven 110 kV transmission lines (SS Bitola 1- SS Prilep 1, SS Oslomej - SS Rizevo, Skopje 1 - SS Miladinovci, SS Veles - SS Ovce Pole, SS Skopje 4 - SS Veles, SS Stip - SS Ovce Pole and SS Stip - SS Probistip),
- New equipment for substations,
- Complete closure of the optical ring transmission network and
- Installation of systems for monitoring and management of substations.

**Activities per year**

**2017:**

- Equipment for SS’s: Rehabilitation of Substations, High Voltage Equipment and Relay Protection
- Optical loop: Supply and Installation Optical Ground Wire and Equipment and Construction of Underground Installation for Optical Connection

**2018:** The activities will be determined next year

**2019:** The activities will be determined next year

**Budgetary impact**

The total cost of the implementation is 40.5 MEUR. The project is financed by MEPSO and does not influence the annual budget of Macedonia.

**Expected impact on competitiveness**

The revitalisation and modernisation of the transmission network will contribute to accurate and reliable operation of the network, data transmission for remote regulation and video surveillance of all objects connected to the transmission network. Also, it will enable connectivity with neighbouring telecommunication networks for data transmission of Serbia, Bulgaria, Greece and Albania through existing and new interconnecting lines, meeting the requirements of the European Network of Transmission System Operators ENTSO-E to provide digital electronic connection with at least two neighbouring transmission system operators for data exchange, being of vital importance for the system management and supply stability in the region.

**Expected social outcomes**

Because of lot of preparatory and construction works the Project will engage local companies. In addition, the outcome of this Project is to improve the electricity supply quality and this will open better environment for doing business and increase employment.

**Potential risks**

Problems with land acquisition.

**4.3.3. Sector development**

**4.3.3.1. Agriculture**

Agriculture in Macedonia has a significant share in GDP, employs a large number of persons and has a high contribution to foreign trade. Despite its overall importance for Macedonia’s economy, the sector is fragmented, poorly equipped and with relatively outdated technology, having implications on growth. The fragmented production and lack of mechanization makes it difficult for farmers to achieve economies of scale in production and produce the quantities required for certain markets, constraining agricultural growth. In addition, spending more resources on irrigation will be critical to increase production of high-value added crops. Progress on land consolidation and development of a functioning land market would also be important to make the sector more productive. Agriculture is one of the sectors directly harmed by a climate changes. Both water scarcity and water demand for irrigation are predicted to rise in near future. Irrigation systems are already insufficient and poorly designed for small farms. Many farms depend on local wells and unsustainable extracted groundwater, which is neither regulated nor priced.

According to the World Bank publication "Reducing the Vulnerability of Macedonia’s Agricultural Systems to Climate Change", agriculture is one of the most climate-sensitive economic sector, and without a clear plan for aligning agricultural policies with climate change, the livelihoods of rural populations are at risk. Over the next 40 years, climate change will grow more severe and will hamper agriculture conditions. Temperature increases are projected to be higher, and precipitation declines greater, during the crucial summer growing period. By predicting water supply and demand under climate changes, substantial water shortages in the future are expected, meaning that there will be insufficient water available to irrigate all crops. This could lead to losses for farmers of 50% or more for most crops under the medium impact scenario if nothing is done to adapt.
The total irrigation capacity installed can provide irrigation of 163,693 ha agriculture land or 144,984 ha in an average dry year. Irrigated areas in 2014 are estimated at 20,575 ha or only 4% of arable land. The percentage of irrigated agricultural land is under the EU 27 average (about 5%). Irrigated area is well below the average of countries with a Mediterranean climate where Macedonia belongs (for example: Greece 31%, Malta - 27%, Cyprus - 21%, Italy - 21%, Spain - 10%).

According to the National Strategy for Agriculture and Rural Development 2014-2020: "Rehabilitation and construction of irrigation systems is a policy priority, especially in terms of the expected adverse effects of the climate change that will mostly affect the reduction of the available amount of water for irrigation and increase the needs for irrigation. Hence, the ultimate goal is to increase the current irrigated areas in the country to the level of installed capacity (163,693 ha), and gradually expand hydro-systems to reach the objective for irrigated area at half of the arable area (around 250 thousand ha). Specifically, most of the large capital investment in new hydro-systems and investments for expansion and reconstruction of existing hydro-systems in the country should commence in the upcoming period. These investments will have a direct impact on increasing yields and physical volume of agricultural production. Future phases of designing the systems will in accordance with the analysis of the future impact of climate change, for the purposes of proper adjustment of the technical parameters".

Cost-effectiveness of the new investments in irrigation can be achieved if implemented in parallel with the land consolidation projects.

High fragmentation of agricultural land (small and fragmented land parcels) has adverse effects on productivity and efficiency of the agriculture production, and hence the competitiveness of Macedonian agricultural products. Without any changes towards the improvement of the existing land structure, the agricultural sector potential will remain underutilised.

The average parcel size of agriculture land is below 0.2 ha (high frequency of parcels bellow 0.2 ha) and with significant presence of borders in between or dispersed small plots of unorganized agricultural space.

Out of 190.000 farms, major part (around 80%) are individual agricultural holdings- family farms with average farm size of 1.7 ha. Around 440.000 household members are working on individual agricultural holdings and 141.000 seasonal engaged people. Small sized farms produce limited market quantities of agricultural products with diverse quality due to they are in subordinated position on the market without negotiation power in regards to buyers and processors. A sustainable model for farmer organization is essential.

Some of the key features which will determine development of the farmers’ cooperatives and associations are related to the changes that are occurring such as adjusting production to the global distribution of competitiveness, changing the structure of producers and increasing yields, problems they face, such as inclusion of small-scale farmers into the modern market chain and the changes they are going to face (customs liberalization, changes in consumer habits, ways of trade etc.).

**Measure 8. Improvement of Irrigation Systems**

**Short description of the measure:**

In order to ensure continuous and long-term investments in infrastructure for irrigation and drainage, a ten-year planning document "Investment Plan for the Water Management Master Infrastructure for the period 2015-2025" is prepared. This plan includes: Rehabilitation and reconstruction of installed infrastructure for irrigation and drainage in order to achieve their sustainability and water conservation; Upgrading and expansion of the existing hydro-system in order to increase the irrigated area in the country; and Construction of new major facilities in the Macedonian hydro-system.

This measure comprises the following capital investments:
- **Construction of Rechani dam on Orizarska River** - for irrigation of agricultural land of approximately 1500 ha and producing electricity through construction 2 hydropower plants with a capacity of 2852 KW.

- **Construction of Konsko dam near Gevgelija** - for water supply of the region, irrigation of approximately 4,200 ha agricultural land with a system of drip irrigation, generation of electricity and provision of additional quantities of water for the hydro system "Rescue of Dojran Lake".

- **Construction of main supply pipeline within the project Raven-Rechica** – for irrigation of about 6,000 ha of agricultural land.

- **Construction of a dam on the river Slupchanska** - for water supply of the region and irrigation of approximately 7,800 ha of agricultural land.

- **Second and third phases of the “Zletovica Water Basin Utilisation Improvement Project”** - for irrigation for 4,570 ha agricultural land. Phase 3 of this project is construction of three small hydropower plants along the river Zletovica with installed capacity of 15 MW and a projected annual electricity production of 48 GWh.

- **Second phase of the “Irrigation Program Southern Vardar Valley”** - rehabilitation and modernisation of the irrigation systems in the South-eastern region covering 3,900 ha agricultural land.

- **Second phase of construction of the HS "Lisiche"** - for irrigation of about 4100 ha agricultural land.

- **Construction of small-scale community irrigation systems (up to 300 ha)**. - Tender dossiers should be finished until August 2019.

**Activities per year**

**2017**

Starting with construction of Orizarska dam.

Starting construction works on Konsko dam and irrigation system Raven - Rechica

Construction activities for building an access road to the Rechani dam

Prepare technical documentation for the dam on the Slupchanska River

Develop infrastructure project, detailed design and elaborate on the environmental impact for HS "Lisiche"

Implementation of the Second phase of the “Irrigation Program Southern Vardar Valley”

Implementation of the Second phase of construction of the HS "Lisiche" 2018

**2018 and 2019**

Continuing construction works according to signed agreements

**Budgetary impact**

Cost for the complete implementation of the measure is EUR 100,867,107.

- Construction of Rechani dam on Orizarska River EUR 39.200.000 Budget funds under Program for rural development.

- Construction of Konsko dam EUR 40.640.000 Budget funds under Program for rural development

- HMS Raven - Rechica EUR 15.030.000 Budget funds under Program for rural development.

- Construction of a dam on the Slupchanska River EUR 19.500.000 Budget funds under Program for rural development.

- Second and third phases of the “Zletovica Water Basin Utilisation Improvement Project” EUR 1.000.000 Grant from the European Investment Bank (EIB).

- Second phase of the “Irrigation Program Southern Vardar Valley” EUR 10.250.000 loan from the KFW.
- Start of construction works of second phase of Irrigation Program Southern Vardar Valley
- The second phase of construction of the HS "Lisiche" EUR 37,750,000 Project funding not defined yet.
- Construction of small-scale community irrigation systems (up to 300 ha) EUR 5,000,000 IPA 2015 – 2017 - Tender dossiers should be finished until August 2019.
- Investments in irrigation infrastructure EUR 3,000,000 in 2017

**Expected effects on competitiveness**
The implementation of the measure will increase the proportion of irrigated agricultural land from the current 4% to approximately 6% (from 20,575 to 20,575+11,700) and will improve the existing irrigation systems. With implementation of those capital investment projects, farmers in those regions will have available irrigation water for irrigation of agricultural land and possibilities for increasing of agricultural crops yields. The measure will enable production of electricity through construction of hydropower plants, as well as provision of additional quantities of water for the hydro system "Rescue of Dojran Lake".

Access to farmers to regular irrigation is expected to increase competitiveness by adoption of new varieties, diversification to higher value crops and higher yields.

**Expected social outcomes**
Building of dams will provide access to drinking water of people in those areas, flooding control downstream and industrial developments of the region through increased production of electricity leading to creation of new jobs. Improved farming will result in increased agricultural irrigation. Facilitating community small-scale irrigation systems shall promote sustainability of rural livelihoods.

**Potential risks**
Untimely completion of construction works

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**Measure 9. Consolidation and defragmentation of agricultural land**

**Short description of the measure**

According to the National Strategy for Agriculture and Rural Development 2014-2020: "Re-parcelisation projects and consolidation of land will be carried out in parallel with infrastructure planning in terms of the quality of the road network and irrigation network as part of an integrated approach to rural development.

Priority will be given to regions with developed and intensive agriculture where small and fragmented parcels significantly limit the further development of agriculture as a primary agricultural activity in rural areas, primarily based on interest shown by the farmers. The process of land consolidation will be initiated by at least half of the landowners in the consolidated area or ex officio by the relevant ministry. The consolidation is implemented if at least 70% of owners of land parcels in the consolidation area agree to conduct the consolidation through distribution of agricultural land, that is, all owners for consolidation with exchange. Consolidation process will be used to increase the area of land per farm by purchasing or allocation of state agricultural land available for rent.

To achieve better results, the active land consolidation policies in agriculture will be combined with appropriate adaptation to other policies that have an impact on preventing further fragmentation or initiation and intensification of the consolidation process of the agricultural land such as "the mobility of the agricultural land market".

**Activities per year:**
2017: Awareness raising on consolidation procedures and identification of new consolidation regions; 
Initiation of a process of capacity building of MAFWE and other stakeholders for successful implementation of land consolidation projects; 
Initiation of process of development of tools and procedures for implementation of consolidation projects; establishment of Monitoring and Evaluation system

2018: Capacity building of MAFWE and other stakeholders; 
Development of tools and procedures for implementation of consolidation projects; 
Implementation of three/four consolidation projects; 
Monitoring and Evaluation

2019: Capacity building of MAFWE and other stakeholders; 
Implementation of three/four consolidation projects; 
Monitoring and Evaluation

Budgetary impact:
Total costs amount to EUR 4 million (out of which EUR 1 million national funding).

Expect impact on competitiveness
Allowing farmers to acquire farms with fewer parcels that are larger and better shaped and to expand the size of their holdings enables them to become more competitive. Improving the agricultural property structure can facilitate the adoption of new agricultural technologies leading to a more prosperous and efficient agricultural sector. Benefits from land consolidation in EU countries include increases in gross income of farmers and reduction of working hours in the field.

In order to create considerable impact, roughly at least 30% of all agricultural land will be consolidated in the coming 30 years. This requires each year to ‘deliver’ about 3000 hectares of land consolidation projects being finalized. Assuming a preparation / implementation time of three years, it means that in each year about 10,000 hectares will be under implementation.

Expected social outcomes
By renewal of rural communities, land consolidation can promote social stability. Results from various research and assessments of land consolidation projects show that many communities that have experienced land consolidation show increases in the number of new jobs created.

The project will be implemented in compliance with the VGGT-Voluntary guidelines of land tenure, a gender sensitive and social inclusive approach of interviewing and meetings in which all participants will be able to express their interests and will influence the project options.

Measure 10. Agricultural cooperatives

Short description of the measure:
In accordance with the National Strategy for Agriculture and Rural Development 2014-2020, the project “Creation and support of agriculture cooperatives” is planned, which will improve the structure in the agriculture sector, improve the market position of the farmers, increase their negotiation power in relation to the wholesale buyers, as well as getting lower prices for the raw materials, machinery and investment assets. The project will extend the support for the association of the farmers in agriculture cooperatives, which is creating and functioning of the agriculture cooperatives, through the following measures and activities:

- Elimination of the legal and administrative barriers for the creation and the successful functioning of the agriculture cooperatives;
- Providing an advisory and financial support for the initiatives to create agriculture cooperatives, and their continuous monitoring in the initial period after their establishment to reaching optimal functionality;
- Establishment of a system for continuous training of managers who are going to manage the agriculture cooperatives, in terms of improving their marketing, organizational, communicative, and managing capabilities, and
- Organizing a national media campaign for promoting the economic association of the farmers.

The National Strategy for Agriculture and Rural Development also indicates certain sub-sectors such as production of poultry and dairy products, where support for formation of cooperatives was identified as an opportunity to revitalize the industry through grouping of small producers.

In the „Program for financial support of the rural development for 2016“ a measure is planned for the „Economic association of agricultural holdings for joint agricultural activities“, where funds are granted for support of investment for the following sub-measures:

- creation and functioning of agriculture cooperatives registered in the Registry for agriculture cooperatives at the Ministry;
- assistance for insurance premiums, not exceeding 70% of the costs for insuring of the agricultural unions of small size, and 80% for agricultural cooperatives of large size, and
- investment for purchasing agricultural machinery for 90% of the total cost of the purchase.

In the Registry of agriculture cooperatives there are 35 registered agriculture cooperatives, of which 7 are cooperatives of a large size, and the other 28 are cooperatives of a small size, with a total capacity of 1100 ha agriculture land, 260 bee families, 450 cattle, 200 goats and 250 sheep.

**Activities per year**

**2017**
- Encouraging the process of market-oriented association of farmers in agricultural cooperatives.
- Providing continued financial support for cooperatives (continuation of the implementation of the previous period).
- Support for investments in processing, finalization and marketing of agricultural products.

**2018**
- Providing continued financial support for cooperatives (continuation of the implementation of the previous period).
- Support for investments in processing, finalization and marketing of agricultural products.

**2019**
- Support for acquisition of quality protection labels of the agriculture and processed products
- Providing continued financial support for cooperatives (continuation of the implementation of the previous period).

**Budgetary impact**

The total cost of the implementation is 5.550.000 EUR, 2017: 2.650.000 EUR, 2018: 2.200.000 EUR and 2019: 700.000 EUR.

- Encouraging the process of market-oriented association of farmers in agricultural cooperatives and providing continued financial support for cooperatives (continuation of the implementation of the previous period): 850.000 euro in 2017, 700.000 euro in 2018, 700.000 euro in 2019.
- Support for investments in processing, finalization and marketing of agricultural products: 3.300.000 euro IPA support.
- Support for acquisition of quality protection labels of the agriculture and processed products: 150,000 euros from measures for support cooperatives in programs for financial support of agriculture and rural development.

**Expected impact on competitiveness**
Fostering the establishment of agricultural cooperatives is an opportunity for the development of farms by promoting economic association in the agriculture cooperatives, by common performance in the production, sale and marketing of their products to strengthen their market role, increased competitiveness and efficiency, increased individual income of the farmer, qualitative production, assured sale, higher support from the state and greater profits. It is the most effective approach for faster improving the position of farmers in the market. As a result, the objective of horizontal integration of the entities involved in the sector of food production basically is oriented towards agricultural cooperatives as the most suitable way for improvement of supply chain of agricultural products.

**Expected social impact**

Development of agricultural cooperatives will additionally contribute to the community by increasing and retaining jobs in agriculture and processing industry, environmental protection, retaining citizens in rural areas.

At this moment, 36 persons are employed as managers of the existing cooperatives. It is expected that this number will be doubled with the employment of staff for machinery operation if we take into account new investments in modernisation of agriculture production. Also new cooperatives will emerge so the number of the employees will be even higher.

**Potential risks**

Limited capacity of cooperatives prevents modernization of production practices and transfer of new technologies into production.

**4.3.3.2 Industry sector**

Macedonia’s economy is reliant on a small number of industrial sectors and exports to a limited number of trading partners, so that adverse market conditions affecting one or more of these sectors or economic developments in these trading partners could have a material and unfavourable effect on overall economic conditions in Macedonia. Though in recent years Macedonia has sought to diversify its economy, with sectors such as the automotive industry that is becoming increasingly important, Macedonian industry remains heavily reliant on the metals, mining and quarrying and textiles sectors. Although these sectors are relatively diversified and consist of a range of producers, at the end of 2015, in total textiles and clothing accounted for 14.6%, mining and quarrying accounted for 11.6% and metals accounted for 5.5% of industrial production.

The UNIDO Competitive Industrial Performance Index (CIP) is a good indicator of the capacity and potential of the industry. Industrial competitiveness is defined as the capacity of countries to increase their presence in international and domestic markets while developing industrial sectors and activities with higher value added and technological content. According to UNIDO, the Macedonian industry index accounted for 0.026 in 2013 (last available data). For illustration, Germany has the highest CIP index of 0.576.

The problems that industry is facing with are dependence on imported raw materials and intermediate goods and materials from distant suppliers, low bargaining power with suppliers, major domestic exporters are mostly in traditional industries with price as primary driver of competitiveness, underdeveloped clusters, limited access to finance, underdeveloped management and marketing skills, etc.

An important structural problem is the lack of cooperation between scientific and educational institutions and industry, and mismatch between educational programs and labour market needs, resulting in a lack of adequately trained workforce.

In recent years, there has been a gradual change in the structure of industrial production because of opening new facilities that produce products with higher technological value, particularly in the TIDZs, which are targeted at attracting foreign investors and which were

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established in order to support modern technologies. The TIDZs are free zones with regard to customs and tax laws, and provide fully developed infrastructure and connections to utilities. There are currently four operating TIDZs in Macedonia, with several others in the planning stage. Foreign companies operating in the TIDZs include several companies in the automotive, electronics, machinery and equipment manufacturing sectors. These companies generally manufacture higher value-added goods for export. However, spill over into domestic economy is considered limited. To ensure broad-based benefits and sustainability of the FDI-led growth strategy, complementary reforms to remove impediments faced by the domestic private sector, such as constrained access to finance and unpredictability of business environment, are recommended.  

4.3.3.3. Services sector

The services sector of the Macedonian economy has the highest share of GDP with over 50%. The sector growth of 3.9% in 2015, whereas the highest contribution to the growth was recorded in the wholesale and retail trade with real growth rate of 7.3%. The services sector also employs the highest number of employees in the economy with a share of over 50% in 2015. The following fields are identified as key in the development of the services sector for the years to come: 1) electronic commerce, 2) tourism and catering, and 3) creative industries.

Electronic commerce

The electronic commerce experiences increasing trend in the last couple of years, although it is still underdeveloped compared to the EU member states. The main reasons for its development are: increased internet access, increased use of credit cards and regulatory simplicity and low transaction costs.

The Law on Electronic Commerce regulates information society services relating to electronic commerce, the responsibilities of providers of information society services, commercial communication and the rules relating to the conclusion of contracts in electronic form. The existing legislation does not contain specific requirements regulating the work of online traders and thereby it is not a problem for conducting such activity. The only obligation is to prescribe and publish rules and policies pertaining to privacy, delivery and refund that guarantee consumers' security. The transaction costs are also insignificant, as the fees charged are around 3-5%, while the customs duty during the submission of the export declaration for this type of commerce has been abolished.  

Nevertheless, it should be highlighted that there are limiting factors that prevent the further development of the electronic commerce, such as: 1) lack of awareness about the existence of online shops, 2) the risk of misusing consumers' personal data and 3) the need of expanding the existing legislation. The lack of awareness about the possibilities to execute online transactions and the risk personal data misuse directly affect the low demand for this type of commerce, as data for the first quarter of 2016 show that only 10.4% of the companies with more than 10 employees own a website for online shopping and booking. There is a need for raising public awareness about advantages of online shopping as modern and easy way of trading without risks of personal data misuse.

Tourism and catering

The number of tourists rose by 26.0% in the period 2011-2015, according to SSO data show growth primarily due to increased number of foreign tourists by 48.3%. Growth of 10.1% was also recorded in the number of nights spent, mainly as a result of the increased number of nights spent of foreign tourists by 37.2%, whereas the number of nights spent of domestic tourists experienced decline. However, it is evident that this growth is higher during the summer months, implying to an accelerated development of the summer tourism. The total number of accommodation and catering facilities in the same period has increased by 14.3%, while the

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23 IMF Article IV Report, November 2016  
number of new jobs created in the sector was only 5.5% of the total number of jobs created in the economy. Yet, it should be taken into account that the efforts made to boost development of tourism are mainly focused on the summer tourism, leaving the country with underexploited potential for developing other types of tourism, such like the winter, rural, wellness and ecotourism\textsuperscript{25}. The convenience of the geographical factors and cultural heritage create potential for attracting domestic and foreign tourists, but the lack of infrastructure and accommodation and catering facilities presents a limiting factor. An important aspect for sustainable development of the tourism sector is the high qualification of the young workforce, which in its current state are mostly persons without any graduate degree. Additionally, another limiting factor is the lack of long-term strategy for developing the tourism in the country.

\textit{Creative industries}

Macedonian software industry showed favourable outcomes during 2011-2015, resulting in an increased number of companies, employees, turnover and exports. At the same time, around 95\% of the revenue comes from the IT services (contractor model) extended on the foreign markets, which does not limit the potential of the domestic market. In addition, the supply side of the IT services in Macedonia does not consist of companies only, but of highly qualified free lancers with the required skills and competencies.

The most recent trends indicate to a willingness of the foreign companies to expand their capacities in Macedonia. This creates a highly favourable state for the highly qualified workforce, but on the other hand, the domestic companies may face some challenges in employing qualified staff. For that purpose, a number of measures have been recently implemented for stimulating enrolment of students at technical faculties, which yielded good results.

The main challenges for sustainable development of the creative industries arises from the necessity of creating a quality supply of workforce that can respond to the requirements of foreign companies, so that it is inevitable to carry on the implementation of the measures towards incentivizing the increase of the number of students at the technical faculties.

\textbf{Measure 11: Increasing competitiveness in Tourism & Hospitality Sector}

\textbf{Short description of the measure}

The measure is aimed at implementing activities for increasing the competitiveness of small businesses in the sector, and the focus is placed on ensuring systemic changes that are sustained.

Three tourism destinations Ohrid, Mavrovo and Krushevo will be assisted to exploit the full potential of their historical, natural and cultural heritage through the University of St. Galen’s methodology for collaborative destination management, improved service delivery and enriched touristic offer. This will attract more tourists, which in turn will lead to economic growth and employment.

- The National Agency for promotion and support of tourism and the Macedonian travel agencies will continue to promote and support the tourism sector in Macedonia through targeted promotion on international markets (road shows, fam trips, targeted fairs etc.) This should improve the competiveness of the tourism sector on the national level. IME will capacitate the Agency for Promotion and support of tourism to implement the annual support programs according to the needs and in joint effort with the travel agencies.

- New and upgraded services such as rescue, insurance, parking etc. will add value to Krusevo’s tourism offer and will be incorporated in the tourist offer (and final price), thus creating the basis for commercially sustainable business model. Regulating these services will create

\textsuperscript{25} National Strategy for tourism development; draft plan of Kohl & Partner
competitive advantage of the destination with the possibility for more paragliding schools to start using Krusevo as paragliding site.

- Consolidation and strengthening of the tour guide sector through interactive IT platform that will have wider impact on Macedonian tourism industry. Establishing global standards in the tour guide sector (digital registry of licensed tour guides, criteria of reviewing the licenses, rating system, online reviews, etc.) will indirectly help in development and access to new markets and will support the efforts of the country to reveal new destinations for active tourism.

Activities per year

2017:
- Improved access to international markets (Destination Ohrid scaled up to export)
- Improved destination management in order to access international markets for paragliding (Destination Krusevo)
- Improved tour guide services and visibility of tour guides to travel agencies

2018 and 2019: Activities are defined annually

Budgetary impact

226,022 euros (annual budget for 2017). The measure is realised with support from the Swiss Government.

Expected impact on competitiveness

The increased potential of the three tourist destinations for attracting more tourists through enhanced provision of services and enriched tourist offer will enable greater participation on the domestic and world markets leading to economic growth.

Expected social outcomes

New jobs will be created along the whole tourism value and supply chain and it is expected higher participation of young people and women. Around 600 guides and their set of skills and capabilities will be visible and accessible on the market of travel agencies.

Measure 12: Increasing competitiveness in Creative Industries Sector

Short description of the measure

Software and IT services and Product Design subsectors will be supported, so that software development and product design services by Macedonian companies enjoy large market penetration in the country and international markets as well.

- Implementation of design management (DM) function in three selected industries: Food processing, light metal manufacturing and furniture. In cooperation with processing associations (Macedonian Association of processors (MAP), Association of Light manufacturing (MAMEI) and House of 1000 Designers (HO1000D)) the process has started for engaging the designers in product development process based on the companies demand ending up with introduction of design management function as integral part of the product development process.

- New and upgraded service that will be offered by MASIT (Macedonian chamber of ICT industry) towards the member and non-member companies, following the newly developed business plan will be piloted. Seven companies were selected based on their commitment and readiness for three different markets (UK, Sweden and Israel). These companies will offer their products, based on performed in depth analysis and pre-match making with potential partners. In parallel, CI commenced discussion with the companies to take the lead and establish cooperation model where they will act as proxy on the export market for the SME’s and start-ups. Creating and promoting this chain in the ECO System will create competitive advantage of the Macedonian IT industry in promoting their own developed products.
- Following the established collaboration and the joint workshop between the Faculties of mechanical engineering (FME) and Zurich University of the Arts (ZHdK), the Dean and the professors from FME expressed interest to include the design research methodology in their educational training subject in order to increase the skills and qualification of the students starting from Year 1 of their studies. This subject will increase student’s skills in proper practical research processes, which they will have to follow when designing new products and will allow them to better understand the market demand and the needs of the end beneficiaries.

**Activities per year**

**2017:**
- Access to market for designers
- Increased export from IT Companies
- Design with social impact
- Support services for IT Companies

**2018 and 2019:** Activities are defined annually

**Budgetary impact**

237,593 euros (annual budget for 2017). The measure is realised with support from the Swiss Government.

**Expected impact on competitiveness**

The manufacturing companies will increase the number of new products and services and increase their competitiveness on international markets, increase the volume of sale that will create new jobs for designers and other professionals. Macedonian IT industry will create competitive advantage by promoting its own developed products.

**Expected social outcomes**

Increased presence of companies on international markets should lead to increased income of the companies and creation of additional jobs.
- The introduction of new research methodology subject will increase students’ skills in proper practical research processes that they will follow when designing new products and will allow them to better understand the market demand and the needs of the end beneficiaries.
- HR Agencies, HUBs and accelerators that are already established or are in the process of establishing offer support services for youth for obtaining additional technical and team work skills. It is expected, aside from selected partners that are going to promote and test the collaboration models with big companies, other entities to replicate this model in order to increase their access to skilled employees.

4.3.4. **Business environment**

**General business environment**
Improving the business environment and increasing the competitiveness of the economy is one of the main priorities of the economic policies of the Government of the Republic of Macedonia. Republic of Macedonia has significantly strengthened its business environment through a number of measures undertaken in recent years aimed at reducing the regulatory and administrative barriers, speeding up procedures and reducing costs. The main problems that the business sector faces are continuously identified in order to design measures to overcome them.

This progress is confirmed in the latest report on doing business by the World Bank “Doing Business 2017” where Macedonia is ranked on the 10th place among 190 economies in the world. Macedonia ranks best in Starting a business where it is positioned at the 4th place in the world. Macedonia is ranked well at the indicators Paying Taxes (9th), Dealing with Construction Permits (11th), Protection of Minority Investors (13th) and Getting Credit (16th place among 190 countries). However, there are areas such as Registering property and Enforcing Contracts where further improvements can be made.

According to the Global Competitiveness Index 2016-2017 of the World Economic Forum, Macedonia is ranked on the 68th place among 138 countries, which is lower by eight places compared to the previous year. Regarding the extent of development of the economy assessed by the report, Macedonia is in phase 2 Guided by efficiency, together with 30 other economies, including Albania, Bosnia and Herzegovina, Bulgaria, Montenegro, Romania and Serbia.

The report on Assessing the implementation of the European Act for Small Businesses (Small Business Act) states that despite being a landlocked economy, Macedonia is relatively competitive and dynamic compared to its regional competitors.

The private sector mainly consists of small and medium enterprises accounting for 99.8% of the total number of active enterprises. SMEs are the dominant type of enterprises. Because of their high share in the total number of enterprises, they are important source of employment, investment and significant creators of GDP. A growing number of SMEs absorbs the majority of the workforce and contributes to reducing the unemployment. SMEs contribute with 76.6% of the total employment and 66.6% of the value added. For more dynamic development of SMEs, it is necessary to obtain more diversified access to financing, more comprehensive and better-targeted support and more quality services. However, the country lacks an up-to-date National Strategy for Development of SMEs. The previous strategy referred to the period 2002-2013 and included measures and activities to support the development of entrepreneurship and competitiveness of small enterprises.

OECD’s publication Competitiveness in South East Europe: A Policy Outlook 2016 monitors the competitiveness according to 15 dimensions. Macedonia ranks very well among the region in several areas such as trade policy, digital society, innovation policy, investment policy etc. The need to further improve the business climate, attract investments and enhance the export potential are stated as important priorities in the coming period, which are essential to achieve sustainable growth led by the private sector and job creation.

According to the World Bank’s indicator Rule of Law which captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence, Macedonia has 50.48% for 2015 on a scale from 0 (lowest) to 100 (highest level). In the past period, Macedonia has noted a steady progress in this indicator, while decline was registered only in 2015.

One should have in mind that the continuous efforts to improve the business environment assume frequent amendments of legislation and regulations that may be a limitation/ risk for foreign investors, if they are not certain the country has predictable working environment.

**Fiscal and para-fiscal burden**
The total tax rate in Macedonia was 12.9% in 2015 and it has been declining continuously over the years, which means low overall tax burden on companies. The average tax rate in the region of Eastern Europe and Central Asia is 35.2%, in the EU and EFTA 40.6%, while the world average is 40.8%. The time required for payment of taxes in Macedonia is 119 hours, which is the shortest time for paying taxes among the countries of Central Asia and Eastern Europe, where the average time for paying taxes is 247 hours, while the world average is 261 hours. Payment of taxes is completely conducted via electronic system for paying taxes making the procedure greatly simplified and cheaper.

**Small and large scale privatization**

According to 2014 EBRD’s transition indicators, in the area of large-scale privatization Macedonia is scored 3.3 which means that more than 25% of large enterprise assets in private hands or in the process of being privatised. Regarding small-scale privatization, Macedonia is scored four, which means complete privatisation of small companies. In terms of Governance and enterprise restructuring, the country scored 2.7 which means: significant and sustained actions to promote corporate governance effectively. In terms of price liberalization and trade and foreign exchange system, Macedonia fully meets the standards and performance typical for developed advanced industrial economies, while in terms of competition policy it is stated that the country has established appropriate legislation and institutions.

**Enforcing Contracts**

Regarding the enforcing contracts indicator according to Doing Business Report 2017, Macedonia is ranked 36th out of 190 countries, which is lower by 10 places compared to last year. The duration of the court proceedings is 634 days and the cost is 28.8% (of claim). In Europe and Central Asia, the average duration of court proceedings is 486 days, while expenses amount to 26.6% (of claim). The lower rank is due to the introduction of the mandatory obligation for the parties to try to resolve the dispute through mediation before filing a lawsuit to the court, which is expected to reduce the number of lawsuits filed to courts.

**Corruption and informal economy**

According to the Corruption Perception Index for 2015, Macedonia is ranked 66th out of 168 countries and has 42 index points which represents a 2 places decrease in the rank compared to 2014 (64th place). This report notes that although in some countries in Europe and Central Asia there are some improvements in fighting corruption, the general picture for the region is that the fight against corruption is stagnating. Governments are reluctant to adopt appropriate laws to deal with corruption, but their implementation remains an issue. In Hungary, Macedonia, Spain and Turkey some deterioration is registered in dealing with corruption, making the fight against corruption a major challenge in the region.

The informal employment rate is around 20% in 2015 and is constantly decreasing since 2009. The grey economy in the country is causing losses of budget revenues due to non-payment of taxes and social security contributions to the state and increases the tax burden for entities that operate within the formal economy. In order to reduce informal employment and the informal economy in Macedonia annual action plans are implemented with activities aimed at strengthening inspections and preventive measures (education, legislative amendments etc.), and improving the cooperation between institutions on the labour market.

**Access to Finance**

In general, credit is available but not always affordable. With almost 6,000 employees and 430 branches across the country, banks serve enterprises of any size. Loan maturity can go up to 10 years with a grace period of up to two years, and the repayment schedule can be tailored to future cash flows. Maximum loan amount is generally not a constraint, but borrowers are sometimes required to co-finance their investment projects (up to 50% for start-ups). Interest

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26 World Bank Doing Business 2017 Report
27 http://www.stat.gov.mk/Publikacii/2.4.16.02.pdf
28 Macedonia Assessment of financing needs of SMEs in the Western Balkans countries, European Investment Bank, August 2016
rates have been decreasing. Moreover, funds are available from numerous sources at preferential conditions. Unsecured lending, however, is rarely used. Loans have to be secured by real estate (the preferred collateral), movable assets, bills of exchange, or loan guarantees. Over the years, increased competition has resulted in better terms and conditions for SME loans. Lenders cite a number of constraints that do not allow them to grow their SME portfolios faster. Lenders argue that SMEs bear a higher risk as their earning capacity is less certain. Risk assessment of SMEs is more difficult due to insufficient and often unreliable information and leads to the need for a different approach. Furthermore, smaller loan amounts translate into higher transaction costs. Most banks seem to have already dealt with all these obstacles. They normally have separate units and staff members to deal with large and SME clients, respectively, and some even distinguish further between micro-enterprises and SMEs.

From the banks' point of view, the most important limitation is the general scarcity of feasible business projects. Banks are not satisfied with the entrepreneurial skills and financial literacy of their potential SME clients. As a result, many loan applications are rejected. Financial support is necessary to facilitate SME development, but SME development is necessary to justify financial support. SMEs see the situation from a different perspective. SMEs complain about complex and cumbersome lending procedures and excessive documentation requirements. In addition, many of them cannot provide sufficient collateral and are not very well informed about the guarantee schemes that are available to them. SMEs also find it difficult to fully understand all the costs involved with a loan and blame banks for not properly disclosing them. Most respondents, however, are of the opinion that access to finance is not the biggest constraint to SME growth in Macedonia.

According to the World Bank's Enterprise Surveys 2013 the value of the collateral needed to obtain a loan or credit was estimated at 275.5% of the total loan amount. The survey was conducted in the period November 2012 - May 2013, when business owners and top managers in 360 firms were interviewed. Out of them 246 were small (5-19 employees), 94 were medium (20-99 employees) and 20 were large companies (100+ employees). Compared to regional peers, this value is slightly higher than Albania (255.2%) and Montenegro (243.4%). According to a more recent document the collateral requirements is around 150% of the value of the loan. Nevertheless, there is still space for improvement.

E-services
Currently, there is no single central gateway for access to government e-services with higher level of sophistication, and the users of government e-services (citizens and businesses) are accessing the e-services in non-uniformed manner. The official public service portal e-services portal www.uslugi.gov.mk is deprecated and provides only informational services. The identification and payment options are not consistent across the services, which creates confusion and discourages the usage of e-services. As recommended in the SIGMA 2015 Baseline Measurement Report, the Ministry of information society and administration should foster development of the official public service portal http://uslugi.gov.mk/. The portal should evolve from a static information site to a platform where users and the administration can interact on service delivery as well as on service transformation (e.g. by continuous trialling of new feedback mechanisms).

Measure 13: Development of National Portal for e-services

Short description of measure
Creation of dynamic web portal for e-services (National Portal for e-services) as the single-point of contact with the state bodies on the "one-stop-shop" principle and using standardized user interfaces. The Portal will be available via the Internet on a different web oriented platforms. Portal's visual design, its user friendliness, easy navigation and usage of the W3CG standards are of great significance.

The purpose of the e-service portal is to increase the efficiency of the state institutions and to provide faster and simpler services, by creating single point of contact between the citizens and businesses (e-service users) and service providers and by implementing a solution that will perform electronic data exchange between institutions to accelerate the process of e-service delivery.

The e-services portal foundations lay in the adopted legal and established organizational and technical measures for implementing one-stop-shop system, thereby enabling secure electronic data exchange among state institutions in accordance with their competences.

**Activities per year**

**2017:**
Improvement of the Legal framework on electronic management
- Draft revision and amending the law of electronic management and its bylaws
- Draft guidelines/methodology/legal act for e-services fees.
- Strengthening capacities for implementation of the improvements of the Law on electronic management and acts for e-services fees.

**2018:**
Implementation of E-services
- Develop and provide fully functional National Portal for e-services
- Increasing of the number of electronic services available, and increasing overall level of sophistication of electronic administrative services in accordance to EU benchmarks
- Increased use of e-services by end-users.

**Budgetary impact**
The total cost for this measure is 518,980 EUR (300,462 in 2017 and 218,518 in 2018). It is a component of a larger service contract.

**Expected impact on competitiveness**
Decreasing the administrative burden for citizens and companies, increasing efficiency of the companies.

**Expected social impact**
Wide inclusion of all social groups, increased trust in the government, open areas for new businesses, satisfied users, faster and quality services.

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**Measure 14: Adoption of a National Strategy for SMEs (2017-2022) with an action plan (2018-2020)**

**Short description of the measure**
The adoption of a National Strategy for SMEs (2017-2022) is foreseen for 2017, aimed at supporting the development of SMEs and entrepreneurship for increasing the productivity and innovation of SMEs and enhance their competitiveness in national and international markets.

The objectives of the strategy are:

<table>
<thead>
<tr>
<th>Competitive SMEs are drivers of inclusive economic growth and creation of productive and decent jobs.</th>
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<tr>
<td><strong>Even better business environment</strong></td>
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<td>Improve policy-making and coordination</td>
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<td>Simplify the legal and regulatory environment</td>
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<td>Strengthening and institutionalizing of social dialogue</td>
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<td>Improving data on SMEs and monitoring and evaluation</td>
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<td>Establish National Association of SMEs</td>
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<td><strong>Productive and competitive SME sector</strong></td>
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<td>Improve services for business development</td>
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<td>Improving access to finance</td>
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<tr>
<td>Facilitate the internationalization</td>
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<td>Supporting the development of industrial sector</td>
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<tr>
<td><strong>Dynamic ecosystem of entrepreneurship and innovation</strong></td>
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<tr>
<td>Expanding entrepreneurship education and training</td>
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<td>Improving science, technology and innovation in the development of SMEs</td>
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<tr>
<td>Establishing science and technology parks and incubators for innovation</td>
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Activities per year:
2017: Second quarter - Adoption of the Strategy and Action Plan

Budgetary impact:
The International Labour Organisation funds development of the Strategy for EUR 38,300.

Expected impact on competitiveness:
1. Competitive SMEs are drivers of inclusive economic growth and creation of productive and decent jobs.
2. SMEs operate in a favourable business environment where they encourage entrepreneurship, investment and productivity, in line with European norms and standards.
3. SMEs are highly productive and competitive participants in the European and other international markets.
4. The competitiveness of Macedonian economy is increasingly encouraged by the more entrepreneurial and innovative SME sector.

Expected social impact:
Strengthening consultation and mechanisms for conducting dialogue between the government and the private sector. Special attention will be given to the inclusion of businesswomen in these mechanisms, as well as insuring that the voice of micro-enterprises will be heard.

Potential risks:
Untimely adoption of the strategy.

4.3.5. Research and innovation
The private sector spending on R&D is very low, even within the high-tech and mid-tech sectors. According to the latest available data from SSO, private R&D expenditure in Macedonia accounted for only 0.02% of GDP in 2010. Public R&D expenditures have slightly been increasing and accounted for 0.52% of GDP in 2015. Key obstacles to RDI are the high costs of innovation and the limited access to bank loans, risk capital and other funds, as well as the limited capacity of the companies to access funding available through international funds and financial institutions. SMEs’ access to finance for activities related to research, development and innovations has been improved with the establishment and operation of the Fund for Innovations and Technology Development (FITD). However, with exception of the Fund’s support instruments, other mechanisms and infrastructure for enhancement of RDI such as for example a technology transfer offices, business accelerators and incubators, venture capital, tax incentives, etc., are scarce. On the demand side, the inclusion of innovation in the public procurement is still in initial phase and there is no investment in innovation through pre-commercial procurement.

Consequently, to the above, the country’s RDI outputs are limited. The latest Innovation Union Scoreboard (2015) ranks the country as a “modest innovator”, in comparison to other European countries, albeit relative country performance has been steadily improving from 35% in 2007 to 42% in 2014 with a growth performance (3.7%) well above the EU average. The IUS ranking mostly stems from the country’s underperformance (below the EU average) in all IUS indicators, although relative strengths have been identified in non-R&D innovation expenditures and SMEs with product or process innovations. The State Statistical Office data show that the number of innovative business entities in the period 2012–2014 was 1078. Out of the total number of innovative business entities, 37.1% have introduced product and process innovations, 35.8% have introduced organisational and marketing innovations, while 19.1% have introduced product, process, organisational and marketing innovations at the same time.

31Innovation Union Scoreboard 2015, European Union, Belgium 2015
According to the “create or buy technology” analysis, the countries from SEE are mostly in the “buying technology” category (Bosnia and Herzegovina, Macedonia, Montenegro, and Serbia) or in the “low level of innovation” category (Albania). The export of high technology amounts to less than 4% of the total export in Albania, Bosnia and Herzegovina and Macedonia, 10% of the total export in Croatia, and 15.5% of the total export in the EU countries. However, 22% of the SEE companies are included in some type of innovations, which places Southeast Europe in front of the other regions in transition. In Macedonia 22.5% of the total export of services comes from activities, which use higher degree of knowledge. However, the number of universities or other institutions for higher education, which were partners in an active cooperation in the introduction of product, and process innovations is significantly low (less than 30%). The cooperation between the public sector, the research and development institutions/academic institutions and the industry is weak and usually insufficiently documented or promoted even where it exists.

The above presented information leads to conclusion that the limited investment in research, development and innovations in SMEs, as well as the weak cooperation between the private sector and the academic institutions are a serious obstacle to strengthening the innovation activities in SMEs with the goal of increasing their competitiveness. In compliance to the diagnostics, activities are taken aiming to improve the innovation infrastructure, which include piloting and implementation of the support instruments of the Fund for Innovations and Technology Development, and establishing and operationalising the National Office for Technology Transfer.


**Measure 15: Improvement of the infrastructure and the access to funding for research, development, and innovations**

**Short description of the measure**

The indicators related to the innovation ecosystem in the Republic of Macedonia show a lack of financial investment, as well as weaknesses in the existing „hard“ and „soft“ infrastructure. The Fund for Innovations and Technology Development has improved the situation to some extent by implementation of two support instruments. The first instrument supports projects with clear commercial ambitions from “proof of concept” to “ready to market” phase. Through this instrument, the Fund provides funding up to 85% of the total project budget, up to a maximum of 30,000 euros. The second instrument supports projects with clear commercial purpose, which are in the phase of a prototype (or appropriate stage depending on the type of innovative product, service, and process) until “ready to market” phase. Through this instrument, the Fund provides funding up to 70% of the total project budget, up to a maximum of 100,000 euros.

The above presented support instruments cover only some segments of the innovation cycle, while the innovation ecosystem should offer diverse and flexible support to all the phases of the innovation cycle (from idea to global market commercialization). In addition, the results and experience gained from the implementation of the two support instruments demonstrated low investment readiness in SMEs. In order to overcome these gaps, there is a need to expand the existing innovation infrastructure to increase access to finance to complement various phases of the innovation cycle and strengthen the investment readiness of the companies, which in the long run would lead to a more effective utilization and more significant results. Therefore, in the forthcoming period, the Fund for Innovations and Technology Development plans on developing and piloting new support instruments such as:

1. **Instrument for support - „Co-financed grants for technology extension“**

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33 Competitiveness in South East Europe A POLICY OUTLOOK 2016
34 Statistical Yearbook 2016; State Statistical Office
This instrument will be intended for analysis of the needs and introduction of new, advanced technologies that would improve the performances of the Macedonian SMEs and would improve their competitiveness both on the domestic and the foreign markets. Advanced technologies would allow further introduction and strengthening of innovation activities of enterprises and would improve the potential for the private sector to absorb investment capital.

II. Instrument for support - „Co-financed grants for establishment, operation and investment in business-technological accelerators”

This instrument will be intended for the establishment and active operation of business-technological accelerators as subjects for giving infrastructural support to the innovative activity, from which is expected to be the key part in the national innovation system through providing resources (technical and financial) that lead to accelerated and sustainable growth and development of start-ups. This instrument is expected to offer additional sources of funding for innovation activity in start-ups, but also significantly strengthen human capacity within the newly established enterprises and contribute to increased readiness to attract investment and venture capital.

III. Instrument – „Technical assistance for support to the innovation activity”

This instrument will be intended for the provision of consultancy services for support to the innovative activity (analysis of innovative potential, introduction and management of innovations, protection of intellectual property, preparation for attracting investments, development of innovative projects etc.) in the private sector at favourable terms.

Activities per year
2017: Improvement of the regulatory framework: adopting by-laws for introduction of the new support instruments
Piloting of the new support instruments: Co-financed grants for technology extension and Co-financed grants for establishing, operation and investing of business-technology accelerators
2018: Piloting of the new support instrument: Technical assistance for support to the innovation activity
2018-2019 Implementation of the new support instruments

Budgetary impact

<table>
<thead>
<tr>
<th>Instrument No.</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
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<tbody>
<tr>
<td>I.</td>
<td>€125,000.00</td>
<td>€650,000.00</td>
<td>€575,000.00</td>
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<tr>
<td>II.</td>
<td>€83,333.00</td>
<td>€458,334.00</td>
<td>€500,000.00</td>
</tr>
<tr>
<td>III.</td>
<td>€100,000</td>
<td>€200,000</td>
<td>€200,000</td>
</tr>
</tbody>
</table>

The funds for the support instruments I and II have been provided by the loan agreement with the International Bank for Reconstruction and Development (World Bank), the operational budget of the Fund and IPARD, the support instrument III shall be implemented under condition that aid is provided from other sources.

Expected impact on competitiveness
It is expected that the support instruments would increase the public and private investment in RDI (as percentage of GDP), increase the number of companies introducing innovation of product/process/service, strengthen the capacities of the SMEs and enhance the cooperation between the private sector and academia. It will contribute to the increase of quality of the supply of goods and services, as well as, to the increase of the domestic companies’ capacities to meet the international standards for safety and quality leading to greater competitiveness and international market participation.

Expected social impact
Investment in innovation increases the competitiveness of the domestic companies on the domestic and global market, which results in economic growth and job creation. Through the improvement of the economic performance, as well as through the increase in the quality of
goods and services available on the market, the introduction of innovations also leads to a higher standard of living of the population.

Potential risks

The involvement of the relevant stakeholders and the further strengthening of the capacities of the Fund for Innovations and Technology Development are the key preconditions for successful implementation of this measure. Increase of investment readiness of SMEs in parallel to the increase of funding is crucial for the absorption of available funds. Insufficient complementarity of resources and mechanisms is a major risk for further implementation of the existing and the proposed support instruments.

**Measure 16: Triple Helix Partnership**

**Short description of the measure**

Triple Helix partnership as a potential for innovation and economic development in a knowledge based society lies in a more prominent role of universities, industry and government to generate new institutional and social formats for the production, transfer and application of knowledge. In reference to that Ministry of Education and Science (MES) has initiated establishment of the National Technology Transfer Office (NTTO) as a mechanism for linking and facilitating cooperation between academia, business and government. National Office for Technology Transfer (NTTO) is being in process of establishment. The Founding Assembly meeting is postponed due to the need for amending the Law on innovation activity, to the end of providing a legal framework for NTTO, as well as including the Fund for Innovations and Technological Development as one of the founders of NTTO. The proposed amendments to the Law on innovation activity are submitted to all stakeholders and should be adopted by the Government of Macedonia. It is planned for NTTO to start functioning in January 2017.

Based on the analysis of the potential, priorities, and strategies of the country, it is concluded that there are three main sectors that should be included in the technology transfer process:

I. Agriculture,
II. Information and communication technology – ICT,
III. Renewable resources of energy (green energy)

Projects from several (5-10) „additional areas“: chemical, pharmaceutical, metallurgical, mechanical, automotive industry, the creative industries and tourism will be supported by NTTO, if they are identified with sustainable results from research and development, experience in running applicative projects and commitment. NTTO will offer a wider set of services than only technology transfer, including research agreement management, encouragement for increased collaboration between universities and the industry, support to the universities and the industry for activities related to technologies and intellectual property (IP). Because of these services, NTTO should generate income, which will support its activities in the long run, given the fact that technology transfer is not a profitable business, but a mechanism for developing the economy. NTTO will prepare a registry of experts from different industrial sectors in the country, as well as a registry for available laboratories and laboratory services acquired from the “Equipping laboratories for scientific research and applicative activities“ project, to the end of increasing the availability to the final consumers. The following final consumers are identified: scientific and research institutions, public and private universities with a research potential, start-ups and spin-offs, SMEs, innovative companies and industries, foreign technology-oriented companies interested in a collaboration with local partners, existing and potential foreign investors, economic chambers, government institutions, nongovernmental organizations and foundations, cluster associations, research companies, consultancy companies and banks.

**Activities per year**
2017: Operationalization of the NTTO (staffing a team, equipping the NTTO, organizing trainings for the employees, establishing the processes and developing a strategy for IP, developing a marketing strategy, funding strategy, strategy for securing funding sources, and establishing a financial reporting and control system).

2018: Support to at least five pilot innovative projects in the first functioning year (2018), a double increase of the target in the second year and a continuous increase of the number of supported projects yearly from the third year onwards.

2019: Submitting at least five patent analyses and two patents in a period of 4 years.

Budgetary impact
Within the “Project for development of skills and support to innovations” (funded by a loan from World Bank), conducted within the Ministry of Education and Science, EUR 870,000 are planned for the provision of technical assistance and financial resources, as well as acquiring databases for purchasing a patent and researching the market to the end of facilitating the initial phase of the NTTO creation.

The funding of NTTO is planned to be conducted through the SKILS project until the middle of 2019, to when NTTO is expected to become the main partner in the technology transfer area.

Expected impact on competitiveness
This reform measure is expected to stimulate key elements of an innovation economy, i.e. entrepreneurship, commercially oriented research, university-industry partnership, and risk taking that can lead to improved exports of products and services.

Expected social outcomes
NTTO will also focus on the large companies and will encourage their cooperation with the universities, especially through the development and the implementation of practice needed for projects on master and doctoral studies, and specific educational programs. All involved stakeholders are expected to have benefits from the NTTO activities, because it should encourage the commercialization of technologies, and the absorption of knowledge on a national and global level. Enhancing innovation capacity and efforts to evolve toward a knowledge-based economy provide opportunities for more and higher value-added employment, and ultimately greater productivity and economic growth.

Potential risks
- Lack of inner technological capabilities – the import of technology does not mean a complete understanding and knowledge of the technology.
- High price of the technology – the high price in resources for integration of the existing well-developed tool or methodology can occur as a result of the high operational and/or maintenance costs.
- Organizational resistance and communication barriers – the basic elements for a successful technology transfer are a secure source of useful information, commitment to information exchange, and flexible information transfer channels.
- Business risk – arises from the constant changes of the business context, and can be a costs risk, demand risk, exchange rate risk and interest risk.

4.3.6. External trade and investment facilitation
As a small, open economy, Macedonia has to rely on exports and increased competitiveness to sustain long-term growth. Supported by an active strategy to promote foreign direct investment, Macedonia is shifting gradually to a more export led growth model. As a result, in recent years, the country has diversified its exports both in terms of products and in terms of destinations and increased the technological intensity of its export basket.
Technologically, Macedonian goods exports are average and mainly consist of metals, chemical products, textiles and machinery. Macedonia therefore exports some higher-quality goods including machinery and vehicles as well as chemical products. Moreover, despite an increase in unit labour costs, Macedonia was able to expand its market share for goods exports into the European Union in recent years, suggesting, among other things, a higher quality of the range of goods available for export. The exchange rate, which is pegged to the euro, does not allow a stronger depreciation of the nominal rate in the event of external shocks.

The overall export performance of Macedonia’s manufacturing sector is satisfactory compared with other Western Balkan countries. Germany is by far Macedonia’s most important export market. Other important export markets include Bulgaria, Kosovo, Italy and Serbia. The transport industry plays an important role in Macedonia’s tradable services sector, while the tourism industry is comparatively underdeveloped and currently attracts mainly regional guests. However, overall, net services exports contribute to improving Macedonia’s current account.

Having in mind that most domestic firms in Macedonia are small (fewer than 10 employees), they have great difficulty competing in export markets, because of their inefficiencies, and the high costs related to customs, logistics, and trade infrastructure. Small and medium Macedonian companies face challenges of integration into international markets due to lack of managerial, financial and technical capacity, which limits their competitiveness. While multinational firms have made an impact on employment and growth of new industries with better long-term prospects, their limited backward linkages to domestic companies prevent a broader impact on the economy. Macedonia will need to boost and upgrade its exports further in order to improve its competitiveness, by: investing in its infrastructure; promoting a stronger investment climate; facilitating business growth and trade linkages; and, supporting business sophistication, skills, and innovation. This will help the country to attract additional investments for sustained private sector-led growth.

In relation to trade agreements, in 2016, Law on ratification of Protocol 4 towards the SAA between Macedonia and European Community and its members was adopted and its implementation has started.

Until end of 2017, it is planned to finalize the process of harmonization of Protocols for rules of origin with Turkey and EFTA countries according to the Regional Convention on Pan-Euro Mediterranean Rules of Origin and to carry out the ratification process.

In the frame of CEFTA, conclusion is planned end of first half of 2017 of the Supplementary Protocol 5 on trade facilitation (faster movement and clearance of goods, including those in transit), while concluding of Protocol on trade in services is planned until end of 2017. In parallel to negotiation on liberalization of services, in 2017 it is foreseen to negotiate and conclude an Agreement on mutual recognition of professional qualifications, which will have direct impact on facilitation of trade and liberalization of services in order to reduce any existing limitation on service export in the region.

Considering that not all CEFTA countries are WTO members yet (Serbia, Kosovo and Bosnia and Herzegovina), and following the latest development in facilitation and liberalization of trade with goods and services, all CEFTA countries decided to conclude regional documents on trade facilitation and liberalization respecting the WTO provisions. Those documents will be annexed to the existing CEFTA Agreement. Its intention is to further eliminate possible trade barriers that exist in pre-arrival of goods and to provide higher liberalization on trade of services then what is agreed or still negotiating within WTO.

Measure 17: Upgrading the customs clearance facilities of road border crossings Tabanovce (IPA 2012) and Kafasan (IPA 2013)

Short description of the measure

35 Improving Competitiveness in the Balkan Region – Opportunities and Limits, June 2016, The Vienna Institute for International Economic Studies
Due to spatial limitations and increased volume of traffic flow of loads of goods at road border crossing (BC) Tabanovce, the most frequent BC in the Republic of Macedonia, along the Pan-European Corridor X and BC Kafasan, the most frequent BC towards the Republic of Albania, along Pan-European Corridor VIII, the present condition for processing shipments of goods are limited. In order to expedite and facilitate trade upgrading of the existing facilities is needed.

Construction works at the border crossings will include expansion of the existing customs terminals and other facilities, as well as additional traffic lanes for the movement of cargo shipments at the BCP Tabanovce.

**Activities per year**

In 2016 the preparatory activities for the implementation of the project to upgrade BC Tabanovce are finalized, the required documentation for construction is obtained and the contractor for construction works and supervision over the implementation is selected. Construction work has started in fourth quarter of 2016. A period of 12 months is projected for realization of the construction works. The preparation of documentation for provision of building permits and technical documentation for tender publication for upgrade of BC Kafasan is ongoing.

In 2017, it is foreseen to complete the construction works at the BCP Tabanovce; The Tendering procedure for the BCP Kafasan is planed until Q3 2017, while construction works will be carried out from Q4 2017.

In 2018 is planned until Q4 2018 to complete the upgrade, construction works and the upgraded facilities to be operational at the BCP Kafasan.

**Budgetary impact**

The project for upgrade of BC Tabanovce is financed from IPA (2012) and national co-financing. Allocated funds for the project are EUR 1.89 million out of which EUR 1.45 million are IPA funds (Component 1) and national co-financing amounts to EUR 0.44 million.

The project for upgrade of BC Kafasan is financed from IPA (2013) and national co-financing. Allocated funds for the project are EUR 1.48 million out of which EUR 1.14 million are IPA funds (Component 1) and national co-financing amounts to EUR 0.37 million.

**Expected impact on competitiveness**

It is expected that the number of passing vehicles using BC Tabanovce will increase: at entrance by 25%-30%; at exit by 34%-38% while the number of transit vehicles in both directions would be 30% of total passing cargo vehicles.

The projects will contribute to: expedite and facilitate exchange of goods through both border crossings; facilitate transport along Trans National Axes North- South (Corridor X) and East-West (Corridor VIII) linked to the Trans European Transport Networks after 2018, reduce bottlenecks and within other ongoing activities such as introduction of the Common transit system completed in 2015, to greater competitiveness.

Expected outcomes (benefits) from the implementation of the projects are: increased flow of shipments of goods, reduced time to complete border formalities, improved infrastructure for application of modern inspection tools, thus expediting the exchange through border crossings, and facilitating transport along Pan-European Corridors X and VIII.

**4.3.7. Education and skills**

The access to education is improved; however, there is still an insufficient link between the education system results and the private sector needs. The companies point to an insufficient quality and availability of skills despite the high unemployment.

The education system consists of pre-school, elementary (6-14 years of age), secondary (15-17/18 years of age) and high education. The pre-school education system faces significant challenges among which are the insufficient inclusion of children in the pre-school institutions,
inconsistent implementation of the norms and standards in the pre-school institutions, incomplete standards for early learning and development, insufficient number of teachers etc.

The level of literacy in the country is high; it is 98.8% for males and 96.8% for females (SSO, 2015). The gross enrolment is 63%, and the net rate is 91%.

The vocational education does not attract a sufficient number of students and a contemporary system for post-secondary vocational education has not been established. There is a discrepancy between the supply of graduates from the VET system and the demand on the labour market; the system for introduction of new qualifications in VET is inflexible and inefficient, there are significant shortcomings in the knowledge of teachers about modern technologies related to the school subjects, and cooperation with the business sector for practical training of students and learning in a work environment is inefficient. The Centre for vocational education and training has limited capacities for realisation of activities and a low budget. According to the OECD Competitiveness in SEE Report, Macedonia has an index of 2.5 (the index range is from 1 to 5) for the cooperation between the Centre for vocational education and the business environment, which is higher than most countries in the SEE region (Serbia, Bosnia and Herzegovina, Kosovo, Montenegro). However, there is a lot of room for improvement of this cooperation.

The main obstacles in the high education are the insufficient quality of the high education along with the not fully functional accreditation and evaluation system of universities, and the non-adjusted study programs to the labour market needs.

While access to education has improved, challenges remain in the provision of integrative “new economy” skills, and in better linking the products of the education system to private sector needs. The secondary Vocational Education and Training and higher education systems emphasize traditional cognitive skills, and in the case of secondary VET, focus is on narrowly defined occupational profiles with low vertical and horizontal flexibility. The findings of a survey conducted by World Bank in the project STEP for skills measurement, show that the demand is growing for “new economy” skills, such as capability for completing complex tasks, analytical and organizational capabilities etc., which cannot be automated. In addition, the new jobs demand a high use of different skills, and less elementary skills. These findings indicate that the education system has to change its role from teaching facts and theory to developing skills that can be applied to different workplaces. The development of the National Qualification Framework is significant for reducing the noncompliance between the supply and demand of workforce.

The main challenges for the informal education and adult education sector are the noncompliance between the demand and supply of adult education due to lack of information for the labour market needs, low awareness of the population and the companies, lack of a system for validation of the non-formal and informal learning, and lack of a comprehensive system for funding of adult education.

The indicator for participation in lifelong learning, which measures the number of persons aged 25-64 that acquired education and training, is only 2.6% in Macedonia (Eurostat), being far below the EU-28 average of 10.7%.

In the period 2007-2014 the share of early school leavers has significantly dropped. There is an improvement in the share of population aged 30-34 with completed high education, which has doubled in the last 7 years. In 2014, 25% of the population aged 30-34 in Macedonia had completed high education, which is still below the EU-28 average (38%).

The drafting of a comprehensive Strategy for education 2016-2020 for improving the conditions in education is in its final phase. The strategy will be based on the accomplishments already achieved in the education system and will aim to their further improvement, according to the established priorities. Key obstacles identified in the Strategy are:

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- Insufficient data for analysis and forecasting of the labour market needs;
- Insufficient social dialog between the education and training and the labour market stakeholders;
- Lack of human resources with relevant skills;
- Insufficient capacities for a quality practical training at the workplace.

**Measure 18: Further development of the qualification system**

**Short description of the measure**

The further development and implementation of the qualification system will contribute to acceleration of the process of reforming the education and training systems and development and gaining qualifications according to the labour market needs. The measure aims at establishing a balance between the supply and demand for knowledge and skills and competences, enabling education for all and gaining qualifications through a formal and informal way to create competitive workforce, qualifications mobility and their recognition, increasing of the employment, especially for the youth and the vulnerable groups, and strengthening the social dialog.

The "Analysis of the assessment and survey of the labour market prepared for the process of reforming the curriculum for VET and Adult Education" shows that the largest number of new jobs in the period 2011-2014 were created in the sectors: Agriculture, Forestry and Fishing - Skilled agricultural workers (22,036), Manufacturing industry - Handlers and integrators of machines and plants (14,322), Transport and storage - Handlers and integrators of machines and plants (68,48), Wholesale and retail trade; repair of motor vehicles and motorcycles for workers in service industries - Workers in shops and market sales (6,830), Accommodation and food service activities - Workers in services, workers in shops and market sales (3,109) and Construction - Occupations in the non-industrial way of working in production (2,828).

The largest number of vacancies in secondary vocational education is noted at the following occupations: Workers in service activities, occupations for non-industrial way of working in manufacturing and handlers and integrators of machines and plants, while the index of vacancies (generally small at national level) is higher at the sectors Accommodation and restaurants, Construction, Administrative and support services, Transportation and storage, Manufacturing, Mining, Trade and repair of motor vehicles, etc. Sectors such as Construction, Manufacturing, Trade, ICT, Accommodation and food service activities had the greatest demand for new workers during the analysed period 2012-2015.

Based on these findings, the next steps in process of reforming the curriculum for VET and Adult Education are undertaken. The target groups are persons aged 15 and 65 (students in high schools, especially vocational schools, students in higher education institutions and participants in the lifelong learning process).

**Activities per year**

**2017**: 1. Development of qualifications for two priority sectors
2. Development of the Skills observatory - developing a web portal that will display data available to the public
   - Signing an Agreement with the Pension and Disability Insurance Fund and the Public Revenue Office for obtaining data on the status of students after their completion and average monthly income, according to teaching / study program, school/college.
   - Obtaining data from the State University of Tetovo and South East Europe University through alternative module for data exchange
   - Connecting the information systems of private higher education institutions and obtaining data
3. Development of new occupational standards - 60 standards according to the analysis of the labour market needs
4. Development of special programs for adult education and redesigning old ones

2018: 1. Development of qualifications according to the requirements of employers
2. Development of the Skills Observatory - piloting and system upgrade (if required)
3. Development of special programs for adult education and training for easier mobility and employability
4. Validation of non-formal education to acquire specific qualifications (establishment of a system for validation and preparation procedures for validation)
5. Strengthening of cooperation between higher education institutions and the private sector, and vocational schools and the private sector to provide quality practical work for students in companies. The practical work allows application of knowledge and developing skills directly in the workplace in companies and ability to recognize quality labour force by the company where practical work takes place.

2019: 1. Development of qualifications required by employers and flexible access for their acquisition
2. Development of special programs for adult education and training for easier mobility and employability
3. Validation of non-formal education to acquire specific qualifications
4. Strengthening cooperation between higher education institutions and the private sector, and vocational schools and the private sector to provide quality practical work for students in companies through development of career centres.

**Budgetary impact** (until 2020)

Total costs for the measure is 10.300.000 EUR.

- Further improvement of the System for development and implementation of the National Qualification Framework, Budget: EU Funds EUR 2.300.000 + EUR 200.000 (85% EU + 15% national contribution)
- Strengthening of the lifelong learning process through Modernization of the systems for vocational education and training and Adult education, Budget: EU Funds EUR 2.300.000 (85% EU + 15% national contribution)
- Support to the development of skills and innovations, Budget: World Bank EUR 4.200.000
- ECVET Budget: European Commission – DG for Education and Culture and EUR 23.445 10% national contribution
- Support to the Modernization of the post-high school education system, Budget: EU Funds EUR 1.000.000 + EUR 200.000 (85% EU + 15% national contribution)

**Expected impact on competitiveness**

Cooperation between formal, non-formal / informal education and training and the business sector towards the labour market needs and reducing the inadequacy between education and the labour market and career development which will facilitate acquisition of skills and competencies that will contribute to competitiveness of enterprises, increasing recognition of qualifications acquired in our country by foreign investors and recognition of qualifications acquired abroad by our foreign employers.

**Expected social outcomes**

- Increase in employment, especially youth employment
- Increased transparency
- Inclusion of the vulnerable groups
- Increased recognition of qualifications and
- Decrease of the incompatibility between the education and the labour market.
Potential risks

- Insufficient human and financial resources for the implementation of activities;
- Inefficient guidance of the reform process;
- Insufficient interest of the relevant stakeholders for participation

4.3.8. Employment and labour markets

Despite the progress achieved in the labour market, the country still faces high unemployment and low employment and activity rates. The overall employment rate is low due to low employment of women and youth.

Only 17.6% of the young people are employed, which is 2.5 times lower than the average. Young people face a difficult transition from education to the labour market: 40% of them find a job 1 to 3 years after completion of the education, and the average time of transition from education to work for young people is 6 years (71.6 months)\(^{37}\). Low-quality employment is also a concern, with large shares of young people earning below-average wages, working long hours, trapped in informal or irregular employment, or in positions for which they are overqualified\(^{38}\). Youth unemployment remains predominantly a long-term phenomenon. Youth unemployment declines at higher educational attainment levels, with youth with no or little education facing higher unemployment rates than secondary and tertiary education graduates.

Persons with a minimal education are the most likely to be unemployed. Although the employment rate for those with higher education is significantly less than the average, nonetheless at least 1 in 5 of all graduates is unemployed\(^{39}\). This represents an inefficient use of human resources and hints at a mismatch between the education/training provided and the skills required in the labour market.

Inactivity of the women is unequally spread among young women, women in rural areas and unqualified women, whereby one of the most important reasons of the inactivity of the women is the household responsibilities. Activity rates increase with higher educational level.

The low job creation rate and the static labour market result in high long-term unemployment. In 2015, 81.6% of the unemployed persons sought work for more than 1 year, and over 69% for more than 2 years. This category is composed of discouraged workers, inactive persons or persons employed in the informal economy, whose knowledge and skills diminish, their productivity decreases, and thus their chances of finding a job. In this context, the objective of the employment policy is to provide unemployed people with the skills and qualifications they need in order to succeed on the labour market.

The official employment data may overstate the levels of unemployment and inactivity. There is an informal employment of 20% in the total employment\(^{40}\), which has been continuously declining since 2009. The challenge for the government, however, is how to translate informal jobs into sustainable employment.

The structure of employment and free (vacant) positions are dominated by medium-level occupations, requiring workers with secondary (vocational) education. The largest growth rates in the number of employees (jobs created) can be observed in highly educated people and people with secondary education. In the third quarter of 2016, there were 6,200 job vacancies, which is around 1.3% of the existing number of jobs in the economy\(^{41}\). Job vacancies were created in the processing industry, construction, transport and warehousing, trade and administrative and supporting activities. About 53% of the new jobs are related to vocational education and 34% to lower levels of education. The structure of employment is dominated by elementary occupations.

\(^{37}\) National Employment Strategy of the Republic of Macedonia 2016-2020
\(^{38}\) Partnership for Sustainable Development United Nations Strategy for 2016-2020
\(^{39}\) SECTOR PLANNING DOCUMENT, REPUBLIC OF MACEDONIA, EDUCATION, EMPLOYMENT AND SOCIAL POLICY 2017-2020
\(^{40}\) http://www.stat.gov.mk/Publikacii/2.4.16.02.pdf
that are low wage and low productive and do not exploit human potential. One fifth of the Macedonian workers are working at the level of elementary occupations.\(^42\)

The operation and services of the ESA have been significantly modernized in the past period, yet a small part of employers uses the services of the Agency for job placement. Because of limited resources (material and human), and bearing in mind the need to confront the high registered unemployment, ESA is increasingly focused on supporting the population groups that face the most difficulties to be employed, and through the electronic system provides information about all other labour market participants. The burden on employees in the ESA is high, the ratio between staff of the Agency and active job seekers is 1: 230 (or 1: 378 when only those employees in the agency who offer services to customers are considered), which is significantly higher than internationally accepted ratio of 1: 100.

**Measure 19: Profiling of unemployed persons and designing an Individual Employment Plan**

**Short measure description**

This measure is linked to the sixth policy guidance from the Joint Conclusions of the Economic and Financial Dialogue from May 2016 “Strengthen the provision of activation measures especially for vulnerable youth, women and long-term unemployed and further improve the capacity of the Employment Service Agency for profiling and personalised counselling of job seekers.”

The new tool in the working process of ESARM is targeted for persons in a disadvantageous position on the labour market in the context of ensuring the most adequate combination of services and programs for employment, which are available with the Annual Operational Plans for Employment Services and Active Labour Market Measures. With this approach, the confidence and cooperation between the unemployed person and ESARM as a service for the citizens will be strengthened, because all the activities will be adapted to the real needs of the unemployed person for his/her employment. On the other hand, the financial means that are spent for implementation of the services, programs and measures for employment will be mainly directed towards this category of unemployed persons who need assistance the most during the employment process.

Individual Employment Plan is designed for each person who is registered in ESARM as an unemployed person – Active Job-Seeker, within 30 days. It is valid for a period of 6 months, whereby, if the unemployed person does not find a job within this period, the Individual Employment Plan is reviewed and modified. An Employability checklist is also included for all job seekers as a tool for improvement of the design of the Individual Employment Plan.

The first counselling session – follows after the registration of the clients as active job seekers – has the purpose to collect additional information necessary for development of the client’s profile, as well as to agree on the most adequate activities regarding the process of transition towards employment. The information that needs to be collected is related to the factors for which it is known to affect the outcomes from the labour market: age, gender, education, professional qualifications, previous working experience, family status, period of unemployment, place of residence, health problems / disability and other factors. This checklist is a tool for the counsellors from ESARM to better understand the areas in which the clients face problems, as well as determine the best activities in order to help the client in planning during job search and the process of employment. At the end of the interview, an aggregated level of employability is determined for the client, which will help the Counsellor to discuss with the client and to agree on the type of support which is necessary and which will be noted in the Individual Employment Plan.

The second counselling session should be conducted in a peaceful surrounding and sufficient time is needed to investigate in detail all the areas, which pose a risk in order to strengthen those areas, which pose strong points of the client. Some areas of interest are not within the

\(^{42}\) National Employment Strategy of the Republic of Macedonia 2016-2020
frames of ESARM services. Nevertheless, the difficulty with which the client is facing in one of the areas of interest may have a negative effect on the job search and employment, therefore the ESARM Counsellors’ are supposed to try to respond to all clients’ needs by forming a partnership with other public services or programs. The second session is supposed to result in formulation of activities, which the client would undertake, with the support of ESARM. The Client is obliged to undertake certain activities and to attend recommended/scheduled services and programs, and ESARM is obliged to put on a disposal services, programs and other support in the abovementioned timeframe.

**Activities per year**

2017: 7500 unemployed people covered

2018: 7500 unemployed covered and directly included into employment programs and measures

2019: 7500 unemployed covered and directly included into employment programs and measures

**Budgetary impact**

The cost for implementation of this measure is 336 denars per unemployed person. It is funded by ESA’s annual budget. For 2017, 2018 and 2019 the annual budget is estimated at 40,976 EUR.

**Expected impact on competitiveness**

This approach will strengthen the trust and cooperation between the unemployed people and ESA, because all the activities will be adjusted to the real needs of the unemployed. The active employment programs and measures will be addressed to the unemployed people who are most suitable. It will also keep the unemployed activated and motivated in the process of job searching.

**Expected social outcomes**

This measure is to target the unemployed people who are in unfavourable situation on the labour market and provides the most suitable combination of services and employment programs, available through the annual operational plans. The target will be the most vulnerable unemployed people, with special focus on young people up to the age of 29 and unemployed people who were not employed in the previous 2 years.

4.3.9. **Social inclusion, poverty reduction and equal opportunities**

The poverty rate is decreasing and reached 21.5% in 2015, compared to 27% in 2010. However, it rises to 40.5% when social exclusion is factored in. The two indicators for inequality of income distribution, the Gini coefficient and the indicator S80/S20 (which shows the relation between the highest 20% and the lowest 20% of equivalent income of the people in the households), are both decreasing compared to 2010. In 2015, the Gini coefficient was 33.8% being slightly higher than EU 28 average (31% in 2015) while the S80/S20 indicator was 6.6% and is slightly higher than EU 28 average (5.2%). Unemployed face the highest poverty rate of 39.9%, as well as households of two adults with three or more dependent children (52.2%).

The gender differences at the labour market are reflected in the much lower activity of women and lower rate of employment. They are mainly related to the still traditional role of the women in the households. For example, the main reason for the inactivity of women is the care of the family, children and the elders. This vulnerability on the labour market is even more pronounced with the women with lower education levels, the women in the rural areas, and the women from certain ethnicities. The measures for decreasing these gender differences are in the domain of the education policy (increasing access to education and decreasing education costs), active measures for employment, etc.

The gender differences exist in the employment sectors for and occupations. There is still a dominant viewpoint and stereotypes for “male” and “female” professions. There are differences in the wages too. The wage gap between men and women (assuming they have the same level of
education, the same working experience, work in the same sector, occupation etc.) is 17.5%. The gap is the largest in the industry and the traditional services.

A number of social groups are particularly vulnerable. The Roma community (counted at 2.7% of the population in the 2002 census) experiences multiple deprivations, in income, health, education, employment and living conditions. Roma unemployment in 2011 was 53% against 27% for the non-Roma population, and income poverty was 41% against 14% for non-Roma. Participation in early childhood education, though expanding rapidly, remains low, at 39.5% in 2015, and attendance for both Roma and ethnic Albanians remains under 4%. Overall 84% of children attend secondary school, whereas the proportion for Roma is under 42%. Early marriage remains a concern: 22% of Roma girls aged 15-19 are married, against a 4%.

Persons with disabilities are a second marginalized group. Only a fraction of children with disabilities receives any kind of formal education. Early detection and intervention services are limited in scope and coverage, particularly in rural areas, and widespread stigma even among parents continues to stand in the way of genuine inclusion of persons of all ages.

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5Partnership for Sustainable Development United Nations Strategy for 2016-2020