



## **COMPETITIVENESS OF THE MACEDONIAN ECONOMY ON THE INTERNAL MARKET OF THE EU**

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## LIST OF ABBREVIATIONS

English language	
GERD	Gross domestic expenditure on R&D
AI	Artificial Intelligence
TFP	Total Factor Productivity
GCI	Global Competitiveness Index
TEU	Treaty on European Union
PCT	The Patent Cooperation Treaty
TFEU	Treaty on the Functioning of the European Union
SCPC	The State Commission for Prevention of Corruption
SOIP	State Office of Industrial Property
EFTA	European Free Trade Association
EU	European Union
EEC	European Economic Community
SEA	Single European Act
EC	European Commission
EPO	European Patent Office
EPO	European Patent Organization
EUROATOM	European Atomic Energy Community
WB	Western Balkans
ICT	Information and Communications Technology
DESI	Digital Economy and Society Index
R&D	Research and Development
CPC	Commission for Protection of Competition
SMEs	Small and Medium Enterprises
ICJ	International Court of Justice
PPE	Personal Protective Equipment
OOCC	Prosecutor's Office for Organized Crime and Corruption
GBER	General Block Exemption Regulation
CP	Competition Policy
PED	Project for Economic Development
PPP	Purchasing Power Parities
FDI	Foreign Direct Investment
SAA	The Stabilization and Association Agreement with the European Communities and Their Member States
CEFTA	Central European Free Trade Agreement
FITD	Fund for Innovation and Technology Development
HC	Human Capital

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# 1. INTRODUCTION

The opening of markets stimulated by the process of globalization inevitably imposed the need for intensifying economic cooperation between countries. At the same time, globalization gave the opportunity for each country to strive to become an influential and important player in international economic relations and to take its rightful place in the open market, where not only countries compete, but also companies that are part of that market.

Today, countries around the world are facing the consequences caused by the COVID-19 pandemic . At the same time, economies that have not yet recovered from the first crisis are already facing a new non-economic challenge through the energy crisis, caused by the war between Ukraine and Russia, the consequences of which are mostly felt by European countries. In this case, it was shown that the factors and policies for maintaining a competitive advantage change significantly, as well as the conditions that require different functioning of companies in the market. The aim of this paper is to link international competitiveness with the lack of innovative activity in North Macedonia. Innovation capacity and sophistication of production technology are one of the main problems of business competitiveness in the economy. This paper investigates competitiveness indicators and innovation index parameters that determine the position of North Macedonia at the regional and global level.

At the same time, every economic crisis brings with it new challenges and thus the need to change the current strategies, policies and measures used by the states. The experience of the last global economic crisis triggered by the pandemic, in addition to bringing to the surface all the shortcomings in the economies, has shown us that the countries with a low level of national competitiveness are the most vulnerable to external shocks. That is why the assessment of the competitiveness of the economy through the analysis of the policies and determinants used to stimulate it, is extremely relevant for a better positioning of the domestic companies in the international market. Healthy market competition stimulates innovation, improves the productivity of companies, and contributes to an effective business environment, which creates conditions for economic growth and employment. At the same time, the adoption of the new system of functioning and management, as well as the application of business strategies for entering the international markets, (such as strategies for marketing and development of human resources), are a dominant factor for increasing productivity that leads to innovation, strengthening mutual trust and is the basis for the success of the economy on the international market.

For that reason, the Government of North Macedonia is making efforts to provide the business sector with an appropriate environment in the domestic market so that companies can more easily adapt and cope with the competition that will follow after the accession of our country to the Internal Market of the EU. In order to get a complete picture of the competitiveness of the Macedonian economy, it will be analyzed using two concepts: macroeconomic and microeconomic concepts. With the first, **macroeconomic concept**, the competitiveness of the national economy is analyzed as a set of factors, policies and strategies that determine the level of productivity of the economy and thus increase its flexibility, the potential for the application of new technology and investments, create a fertile ground for innovation, which increases the possibility for profitability, both in the medium and long term. While with the second, **the microeconomic concept**, analyses the competitiveness of companies as separate organizational units within the economy, by determining their ability to participate and maintain their competitiveness in the international market, where by offering quality products and services they will surpass the competition,

acquire new customers and will increase their presence in the market. This in turn will allow them to enter into profitable contracts that will foster strategic growth and a higher standard for employees. The paper makes equal use of theoretical and empirical analysis. The descriptive method is used to describe the concept of competitiveness, while the comparative method is used to compare the institutional indicators of competitiveness between North Macedonia and the selected countries. On the other hand, this will allow them to enter into profitable contracts that will allow them strategic growth and a better standard for employees. The paper makes equal use of theoretical and empirical analysis. The descriptive method is used to describe the concept of competitiveness, while the comparative method is used to compare the institutional indicators of competitiveness between North Macedonia and the selected countries. Also, in the paper are pointed the institutions established in North Macedonia which are charge of creating conditions, strategies and policies to encourage the competitiveness of Macedonian companies, by creating a fertile ground for development, which will enable companies to integrate more easily on the Internal Market of the EU

**For this purpose, a short analysis was made for:**

- **Presentation of the most significant theoretical aspects of competitiveness as well as determinants and factors** which affect the competitiveness of companies in the era of digitalization;
- **The benefits of the Internal Market and the characteristics of the competition policy of the EU;**
- **The impact of the COVID-19 crisis on the EU Internal Market** through the measures taken by the member states for the protection of companies, introduced at the national level, and at the EU level, to mitigate the consequences of the pandemic. At the same time, the policies undertaken to strengthen the resilience of the EU Internal Market in crisis conditions are also analyzed;
- **Analysis of the competitiveness of the Macedonian economy** by evaluating the factors affecting the competitiveness of the economy by taking into account 103 indicators from the Global Competitiveness Index (GCI) shown in the Global Competitiveness Report of the World Economic Forum (WEF). The report shows the shortcomings, but also the progress made by the country in terms of the factors needed to monitor the achieved results. Governments use this report to be able to make an assessment of the progress achieved by the economy by comparing the progress achieved by other countries. In that way, we would learn from the success stories of countries that have managed to improve their competitiveness in a field within a short period of time;
- **The obstacles faced by Macedonian companies** when exporting to the EU Internal Market, as well as the challenges facing the country in order to approach the conditions required by the EU market;
- **The benefits received by Macedonian companies** with the entrance to the Internal Market, where they perform with a quality standardized Macedonian product or service.

## **2. THEORETICAL ASPECTS FROM THE CONCEPT OF COMPETITIVENESS - DETERMINANTS AND FACTORS THAT DETERMINE COMPETITIVENESS**

Throughout history, the definition for determining the competitiveness of the economy has changed with the development of economics as a science. In that direction, competitiveness was analyzed from different aspects and defined in different ways depending on which factor economists gave greater importance. One of the definitions looks at competitiveness as a set of institutions, policies and factors that determine the level of productivity of a country. The level of productivity, in turn, sets the level of prosperity that can be achieved by an economy. But in most cases the term competitiveness is used to explain the productivity and growth of the economy or the position and influence that the country has in international trade. One of the more significant theories that analyzes the competitiveness of economies is the classic<sup>1</sup>, pointed out that each party involved in international free trade can profit if it specializes in the production of goods where it has an absolute advantage, regardless of whether it is inherited or acquired. Whereas, David Ricardo, goes a step further and points out that any country can benefit from international trade, even if it does not have an absolute advantage. He emphasizes the comparative advantage that the country possesses in the production of goods that it offers on the international market. The key to understanding comparative advantage is having a solid understanding of opportunity costs i.e., the potential profit that the economy loses when it chooses one option over another.

Furthermore, the well-researched and functional thesis of the economist Michael Porter, in the analysis of competitiveness, starts with the view that it is not nations but companies that compete in the international market. Therefore, they should define their market strategy through an analysis of the determinants that determine their ability to compete in the international market. He indicates in his researches that the most suitable measure for the competitiveness of any economy is how much it participates in percentage with its products in the world market. Namely, Michael Porter published a comprehensive structural framework and analytical techniques in order to help companies analyze their industry and developments within it in order to better understand competitors and their own market position. All this in order to turn this knowledge into a quality competitive strategy, which will enable them to compete more effectively and strengthen their position in the market. As a reminder, he talks about the 5 basic competitive forces (1) threat of entry, (2) intensity of rivalry between existing firms in the market, (3) threat of substitutes, (4) bargaining power of buyers, and (5) bargaining power of suppliers.<sup>2</sup> The same are still valid today, they are just observed in a different context and reinforced with digital skills and a willingness to react quickly according to the needs and demands of consumers in the market. While, writing in the context of manufacturing industries, Porter argues that there are 2 basic types of competitive advantage that firms or industries can have over their rivals. Those are:

- 1) lower production and delivery costs that provide the company/industry with a competitive advantage, but also the opportunity to achieve above-average revenues when prices are lower or at a level close to that of competitors, and

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<sup>1</sup> Adam Hayes and Adam Smith (2005), "The Wealth of Nations", p.360-361, The Pennsylvania State University <https://www.rrojasdatabank.info/Wealth-Nations.pdf>

<sup>2</sup>Michael E.Porter, (1980), "Competitive strategy: Techniques for analyzing industries and competitors". New York, p.46-58 <http://www.mim.ac.mw/books/Michael%20E.%20Porter%20-%20Competitive%20Strategy.pdf>



- 2) product differentiation through its quality and associated technical or marketing services, which enable a company/industry to command premium prices and fill profitable market segments for a particular type of product or service.

The biggest opponent of Michael Porter's theory is the economist Paul Krugman, who believes that it is not the economies who are competitive in the market, but the companies. Paul Krugman, in his article on competitiveness, emphasizes the difference between the competitiveness of a company and the economy, pointing out that *"Firms compete against each other and can improve their position in the market by 'crowding out', or worsening the position of, another company, while countries can improve their position without jeopardizing the position of other economies."*<sup>3</sup>

While, the neoclassical school, whose main representative is John Clark and the Austrian school whose main representative is Joseph A. Schumpeter, consider that competitive advantage is the result of innovation and technological progress. The company's ability to create new and advanced solutions and to take risks, which entails testing new innovative products on the market, is the key to the company's competitiveness on the international market. Both theories claim that the entrepreneur is the one who moves the company forward through the creation of new quality goods and services, advanced design, new sources of supply of raw materials, new methods, techniques or machines of production, but also innovative methods of organizing work.<sup>4</sup> Even the new advanced theories of competitiveness of economies<sup>5</sup>, by authors Weill, P., & Woerner<sup>6</sup>, they attribute competitiveness on the ability to innovate and they indicate that economies that do not possess natural resources, but successfully use innovations, can be competitive in the global market. The best example of this is Singapore, which as an island state does not have an abundance of natural resources, but is extremely good at devising and using innovations, with constant upgrading and following international trends. That makes it one of the 5 most competitive economies in the world. As emphasized in Michael Porter's competitiveness theory, a nation does not inherit but creates the most important factors of production, such as a skilled workforce that is ready to use advanced techniques, technologies,<sup>7</sup>. Therefore, the most important factors of production are those that are created through constant and heavy investments and are specialized in their field of activity. These factors are rarer, more difficult for foreign competitors to imitate because they require constant investment to create. For example, Denmark is a leading exporter of insulin. It gained this advantage by investing in two hospitals that concentrate exclusively on the study and treatment of diabetes. In that way, it gained a leading position in the world in the export of insulin.<sup>8</sup> The Netherlands, on the other hand, has been investing in top research institutes for growing, packing and shipping flowers for years. This strategy gave it the title of "world leader in flower exports"<sup>9</sup>.

However, even if a certain country or region within it does not have a comparative advantage, it can create it through a well-designed strategy for the application of innovations. A good example of this is the Italian company from the metal processing industry Duferco Steel<sup>10</sup>, located in Brescia, Italy. This company the

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<sup>3</sup>Paul K. (1994)."Competitiveness: A dangerous obsession. Foreign Affairs", 73(2), 17 pages [http://www.kailchan.ca/wp-content/uploads/2016/10/Krugman\\_Competitiveness-A-dangerous-obsession\\_1994.pdf](http://www.kailchan.ca/wp-content/uploads/2016/10/Krugman_Competitiveness-A-dangerous-obsession_1994.pdf)

<sup>4</sup>Samuel Fernandes&LucenaVaz-Curado, (2019), "The concept of entrepreneur of Schumpeter in comparison to Kirzner", Article, 15 July 2019, p.5., Universidade Federal de Sergipe, Brazil <https://www.redalyc.org/journal/5863/586364185007/html/>

<sup>5</sup>Advanced theories for measuring competitiveness are those that base it on the progress achieved in the field of digitization as measured by the Digital Economy and Society Index (DESI), which monitors the progress made in EU member states in digital competitiveness in the areas of human capital, broadband connectivity, the integration of digital technologies by businesses and digital public services.

<sup>6</sup>Weill, P., & Woerner, SL (2015). Thriving in an increasingly digital ecosystem. MIT Sloan Management Review, 56(4), 27–34.

<sup>7</sup>Michele Porter (1990), "The Competitive Advantage of a Nation", Harvard Business Review, p.22 <https://hbr.org/1990/03/the-competitive-advantage-of-nations>

<sup>8</sup>Insulin Trade Profile, (2016), "Insulin Trade Profile facts", [HAI\\_ACCISS\\_factsheet\\_insulintrade.pdf \(haiweb.org\)](https://haiweb.org/HAI_ACCISS_factsheet_insulintrade.pdf)

<sup>9</sup>Flower Companies, (2016), Netherlands is the largest player on the flower export market, <https://www.flowercompanies.com/blog/netherlands-leader-on-the-flower-export-market>

<sup>10</sup>Duferco company, (2022), <https://www.duferco.com/innovation/>

lack of factors in the area in which it operates and the high costs it faced such as capital costs, energy costs, lack of local raw materials and high transportation costs due to the distance from the southern ports of the country, turned into a competitive advantage, and thus became a pioneer in the area. It has created the advantage by using technologically advanced mini-furnaces for steel melting, which require only modest capital investment, consume less energy, use scrap metal as raw material, and are efficient on a small scale. At the same time, they allow producers to locate themselves close to the source of waste and to the final consumers. Which means that sometimes the lack of factors can be used as an advantage if it is known how and if the company possesses expert personnel in the field in which it operates. For example, during the pandemic, the only companies who remained competitive were from countries that already possessed or made significant changes in the area of adoption of information and communication technologies (ICT), introduction of flexible working arrangements, the possibility of remote work, digital skills, e-procurement and adoption of a legal framework for the application of digitization. The possibility of their application and adoption, as well as the rapid reorientation of companies to the digital world, has greatly facilitated their operation in conditions of a global pandemic. This is confirmed by the report of the World Center for Measuring the Competitiveness of Economies (IMD World Competitiveness Center).<sup>11</sup>, confirmed that the reason for their competitiveness is caused by investment in skilled labor, advanced technologies, substitutes for inputs, innovation, investment in developing digital skills, the benefits of having a strong social national strategy and leadership. It was this that resulted in the creation of social cohesion and helped economies to overcome the crisis, enabling them to rank higher on the competitiveness scale. When analyzing companies that have achieved international leadership, one concludes that they all use strategies that differ from each other in every respect. Although each successful company uses its own special strategy, the basic way of working - the character and the trajectory are fundamentally the same, that is, they all achieved a competitive advantage in two basic ways:

- **Through innovation** – Companies must in their environment create a climate for innovation, reward initiatives and embarking on challenges, not avoid and punish them. Competitive companies approach innovation in its broadest sense, including new technologies and new ways of doing things. They perceive a new basis for competition or find better means to compete in old ways. Innovation can manifest itself in a new product design, a new production process, a new marketing approach or a new way of conducting training. It has also been confirmed that there is a close correlation between innovation and exports. Namely, the EU countries that invest a higher percentage of their GDP in innovation also achieve higher exports.<sup>12</sup> Economist Joseph Schumpeter believed that innovation is the driver not only of capitalism, but also of overall economic growth. By innovation, he means changes in production and transportation methods, production of a new product, changes in organization, opening of a new market, etc. According to him, innovation does not mean only a new invention, but refers to the commercial applications of new technology, new material in production, new methods and new sources of energy.<sup>13</sup>
- **Leadership and fostering an entrepreneurial spirit in your company** - Today's competitive reality demands leadership. Leaders who believe in change and encourage it in their organizations through continuous improvement and investment in innovation. Also, leaders see the success of their home country as an integral part of their competitive success and therefore work to build on it. Most importantly, leaders recognize the need for challenge and are therefore willing to drive "painful"

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<sup>11</sup>IMD, (2021), World Competitiveness Ranking Report 2021 [2021 World Competitiveness Ranking \(imd.org\)](https://www.imd.org)

<sup>12</sup>Eurostat, (2021), Exports of goods and services in % of GDP, [Statistics | Eurostat \(europa.eu\)](https://ec.europa.eu/eurostat)

<sup>13</sup>Megha M (2016), "Schumpeter's Theory of Innovation" Businessjargons.com, May 12 2016, <https://businessjargons.com/schumpeters-theory-of-innovation.html>

change in society by lobbying for changes in government policies and regulations. They are willing to trade the easy path to short-term success in order to achieve a sustainable competitive advantage. That must be the goal for both economies and companies: not to survive on the domestic market, but to strive to achieve international competitiveness.

From a microeconomic point of view, the competitiveness of the company can be driven by the influence of several basic factors, which according to Michael Boyle are divided into 5 basic ones, and they are<sup>14</sup>:

- **The characteristics of the product that the company offers on the market.** The level of differentiation indicates the degree to which the product offered on the market differs and stands out from other products, not only in quality, but also in price. Introducing unique features of an existing product or innovation influences the company to stand out from the rest of the companies listed on the foreign market. And vice versa, if the product offered by the company is homogeneous and, in its properties, (equal in composition, origin, price) does not differ from the other products offered on the market, i.e., does not differ from the products offered by the competition, then this situation implies the existence of great competition and in that case the company will have to find a way through other factors (improvement of service quality, location, etc.) to improve its position in the market.
- **The number of competitors** which offer the same or similar products on the market. If there are many sellers of undifferentiated products, in that case the competition in the market is high and conversely if there are a small number of sellers offering undifferentiated products, the competition is low. The complete opposite is the existence of only one seller of a unique product on the market i.e., monopoly.
- **Barriers to entering the foreign market.** Market characteristics, such as high capital investment requirements i.e., start-up capital that a company must invest, or heavy regulations for setting up a firm, can prevent new companies from entering the market, which provides a certain level of protection for existing ones, firms that are well established in their market had a lower level of competition due to established barriers to entry, therefore will be able to charge higher prices to buyers for their product.
- **Availability of information.** The degree of awareness of the company also determines the degree of its realization on the market. Implementing effective and efficient information systems (IS) can enable a company to charge less for superior products, thereby increasing sales and profits relative to its competitors. The introduction of IS gives companies a competitive advantage by using new technologies as well as understanding and facing the changes that are coming in the behavior of consumers and managers. Effective use of IS requires an understanding of the organization, people, and technology that shape the systems and solutions to important business problems or challenges facing the firm.
- **A location that affects both costs and a company's ability to break into the market.** A comprehensive location strategy analyzes extensive information about the market such as the proximity of competitors, city dynamics, availability of raw materials needed for production, suppliers, distributors as factors that increase the transportation costs of companies, further the amount of rent, availability of capital, regulation and taxes and most importantly the availability and sustainability of the workforce. In the Emsi Buring Glass article, "How location strategy helps companies with expansion and consolidation"<sup>15</sup>, confirms the view that location strategy changes when companies operate during a pandemic. The increasing use of the remote work strategy (also known as work from home (WFH) or telecommuting) has forced companies to consolidate their workforce, which before the

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<sup>14</sup>Michele Boyle (2020), Article on topic "Factors that Influence Competition in Microeconomics?" Quickonomics, 29 June 2020, <https://quickonomics.com/factors-that-influence-competition-in-economics/>

<sup>15</sup>Emsi Buring Glass, (2020), "How location Strategy Helps Companies with Expansion and Consolidation", Lightcast, 29 July 2020, <https://lightcast.io/resources/blog/how-location-strategy-helps-companies-with-expansion-and-consolidation>

pandemic worked from the employer's premises. Therefore, if a company intends to grow and expand its business to be classified in the category of growing companies, it will need to expand to more locations. However, the question remains, should existing offices be opened or closed? Does the company, depending on the sector, need office space for the administrative workforce? Whatever the decision of the companies is, it should be made through a studious approach and with a detailed analysis based on data and facts and by monitoring the indicators for the supply and demand of labor force from the appropriate profile. Only then can companies make smart, cost-effective decisions about how to expand or consolidate in the future.

Of course, the influence of the government through the creation of appropriate strategies and policies, which mean the encouragement of an entrepreneurial spirit, is more than welcome. However, the view remains that governments do not create competitive industries, because only companies within their industry can do that. However, through their policies, governments and institutions in charge of creating strategies, should create a fertile ground for stimulating innovation and their indirect impact on the market must be felt. Companies must know that the government supports them in their effort and perseverance to succeed in the international market. However, the competitive policy points to the fact that the government cannot penetrate deeply into the aid that is available to it and unreservedly use it and offer it to companies. It must act very carefully with the measures it offers. For example, government subsidies, rules on the use of state aid for enterprises and other measures can harm competition. The government must be fair in terms of the assistance it offers to industries, especially export companies. This fairness and the correct distribution of funds that governments offer to their companies is especially important in the functioning of the EU Internal Market. Namely, these practices of the governments in the EU member states can be considered illegal by the EC, which forces the governments of the member states to act very carefully by using the aid measures they offer to companies in order not to create distortions to competition in the EU Internal Market. Furthermore, it must be fair in terms of the assistance it offers to industries, especially export companies. This fairness and the correct distribution of funds that governments offer to their companies is especially important in the functioning of the Internal Market of the EU



contributed to an 8-9% increase in EU GDP in the long run<sup>22</sup>. Second, the increase in welfare per capita, expressed as a percentage, varies from 2.07% in Iceland to 4.35% in Belgium, while the total welfare gains (calculated as per capita gains) for EU citizens who are part of from the Internal Market amount to 461 billion euros.<sup>23</sup> Since the establishment of the single market, data on macroeconomic performance, such as real GDP, trade, new jobs, GDP per capita, have recorded growth and progress. Also, if the level of integration of the single market since 1990 is used as a reference point, by comparing the variables from 1990 to 2015, a higher GDP per capita has been calculated by 1.7% than it would have been without the integration since 1990. At the same time, a 50% increase in internal trade and the creation of an additional 3.6 million jobs.<sup>24</sup>

These accomplishments were supported by the introduction of the Competition Policy (CP), as one of the fundamental policies required for the proper functioning of the Internal Market. This policy, together with Social policy and Transport policy, were introduced by the Treaty of Rome in 1957. However, CP began to gain importance after the adoption of the Single European Act (SEA) on February 17, 1986, which was the first major amendment to the Treaty of Rome. The purpose of the introduction of the CP is to enable all companies within the Internal Market of the EU to compete under the same conditions and the same rules that apply at the national (member countries through their institutions implement national legal regulations) and supranational level (competency of the EC).

However, basic characteristics of CP are: management of enterprises with the correct application of competition rules, protection of consumer interests by providing goods and services under the best conditions, promotion of economic efficiency by creating a favorable climate for innovation, technical progress and prevention of non-competitive activities, which stifle the competitive climate created by the completion of the Internal Market. The EC achieves the above through the work of the General Directorate for Competition of the EC, which is in charge of monitoring antimonopoly activities that occur through the conclusion of non-competitive agreements, the application of anti-dumping measures, market liberalization, state aid, mergers and cartels. According to the EC, they contribute to the creation of barriers between national markets and to the fixing of prices and production.<sup>25,26</sup> Hence the close correlation and connection between the stable functioning of the EU Internal Market and the EU Competition Policy. Thus, if the role of CP is to protect the Internal Market from various harmful forms of connection and actions of economic entities, in order to cause restriction and distortion of competition in the market, the role of EU competition policy is to develop strategies that will help companies on the European market to be competitive not only on the internal EU market, but also on foreign markets.

A good competition policy contributes to the improvement of the productivity of economies and companies on the international market by increasing the possibility for them to compete with companies from the USA and China, in relation to which the EU has seen a decades-long decline. Perception of this drastic decline in competitiveness by the EC was the reason, in March 2000, to introduce the Lisbon Strategy 2000-2010. With this ten-year strategy, the EC set an ambitious goal, which is to make the EU "the most competitive and dynamic economy in the world based on knowledge, capable of sustainable economic growth with more and better jobs and greater social cohesion".<sup>27</sup> It has set clear and specific goals in 6 different areas (economic performance, employment, research and development (R&D) and

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<sup>22</sup>European Commission (2018), [European Economic Forecast. Autumn 2018 \(europa.eu\)](https://ec.europa.eu/economy_finance/economic-forecast-autumn-2018)

<sup>23</sup>Giordano Mion&Dominic Ponattu, (2019), "Estimating economic benefits of the Single Market for European countries and regions" [EZ\\_Study\\_SingleMarket.pdf \(bertelsmann-stiftung.de\)](https://www.bertelsmann-stiftung.de/en/press/2019/07/estimating-economic-benefits-of-the-single-market-for-european-countries-and-regions/).

<sup>24</sup>Patrice Muller, Jenna Julius, Ashwini Natraj, Karen Hope (2017), "The EU Single Market: Impact on Member States" [untitled \(amcham.eu\)](https://www.amcham.eu/en/press-releases/2017/07/2017-07-20-the-eu-single-market-impact-on-member-states)

<sup>25</sup>The European Court of Justice specifies that dominance begins with a market share of 40%

<sup>26</sup>Iwona Niedziółka, (2016), Article on topic: Competencies of Commissioner for Competition in creation and enforcement of competition policy, [Competencies of Commissioner for Competition in Creation and Enforcement of Competition Policy - ScienceDirect](https://www.sciencedirect.com/science/article/pii/S2214718816300000)

<sup>27</sup>European Committee of the Region (ECON), (2020), The Lisbon Strategy in short, <https://rb.gy/wnblxu>

education, information society, economic reforms, social cohesion and environment).<sup>28</sup> However, in the middle of the implementation in 2004, it was found that this strategy did not produce the expected results. This is confirmed by what was said by Romano Prodi, the president of the European Commission in the period from 1999-2004, who, after leaving office, stated that "*The strategy turned out to be a huge failure and did not meet the expectations for which it was introduced*" and that "*the goals from Lisbon were correct, but the implementation was weak*."<sup>29</sup> Some of the indicators that were not met are: employment rate of 70%, employment rate of 50% for workers aged 55-64, research and development indicator was well below the target average of 3% of GDP for all countries from the EU, as well as investment in IT.<sup>30</sup> At the same time, EU member states have failed to meet social and environmental goals. However, to find the real reason for the underperformance, the fundamental elements of the strategy must be examined to find out where the reasons for its failure lie.

Already in 2005, Jose Manuel Barroso, then president of the EC, announced the continuation of a new Lisbon strategy. However, the EC faced the same failure here. This was also noted in the report of the World Economic Forum from 2010, with the statement that "*Europe is not sufficiently equipped to face new global challenges such as the rise of large competitive economies, the need for energy efficiency and security, or the rapid pace of technological innovation*."<sup>31</sup> Some analysts see the failure in voting where it is increasingly difficult to achieve a qualified majority of the 25 member states in the Council as opposed to the unanimity of the 15 old EU member states. That is why a large number of experts believed that for certain priority areas decisions should be made by a qualified majority. However, the failure to fulfill the results was complemented by the onset of the financial crisis in 2007, which greatly weakened the effects achieved by the Europe 2020 strategy. The failure of this strategy was also the reason for the Lisbon Strategy to be replaced and revised in March 2010. With the strategy "*Europe 2020 - Strategy for smart, sustainable and inclusive growth*". The new strategy proposed 7 leading initiatives, four of which are particularly relevant to contribute to making the industry and thus the EU Internal Market more competitive. These are "*Union based on innovation*", "*Digital agenda for Europe*", "*Integrated industrial policy for the age of globalization*" and "*New skills for new jobs*".<sup>32</sup>

Which means that despite all efforts, the EU Internal Market continues to face a two-decade decline in competitiveness compared to the rest of the world (Japan, USA, China and India), especially in key sectors such as natural sciences, electricity -engineering, artificial intelligence (AI) and advanced software development<sup>33</sup>. This is partly due to a failure to invest R&D funds, which in Europe in 2015 amounted to a modest 2.12% of GDP, while in the USA and Japan that percentage is 2.79% and 3.24% of GDP, respectively. Already in 2021, this amount in Europe increased by a modest 0.19 percentage points and amounted to 2.31%, while for the USA 3.45% and Japan 3.26% of GDP.<sup>34</sup> For that reason, during the summit of the European Industry Round Table, held in June 2022 in Brussels<sup>35</sup>, it was pointed out that Europe is losing competitiveness in key investment areas in infrastructure and new technologies, but it was also pointed out the necessity to set the right policy framework that will favor greater investments and significantly strengthen innovation for the revitalization of competitiveness.

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<sup>28</sup>Clementina Ivan-Ungureanu and Monica Marcu, (2006), "The Lisbon strategy", Institute for Economic Forecasting [https://ipe.ro/rjef/rjef1\\_06/rjef1\\_06\\_6.pdf](https://ipe.ro/rjef/rjef1_06/rjef1_06_6.pdf)

<sup>29</sup>Euroactiv, (2005), The Lisbon strategy at midterm: Expectations and reality <https://rb.gy/56pqw5>

<sup>30</sup>Tania Zgajewski and Kalila Hajjar (2005), "The Lisbon Strategy: Which failure? Whose failure? And why?", Royal Institute for International Relations (IRRI-KIIB), Page 12 <http://aei.pitt.edu/8983/1/ep6.U701.pdf>, accessed December 2022

<sup>31</sup>Klaus Schwab, (2010), The Global Competitiveness Report 2010-2011, World Economic Forum, Geneva, Switzerland, <https://rb.gy/blni76>

<sup>32</sup>Frédéric Gouardères, (2021), European Parliament, <https://www.europarl.europa.eu/factsheets/en/sheet/61/general-principles-of-eu-industrial-policy>

<sup>33</sup>Projects Directorate and the Economics Department of the EIB, (2016), "Restoring EU competitiveness" [Restoring EU competitiveness \(eib.org\)](https://restoring-eu-competitiveness.eib.org)

<sup>34</sup>Eurostat (2021), [R&D expenditure - Statistics Explained \(europa.eu\)](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1)

<sup>35</sup>European Round Table for Industry (2022), <https://ert.eu/documents/2022bmr/>

The EC, determined to deal with the situation and meet both the European business sector and the public administration, shortly after the start of the crisis caused by the Covid-19 virus, started by introducing strategies and programs that should encourage competitiveness in the Internal Market. According to the Work Program 2023, the EC has outlined 6 most important priorities for which it will actively advocate. They derive from the strategic agenda of the Council and from the discussions with the political groups of the European Parliament. They should contribute to the internal EU market becoming the most competitive market in the world, they are<sup>36</sup>: **(1) Delivery of the European Green Deal** by reforming the EU electricity market, including the unbundling of electricity and gas prices. For this purpose, the EC will invest 3 billion euros to create a European Hydrogen Bank. In addition, it will take actions to reduce waste by introducing rules for packaging, recycling and getting rid of unnecessary packaging. This is in order to deal with the growing source of waste and minimize its impact on the environment, with a special focus on food and textile waste. However, the correct and economical use of resources and waste is not only due to the fulfillment of environmental standards, but above all it has become a key factor for the competitiveness of economies. Since resources are a key cost in production, hence improving the efficient application can play a major role in gaining a competitive advantage. The EC also adopted a set of proposals to make EU policies on climate, energy, transport and taxation suitable for reducing net greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels. **(2) Market adaptation by the European Commission for the digital age** will be implemented through measures to ensure adequate and diverse access to raw materials and investments, increased digital and economic resilience of Europe. Digital transformation will take place through investment in businesses, research and innovation, reforming the data protection process and empowering people with the skills necessary for the new generation of technologies. For this purpose, the EC introduced the EU Digital Strategy, the Single Digital Portal and soon after that the Platform for Digital Skills and Jobs<sup>37</sup>. The goal through these measures is to make the necessary transformation of the European market suitable for people and businesses, while helping to achieve the goal of a competitive and climate neutral Europe by 2050. Namely, on March 9, 2021, the EC through the strategy presented the first phase of the vision and possibilities for the digital transformation of Europe by 2030, which should take place in four basic points, with specific goals:

- **Skills** – Stimulating information and communication technologies (ICT) specialists, an additional 20 million in the market, applying gender convergence and possessing basic digital skills for a minimum of 80% of the population;
- **A secure and sustainable digital structure** – *connection*: Gigabit for everyone, as a data transmission speed, and 5G network everywhere, modern semiconductors: double EU participation in global production, data storage: Edge & Cloud, 10,000 climate neutral highly secure work nodes as well computing: first quantum-accelerated computer
- **Digital transformation of the business sector** - *Technique*: 75% of EU companies use Cloud/AI/Big Data, Innovators: Accelerated funding to boost growth and double EU unicorns. In the past year, 10 highly successful startups from the EU joined the list of companies worth one billion euros, that is, the so-called European unicorns. The majority of European unicorns are customer-focused businesses and have an average value of \$2.8 billion. This includes Spotify, Skype and Zalando as leading the scale.<sup>38</sup> Investments in companies that are slow to adopt technology: more than 90% of SMEs reach at least a basic level of digital intensity;

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<sup>36</sup>European Union (2022), Commission priorities for 2019-2024 (political guidelines), [https://european-union.europa.eu/index\\_en](https://european-union.europa.eu/index_en)

<sup>37</sup>Digital skills and jobs platform, <https://digital-skills-jobs.europa.eu/en>

<sup>38</sup>Consultancy.uk, (2016), "An overview of European unicorns, UK and Sweden lead the pack" <https://www.consultancy.uk/news/12251/an-overview-of-european-unicorns-uk-and-sweden-lead-the-pack>



- **Digitization of the public sector**—*key public services* to be 100% digital, e-health: 100% of citizens have electronic access to medical records and digital identity (DI): 80% of citizens to use digital identification.

**(3) Building a new European model of social market economy.** Through this objective, the EC will upgrade and improve access to social protection, to strengthen Europe's social resilience. It will also ensure the strengthening of the EU economy by improving access to new jobs, reducing inequalities and supporting businesses. Through this prior, the EC will improve the Economic and Monetary Union and plans to complete the banking and capital markets union. Financial union ensures that the EU has stable banks and capital markets that are able to finance the real economy with a particular emphasis on SMEs which are the backbone of the European economy. **(4) A stronger Europe in the world framework.** The EC plans to ensure the highest standards for the protection of the climate, the environment and the workforce, which it will achieve through close cooperation with neighboring countries, introducing a comprehensive strategy for Africa and reaffirming the European perspective of the countries of the Western Balkans. For each of the countries, the EC provides recommendations for accelerating the process of joining the EU Internal Market. North Macedonia and Albania started a new phase and held the first intergovernmental conferences on accession negotiations on July 19, 2022. The EU's recommendations are to intensify efforts in key areas such as the rule of law, the fight against corruption and the fight against organized crime. Albania, in addition, needs to show progress with property rights, minority issues and freedom of expression.<sup>39</sup> **(5) Promoting the European way of life.** From 2022, the Commission began to build a comprehensive European mechanism for the rule of law, according to which every year, objectively, it should report on the situation throughout the Union. At the same time, it will work on strengthening border control, modernization of the EU asylum system and cooperation with partner countries in the field of migration. In that context, the EC tasked the Council to enable Bulgaria, Romania and Croatia to fully participate in the Schengen zone. But also on supporting education in Europe through various initiatives and offering a forum for cooperation, building an effective response to counter terrorism and radicalization, organized crime and cyber threats and fighting discrimination and promoting gender equality, especially through the protection of the rule of law and fundamental rights. **(6) Encouragement of European democracy.** The last priority is the need for the Commission to strengthen its partnership with the European Parliament by ensuring its involvement in all stages of international negotiations, as well as during the legislative process. At the same time, the EC proposed a new set of rules for the protection of media pluralism and independence in the EU. Namely, that public and private media can work more easily across the borders of the EU Internal Market, without unnecessary pressure, through the digital transformation of the media space.

According to the 6 priorities shown, it can be concluded that the last European strategy with which the EC plans to strengthen the competitiveness of the Internal Market, and thus of the EU, is much more detailed than the previous strategies and aimed at precisely determined goals and points. Of course, this strategy will represent a big challenge for the EC, in the hope that it will give the expected results according to the way it was conceived, after a short period of time since its implementation and application.

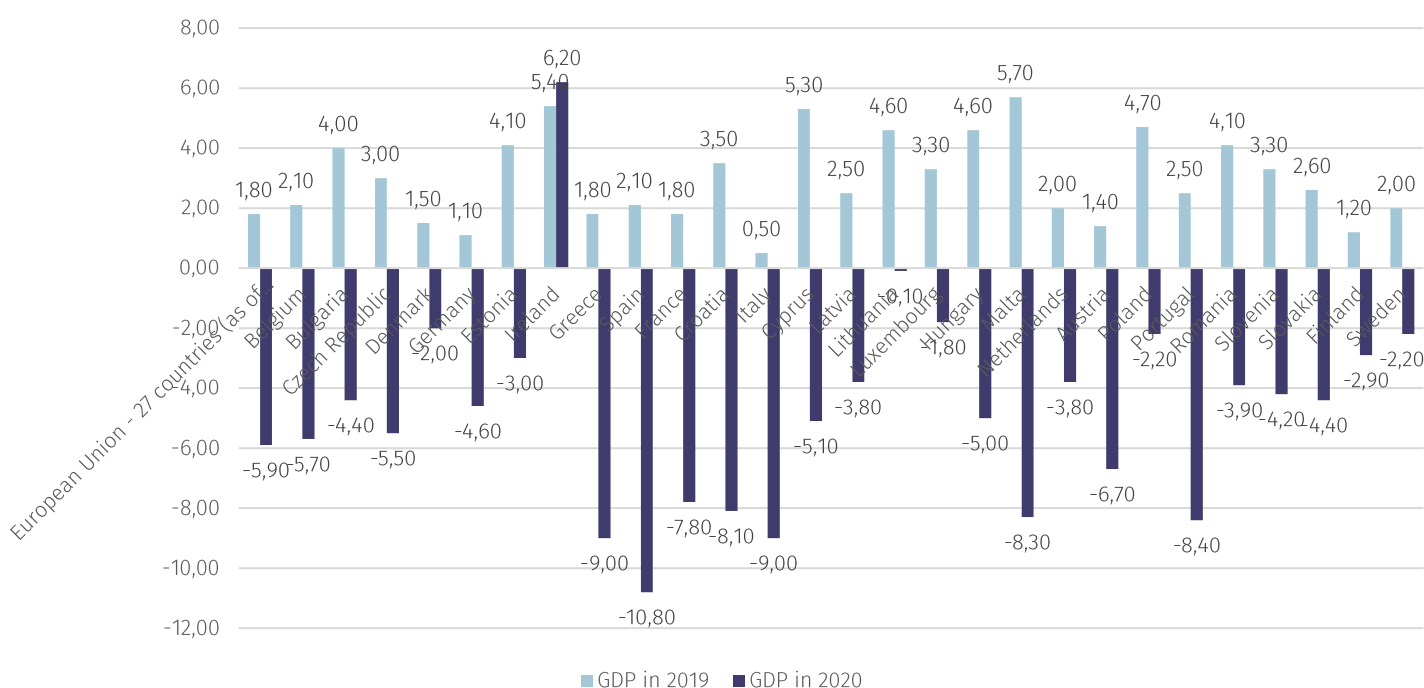
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<sup>39</sup>European Commission (2022), "2022 Enlargement package: European Commission assesses reforms in the Western Balkans", available at: [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_22\\_6082](https://ec.europa.eu/commission/presscorner/detail/en/ip_22_6082) (accessed on 30.11.2022)

### 3.1 The challenges faced by the EU Internal Market during the health crisis caused by the COVID-19 pandemic

The EU's Internal Market was put to a "huge" test in 2020, with the start of the pandemic caused by the Covid-19 virus, which initiated enormous economic damage, distortions and disruptions in the economies of EU member states. These distortions were profoundly expressed in the first two quarters of 2020, as measured by the way companies, especially SMEs, were operating, caught completely off guard by this pandemic. Therefore, it is inevitable to analyze what happened to the Internal Market after the start of the crisis caused by the Covid-19 virus and what were the steps taken by the EC, as necessary in order to enable its further smooth functioning. According to the IMF, the pandemic represents the biggest shock to the European economy, not seen in Europe since the Second World War.

Chart number 1: GDP growth in EU member states, 2019 vis a vis 2020



Source: Eurostat June 2021, [Statistics | Eurostat \(europa.eu\)](https://ec.europa.eu/eurostat)

According to the IMF, annual real GDP in the Eurozone is set to decline by -7.2% in 2020, significantly worse than the stagnation seen since the onset of the Global Financial Crisis in 2007. While, in some European countries (which were not ready to use digital services) such as Italy, France and Spain, this percentage in the first quarter of 2020, according to the IMF, was -9%, -7.8% and -10.8 %, respectively.<sup>40</sup>This is mainly due to the reduced consumption by the citizens who refrained from spending due to reduced incomes or due to the restrictions introduced to protect their own health. Namely, according to Eurostat, GDP

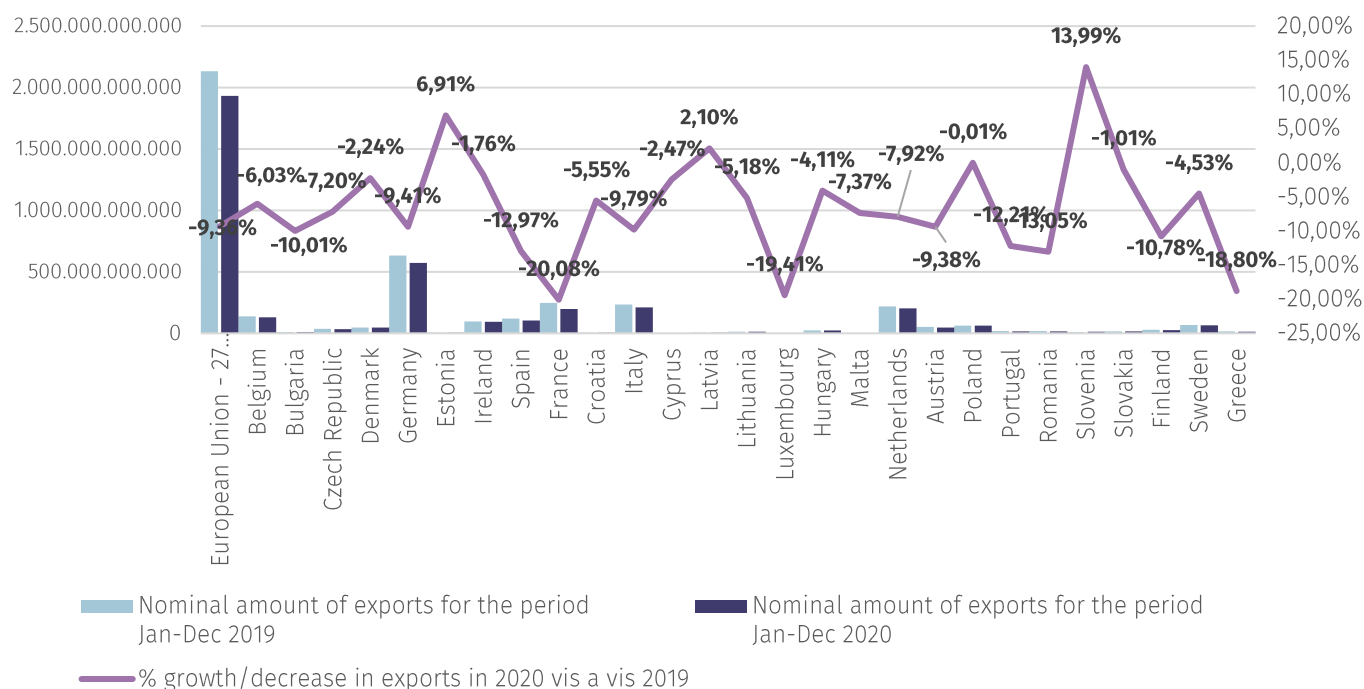
<sup>40</sup>IMF, January 2021. [World Economic Outlook Update, January 2021: Policy Support and Vaccines Expected to Lift Activity \(imf.org\)](https://www.imf.org/en/Publications/WEO/Issues/2021/01/27/w2101)

recorded a drop of -5.9% in the EU and 6.3% in the member states of the eurozone for 2020<sup>41</sup>, accompanied by large losses in turnover and a reduction in trade and the investments (Chart 1).

Big losses were also registered in industrial production, which sharply decreased by -28% in April 2020, compared to the same month last year.<sup>42</sup> During this period, the EU was facing a mutation of the virus caused by the new delta strain of the virus which peaked in 2020. In this crisis, SMEs were the most affected, which in the first and second quarters of 2020, saw a drop in turnover of over 60%, while two thirds of SMEs reported that they postponed investment decisions or reduced investments.<sup>43</sup> Companies in the EU were particularly affected by disruptions in the supply chain, employee absences, the possibility of transitioning to remote working and temporary shutdowns.

This reluctance has particularly concerned the less developed EU member states, which now have to apply practices dictated by the situation, including remote work. Also, the reluctance to work remotely caused distortions in the Internal Market of the EU, why now the consumers as well as the competent institutions were not able to follow in a regular way what is happening in the market and whether the internal rules of the European market are working. Which means that if in crisis conditions, digitalization is absent in the market or not fully implemented, it makes it difficult to maintain the competition that gives us the right to choose and numerous benefits such as: lower prices, incentive for innovation and incentive for digital technology.

Graph number 2. Decrease/increase in exports of member states, 2019 vis a vis 2020



Source: Eurostat June 2021, [Statistics | Eurostat \(europa.eu\)](https://ec.europa.eu/eurostat)

<sup>41</sup>Eurostat, February 2021, Euro indicators, "GDP down by 0.7% in the euro area and by 0.5% in the EU" [0e84de9c-0462-6868-df3e-dbacaaad9f49f \(europa.eu\)](https://ec.europa.eu/eurostat)

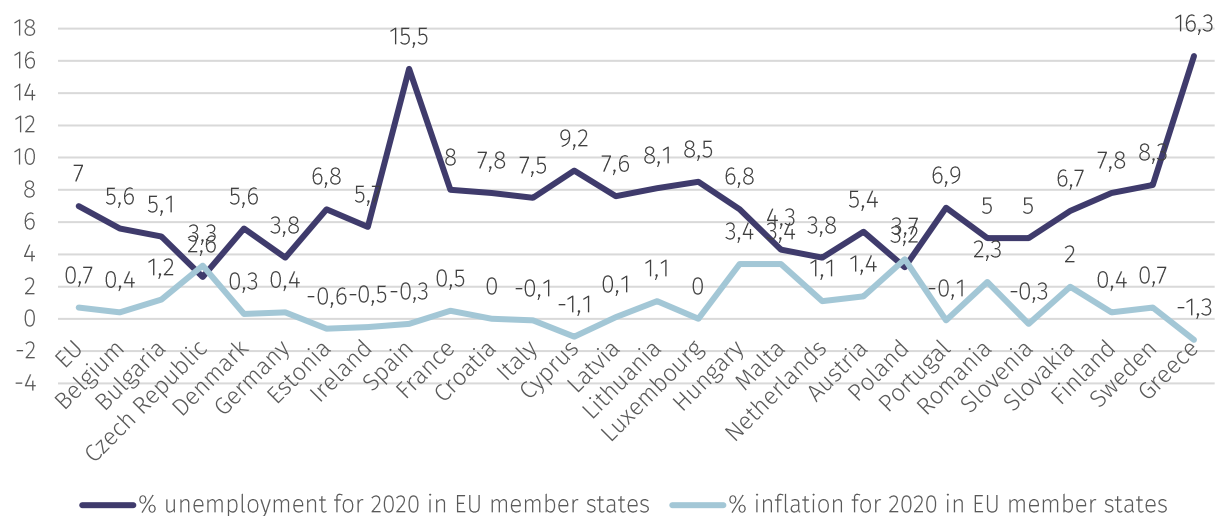
<sup>42</sup>Eurostat 2021, [0e84de9c-0462-6868-df3e-dbacaaad9f49f \(europa.eu\)](https://ec.europa.eu/eurostat)

<sup>43</sup>European Central Bank (November 2021), "Survey on the access to finance of enterprises (SAFE)", [Statistical calendars \(europa.eu\)](https://ec.europa.eu/eurostat)

A decline was also observed in trade with third countries that are not members of the EU, as well as in trade between the EU member states themselves. **(Chart number 2)**. On the other hand, the restrictive measures imposed by the governments in the EU member states intended to "defend" their national markets, through measures to protect the health of EU citizens, such as movement bans, restrictions or bans on export of goods, especially those relating to personal and medical protection equipment (including masks, gloves, goggles, visors and medical suits)<sup>44</sup>, necessary to protect the health of both citizens and medical personnel working in the "first defense front", caused a drastic drop in trade, especially in exports. The biggest drop in exports in 2020, compared to 2019 was recorded in France of 20%, the lowest in Poland of -0.01%. The exception to this finding is only three member states, Slovenia with 14% growth, followed by Estonia and Latvia with 7% and 2%, respectively.<sup>45</sup>

Regarding the annual rates of inflation and unemployment, the EU member states kept these parameters under control, compared to the registered level of unemployment and inflation in the past years, and they were stable in most of them **(Chart number 3)**. Namely, EU member states, such as Spain and Greece, and in the past years before the start of the pandemic, had a high percentage of unemployment, and in 2020 it was 15.3% and 19.3%, respectively. If a comparison is made with the unemployment rates registered by the member states in 2020 at the height of the pandemic, the difference in the rates is minor, so it can be concluded that the crisis caused by the pandemic did not have a great impact on inflation and the level of unemployment. This economic shock was not only caused by the national restrictive measures that were introduced in order to restrict and limit social contact, but it was also caused by the unilateral introduction of numerous restrictions on the free movement of goods and labor between the members states themselves.

Graph number 3. The movement of unemployment and inflation in EU member states in 2020



Source: European Commission<sup>46</sup>and Eurostat, 2021<sup>47</sup>

For that reason, in the period of May and June 2020, a noticeable drop in internal trade by 24% was registered. This practice not only limited the ability of European businesses to supply their goods and services, but also led to serious disruptions in the supply chain. All businesses suffered, but SMEs were

<sup>44</sup>CNN, (March 2020) Article [In the race to secure medical supplies, countries ban or restrict exports - CNN](#)

<sup>45</sup>Eurostat 2021, [Redirecting To ECAS \(europa.eu\)](#)

<sup>46</sup>European Commission, (2021), Article on topic [Summer 2021 Economic Forecast: Reopening fuels recovery | European Commission \(europa.eu\)](#)

<sup>47</sup>Eurostat (2021), [Statistics | Eurostat \(europa.eu\)](#)

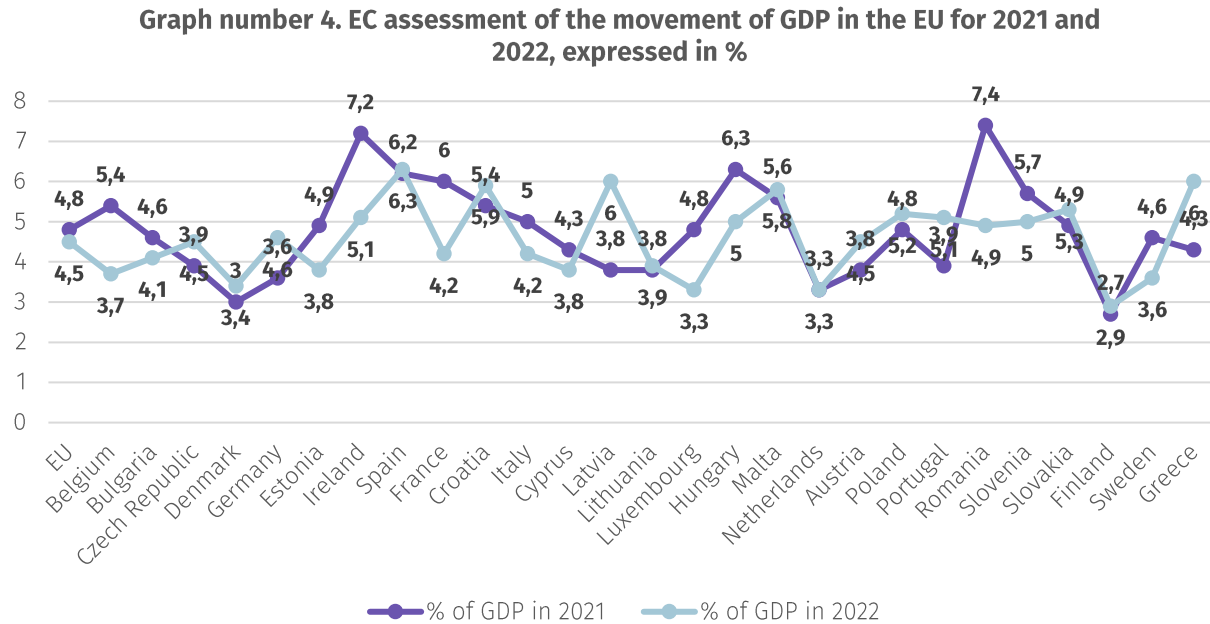
the most affected. Preliminary estimates show that the number of SMEs decreased by 1.3%, while over 90% of SMEs reported a decline in turnover in the last quarter of 2020.<sup>48</sup>The restrictive measures taken by the EC, which specifically covered aspects of the Internal Market, included:

- Impeding the free flow of individuals, including travelers (tourists, business trips). This measure, however, has come to a standstill with the opening and closing of borders in certain member states;
- Impeding the free flow of tourists from third countries (tourist or business trips). The introduction of unique, standardized EU passports for vaccination and testing forms had particular merit for this measure. However, member states followed the guidelines given by the EC to limit travel from third countries. Exempted from this rule are persons traveling for study purposes, as well as passengers in transit or those entering one of the member states for urgent family reasons. Likewise, persons in need of international protection are not subject to restrictions.;
- Preventing the free flow of goods produced in the EU, with a mandatory "green belt" for trucks. This measure proved somewhat contradictory although the EC's response was good in most cases, but not in all. For example, the sudden closure of the borders in Poland caused long queues of trucks until the EU intervened with a request to establish "green lanes".<sup>49</sup>
- Full exemptions or administrative flexibility for VAT, and customs duties. This measure was introduced to encourage investment and employment;
- Free flow of medical products in the Internal Market. This caused a ban on the export of medical equipment outside the borders of the EU, to the detriment of countries that are not part of the EU;
- Joint public procurement of vaccines, medical equipment and personal protective equipment (PPE). This is a feature of extremely good organization and proof of the benefits of the Internal Market, as well as mutual solidarity in times of crisis; and
- Consumer protection through the "Your Europe" portal, especially for canceled trips. Although the EC introduced this measure, there were still many reactions from citizens who have been waiting for a long time for the refund of the funds from the tourist vouchers.

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<sup>48</sup>European Commission (2021), Article Commission Staff working document, (2021), "Annual Single Market Report 2021",[swd-annual-single-market-report-2021\\_en.pdf \(europa.eu\)](#)

<sup>49</sup>Meghan Benton, Jeanne Batalova and Timo Schmidt (2021), "Title" **covid-19** and the State of Global Mobility in 2020", Migration Policy Institute (MPI),[file:///C:/Users/Vesna/Downloads/mpi-covid19-impact-global-mobility\\_final%20\(1\).pdf](#)



Source: European Commission June 2021, Summer 2021 Economic Forecast: Reopening fuels recovery<sup>50</sup>

In **Chart number 4**, the EC's estimate of GDP movements for 2021 and 2022 is shown. From the optimistic forecast for GDP growth for 2022, it can be concluded that the economies of the member states have slowly but surely returned to normal. This indicates the fact that the introduced measures related to the timely public procurement of vaccines, medical and personal protection equipment as well as the successfully implemented immunization of the population, gave the expected results, after which a slight recovery in the member states should follow in 2022 of the EU. Other positive changes during the Covid-19 crisis are: an increased percentage of savings among EU citizens and an increase in business investments. Citizens' savings are due mainly to the fact that citizens had fewer opportunities to spend, especially when they were facing quarantine, limiting the movement of the population.

<sup>50</sup>European Commission (2021), [Summer 2021 Economic Forecast: Reopening fuels recovery | European Commission \(europa.eu\)](https://ec.europa.eu/economy_finance/summer-2021-economic-forecast-reopening-fuels-recovery)

## 4. THE COMPETITIVENESS OF THE MACEDONIAN ECONOMY

North Macedonia, like every country from the Western Balkans (WB) that claims to become part of the big European family, is obliged to fulfill certain criteria in order to get closer to the necessary conditions imposed by the EU, before starting the process of negotiations with the specific candidate country. The overall process for the WB countries started with the process of stabilization and association. This is an EU policy towards the WB countries established in order to facilitate the process of accession and adjustment to the fulfillment of the main goal, which is full membership in the EU.

North Macedonia was the first country among the WB countries to sign *The Stabilisation and Association Agreement with the European Communities and their Member States (SAA)*,<sup>51</sup> as a legal framework that regulates the relations between North Macedonia and the EU, as a range in which the country should move in order to achieve the required progress. However, North Macedonia was also the first country<sup>52</sup> in which this Agreement entered into force shortly after the signing of the Agreement by the EU member states. Namely, the SAA, our country signed on April 9, 2001 in Luxembourg and it entered into force on April 1, 2004, immediately after its ratification by all signatory countries. It is interesting the fact that this agreement was offered to our country for the duration of the military conflict that began in January 2001, and with the mediation of the major powers, it ended four months after the signing of the Ohrid Framework Agreement, in August of the same year.<sup>53</sup> North Macedonia fulfilled all the prerequisites necessary for the start of negotiations, but since December 16, 2005, when the country acquired the status of a candidate country for EU membership, in 2022 the country received an announcement for the start of this very important process. Which means that despite all efforts, the process to start negotiations for full membership was stalled due to bilateral disputes, first with Greece, which was resolved in 2019<sup>54</sup> and now in 2022 with Bulgaria.<sup>55</sup> This leads to the conclusion that in the case of our country, all the values on which the EU is based are missing, namely respect for human rights, rule of law and equal principles for all countries that claim to become part of the broad European family. However, even after numerous vetoes from the neighbors, the government continues its efforts, by accepting and harmonizing the national program for the adoption of EU law, and with commitments that are seen through the adopted and implemented policies<sup>56</sup> and within those frameworks the plans for increasing the competitiveness of the Macedonian economy.

The competitiveness of the Macedonian economy is a field that still needs a lot of work and investment, bearing in mind the fact that the Macedonian economy is small and open, and as such it needs additional effort by investing in all the factors that contribute to the increase in productivity, with advocacy by all relevant stakeholders in the country. Hence, the position of the economist Krugman is confirmed, "competition does not mean productivity, it is only a prerequisite for productivity".<sup>57</sup> For that reason, a

<sup>51</sup>Secretariat for European Affairs, Stabilization and Association Agreement [SSA\(1\).pdf \(sep.gov.mk\)](#)

<sup>52</sup>The other countries from the World Bank signed this SAA: Albania (2009), North Macedonia (2004), Montenegro (2010), Serbia (2013), Bosnia and Herzegovina (2015). Whereas, Kosovo has not yet signed such an agreement, due to disagreement with Resolution 1244 of the United Nations and the opinion of the International Court of Justice (ICJ) on the Declaration of Independence of Kosovo.

<sup>53</sup>Risto Karajkov, (2009), "Macedonia's 2001 ethnic war: Offsetting conflict. What could have been done but was not?" (paper prepared for presentation at the CRISE/University of Oxford Conference on Decentralisation, Federalism and Conflict, Department of International Development, University of Oxford, 57 October 2006)

<sup>54</sup>[The Prespa Agreement and the name change of Macedonia enter into force \(aa.com.tr\)](#). This dispute was resolved on February 19, 2019, with the signing of the Prespa Agreement and the change of the name of the state in North Macedonia

<sup>55</sup>[f historical disputes were a criterion, the EU would have zero members North Macedonia | DW | 19.11.2020](#)

<sup>56</sup>The National Development Plan for the period 2007-2009, the pre-accession economic program.

<sup>57</sup>Krugman(1994). "Competitiveness: A Dangerous Obsession". *Foreign Affairs*, 73(2), 28-44. <https://rb.gy/emwysu>

detailed analysis of all the factors influencing productivity growth is needed as a prerequisite for creating a small, but still healthy and competitive economy. In that direction, the competitiveness of our economy will be monitored through the Global Competitiveness Indicators, shown in the Global Competitiveness Report published every year by the World Economic Forum, where the economies of approximately 141 countries from around the world, representing 94, 9% of the world's population or 99.4% of the world's GDP.<sup>58</sup> At the same time, in the progress achieved, North Macedonia will be compared with the countries of the West Bank (Serbia, BiH and Albania), as countries that pretend to become members of the EU, but it is with Croatia (2013) and Slovenia (2004) which are already part from the Internal Market of the EU, with which countries, North Macedonia has very good relations and applies the experiences and knowledge of the path they have already traveled. While Germany and Greece will be taken from the older member states, as countries that are the main destination for the export of Macedonian products and with which the Macedonian economy has the largest volume of trade<sup>59</sup>.

## 4.1 Structure of the Global Competitiveness Index

Every year, the World Economic Forum (WEF) publishes a Report where countries from around the world are ranked in terms of the competitiveness of their economies. WEF defines national competitiveness as *"a set of institutions, policies, and factors that determine a country's level of productivity."*<sup>60</sup> Namely, the WEF monitors and ranks the competitiveness of economies through the analysis of data from 103 different indicators, obtained by combining the latest statistical data from international organizations and through a survey of the executive opinion of the WEF.

**The Global Competitiveness Index (GCI)**, through which the competitiveness of each economy is monitored and analyzed, is composed of a wide range of indicators from different areas. For each of the indicators, depending on the achievements of the country during the year, the economy is scored and according to the result it is ranked on the list with other countries. Scores for each of the 103 indicators vary between 1 and 100, with a higher average score indicating a higher degree of competitiveness. Furthermore, according to the result, the rank of the country also changes. The indicators reflect the extent and complexity of the factors that drive the economy's productivity and contribute to its competitiveness. At the same time, they constitute the analytical framework for measuring the achieved level of competitiveness of the economy with a parallel analysis and comparison of the achieved progress through the key determinants of innovation, on the one hand, and the factors of competitiveness at the global level, on the other hand. Indicators that will be analyzed are part of the 12 (twelve) areas, which they call pillars, divided into 3 (three) basic groups, which indicate a different stage of development of each economy. **(Table number 1).**

On the other hand, although all pillars are important for economies, some were considered more relevant than others, due to the level of development each country is at. Therefore, the three groups that indicate

<sup>58</sup> [World Economic Forum Annual Meeting 2022, Davos | World Economic Forum \(weforum.org\)](https://www.weforum.org/agenda/2022/01/world-economic-forum-annual-meeting-2022-davos/)

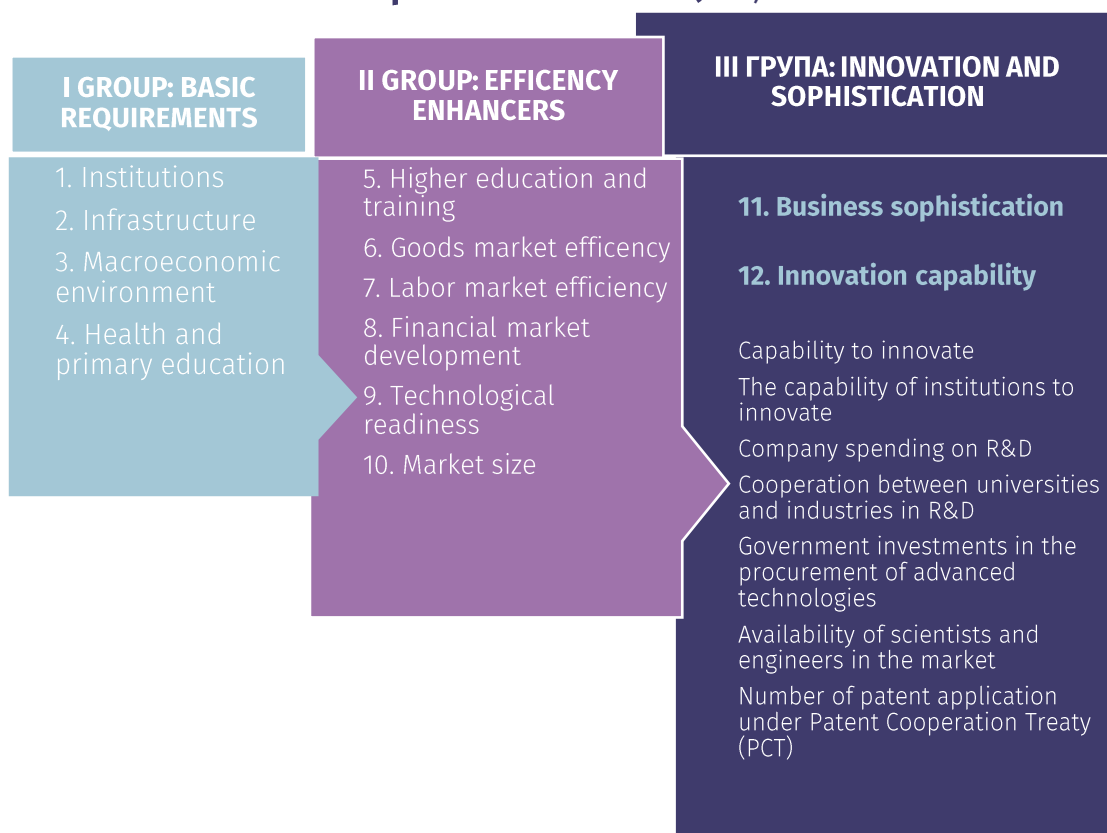
<sup>59</sup> In the first five months of 2021, Macedonian companies exported goods worth 2.82 billion euros, which is a growth of 44.3% or 866 million euros more compared to the first five months of last year 2020. [Exports to Germany drag all Macedonian exports. In the first five months, it increased by 77% or by 596 million euros - izvoz.mk](https://www.weforum.org/agenda/2021/06/germany-drag-all-macedonian-exports-in-the-first-five-months-it-increased-by-77-or-by-596-million-euros-izvoz.mk)

<sup>60</sup> Klaus Schwab & Michael E. Porter, (2006) "The Global Competitiveness Report", page 31, [https://www3.weforum.org/docs/WEF\\_GlobalCompetitivenessReport\\_2006-07.pdf](https://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2006-07.pdf)



the three stages of development of the economy are given different weights in the calculation of the total index, depending on which stage of development each economy has reached individually.

**Table number 1. Global Competitiveness Index (GIC)**



The paper evaluates the progress of the Macedonian economy through the analysis of the indicators shown in the global competitiveness reports published by the WEF, with a parallel comparison of the country's progress scores for each of the indicators in 2021, compared to 2015.<sup>61</sup> For example, in 2015, North Macedonia received a score of 68 for the institutions indicator and was ranked 55th, while in 2021 it achieved a higher score of 69 points and was ranked 52nd. This indicates that the Macedonian economy, for a period of 6 years, made very modest progress in terms of improving the functionality of the institutions, and in 2021 it climbed the list 3 places higher than in 2015. It is important to note that the development of an area in itself is not a sufficient indicator to evaluate the competitiveness of the economy, here the evaluation is carried out on the basis of a wide range of indicators in which the country must show progress in order for its economy to be ranked as competitive. For example, the high rates of investment in education as one of the indicators in the field of education, by itself is not a sufficient indicator for the given field, especially if the economy has a rigid labor market and institutional weakness that does not allow newly graduated students access to the desired workplace. Also, macroeconomic stability by itself is not a sufficient indicator to confirm that the country is achieving economic growth. For that reason, all 103 indicators are analyzed in order to get a complete picture of the competitiveness of the observed economy. The three basic groups and their areas are as follows: Also, macroeconomic stability by itself is not a sufficient indicator to confirm that the country is achieving economic growth.

<sup>61</sup>The 2015 SEF report covers 141 countries, while the 2021 report covers 130 countries.

For that reason, all 103 indicators are analyzed in order to get a complete picture of the competitiveness of the observed economy. The three basic groups and their areas are as follows: Also, macroeconomic stability by itself is not a sufficient indicator to confirm that the country is achieving economic growth. For that reason, all 103 indicators are analyzed in order to get a complete picture of the competitiveness of the observed economy. The three basic groups and their areas are as follows:

## **I. BASIC REQUIREMENTS**

The first group shows 4 basic areas that fall under the basic requirements that every economy that is analyzed should have brought to a high level of development in order to fall under the basic basic and initial level of competitiveness.

- **Developed and efficient institutions** - the area institutions from the GCI is composed of 21 indicators and applies to both public and private institutions, and includes the protection of property rights, rule of law, the power of investor protection, facilitating procedures for establishing a company and dissolution in case of insolvency and bankruptcy, the effectiveness of the legal framework in resolving disputes and the occurrence of irregular payments, bribery, kickbacks and corruption, which weaken investment and thus lead to weaker economic growth and development. In order to implement the necessary changes, healthy institutions are needed as a prerequisite for the proper functioning of the economy. Such facilitate transactions, reduce production costs and uncertainty. Research has shown that higher rule of law and better law enforcement increase the effect of R&D,<sup>62</sup> but also that institutions and government policies are the main drivers of differences in capital accumulation and productivity.
- **Developed infrastructure** – this area consists of 9 indicators, where the focus is placed on quantitative indicators that imply developed infrastructure such as roads, airline seats, developed railway network, ICT access, subscriptions for mobile-mobile phones and fixed telephone lines and internet. A developed infrastructure is of great importance to boost competitiveness especially if it is known that the transport infrastructure, electricity, telecommunications and water network are used as inputs in almost all production processes. The developed infrastructure reduces the time and costs of transporting the inputs used in production, which facilitates the diffusion of technology, the mobility of the labor force and plays a key role in the development of trade but also in the preservation of the environment. Additionally, influences the location decisions of households and companies. At the same time, ICT technologies influence the growth and development of countries by improving the possibility and ability of communication and business. By investing in ICT infrastructure development, transaction costs are reduced and output is increased for firms in various sectors of the economy. For that reason, it is considered a key factor that encourages competitive advantage.
- **Macroeconomic stability** measured through macroeconomic performance, represent the overall state of the economy and the framework in which all market entities function. At the same time, the stable macroeconomic situation affects the economic decisions made by the entities operating in that market. For that reason, the government and competent institutions, through their instruments of fiscal and monetary policy, influence economic stability. Economists generally accept the rule that macroeconomic stability relies primarily on low and predictable inflation and sustainable and stable fiscal policy.<sup>63</sup>According to GCI, the area of macroeconomic

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<sup>62</sup>GDP depends on technological improvements in the production of goods and services, as well as on the improvement of workers' qualifications, but also on other factors - investments in new products, cheap inputs, etc. and it reflects the existing stock of knowledge in the economy, which de facto contributes to efficient engagement of production factors in the generation of final output

<sup>63</sup> Fischer, S.(1993). "The role of macroeconomic factors in growth,*Journal of monetary economics*",32(3), 485-512.<file:///C:/Users/Vesna/Downloads/SSRN-id227969.pdf>

environment includes annual growth rate of GDP, employment, inflation rates, trade deficit and public debt, and its impact if it is towards foreign governments and private institutions. Among other things, the average net and gross salary, minimum salary, FDI, net export and import, external debt and credit rating of the country are analyzed.

- The fourth and last area of the first group is **health and primary education** which contains 8 indicators, placed in one pillar because both are one of the most basic prerequisites for developing a healthy economy and society. The 8 health indicators measure the prevalence and business impact of diseases such as tuberculosis and malaria. Although these indicators have a strong impact on the competitiveness of poorer countries, they are quite unusual in most parts of Europe and for that reason the focus of the analysis is on the life expectancy of the population and the quality of health services offered in public health. While primary education is the foundation for strengthening all other levels of education, scientific and technological literacy and ability, and thus for independent development.

## **II. EFFICIENCY ENHANCER**

The second group refers to the so-called **efficiency enhancers**, where the 6 indicators are shown that measure the competitiveness of the market through the quality of higher education and how much the country has a functional labor market that offers the opportunity to exchange workers from one economic or industrial branch in another, quickly and at a low price. At the same time, a market that allows salary fluctuations without major social disturbances, but also equal opportunities for men and women. For a functional labor market, it is of great importance to have the opportunity to select a quality workforce with a good set of advanced skills that contribute to the creation of innovations in the market as the most significant factor that reflects the competitiveness of an economy on the international market. Then, existence of a highly developed financial market with a reliable and transparent banking sector where there are appropriate regulations for the protection of investors and other players in the economy. While the indicator that refers to the country's technological readiness to adopt existing technologies and absorb ICT, shows the country's ability to conduct research and develop new technologies. The last indicator of this group refers to the size of the market which affects productivity, since a large market allows companies to take advantage of economies of scale and increase exports, which are seen as an opportunity to supplement domestic demand. While the indicator that refers to the country's technological readiness to adopt existing technologies and absorb ICT, it shows the country's ability to conduct research and develop new technologies. The last indicator of this group refers to the size of the market which affects productivity, since a large market allows companies to take advantage of economies of scale and increase exports, which are seen as an opportunity to supplement domestic demand. While the indicator that refers to the country's technological readiness to adopt existing technologies and absorb ICT, it shows the country's ability to conduct research and develop new technologies. The last indicator of this group refers to the size of the market which affects productivity, since a large market allows companies to take advantage of economies of scale and increase exports, which are seen as an opportunity to supplement domestic demand.

## **III. BUSINESS SOPHISTICATION AND USE OF INNOVATIONS**

In the third and last group are the indicators that indicate the most advanced level of development of the economy and competitiveness, and refer to business sophistication and use of innovations. These 2 indicators are further divided into 7 sub-indicators such as companies' ability to innovate, state institutions that support and finance innovation, the quality of scientific research institutions operating in the economy, companies' investment in R&D, government's

investment in advanced technologies, the availability of scientists and engineers in the labor market, the number of registered patents per 1 million inhabitants and the ability to absorb knowledge through the import of high technology. Namely, this area includes the indicators that indicate the most advanced level of economic development and a high level of competitiveness, a characteristic of highly developed economies that are in a phase of development that is driven by innovation and business sophistication. According to the 2017 Global Competitiveness Report,<sup>64</sup> Countries that can invest in knowledge accumulation and that can offer joint or interdisciplinary cooperation have a greater opportunity to create innovative ideas.

According to GCI, North Macedonia is ranked 59th in 2021, which represents a drop of 4 places on the list, compared to 2015 when it was ranked 56th, measured according to econometric models. In the WEF report, countries such as Switzerland, Singapore or the United States are usually among the top performers, while most African countries are at the bottom of the table.



## 4.2 The competitiveness of the Macedonian economy measured according to changes in the Global Competitiveness Index in 2021 compared to 2015

In the next part, the achieved progress of the Macedonian economy is analyzed in relation to other economies that are part of the WEF report, in 2021 compared to 2015. The aim is to evaluate the progress made by the country for a period of 6 years. Progress is evaluated using the competitiveness indices that are part of the 12 areas and for each indicator individually, depending on whether the country is evaluated

<sup>64</sup> World Economic Forum(2017).*The Global Competitiveness Report 2017–2018* Tech. Rep.

positively and progressing or negatively and regressing. For each of the indicators, economic reasoning is given for the reasons for success or failure in each of the areas.

## The first indicator, from the first group where the basic requirements are shown

### THE INSTITUTIONS

In this field, North Macedonia achieved growth by 3 places, with which the total score taking into account all factors from the institutions indicator in 2015 was 67.7, so that after 6 years it achieved a significantly small growth of 1.77 percentage points and a result of 68.9 points. **(Table number 2)**. According to the latest report from the EC, North Macedonia is moderately prepared in this field. The necessary progress is particularly emphasized in relation to the reform of the public administration. Namely, although some progress has been achieved in the finalization of the horizontal functional audit of the state administration, our country still largely lags behind in the implementation of the laws. This is emphasized because in the process of progress, the legislative framework for managing human resources in the public administration is being considered through the revision of the Law on Administrative Officers, the Law on Employees in the Public Sector, and the new draft Law on Senior Management Service, which should enable professionalization of the executive heads<sup>65</sup>. The new framework should improve human resource management in the administration, contribute to greater recognition of merit-based hiring, promotions and dismissals, especially among senior management<sup>66</sup>, after which an improvement in the effectiveness of the Government is expected.

Institutions area	2015		2021		% growth or decrease of the result in 2021 vis a vis 2015	Changes in rank, growth ↑ or a fall ↓
	Result	Rank	Result	Rank		
<b>Institutions</b>	67.7	55	68.9	52	1.77%	3 ↑
<b>Political environment</b>	47.3	77	58.1	65	22.83%	12 ↑
Political and operational stability	54.9	87	73.2	44	33.33%	43 ↑
Government effectiveness	39.7	71	50.6	74	27.46%	-3 ↓
<b>Regulatory environment</b>	69.8	55	67.9	58	-2.72%	-3 ↓
Regulatory quality	56.4	59	56.8	49	0.71%	10 ↑
Rule of Law	42.3	70	40.3	75	-4.73%	-5 ↓
Cost of redundancy dismissal	13	50	14.4	55	10.77%	-5 ↓
<b>Business environment</b>	86.1	15	80.7	30	-6.27%	-15 ↓
Ease of starting a business	98.1	3	88.6	63	-9.68%	-60 ↓
Ease of resolving insolvency	65.9	33	72.7	28	10.32%	5 ↑

**Source: The World Economic Forum, report 2015 and 2021**

\*The last column of the table shows growth or decline in the rank for the number of places in each of the indicators, where growth is indicated by ↑ while falling in rank with ↓

**In terms of political and operational stability**, our country can boast of continuing the dialogue in resolving the dispute with Bulgaria with the active involvement of the new Government, which started

<sup>65</sup> ENER | Law on Senior Management Service ([ener.gov.mk](http://ener.gov.mk)), the law on which the Center for Change Management worked, February 2019 is still in a phase of stagnation and has not been adopted by the RSM Assembly due to the lack of political will

<sup>66</sup> Report of the European Commission on North Macedonia for 2021, <https://www.sep.gov.mk/post/?id=5657#.Yequ9urMJD8>

implementing its program on January 18, 2022. Previously, the functional audit of 139 institutions by the central government was successfully completed. However, continued efforts are needed to effectively include managerial responsibility throughout the public administration as part of Chapter 32 - financial control.

**Regarding the judicial system and the rule of law**, the score is moderate readiness for the country, indicating that despite the progress made, there is still much to be done to achieve the desired standard of rule of law. Namely, the Government continues to follow the recommendations of the Venice Commission and the Group of Senior Experts on Systemic Issues for the Rule of Law. The new Law on Organization and Work of State Administration Bodies is pending, which aims to rationalize the institutional framework, eliminate overlapping competences and improve the efficiency of the administration.

Regarding **dealing with corruption**, the EC rating is low and the country has a certain level of readiness through the increased engagement of the State Commission for the Prevention of Corruption<sup>67</sup> and the Prosecutor's Office for Organized Crime and Corruption. The Corruption Perceptions Index, published annually by Transparency International, provides an assessment of the level of corruption<sup>68</sup>, where 180 countries are analyzed according to the perceptions of corruption levels in the public sector by experts and business people taking into account 13 different sources mainly from the World Bank and the World Economic Forum. For the evaluation of corruption and transparency, they use a scoring scale from 0 to 100, with 0 points being very corrupt, while 100 points is a low degree of corruption. According to the points, the rank also changes (the higher on the list with a higher number of points, the lower the degree of corruption). Our country in 2015 was rated with 42 points and ranked 66th, so that already in 2021 has 39 points with a rank of 87. This drop in rank from 66th place in 2015, to 87th in 2021, indicates the fact that year by year our country is regressing in the fight against corruption, and moving down the scale, along with Morocco and Tanzania. From the WB countries, behind us in the area of corruption are Serbia, Albania and Bosnia and Herzegovina

In the section of **Local Government** there is also a need for progress in many fields, such as transparency, improving the stability of LGU financing and good governance. Financial transfers from central to local level provide short-term relief, but do not contribute to building a sustainable financial framework based on predictable resources. In this part, the government made efforts to strengthen the capacities for public finance management and internal audit at the local level, and made changes to the methodology for the distribution of VAT revenues by municipalities in accordance with the recommendations given by economic experts in 2021.<sup>69</sup> This amendment was adopted by the Parliament in July 2022 with amendments to the Law on LGU financing.<sup>70</sup> This is part of the Ministry of Finance's public finance management reform program.<sup>71</sup> Although the state budget at the central level includes a special program for public administration reforms, the implementation of strategies aimed at a small, productive and efficient public administration still depend primarily on funding from foreign donors and on political will and courage to implement this large-scale step by the government. Which means that the country should make

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<sup>67</sup>State Commission for Prevention of Corruption <https://dsk.mk/en/>

<sup>68</sup> 2021 Corruption Perceptions Index - Explore the... - Transparency.org

<sup>69</sup>According to the adopted methodology for the distribution of VAT revenues for the municipalities for 2023, the VAT revenues will be provided in the amount of 5.5% of the collected value added tax realized in the previous fiscal year, distributed in the ratio: 1. basic part - 4, 5%; 2nd part for performance - 0.5% and 3rd part for equalization - 0.5%.

<sup>70</sup>ZELS (2022), "Presented a positive opinion on the methodologies for the distribution of VAT funds for the municipalities for 2022 and 2023, in accordance with the new legal provisions" <https://zels.org.mk/newsd/3118>

<sup>71</sup>Ministry of Finance, "Smart Public Finance 2022 - 2025" [Program-for-reform-of-the-UJF-2022-2025-draft.pdf \(finance.gov.mk\)](https://www.finance.gov.mk/Program-for-reform-of-the-UJF-2022-2025-draft.pdf)

substantial progress in this field in order to have institutions that will encourage the competitiveness of the economy.

In relation to **costs by declaring redundancy**, North Macedonia, after the beginning of the crisis in 2020, made certain changes in the Labor Relations Law (LRL), due to the fear of unemployment growth as a result of an increase in the number of laid-off workers. For that reason, the Government, in order to ease the consequences of redundancies for employees and to set common rules, has started preparations and a procedure for changes in the LRL in case of collective redundancies, but also changes in the relevant international documents, where the procedure and conditions are foreseen in order to prevent abuses and arbitrariness. With these changes, criteria were introduced for dismissal for business reasons, the amount of severance pay was increased by about 20%, and an obligation was established for the employer to give the dismissed employee priority in employment.<sup>72</sup> Compared with other countries in the region and with EU member states, there is no big difference in the procedure and the reasons, which leads to the conclusion that our country has accepted a large part of the directives and guidelines. According to the report on the conducted comparative analysis, which presents the costs in case of declaring redundancy, in 80% of the surveyed countries, there is no or little difference in the costs of dismissal for individual reasons and dismissal for economic reasons. Only Bulgaria, Denmark, Poland, Slovakia and the Czech Republic have significant differences between the scenarios in terms of termination costs. In all surveyed countries, as well as in North Macedonia, seniority within the company is the key factor in determining the level of cost in case of dismissal or declaration of redundancy.<sup>73</sup>

In relation to **the procedure for starting a business**, according to GCI, North Macedonia has made progress in recent years and has a score of 88.6 points in 2021. However, in this field too, there is a regression compared to 2015. Namely, in 2015, our country was in 3rd place according to the World Bank Report "Doing Business"<sup>74</sup> was the highest ranked economy from the Europe and Central Asia region,<sup>75</sup> so that already in 2021, 6 years later, according to GCI, it falls on the list for 61 positions. The analysis of the World Bank, which is taken into account by the WEF, covers 10 categories that are subject to analysis, starting with: 1) the time, procedure and costs of starting a business, 2) obtaining construction permits,<sup>76</sup> 3) connection to electricity<sup>78</sup> 4) property registration<sup>79</sup> 5) getting credit with a ranking of 25th place, which is quite solid; 6) then the rights and protection of minority shareholders/investors with a rank of 12; 7) the payment of taxes, where it lags behind the countries in the region and, at the same time, there is a great field for progress; 8) foreign trade ie. costs and simplicity of the export procedure; 9) implementation of contracts; and finally 10) the simplicity of the procedure in case of insolvency in which field the country lags behind<sup>80</sup>. The last is aimed at enabling quick insolvency resolution for startups and SMEs, providing for the completion of the insolvency resolution process within 90 days. Namely, the new Bankruptcy Law, intended to facilitate the exit from the market by reducing the costs and time of the procedures, is still

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<sup>72</sup> Chakarovska Law Office, (2020), Blog on the subject: Cancellation of the employment contract for business reasons - procedure, criteria, rights and obligations (cakarovska.com.mk), <https://cakarovska.com.mk/%D0%B1%D0%BB%D0%BE%D0%B3/articles/otkazuvanje-na-dogovorotot-zavrabotuvanje>

<sup>73</sup> Deloitte, (2012), "A comparative look at dismissal costs and issues across Europe", dtl-legal-dismissalreport-Jan2013.pdf (deloitte.com)

<sup>74</sup> World Bank Group, (2020), Doing Business 2020 Indicators, Comparing Business Regulation in 190 countries, MKD.pdf (doingbusiness.org)

<sup>75</sup> Ministry of Finance, 2015, "Doing Business": Macedonia 12th in the world out of 189 countries, "Doing business": Macedonia 12th in the world out of 189 countries - finance.gov.mk

<sup>76</sup> The biggest setback was observed in the procedure of requesting and obtaining approval for construction (building permit) from the municipality and payment of the municipal fee for infrastructure. However, according to the World Bank report, the percentage of companies that identify business licenses and permits as the biggest obstacle, decreased from 5.4% in 2009 to 0.4% in 2013.

<sup>77</sup> The World Bank, (2021), TC data: "% of firms identifying business licensing and permits as the biggest obstacle" - TCdata360 (worldbank.org)

<sup>78</sup> From the moment of submitting an application for connection to electricity and the assessment, payment and waiting for the completion of external works by Elektrodistribucija DOOEL Skopje, as 3 separate procedures, the wait is on average up to 100 working days, and it must urgently implement progress in this area

<sup>79</sup> It requires 7 procedures, lasts 30 days and costs 3.3% of the value of the property, at the moment it is on the 50th place in the global ranking;

<sup>80</sup> The World Bank, (2021), Business Enabling Environment (BEE)\*, <https://www.doingbusiness.org/en/data/exploretopics/resolving-insolvency>

in the preparation phase. It is believed that with the correct implementation of this law, the efficiency and transparency of the public administration will be increased by reducing the time and costs of commercial disputes and by promoting alternative dispute resolution mechanisms, which would solve some of the factors that limit the competitiveness of domestic companies.

Institutional reforms take a long time to become effective. This is especially the case in less developed countries, which benefit from institutional reforms, and all the evidence points to the fact that credible institutions improve economic growth. However, for the same, quality human capital is needed, which will manage them, that is, a quality and non-corrupt public administration managed by solid personnel, in order to be able to represent the machinery that pushes the economy forward. Otherwise, without progress in this field, the economy will be constantly in a phase of stagnation and uncertainty.

## **The second indicator, from the first group where the basic requirements are THE INFRASTRUCTURE**

In the latest EC report, North Macedonia is ranked as moderately prepared in the area. According to the GCI in the area of infrastructure, the country achieved a better result in 2021 and was rated with 46.9 points and a rank of 49th place, compared to 2015 when it had 31.4 points and a rank of 94<sup>th</sup> place, which represents an increase of 45 places on the list (Table number 3). This growth is mainly due to the improved degree of digitization of a large number of services offered by public institutions.

Among the more significant achievements that raise the grade is **the progress made with digitalization of online services of public institutions and** the initiated process of interconnection and data exchange between state authorities, institutions and business companies through an interoperability platform. Interoperability is defined as the ability to cooperate between different systems based on common standards. In the case of state bodies and institutions, this means the possibility of mutual electronic exchange of data that is important for the performance of their functions, and contributes to high-quality, economical, efficient and transparent performance of work by the public administration. At the same time, this platform enables the electronic exchange of data and documents between institutions and companies in a standardized, secure and unified way. The same, although put into use from 2020, until November 2021, only 39 institutions or 3% of the total number of institutions in North Macedonia are connected. This means that the country is still in the initial phase with this process.<sup>81</sup>The end result of this platform should be improved provision of public services by the public administration and lower costs for all stakeholders (public administration, businesses and citizens).

The second major achievement is the opening of the National Portal for e-services<sup>82</sup>. This portal provides a relatively small number of electronic services from its opening until today, that is, most services are only available for informing citizens about the procedure and competent institutions. However, its value as a unique place for information and obtaining services is undoubtedly one of the greatest achievements of the Government in the past period.<sup>83</sup> The latest introduced in digitalization of services is the E-Market platform, fully interoperable with government E-procurement system (EPS). This platform increases

<sup>81</sup>Ministry of Information Society and Administration (2021), <https://mioa.gov.mk/?q=mk/node/1320>

<sup>82</sup> <https://uslugi.gov.mk/>

<sup>83</sup>Iskra Belcheva- Ristovska and Irena Bojadzievska (2021), Center for Change Management CUP, <https://rb.gy/gemqon>



transparency, reduces administrative procedures and thereby affects the efficiency of public administration.

Infrastructure area	2015		2021		% growth or decrease of the result in 2021 vis a vis 2015	Changes in rank in 2021 vis a vis 2015, growth↑ or a fall↓
	Result	Rank	Result	Rank		
Infrastructure	31.4	94	46.9	49	49.36%	45 ↑
<b>Information and Communication Technologies (ICTs)</b>	38.4	88	71.2	56	85.42%	32 ↑
ICT access	65.5	56	67.4	65	2.90%	-9 ↓
ICT use	42.2	54	60.1	61	42.42%	-7 ↓
Governance On-line services	24.4	113	74.1	58	203.69%	55 ↑
E-participation	21.6	119	83.3	38	285.65%	81 ↑
<b>General infrastructure</b>	16.3	126	20.1	109	23.31%	17 ↑
Electricity output GWh/mn pop.	2967.8	63	2691.8	71	-9.30%	-8 ↓
Logistics performance	17.2	108	30.6	80	77.91%	28 ↑
<b>Ecological sustainability</b>	39.6	60	49.2	18	24.24%	42 ↑
GDP/unit of energy use	6,6	76	11.8	52	78.79%	24 ↑
Environmental performance	50.4	79	55.4	41	9.92%	38 ↑
ISO 14001 environmental certificates	5	20	9.9	5	98.00%	15 ↑

Source: The World Economic Forum, report 2015 and 2021

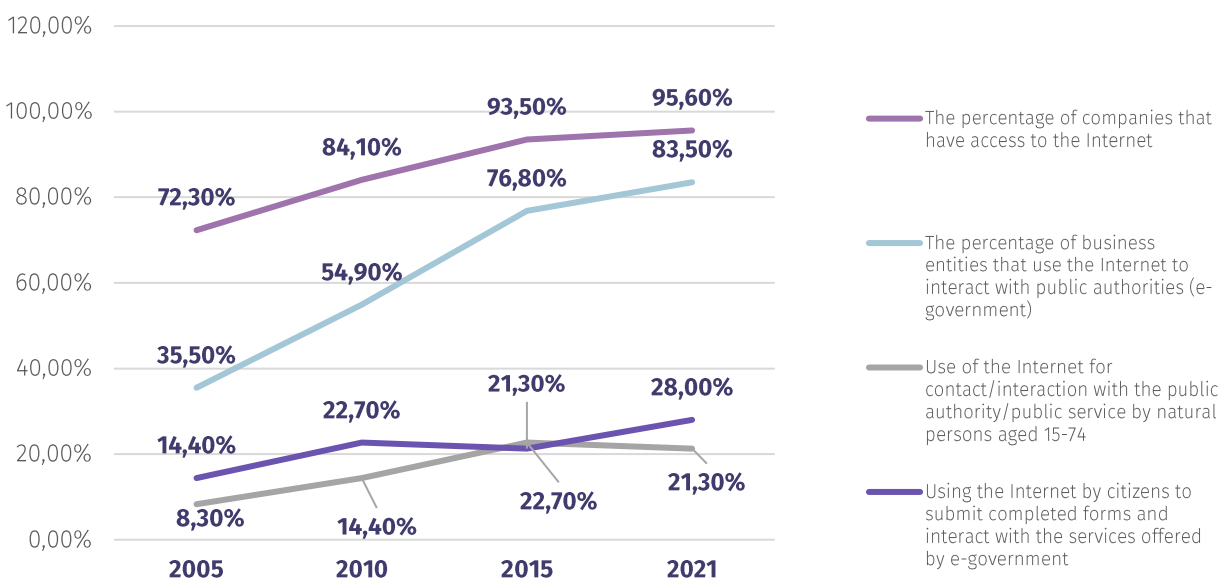
\*The last column of the table shows growth or decline in the rank for the number of places in each of the indicators, where growth is indicated by ↑ while falling in rank with ↓

However, North Macedonia lags behind in **the progress of the infrastructure network** with the construction of more important railway corridors, which greatly hinders the realization of the Green Agenda, which the EC strives for. In the EC's report on the country's progress, modest progress was noted, especially in relation to the connection with the countries of the WB, with which North Macedonia borders. Among other things, significant delays and deadlines were observed in the construction of the railway corridor VIII to Bulgaria, the modernization of the cross-border railway connections and the facilitation of the crossings of the railway corridor X. North Macedonia signed contracts for the construction of the two sections of Corridor VIII, Kumanovo- Belyakovce and Belyakovce-Kriva Palanka, as well as for the reconstruction of the section Negotino-Nogaevci, Corridor X. For years, the transport sector has not had an administrative, operational capacity and political commitment for the realization of the necessary sector reforms. Operational and administrative capacities for all modes of transport remain weak. This hinders the proper implementation of the Green Agenda for the Western Balkans in the field of transport.<sup>84</sup>The progress in this field will have a significant impact especially if it is known that the developed transport infrastructure is used as an input in almost all production processes and thereby affects the productivity of the entire economy.

<sup>84</sup>Secretariat for European Affairs, "Report on North Macedonia for 2021", 2021, European Commission, <https://www.sep.gov.mk/post/?id=5657#YFWH3erMK5c>

In the field of ICT, according to GCI, the country recorded growth by 32 places on the list, and achieved an 85% increase in the result in 2021 compared to 2015. This is the result of the increasing percentage of companies that have access to the internet, which in 2021 was 95.6%.<sup>85</sup> While the percentage of business entities that use the Internet to interact with public authorities (e-government) is 83.5%.<sup>86</sup> In the last 3 years, the digitization of the services of public institutions has been greatly strengthened, through the introduction of a wide range of services that previously citizens and businesses had to provide with a physical presence. It is considered that the only benefit of the pandemic with the Covid-19 virus is accelerated digitization, so a large number of e-services were introduced, especially in the education sector.<sup>87</sup>, in the direction of reducing physical contact in pandemic conditions<sup>88</sup>.

**Graph No. 5 Progress achieved in North Macedonia in using ICT**



Source: State Statistics Office of North Macedonia (2021),

As a result, during the Digital Summit for the WB countries, which was held in Podgorica in the period from October 11 - 13, 2021, North Macedonia was declared a leader in the region in terms of progress in the digitalization of services.<sup>89</sup> On the other hand, the State Statistics Office (SSO) registers the willingness of citizens to use digital tools and electronic services offered by the government and the private sector. According to the analyzes and measurements of the SSO, in North Macedonia, the use of e-government services for private purposes among people aged 15-74 has seen growth in recent years. The first which refers to using the internet for contact/interaction with the public authority/public service in 2015 was 22.7% while 6 years later in 2021 it is 28%. However, this % is very low compared to other EU member states, where the minimum percentage of internet and ICT usage is over 50%.<sup>90</sup> For these two services, although growth has been recorded, it still shows a certain degree of mistrust on the part of citizens in the efficiency of the government in providing e-services. The average of individuals who use the internet to interact with public authorities as a comparison in EU countries for 2021 is 58%, with the highest in

<sup>85</sup>SSO, 2021, In 2005 it was 72.3%, 84.1% in 2010, 93.5% in 2015, so that already in 2021 that percentage increased to 95.6%. [PX-Web - Select variable and values \(stat.gov.mk\)](#)

<sup>86</sup>SSO, 2021. [PX-Web - Select variable and values \(stat.gov.mk\)](#)

<sup>87</sup>Change Management Center - CUP, 2021, <https://cup.org.mk/proekti/digitalisation-of-services-in-the-education-sector?lang=mk>

<sup>88</sup>Center for Change Management - CUP, 2021, <https://cup.org.mk/proekti/digitalisation-for-business-continuity-in-the-public-sector>

<sup>89</sup> Shaqiri: [North Macedonia is a leader in the region in the digitization process Ministry of Information Society and Administration \(mioa.gov.mk\)](#)

<sup>90</sup> [Archive: E-government statistics - Statistics Explained \(europa.eu\)](#)

Denmark with 92%, and the lowest in Bulgaria 27% and Romania 15%.<sup>91</sup> However, insufficient readiness of public institutions, inefficient spending of state money and corruption limit infrastructural development. This is why public spending alone is not a good indicator of infrastructure quality.

In North Macedonia, in addition to the public sector, with the introduction of digital services that greatly facilitated the functioning of citizens during a pandemic,<sup>92</sup> the business sector also got involved with Macedonian ICT companies through the introduction of various digital tools.<sup>93</sup> The data obtained from the study entitled "Analysis of the progress of e-commerce in the period 2017-2019 with special reference to the impact of COVID-19 on the development of e-commerce in 2020" published by the Association for e-trade of North Macedonia, showed that citizens in our country spent a total of 28.9 million euros online in e-stores in the first 3 months of 2020, and 10.1 million euros in March 2020 alone. This is an increase of 17.9 million euros or a 61.5% increase compared to the same period last year, compared to the first 3 months of last year 2019. While for 2021, the data shows that e-commerce, in the month of March 2021, grew by 99% compared to March of the previous year. This clearly speaks of the willingness of citizens to use digital tools and make purchases through the companies' e-stores. That's why Macedonian companies began to think more often about the introduction of digital technology that should allow them to expand and be present in any place, without being physically present there with their own infrastructure. Especially considering the fact that digital platforms can create completely new professions and jobs in every economy where they are present. For this purpose, Masid also generated a "Practical Guide for Greater Competitiveness", where companies are given the opportunity to measure the degree of digitization they possess and apply tools that will make them more efficient and competitive.<sup>94</sup> According to the said digitization of the processes, it leads to (1) improved efficiency of the companies' operations by eliminating bottlenecks (2) faster decision-making through tools and processes needed to convert data into meaningful information needed for decision-making (3) improved agility (4) satisfied customers and improved user experience (5) increased productivity and profitability. Namely, most companies, such as Audi and StubHub, have confirmed an increase in revenue by over 60% after the successfully completed digitization process.<sup>95</sup>

Environmental sustainability is a field where our country has made progress, but it still lags behind according to European directives and there is a lot to do in this field, especially when it is known that the country is among the first on the list for the level of air pollution, measured according to the level of PM 10 particles in the air<sup>96</sup>, soil and water. In 2021, the Ministry of Environment and Spatial Planning (MESP) adopted the Waste Management Plan.<sup>97</sup> This strategic document foresees all the areas where progress is needed, as well as the institutions that will be involved in their implementation, such as the Department of Waste Management in the Ministry of the Environment and the Environment Agency. This is planned with a parallel increase in the efficiency of the mentioned institutions, increased field inspections, establishment of new regional landfills and phase closure of non-standard landfills. At the same time, the Ministry of Education and Culture prepared a new legal regulation harmonized with the EU waste management legislation, providing financial means for the construction of the necessary technical infrastructure financed by domestic sources and international partners.

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<sup>91</sup>Individuals using the Internet to interact with public authorities, 2022, [Statistics | Eurostat \(europa.eu\)](https://statistics.eurostat.eu)

<sup>92</sup>[Digitization in the public sector in RSM for smooth functioning | CUP \(cup.org.mk\)](https://cup.org.mk) Digital services in the field of education, implemented through the Ministry of Education in cooperation with the Center for Change Management CUP.

<sup>93</sup>In the first few weeks after the start of the pandemic, digital tools such as mobile apps were launched to detect close contact with potentially infected people.<sup>93</sup>, digital e-commerce platforms and free digitization services.

<sup>94</sup>A USAID project implemented by Masit, "How to Digital Transformation?" A practical guide to greater competitiveness", 2021, [brochure-digitalna-transformacija-mk-14.12.2020.pdf \(masit.org.mk\)](https://masit.org.mk)

<sup>95</sup> [Digital Transformation & Digitization - Why Should You Care? \(consoltech.com\)](https://consoltech.com)

<sup>96</sup> [Skopje tops the list of the most polluted cities in the world \(aa.com.tr\)](https://aa.com.tr)

<sup>97</sup> [Plan-for-Waste-Management-of-RSM-2021-to-2031-year.pdf \(moepp.gov.mk\)](https://moepp.gov.mk)

## **The third indicator, from the first group where the basic requirements are MACROECONOMIC STABILITY**

**The third indicator from the first group** where the basic requirements are shown is macroeconomic stability, which is analyzed through economic stability and the predictability of the movement of macroeconomic indicators as a basis and incentive for investment and productivity. Because only an economy that maintains financial stability and sustainability in the macroeconomic sphere encourages growth and competitiveness. Attached are the analyzes of the indicators that determine macroeconomic stability. The weighted values are taken for 2015 and 2021 (table number 4)<sup>98</sup>, in order to get a picture of the achieved performance of our economy for a longer period of time.

**Inflation** is one of the indicators that reflects macroeconomic stability to the greatest extent. In 2015, North Macedonia had a negative inflation rate of 0.4%. However, since 2021, it has been recording high inflation rates, which for 2021 is 4.9%<sup>99</sup> <sup>100</sup>. Citizens are particularly affected by the inflation rate of food and basic products from 6.9%, it rose to 28.7% for the same period last year<sup>101</sup>. This dizzying growth in the prices of basic products on the market creates uncertainty in the economic flows in the economy. The growth of prices with the simultaneous lack of resources on the market (energy, gas, coal), which is mainly due to the growth of the stock price of electricity, the growth of fuels, as well as the higher excise taxes on petroleum products, creates great uncertainty in the market. In addition, the rise in prices creates dissatisfaction among citizens with the policies of the government, because judging by the prices of basic products, inflation in our country is out of control, and continues to grow while wages stagnate in most sectors of the economy. Namely, no one wants to pay more for the same items in the market if they are not making more money to keep up with the rising prices. What does it mean, inflation in itself is not a major concern, but through the instability, uncertainty and uncertainty of the market that it creates, it affects negatively not only the investment decisions of companies in the market, but also the functioning of the labor market. The negative consequences of inflation rates when they exceed a certain threshold create uncertainty and thus refrain from investing. According to NBRM, the negative trend will continue, and at the end of the year, all segments of the GDP will fall, except for public consumption, which is necessary to protect public health and support the economy. The negative consequences of inflation rates when they exceed a certain threshold create uncertainty and thus refrain from investing. According to NBRM, the negative trend will continue, and at the end of the year, all segments of the GDP will fall, except for public consumption, which is necessary to protect public health and support the economy. The negative consequences of inflation rates when they exceed a certain threshold create uncertainty and thus refrain from investing. According to NBRM, the negative trend will continue, and at the end of the year, all segments of the GDP will fall, except for public consumption, which is necessary to protect public health and support the economy.<sup>102</sup>On the other hand, monetary stimulus measures produced and created by the NBRNM can be a combination of lower interest rates, refraining from issuing fresh money in circulation and increasing the reserve requirement that commercial banks are required to keep in their

<sup>98</sup> [Makroekonomski-indikatori.xls \(live.com\)](#)

<sup>99</sup> Trading Economics, Macedonia inflation rate, September 2022, <https://tradingeconomics.com/macedonia/inflation-cpi>,

<sup>100</sup> In 2022, North Macedonia is facing stagflation, stagnation in GDP growth followed by high inflation, which rose from 4.9% in December 2021 to 19% in September 2022. Increased uncertainty due to lack of resources, caused by the war with Russia, thus higher energy prices cause the deterioration the conditions for supplying the necessary energies and global stagflation, which inevitably affected our country as well.

<sup>101</sup> Inflation rates for North Macedonia (2021), <https://tradingeconomics.com/macedonia/inflation-cpi>

<sup>102</sup> NBRM, (2021), [Latest macroeconomic indicators, January 2022 \(nbrm.mk\)](#),

vaults. NBRSM, by decision of the Council, reduced the mandatory reserve rate for denar liabilities from 8% to 6.5%, with a simultaneous increase in the mandatory reserve rate for foreign currency liabilities from 15% to 16.5%.<sup>103</sup>This is a strategy for improving the liquidity and financing of the private sector, and providing support for the denarization of the domestic economy.

**Table number 4. Indicators of macroeconomic stability for 2015 and 2021, and compared for the same period**

Indicators	2015	2021	Achieved % growth in 2021 vs. 2015
<i>GDP</i>	3.9	4.0	3%
<i>Gross investment (as % of GDP)</i>	30.4	32.4	7%
<i>GDP per capita</i>	269,997	328,056	22%
<i>Inflation rate<sup>104</sup></i>	-0.40%	4.9%	-1.325%
<i>Net exports *expressed in millions of euros</i>	4,088	6,923	69%
<i>Imports *expressed in millions of euros</i>	5,801	9,638	66%
<i>Trade balance</i>	-1,714	-2,716	-37%
<i>FDI in millions of euros<sup>105</sup></i>	203	512 <sup>106</sup>	152%
<i>FDI as % of GDP</i>	2.4	3.70	61%
<i>Public debt as a % of GDP<sup>107</sup></i>	69.3%	60.8%	-12%
<i>Average salary amount</i>	22,213	29,145	31%
<i>Net amount of minimum wage<sup>108</sup></i>	9,590	15,194	58%
<i>Gross amount of minimum wage</i>	14,114	22,146	57%
<i>Unemployment rate</i>	26.10	15.70	-40%

Source: National Bank of RSM, Basic Economic Indicators

**The negative trade balance**, where imports prevail over exports and remain unchanged and continue to generate high rates. Macedonian export companies, as well as all other companies operating in the Internal Market of the EU, in the past years faced reduced exports as a result of the government restrictions of each country individually, caused by the pandemic with the Covid-19 virus and the need to defend the health of citizens in their own country. The forecasts are that this negative trend will continue in the coming years, if no measures are taken to stimulate exports. This is especially important if it is known that the trade balance is a mirror for the economic situation of the country. Namely, although exports tend to grow, our country still remains dependent on imports, especially on inputs used in the production of finished products, which indicates a low added value of the final products. This should be a signal for the government to introduce additional incentive measures to encourage exports, especially for products that have a high added value, which is to be expected if we take into account the fact that the country has comparative advantages especially in the area of agriculture due to the available potentials that are not fully used despite the tradition in this sector, and the favorable climatic conditions,

<sup>103</sup>NBRM, (2021), [Hronologija na promenite vo postavenosta na monetarnite instrumenti na Narodnata banka.pdf \(nbrm.mk\)](#)

<sup>104</sup>NBRM, (2021), [https://www.nbrm.mk/osnovni\\_ekonomski\\_pokazатели.nspj](https://www.nbrm.mk/osnovni_ekonomski_pokazатели.nspj)

<sup>105</sup>NBRM, (2021), <https://www.nbrm.mk/ns-newsarticle-direktni-investicii-vo-republika-makedonija---metodologija-bpm6.nspj>

<sup>106</sup>NBRM, (2021), Direct investments, movements, [https://www.nbrm.mk/direktni\\_investicii\\_dvizjenja.nspj](https://www.nbrm.mk/direktni_investicii_dvizjenja.nspj)

<sup>107</sup>Ministry of Finance, (2021), Public Debt, <https://javendolg.open.finance.gov.mk/#years-debt>

<sup>108</sup>Ministry of Labor and Social Policy, minimum wage amounts by years, (2022) <https://www.mtsp.gov.mk/plati.nspj>

one third of the agricultural arable land is not cultivated. For that reason, the country remains a net importer of agricultural and food products.<sup>109</sup>

**Table 5. Trade balance over the years 2015-2021**

Years 2015-2021	2015	2016	2017	2018	2019	2020 <sup>110</sup>	2021	2022 for Q1
<b>Import growth rate</b>	5.4%	6.5%	10.7%	12.3%	10%	-10%	26.9%	31.3%
<b>Export growth rate</b>	9.3%	7.4%	14.3%	17.0%	9.6%	-10%	19.8%	23.0%

Source: NBRM (April 2022), Latest macroeconomic indicators, MONTHLY INFORMATION (nbrm.mk)

Already in 2022, the export situation is changing drastically. **(Table number 5)**. According to the State Statistical Office (SSO), the total value of the export of goods, in the first quarter of 2022, amounts to MKD 119,642,988 and shows an increase of 16.8% compared to the same period of the previous year. However, the value of imported goods, in the first quarter of 2022, recorded growth and amounted to MKD 174,829,888, which is 29.4% more compared to the same period of the previous year. Which means that the country records a trade deficit, in the period January - March 2022, which for the given period amounts to MKD 55,186,899. According to the above, the coverage of imports with exports, in the period January - March 2022, is 68.4%<sup>111</sup>, which indicates that the country is import-dependent and must still work a lot in order to achieve a trade balance between imports and exports. This is further devastating if it is known that the generation of exports is from foreign companies operating in free trade zones, while domestic companies are represented with a very small share in exports.

**Foreign Direct Investment (FDI)** help accelerate the rate of economic growth, increase employment, encourage exports and inflow of foreign exchange resources. According to the data obtained from the NBRM, in 2021, total FDI amounted to 512.01 million euros, which represents a 154% increase compared to 2020, when it amounted to 201.43 million euros. While, only during the first quarter of 2022, total FDI in the country recorded net inflows of 122.4 million euros, as a result of increased investments in reinvested profits (83.2 million euros), intercompany debt (from 23.1 million euros) and the equity capital (16.1 million euros).<sup>112</sup> Both financial and political stabilization will be a positive sign for both domestic and foreign investors for new investments in the country.

**The level of borrowing** contributed to the country being moderately indebted to be categorized as highly indebted, considering the fact that the latest data on the amount of public debt published by the Ministry of Finance confirms that in 2021 the public debt as a % of GDP rose to 60.8%, which represents the highest indebtedness on the ground<sup>113</sup>. However, in 2022, the MoF, through the policy of repayment of obligations, managed to reduce the public debt, as of March 2022, by 3.7 percentage points compared to 2021, so that it amounts to 57.1% of GDP. This represents an approach to the Maastricht criteria, according to which the public debt should not be higher than 60% of GDP.<sup>114</sup> However, announced the Public Debt Strategy 2022-2026, the government does not plan to keep the public debt as a nominal amount at a low level. According

<sup>109</sup>RSM Chamber of Commerce, Interview with Vasko Ristovski "Current conditions in agriculture and food industry" [News / Chamber of Commerce of North Macedonia \(mchamber.mk\)](#)

<sup>110</sup> For that reason, in 2020 during the pandemic, Macedonian companies registered a drop in exports of -10% against the significant growth in 2019 of 9.6%, reaching 62% of GDP. <sup>110</sup> During 2021, exports quickly recovered and recorded a relatively high growth of 19.8%<sup>110</sup>, driven by the increased export activity of part of the production facilities in foreign ownership. The growth of exports and domestic demand contributed to a high growth of imports of goods and services of 26.9%, due to which the net export component registered a negative contribution to the total GDP.

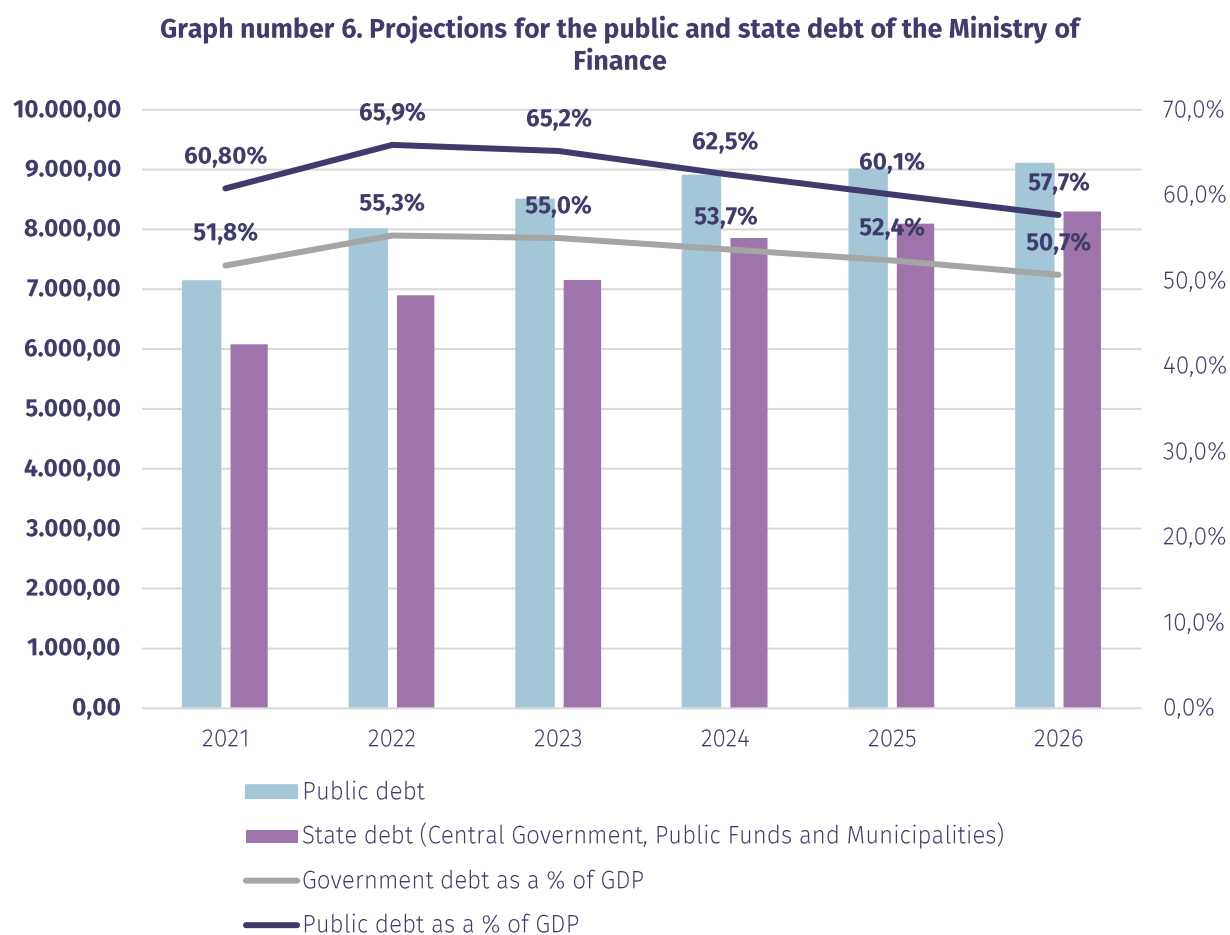
<sup>111</sup> [State Statistics Office - announcement: Volume of foreign trade, 01-03.2022 \(stat.gov.mk\)](#)

<sup>112</sup> NBRM, (2021), [Macedonian - Direct investments - Movements \(nbrm.mk\)](#)

<sup>113</sup> Ministry of Finance, (2021), [Debt status - finance.gov.mk](#)

<sup>114</sup> [MF: Public debt in crisis conditions reduced to 57.1% of GDP, below the Maastricht criterion - finance.gov.mk](#)

to the Strategy, it will grow every year by 500,000,000 euros and will reach and maintain a level of 9,000,000,000 euros until 2026.<sup>115</sup> (Chart number 6).



Source. RSM Ministry of Finance, 2021

According to the data presented by the Ministry of Finance, besides **public (62.5%) and state debt** (54.1%) slightly increased by 2.9 and 2.3 percentage points, in the first quarter of 2021, respectively.<sup>116</sup> These data indicate the high indebtedness of the country in relation to other countries in Europe. In the region, besides Greece, the highest growth in debt was experienced by Albania at 15.6 percentage points, Slovenia at 14.9 percentage points and Croatia at 14.5 percentage points. The high borrowing should be comparable to the Maastricht criteria set in 1993 by the Maastricht Treaty, which consist of five convergence criteria that member states must meet in order to move into monetary union and adopt the single currency, the euro. Two of them refer to the control of the public deficit, the public finance deficit which must not exceed 3% of GDP and the public debt which must be limited to no more than 60% of GDP. For that reason, economists are always concerned about the trend of borrowing and maintaining budget discipline, as well as the purpose and management of the debt, its structure, the cost of external borrowing, which for

<sup>115</sup>Ministry of Finance, (2021) [Strategy for public debt management 2023-2027 with note from SZ-2-2.pdf \(finance.gov.mk\)](#)

<sup>116</sup>Ministry of Finance, (2021), Public and state debt in the first quarter within the projections - finance.gov.mk

North Macedonia is very high compared to other countries in the region, but also the economic and fiscal condition of the country.

In relation to **exchange rate changes**, it can be said due to the fixed exchange rate of the denar to the euro, make our currency stable and not susceptible to external influences. The exchange rate of the Macedonian denar in relation to the euro is on average 61.5 for 1 euro, it is stable and without major variations<sup>117</sup>, in the analyzed period from 2015 until today. Economists from NBRM consider that the current regime of a stable exchange rate of the denar to the euro is adequate and corresponds to the basic characteristics of the Macedonian economy, which is a small and open economy, with a high degree of trade and financial integration with the EU, which means a relatively high degree of Europeanization.<sup>118 119</sup>

#### **The fourth indicator, from the first group where the basic requirements are shown HEALTH AND PRIMARY EDUCATION**

The fourth and last pillar of the **first group** which contains 8 indicators refers to **health and primary education**. In North Macedonia, only the life expectancy of the population and the quality of health services have been analyzed by health. According to Eurostat, the life expectancy of the population in North Macedonia is lower compared to that of the EU member states and is 74 years for men and 78 years for women<sup>120</sup>, while according to the State Statistical Office (SSO), the average age of the population is 37 for men and 38 for women. In the EU, according to data from Eurostat, the average in the EU member states in 2005 was 75 for men and 81 for women, which life expectancy is continuously increasing, and already in 2019 it is 78 for men and 84 for women.<sup>121</sup> This average records a slight decline in 2020, as a result of the pandemic where the most affected was the age category of citizens over 65-70 years of age.

In terms of the quality of health services, the country is ranked very low and is experiencing a decline in the quality of health services, which is also noted in the Secretariat for European Affairs (SEA) report. In addition to the quality of health services, the country has also been criticized for inconsistency in reporting on cancer registries and individual rare diseases and providing adequate funding and specialist knowledge for early detection and treatment, based on data from registries.<sup>122</sup> The decision of the Ministry of Health to raise salaries as a policy for motivation and staff retention did not give an adequate result and the economy is facing losses of medical personnel, especially specialists, who move either to the private sector or go to work abroad. Namely, a healthy working population is critical to workforce productivity because high absenteeism incurs significant costs and often results in reduced efficiency and overall productivity. Furthermore, high rates of chronic diseases can lead to lower participation in the labor force in the labor market, thereby reducing the productivity of companies. The death rate due to chronic diseases (cancer, diabetes, hypertension, stroke, heart disease, respiratory disease, arthritis,<sup>123</sup> According to the report of the World Health Organization (WHO) from 2021, this rate is

<sup>117</sup>NBRM (2021), [Macedonian - Basic economic indicators and real estate prices \(nbrm.mk\)](#)

<sup>118</sup>NBRM, (2021), Exchange Rate Report, (2021) [Why do we have a regime of stable exchange rate of the denar in relation to the euro? \(nbrm.mk\)](#)

<sup>119</sup>The introduction of a flexible exchange rate would mean an increase in imported products. This is not in favor of our economy due to an export sector characterized by high import dependence, which, hypothetically, would mean that any decrease in the value of the denar would simultaneously lead to an automatic increase in the price of all imported raw materials.

<sup>120</sup>European commission, (October, 2021) Report for North Macedonia: [North Macedonia - life expectancy at birth by gender 2009-2019 | Statista](#)

<sup>121</sup>Eurostat (2021), [Mortality and life expectancy statistics - Statistics Explained \(europa.eu\)](#)

<sup>122</sup>Secretariat for European Affairs (SEP), (2021), EC Report on North Macedonia for 2021, <https://www.sep.gov.mk/page/?id=1117#Y3Z8LHbMK5c>

<sup>123</sup>SSO, (2021), [State Statistical Office of the Republic of Macedonia](#)



devastating and is high compared to EU countries, which speaks negatively about the quality of health services in our country.<sup>124</sup>

Then follow the quality of primary education and enrollment in educational institutions. The quality of primary education is vital to enable access to all the qualifications needed in the labor market. In North Macedonia, the number of students enrolled in primary education tends to decrease, which is mainly due to a drop in the birth rate, so according to the SSO, in the academic year 2009/2010, the number of students enrolled in regular primary schools was 210,381<sup>125</sup> so that in the academic year 2020/2021 that number decreases to 185,925, which represents an 88% drop<sup>126</sup>. Also, according to Eurostat data, the ratio of enrolled students per teacher in primary schools in 2010 was 14.8, and in 2021 it will grow to 15.7. In the EU27, this average for 2021 is 13.6.<sup>127</sup>

## Second group are indicators EFFICIENCY ENHANCER

In the second group are the indicators efficiency enhancers, where we delve into brief analysis of the quality of higher education in North Macedonia, the efficiency of the labor market, the degree of development of the financial market and technological readiness and the possession of digital skills is given. North Macedonia, according to GCI for the higher education indicator, recorded a drop in the list by -42 places, so if in 2015, it had a high score of 66.2 points and ranked 5th, already in 2021, it has a score of 55.6 points and is ranked 47th.

The number of unemployed and the number of employed persons represent the main indicators used in the analysis of the functionality of the labor market in a country. These two components are mandatory in every consideration of the labor market in any country, that is, through them, an analysis of the supply and demand of the labor force should be made and, based on their ratio, the specific conditions should be determined.

**Table number 6. GCI for education for 2015 and 2021 (comparative)**

Indicator education	2015		2021		% growth or decrease in 2021 vis a vis 2015	Changes in rank in 2021 vis a vis 2015, growth ↑ or a fall ↓
	Result	Rank	Result	Rank		
Human capital and research	32.7	55	30.2	73	-7.65%	-18 ↓
Education	66.2	5	55.6	47	-16.01%	-42 ↓

<sup>124</sup>World health organization WHO, 2021, "World health statistics 2021: monitoring health for the SDGs, sustainable development goals"[21072\\_WHS 2021 \(who.int\)](https://www.who.int/whs2021)

<sup>125</sup>SSO (2010), The announcement is from the area: Education and Science, <https://www.stat.gov.mk/PrikaziSooopstenie.aspx?id=17&rbr=103>

<sup>126</sup>SSO, MAK STAT Base, (2021), Pupils in primary schools, by years, [http://makstat.stat.gov.mk/PXWeb/pxweb/mk/MakStat/MakStat\\_ObravovanieNauka\\_OsnovnoObravovanie\\_KrajUcebna/100\\_osnucil\\_mk\\_krajT1\\_ml.px/?rxid=57099843-4c04-43b1-bcb4-ae65c6946688](http://makstat.stat.gov.mk/PXWeb/pxweb/mk/MakStat/MakStat_ObravovanieNauka_OsnovnoObravovanie_KrajUcebna/100_osnucil_mk_krajT1_ml.px/?rxid=57099843-4c04-43b1-bcb4-ae65c6946688)

<sup>127</sup>Eurostat (2021), <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/ddn-20200909-1>

School life expectancy, years	13.4	74	13.5	77	0.75%	-3↓
PISA scale in reading, maths and science	N/A	N/A	400.1	67	N/A	N/A
Pupil-teacher ratio, secondary	10.5	31	8.3	13	-20.95%	18↑
<b>Tertiary Education</b>	<b>28.8</b>	<b>78</b>	<b>31</b>	<b>72</b>	<b>7.64%</b>	<b>6↑</b>
Tertiary enrollment % gross	38.5	67	43.1	68	11.95%	-1↓
Graduates in Science and Engineering %	19.1	60	23.6	48	23.56%	12↑
<b>Research and development (R&amp;D)</b>	<b>3</b>	<b>93</b>	<b>4.1</b>	<b>83</b>	<b>36.67%</b>	<b>10↑</b>
Full-time researchers / (per million people)	331.1	65	786.7	55	137.60%	10↑
Gross expenditure on R&D, as a % of GDP	0.2	85	0.4	74	100.00%	11↑
Global corporate R&D investors	N/A	N/A	0	41	N/A	N/A
QS World University Rankings, top 3 <sup>128</sup>	0	73	0	74	N/A	-1↓

Source: The World Economic Forum, report 2015 and 2021

\*The last column of the table shows growth or decline in the rank for the number of places in each of the indicators, where growth is indicated by ↑ while falling in rank with ↓

The government, with the activities it undertakes, largely contributes to the stabilization of supply and demand in the market. Which means that the legal regulation affects the successful realization of the functions of the labor market, as well as a guarantee for the complete realization of the interests of employers and workers. The recommendation in the last report of 2021 for our country by the EC reads "the government should accelerate the reform of the education system, increase funding in professional staff, training and higher education. State financial support for education is insufficient, and coordination between the education sector and businesses is weak."<sup>129</sup>This is also evidenced by the fact that in 2021, public spending on education and training amounted to 3.3% of GDP, compared to the average of 3.7% of GDP in the past five years."<sup>130</sup>This puts the country in 16th place compared to EU countries.

North Macedonia has progressed in terms of the number of graduates with higher education. Among other things, North Macedonia tied to the indicator that refers to Graduates in science and engineering, records growth by 12 places in 2021, compared to 2015, when the result was 19.1 points, so that in 2021 it will achieve a growth of 24% and get a result of 23.6 points. This is a good indicator for the country, which in the future will be able to develop advanced strategies for long-term growth and development of the economy through the highly qualified staff in the field of science.

However, the number of graduates by itself is not a sufficient indicator of progress insofar as curricula in education are not well adapted to equip graduates with the necessary skills to meet workforce demand. In one, a major problem that the country is facing in recent years is the overproduction of persons completing higher education, but at the same time with a lack of highly qualified professional staff due to the large degree of emigration and outflow of the same from the country. Namely, according to Eurostat, 900 citizens leave North Macedonia on average per year<sup>131</sup>, although this data is also not completely reliable, due to the fact that a small part of citizens report their temporary and permanent stay abroad. According to the PRO, in 2020 alone, the number of residents who left the country, i.e. emigrated permanently, is 937, of which 62 or 7%<sup>132</sup> of the total emigrants have higher education. The lack of highly qualified personnel was especially pronounced after entering the digital age, where more and more

<sup>128</sup>Annual publication of university rankings by Quacquarelli Symonds

<sup>129</sup>European Commission, (2021), Report on North Macedonia, p.64, [North-Macedonia-Report-2021-MK2.pdf \(sep.gov.mk\)](#)

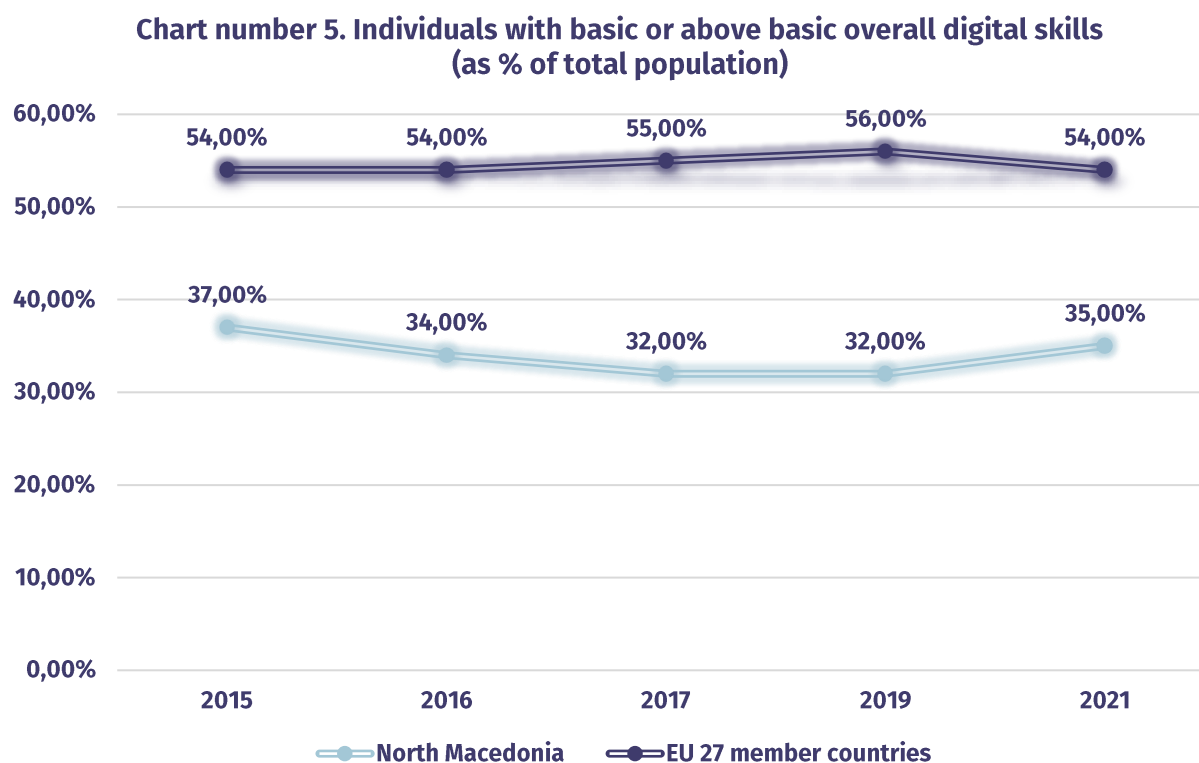
<sup>130</sup>European Commission, (2021), Report on North Macedonia, [EUR-Lex - 52021SC0294 - EN - EUR-Lex \(europa.eu\)](#)

<sup>131</sup>Eurostat (2021) [https://ec.europa.eu/eurostat/databrowser/view/migr\\_emi4ctb/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/migr_emi4ctb/default/table?lang=en)

<sup>132</sup> State Statistics Office (2020) <https://www.stat.gov.mk/IndikatorIT.aspx?id=31>

importance is given to the digital literacy of the population, interpersonal skills and the ability to think critically and creatively.

Namely, according to the data received from Eurostat for the year 2021, where digital literacy was measured, our country experienced fall compared to 2015 when, according to Eurostat, 37% digital literacy was measured, so that in 2021 the percentage of digital literacy decreased by 35%. This suggests that a large number of the young population that is digitally literate has left the country, which was also confirmed by the 2021 census. Digital literacy in the country is far below the average of EU member states, where this percentage is 54%. **(Chart number 7)**<sup>133</sup>. In the EC Report for 2021, which talks about the progress of the country, the need for the Strategy for the Development of Digital Skills is indicated.<sup>134</sup> which should contribute to an increase in the digital literacy of the population, which according to the data is very low compared to the EU average. For that reason as a priority in the new Education Strategy<sup>135</sup>, adopted by the Ministry of Education and Science (MES), introduced the Strategy for the Development of Digital Skills 2022-2024, which was originally expected to be finalized during March 2020, but was postponed due to the start of the pandemic caused by the Covid-19 virus. 19. Unfortunately, it has not yet been started according to information received from the Ministry of Education, as of May 2022.



**Source. Eurostat (2021)**

The stability of the financial market, which provides an appropriate climate for investments needed to generate profit and is of vital importance, both for foreign investors and for domestic companies operating in the territory, has been analyzed within the framework of efficiency enhancers. Capital market

<sup>133</sup>Eurostat, (2021) Individuals' level of digital skills (from 2021 onwards)[Statistics | Eurostat \(europa.eu\)](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1)

<sup>134</sup>European Commission, (2020), "Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions",[north\\_macedonia\\_report\\_2020.pdf \(europa.eu\)](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1)

<sup>135</sup>Ministry of Education and Science, (2021),[Strategic documents \(mon.gov.mk\)](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1)

development is usually considered in terms of its size and depth. A measure that is an indicator of the size of the capital market is market capitalization in relation to GDP, while the depth of the capital market, which actually refers to its liquidity, is measured through stock turnover in relation to GDP and stock turnover in relation to market capitalization (Turnover Ratio).<sup>136</sup> Higher numbers than these indicators indicate a higher development of the capital market. An important indicator of the activity of the financial market is the excitement of the stock market. It is measured through a stock index, which rates the stock market and helps investors compare current stock price levels with past prices to calculate market performance. In North Macedonia, in 2010 the stock market index was 2,491.7, so that in 2021 it will grow to 6,157.5<sup>137</sup> which is an indicator of the vibrancy of the stock market, activity and reliability of financial flows.

To assess the level of market sophistication, the following 3 indicators were analyzed: the facilitating procedure for raising credit, the percentage of loans issued to the private sector and investor protection. For the first indicator in the area of market sophistication, the country was ranked 23rd in 2021 with a score of 80 points, which represents an increase of 11 places, compared to 2015 when it was ranked 34th with a score of 65 points. While for the latter, the economy is rated with 51.5 points and growth by 2 places, compared to 2015. This growth in the area of market sophistication is the result of the increased flexibility of banks in the lending process and the increased credit potential of businesses. For the last indicator from this group, investor protection, the economy has grown by 9 places, so that if in 2015 it was rated 66, 7 points and ranked 22nd, already in 2021 the country is in 12th place with a score of 82 points. All this is a positive signal for a favorable business climate that should encourage not only domestic but also foreign investors in the country.

The size of the domestic market is measured by GDP based on the purchasing power parities valuation of the country's GDP, expressed in millions of dollars. According to GCI, North Macedonia for 2021 is ranked 118th, with 32.5 index points. This represents a drop of -10 places on the list compared to 2015 when it was in 108th place.

### Third group – indicators for **INNOVATIONS AND BUSINESS SOPHISTICATION**

The third group includes the indicators for ***innovation and business sophistication***. If a comparison is made about the progress for 2021 according to GCI, it can be seen that the country in 2021 compared to 2015, for all the indicated indicators, there is a regression in both scoring and ranking. Our country is ranked 65th together with 130 countries covered by GCI for 2021 by the World Economic Forum. The decline in the field of business sophistication can be seen according to the results for each of the indicators listed in table number 5, where the total points for 2015 are 35.9, while in 2021 or 6 years later they are 25.4, which represents a drop of 3 places in the field of business sophistication.

<sup>136</sup> <https://datatopics.worldbank.org/world-development-indicators/themes/states-and-markets.html#financial-access-and-stability>

<sup>137</sup> Trading Economics (2021), Stock Market Index MBI10 <https://tradingeconomics.com/macedonia/stock-market>

**Table number 7. GCI for innovation and business sophistication for 2015 and 2021 (comparison)**

	2015		2021		% growth or decrease in 2021 vis a vis 2015	Changes in rank in 2021 vis a vis 2015, growth ↑ or a fall ↓
	Result	Rank	Result	Rank		
Business sophistication	35.9	62	25.4	65	-29.25%	-3 ↓
Market scientists	40	64	32.5	62	-18.75%	2 ↑
Highly qualified workforce (HCW) in the market	27.9	50	29.9	48	7.17%	2 ↑
Firms offering formal training (%)	46	35	39	31	-15.22%	4 ↑
Gross domestic expenditure on R&D expressed as percentage of GDP (GERD) by business	0	75	0.1	62	N/A	13 ↑
Employed women as highly qualified staff, (*% of total employed women on the market)	11.4	56	15.3	48	34.21%	8 ↑
Innovations	31.8	66	13.5	116	-57.55%	-50 ↓
Universities collaborating with industries in R&D	45.2	58	30.2	112	-33.19%	-54 ↓
State of clusters	41.1	92	38.6	108	-6.08%	-16 ↓
Patented home products/services	0	108	0	71	N/A	37 ↑
Knowledge absorption	35.8	59	30.2	57	-15.64%	2 ↑
Royalty payments and license fees, % of total trade	0.6	48	1.6	21	166.67%	27 ↑
High tech imports, % of total trade	6.1	80	5,7	103	-6.56%	-23 ↓
Import of computer and information services % of total trade	1.6	35	1,1	66	-31.25%	-31 ↓
FDI net inflows as % of GDP	3.7	45	4.5	26	21.62%	19 ↑

Source: The World Economic Forum, report 2015 and 2021

Looking at the real data, taken by the Fund for Innovation and Technology Development (FITD), the World Bank, and the PRO, we can conclude that the country regularly allocates funds for Research and Development (R&D). Namely, the amount that the country sets aside from the annual budget for R&D, calculated as a % of GDP, in 2015 was 0.44%<sup>138</sup>(which also represents the second highest amount of allocated funds calculated as a percentage of GDP)<sup>139</sup>, so that in 2021 it will decrease to 0.38%.<sup>140</sup>While compared to the countries of the region, North Macedonia is in the penultimate place with a modest 0.38% of GDP invested in R&D for 2021.<sup>141</sup>After North Macedonia are only Montenegro (0.36%) and Bosnia and Herzegovina (0.21%)<sup>142</sup>. The average of EU countries is much higher. Just for comparison among highly developed countries, the percentage of allocated funds for R&D as a percentage of GDP for 2021 ranges from 2% in Slovenia, 3.13% in Germany and 5% for Israel.<sup>143</sup>

<sup>138</sup>World Bank, 2021, [Research and development expenditure \(% of GDP\) - North Macedonia | Data \(worldbank.org\)](https://data.worldbank.org/SD/SH.UW.EPVS)

<sup>139</sup>In 2014, 0.51% of GDP was allocated, as the first highest amount of allocated funds for R&D

<sup>140</sup>World Bank, 2021, [Research and development expenditure \(% of GDP\) - North Macedonia | Data \(worldbank.org\)](https://data.worldbank.org/SD/SH.UW.EPVS)

<sup>141</sup>The calculation also includes funds in the amount of 106,000 million denars, which fall under NID, and refer to the translation of books by renowned authors. Thus, the total budget for the NID amounts to 405,347 million denars, while without this item 341,717. In terms of developing NID, according to the central budget of the state, the total separate budget for science of the Ministry of Education and Culture for 2022 has increased by 35%, while only for scientific research activity (NID) it has increased by 171%.

<sup>142</sup>Play radio, (2022) Article on "The smallest budget for science in the last decade" <https://www.radiomf.mk/za-nauka-kje-ima-najmal-budzet-vo-poslednaya-decenija-a-ministerot-shakjiri-se-fali-so-vlozhuvanja-vo-nauchni-istrazhuvanja/>

<sup>143</sup>World Bank, 2021, [Research and development expenditure \(% of GDP\) - North Macedonia | Data \(worldbank.org\)](https://data.worldbank.org/SD/SH.UW.EPVS)

At the same time, to get a realistic picture of how much the country allocates for R&D, it is important to take into account the percentage of total funds actually allocated to innovation as a basis for creating a competitive advantage of the economy. Namely, not all allocated funds from FITD are directly used in R&D, but for the implementation of market analysis, equipment and similar investments that indirectly influence the increase of innovative activities in companies. At the same time, the budget of the Ministry of Education and Science in the science section is divided into 6 basic components (Table 8), of which only 2 have an incentive on NID. Below in the table are data extracted from the central budget, where in the science section of the MES budget, for 2015 and 2021, there is a decrease in the funds allocated for NID by -48% and a growth in the budget for learning institutes by 96%.

**Table number 8. Budget for scientific research activity (SRA)**

\*Expressed in billions of denars

District	2015	2021	% growth in 2022 vis a vis 2021, for each district compared to the total state budget
Scientific research work	153,354,000	80,500,000	-48%
Scientific institutes	109,842,000	215,765,000	96%
Smart Specialization Strategy	-	2,982,000	N/A
National Agency for Nuclear Technologies	5,480,000	-	N/A
Program for equipping laboratories	360,000,000	-	N/A
Translation of books by renowned authors	90,000,000	106,100,000	17.89%
<b>Total for NID only*(first and second item)</b>	<b>263,196,000</b>	<b>296,265,000</b>	<b>12.56%</b>
<b>Total for science</b>	<b>718,676,000</b>	<b>405,347,000</b>	<b>-43.60%</b>

Source. Ministry of Finance (2021 year)

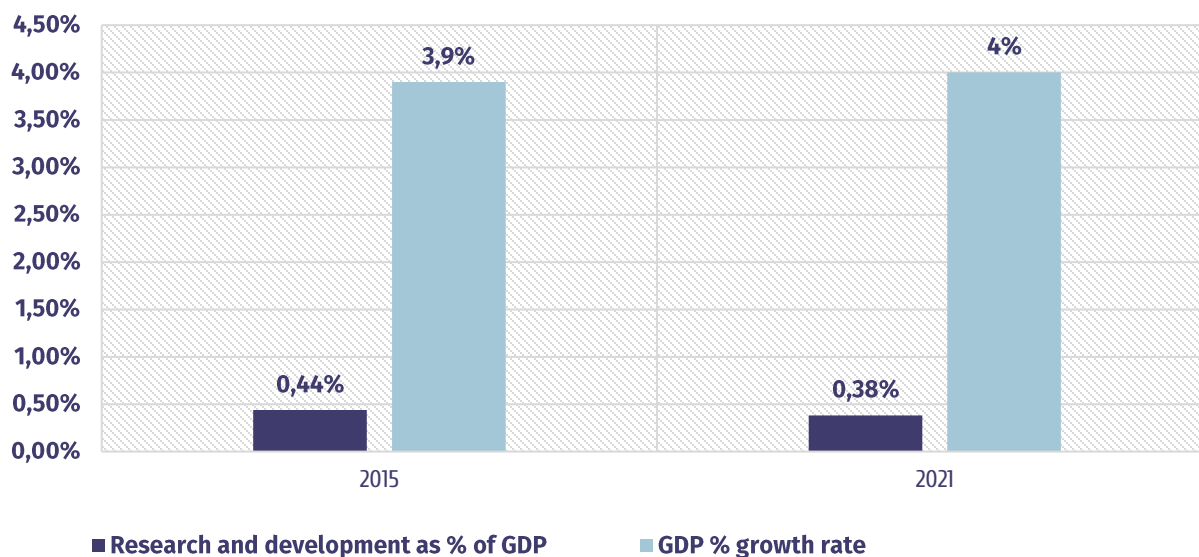
This data speaks for itself that the state allocates funds for this area. However, in order to develop NID, first of all, you need to direct the funds into projects that are actually intended for R&D and are an incentive for innovation. Of course, for the same you need staff who will be competent to manage projects that imply progress in the field of science supported by transparency in the procedure, quality scientific research projects and a sufficient number of scientists. In recent years, the country is not only facing insufficient quality staff in this area, but also the number of scientists is decreasing year by year due to the excessive outflow of such staff from the country. At the same time, it should be added that for more than a dozen years, in our country, the line ministers for education and science have been persons without experience in science and research.

All of this indicates that the mere allocation of funds from the budget is not enough to make progress in this field, but requires increased investment in quality projects that bring progress. To succeed it has been shown that research and development strategies equipped for the modern era need to be developed that treat research and development not as a cost but as an enabler of growth and development of an economy. The only progress made by the Ministry of Education and Science (MES) is in the field of digitization of certain services in cooperation with the civil sector.<sup>144</sup>One of them is the procedure for digitization of the application service for scientific research projects. An electronic call system for funding scientific and research projects was launched in 2022. This is expected to greatly improve the transparency of allocated budget funds and ease the procedure. In terms of state institutions that support and finance innovation, company investment in R&D and government investment in advanced technologies, the country has made very little progress and is in the initial stage of investment.

<sup>144</sup>Change Management Center, 2021 <https://cup.org.mk/proekti/digitalisation-of-services-in-the-education-sector>

The reduced amount of invested funds for R&D in 2021 compared to 2015 does not speak in favor of the competitive, industrial and innovation strategy that requires the allocation of much larger funds that will be properly directed to have visible results, not only for the industry, but also for the productivity of the economy as a whole. While investing in encouraging innovation and technological development resulting from companies through the opening of technology development parks, our country has made an initial effort by establishing a science and technology park in Skopje with an initial investment of 500,000 euros, and according to the feasibility study, estimates that its full realization will cost 80 million euros.

**Graph number Economic growth and Research and development as a % of GDP**



Source. World Bank (2021), [Research and development expenditure \(% of GDP\) - North Macedonia | Data \(worldbank.org\)](https://data.worldbank.org/SD/SH.UW.EPVS)

Among the countries of the region, the Republic of Serbia (RS) is taken as an example, as a leading country in terms of investments in advanced technologies and innovations, and therefore special attention is paid to it in this paper. Namely, according to the OECD report from 2021, this country achieved the best economic performance, compared to the other 6 countries of the World Bank. Namely, among high-middle income economies (34 in total), Serbia is ranked 8th with a Global Innovation Index of 54.<sup>145</sup> However, the most important thing, in the context of the last group of indicators, which refers to innovation, is that Serbia saw the future in innovation in 2011 when it established the "Innovation Fund", which is part of the broader state innovation strategy. This fund has made significant results in the field of increasing innovation and thereby increasing the competitiveness of Serbian companies in foreign markets. Furthermore, in the period from 2018 to 2022, RS adopted a number of laws and strategies that took a big step to boost the competitiveness of its economy, the most significant being the Law on Science and Research in 2019<sup>146</sup>, Strategic Framework for Intellectual Property (IP) to 2022, Trademark Law coming into force in 2020<sup>147</sup>, the Law on electronic documents, electronic identification and fiduciary services in electronic business of 2018, in 2022 it adopted the Agenda for Sustainable Development until 2030,

<sup>145</sup> [https://www.wipo.int/edocs/pubdocs/en/wipo\\_pub\\_gii\\_2021.pdf](https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2021.pdf)

<sup>146</sup> <https://www.mpn.gov.rs/wp-content/uploads/2019/07/Zakon-o-nauci.pdf>

<sup>147</sup> The law entails harmonizing its regulatory framework with EU trademark directives. It contributed to an additional boost to exports and relief for businesses operating in its territory. This marks significant progress in strengthening the legal framework implementing IP since the last assessment carried out by the EU.

especially in the field of digitization and innovation, the Strategy for Smart Specialization in 2020<sup>148</sup>, the strategy for the development of artificial intelligence (AI) for the period 2020-2025<sup>149</sup>, supported in parallel through the development of postgraduate study programs in the field of AI, and many other target areas that make a whole that is expected in the short term to give the desired results. All of this stated above is supported by the help of the newly opened science and technology parks in Serbia located in four strategic places with the aim of encouraging innovation and supporting SMEs. This is a successful example of how in a short period with great effort and a good team of experts, a great step can be taken.

In terms of facilitations to improve the functioning of the business sector, the government made progress in January 2016, when the amendment to the Law on Added Value came into force.<sup>150</sup>, where within the framework of Article 53, paragraph 12 provides that "The invoice issued in electronic form should not contain a stamp of the issuer of the invoice", which eliminated the obligation to put a stamp on the invoice for VAT purposes. At the same time, the legal obligation for invoices to have "authorized person to sign an invoice" or "authorized signatory of an invoice" as a mandatory element was introduced. However, despite the introduced changes, the implementation of this part of the law is missing and the press is still in regular use.<sup>151</sup>

Another indicator that does not speak in favor of the Macedonian economy is the number of submitted applications for registration of patents per 1 million inhabitants, as well as the number of approved patents. Namely, according to the data obtained from the European Patent Organization (EPO), in which our country is a member, the number of submitted applications for patent registration for 2021 is 2.7% per one million inhabitants.

This represents progress taking into account the fact that in 2021 North Macedonia for the first time has 5 submitted applications for patenting domestic products by Macedonian companies.<sup>152</sup> While the average number of patents approved by the EPO for Macedonian companies is 1 per year covering the period 2015-2021, or 0.5% per one million inhabitants. In Serbia, Croatia and Slovenia, as countries from the region, the annual average of registered and approved patents is 3, 8 and 80 or 0.23%, 1.7% and 38% per one million inhabitants, respectively<sup>153</sup> **(Table no. 9)**.

Of course, depending on the type of patent, the holder according to the Law on Industrial Property<sup>154</sup>, may have the following rights: the exclusive right to use the patent in the production process, the right to market products produced using the patent and the right to prohibit the use of the patent by third parties who have not obtained its approval. The holder of the patent, in the interest of another person, can partially or completely waive his rights (license or sale).

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<sup>148</sup>Legal Information System (2022), STRATEGY smart specialization in the Republic of Serbia for the period from 2020 to 2027, (covers areas that lead to global competitiveness, and refers to sustainable food production with high technology that creates high added value, sophisticated software solutions for global market and cross-sectoral industrial innovation) [Smart specialization strategy in the Republic of Serbia for the period from 2020 to 2027: 21/2020-95 \(pravno-informacioni-sistem.rs\)](https://pravno-informacioni-sistem.rs)

<sup>149</sup>Legal and Economic Editions (2022), Strategy for the Development of Artificial Intelligence in the Republic of Serbia for the Period 2020-2025, [https://www.srbija.gov.rs/extfile/sr/437304/strategija\\_razvoja\\_vestacke\\_inteligencije261219\\_2\\_cyr.pdf](https://www.srbija.gov.rs/extfile/sr/437304/strategija_razvoja_vestacke_inteligencije261219_2_cyr.pdf)

<sup>150</sup> Administration for Public Revenues of the Republic of North Macedonia ([ujp.gov.mk](http://ujp.gov.mk))

<sup>151</sup>[The press is going down in history - Onivo - Everything you need for your business!](https://www.onivo.com/en/press-releases/the-press-is-going-down-in-history-onivo-everything-you-need-for-your-business/)

<sup>152</sup>European Patent Organization, 2022, Number of applications filed <https://www.epo.org/about-us/annual-reports-statistics/statistics.html#:~:text=IP5%20statistics&text=In%202020%2C%202.8%20million%20patent,Offices%20granted%201.3%20million%20patents>.

<sup>153</sup>European Patent Organization, 2022, number of granted patents [Granted patents 2012-2021 per country of residence en.xlsx \(live.com\)](https://www.epo.org/about-us/annual-reports-statistics/statistics.html#:~:text=IP5%20statistics&text=In%202020%2C%202.8%20million%20patent,Offices%20granted%201.3%20million%20patents)

<sup>154</sup>Official Gazette of the Republic of Macedonia No. 42/93 of 15.07.1993



**Table number 9. Number of patents issued by the EPO for the period 2015 – 2021, by country**

Land	2015	2016	2017	2018	2019	2020	2021	Average for the period 2015-2021
Albania	0	0	0	0	0	0	1	0
Slovenia	65	80	92	76	72	95	79	80
Germany	14,114	18,728	18,813	20,804	21,198	20,056	16,507	18,603
Croatia	6	5	6	6	13	10	7	8
<b>North Macedonia</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
Serbia	0	1	1	9	6	5	2	3
BiH	1	0	0	0	0	0	1	0
Greece	22	39	36	47	56	91	68	51

Source: European Patent Organization, (2021)

From everything so far attached from the analysis of all 12 areas from the basic requirements for the development of competitive advantage, the efficiency boosters to the progress in the area of innovation and business sophistication, the overall score for North Macedonia of 69 points with a rank of 59 for 2021, says that the country is moderately prepared for developing market competitiveness and additional investment is needed (especially in R&D).

## 5. COMPETITION POLICY OF NORTH MACEDONIA

Indicators for the incentive of competitiveness in the market that are analyzed in the paper confirmed the connection between quality competitive policy and the growth of productivity of economies. The competition policy should be adapted to the specific demands and characteristics of the economy, and not copied from other international strategies. Equally important for its proper implementation is proper coordination with other development strategies (industrial strategy, SME strategy, environmental policy, etc.) as an opportunity to influence the building of the ability of the economy and the companies within it to compete in foreign markets and to build a competitive advantage in key sectors.

The government's National Competitiveness Strategy 2016-2020 focuses on its own potential and strength, not on the insertion and application of international development models.<sup>155</sup> Developing the competitiveness of the Macedonian economy through the correct implementation of the competitive strategy should be achieved in coordination with the 9 strategies shown in the following documents: (1) The Industrial Strategy 2018-2027, with an Action Plan, (2) The SME Development Strategy, (3) The National ICT Strategy 2021 – 2025, (4) Innovation Strategy, (5) Entrepreneurial Learning Strategy, (6) Women's Entrepreneurship Strategy, (7) Education Strategy, (8) Energy Efficiency Strategy and (9) The program for economic reforms. Of the listed, only the first 4 are more extensively explained and analyzed.

**The industrial strategy 2018 – 2027, with an Action Plan**<sup>156</sup>. The main goal of the document is to increase the competitiveness of the domestic industry, based on knowledge, innovation. At the same time investing in research that leads to growth and development, creating a stimulating business and investment climate and supporting enterprises to improve their competitive abilities by acquiring knowledge and new technologies and markets. It provides support for proactive Macedonian companies to develop and increase their competitive capabilities and reorient themselves towards products and services with higher added value, which will enable sustainable long-term functioning in international markets. The responsibility for the implementation of this strategy is in the competence of the sector for industrial policy within the Ministry of Economy. However, the correct implementation of this complex policy requires coordination with other policies and the institutions whose implementation is in charge. These include the ministries, the public and private sectors, the Chamber of Commerce, the institutions in the field of science with the faculties as well as the Investment Promotion Program. A big brake for the implementation of this policy is the low level of business sophistication in the market, which is achieved through investment in R&D that will provide an incentive for innovation in the market, as well as the lack of qualified staff. On the other hand, progress in this field is of key importance, not only for the promotion of exports and the realization of the circular economy, but also progress in it is a prerequisite before starting negotiations with the EU. It is also planned to open new institutions to support this strategy: (1) National Office for Technology Transfer (2) Science and Technology Park (3) Three industrial and green zones, the first of which is already functional. PER should invest 30,000 million euros every year or 150,000 for the next 5 years. Without concrete measures and funds, this important document will remain only on paper. However, targets that should be reached by the end of 2027 are: increased processing from 12.2% in 2015 to 14% by 2027, increased industrial competitiveness according to GIK from 56th place in 2015 to 50th place in 2027; increased exports from 4 million euros to 84,000 million euros by 2027, increased

<sup>155</sup>National Competitiveness Strategy (2016), p.4, [https://vicepremier-ekonomija.gov.mk/sites/default/files/pdf/07.Strategija\\_za\\_konkurentnost.pdf](https://vicepremier-ekonomija.gov.mk/sites/default/files/pdf/07.Strategija_za_konkurentnost.pdf)

<sup>156</sup>Ministry of Economy (2018) "Industrial Strategy 2018-2027", <https://economy.gov.mk/Upload/Documents/Finalna%20Industriska%20Strategija.pdf>

number of enterprises from 7,967 to 9,000 in 2027 and increased number of employees in the industry from 137,615 employees to 155,000 in 2027.

**The innovation strategy** is of crucial importance, why only an economy that bases its productivity on innovation can be competitive on the foreign market. Innovations are protected by a patent, no matter what field of technology the invention falls into. It should be new, contain an inventive contribution and be applicable in the industry. At the same time GCI measures the competitiveness of economies through the degree of innovation, which is just another confirmation of the importance and need for stimulating innovation and its application by companies. This strategy is high on the political agenda, with 20 million euros as part of a loan from the World Bank, which will be implemented through FITD, to facilitate access to risk capital, co-finance innovations, start-ups and spin-offs enterprises with new technologies. The innovation strategy of North Macedonia should initiate the transformation of the country into a knowledge-based economy, which is able to compete in international markets, through its skilled workforce and innovative companies. It relies on 4 basic objectives: (1) increasing the tendency of the business sector to innovate; (2) strengthening human resources for innovation; (3) creating a regulatory environment that will support innovation; (4) increasing knowledge flows between innovation participants.

**The strategy for the development of SMEs**, are based on 3 key goals (1) increased number of SMEs, (2) increased employment of SMEs and (3) increased contribution of SMEs in the creation of added value. The government plans to achieve the stated goals by improving the business environment, liquidity and access to finance for SMEs by creating and implementing an appropriate policy, strategy and legislation for SMEs, improving the productivity of SMEs that will initiate and improved quality of products and services achieved by providing modern infrastructure and business support services, supporting internationalization to improve their investment potential. In one, it is necessary to build connections with scientific sectors and scientific research centers, industries, but also all relevant institutions and sectors in the economy that work in a coordinated manner for the same purpose.

In North Macedonia, the process for development and promotion of the market began in 2005 with the adoption of the Law on Protection of Competition (LPC). The purpose of the law is to encourage economic efficiency and well-being of consumers by ensuring free competition on the domestic market, but also to build competition rules that will apply to the Macedonian market.<sup>157</sup> Five years later, in 2010, the State Aid Control Law was adopted,<sup>158</sup> according to which the forms of state aid and the reporting rules are regulated and at the same time a new PPE compliant with EU requirements is introduced. Together with the Law on Security of Networks and Information Systems, required for the implementation of the National Strategy for ICT 2021-2025, and with the help of which the establishment of a Digital Agency is planned, which will be in charge of monitoring, developing and applying all processes that will lead to the full application of the interoperability platform. While, the Law on Financial Support of Investments (LFSI), adopted in May 2018, aims to encourage investments, exports and the creation of high-paying jobs in the private sector. It consists of two sets of measures that reflect the first and second pillars of the government's Economic Growth Plan 2018-2021 (PER)<sup>159</sup>:

**i. Investment support measures:**

1. Support for new hires;

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<sup>157</sup>Commission for the Protection of Competition (2005), [Law on Protection of Competition consolidated text - Commission for Protection of Competition \(kzk.gov.mk\)](#)

<sup>158</sup>Commission for the Protection of Competition (2010), [Zakon za kontrola na drzhavnata pomosh konsolidiran 032018 \(mioa.gov.mk\)](#)

<sup>159</sup>Government of the Republic of North Macedonia (2021), [Economic Growth Plan | Government of the Republic of North Macedonia \(vlada.mk\)](#)

2. Support for the establishment and promotion of cooperation with suppliers from RSM;
3. Support for establishing organizational forms for technological development and research;
4. Support for investment projects of significant economic interest;
5. Support for the growth of capital investment and income; and
6. Support for the buyout of assets from companies in difficulty

**ii. Export support measures**

7. Support for increasing market competitiveness; and
8. Support for conquering markets and increasing sales.

It is important to note that the country has fully implemented the directives in the existing legislation and is evaluated positively in comparison with the EU acquis. However, due to the changes in the EU acquis, new open questions appear, as well as the need for compliance with the latest EU legal acts.

The government, ministries and other bodies of the executive power have a role in the creation of laws, strategies and policies, which will mean the encouragement of market competition and its maintenance on a sound basis. The competent institutions for creating the competitive advantage of the Macedonian economy participate directly through the creation of government policy by preparing draft laws, proposing development strategies, ratifying international agreements and other regulations and general acts for the Government.<sup>160</sup>In this regard, the Government of North Macedonia provides various types of measures in cooperation with the competent institutions, which should represent an incentive and help for the companies in our country. One of the measures used by the government to support companies are subsidies, which are growing year by year. According to the IMF, they have increased from 1.98% of GDP in 2015 (in nominal value they amounted to 11,762 million denars), to 5.20% of GDP in 2021 (in nominal value they amounted to 34,507 million denars).<sup>161</sup> While the balance of expenditures indicates that the subsidies allocated by the government to the private sector in 2018 amounted to 150,400 thousand denars (total expenditures 234,408,721 thousand denars), while in 2021 they amounted to 115,100 thousand denars (total expenditures 284,001,434 thousand denars), which represents 0.04% of total expenditure for 2021. This indicates the fact that the government is reducing its support for the private sector, which in times of economic crisis needs it. At the same time, subsidies for public enterprises amount to MKD 1,600,000 thousand for 2021, which is a much larger amount compared to the private sector.

A large number of institutions are involved in the process of implementing the above measures by offering financial and advisory assistance to companies facing difficulties and challenges. Thus, through the Development Bank, in 2020/21, a new line of interest-free loans and a guarantee scheme for commercial loans was introduced. According to the report for 2020, 67.5 million euros were placed for the companies under favorable conditions and with low interest rates. They were also offered through the Development Bank interest free credits for micro and small firms companies worth 31 million euros. 30% of this amount is provided in the form of a grant from EU, for companies who meet certain prerequisites: guided or established from women or employ young people persons, everything export oriented or introduce innovation and digitization in their operation. This bank continues to develop one government guarantee scheme by offering commercial loans in order to imenable companies easier access to capital to overcome liquidity problems and for investments to increase competitiveness. These measures were widely used by many crisis-hit countries during the pandemic. It supports placement of companies in new markets and improvement of competitiveness. In that direction, over 25 million euros were reserved for the private sector with the program for strengthening the competitiveness of the industry, in cooperation

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<sup>160</sup>Law on organization and work of state administration bodies, [Zakon za organizatija i rabota na organite na drzavnata uprava konsolidiran\\_15102015.pdf \(mjoa.gov.mk\)](#)

<sup>161</sup>IMF (2021) "Access to macroeconomic and financial data, Government Finance Statistics (GFS)", [GFSY by Country - Expense - IMF Data](#)

with the chambers of commerce. Also, through the development of a digital platform, 1.6 million euros of support is planned for the textile, footwear and furniture manufacturing industries for Startup companies and SME. Funds in the amount of 3 million euros are also provided for introduction of new processes, innovations, conquest of new markets, digitization and increasing competitiveness, through the Fund for Innovation and Technology Development. This institution has the most significant contribution to investments in R&D and innovations arising from domestic companies. In the last report, this institution listed the achieved performance of the companies co-financed by the programs offered by the fund. It constitutes the third pillar of PER. The legal basis for the implementation of the third pillar is the FITD Mid-Term Work Program for Financial Support of MSMEs for 2018-2020, adopted in February 2018, and it consists of:

- Co-financed grants for fast-growing SMEs ("gazelles");
- Co-financed grants for micro-enterprises;
- Co-financed grants to improve innovation;
- Co-financed grants for professional development and practice of newly employed young people;
- Creating an environment and drafting legal bases for the development of venture capital.

According to the report, which analyzes the performance and financial results achieved by companies that have received financial assistance from FITD in the period from 2015 to 2021, it has been concluded that innovative projects contribute a significant percentage to the total income of the companies. In fact, in the case of "Start-up" companies that are most often founded through the application procedure through the FITD program, the total value of investments is 6.42 million euros, of which 4.24 million are co-financed by FITD, while 2.17 million are co-financed by the companies. The value of projects at "Start-Up" companies exceeds the total income by 2.88%, of which 1.904% is a direct result of FITD, while 976% is financed by the companies themselves. This data speaks of a small but significant progress in this field. For the 669 projects financed, the funds are provided from different sources. The most significant are the "Economic Development Plan" from the Government and a loan from the World Bank.

According to the program, the largest percentage or 398 (59%) out of 669 are within the "Plan for economic growth" with a total value of 55.8 million euros. The second program is with a loan from the World Bank, through which 191 projects with a total value of 13 million euros were co-financed. The last one is the combined program created by the World Bank and PER, through which 80 projects with a total value of 19.7 million euros were financed. As analyzed in the continuation of the report, the finances from the World Bank have been used in a larger percentage for financial support of newly founded "Start-Up" companies. Companies in accordance with the "Regulations on the form and content of the request for the payment of financial support",<sup>162</sup> they can receive aid "on the basis of investing the capital back into the business, in property or human capital, in order to achieve development and better results". The regulation itself contains all the necessary prerequisites that companies have to fulfill in order to be beneficiaries of the financial support offered by the government. However, the law on financial support of investments (LFSI) does not contain provisions obliging companies to do so or provide evidence of this. The only proof that companies need to present to receive aid is proof that they have realized the justified investment costs in the previous year. This indicates the fact that the government has no real insight into the return of investments and how much they have a positive effect on the growth of exports and the creation of innovations.

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<sup>162</sup>Platform for legal acts, (2021), "Regulations on the form and content of the request for the payment of financial support" <https://dejure.mk/zakon/pravilnik-za-formata-i-sodrzhinata-na-baranjeto-za-isplata-na-finansiskata-poddrshka-potrebnata-dokumentacija-vidovite-na-opravdani-investiciski-trosi>



## 6 INSTITUTIONS COMPETENT FOR CREATING AND IMPLEMENTING COMPETITIVENESS POLICIES IN NORTH MACEDONIA

In order to improve the competitiveness of the Macedonian economy, numerous institutions have been established whose main goal is to provide unreserved support to Macedonian companies on foreign markets by ensuring the necessary prerequisites and information necessary to encourage exports, while simultaneously respecting and implementing the laws for the protection of the market from unfair competition. They are:

**Table number 10. Institutions that participate in supporting Macedonian companies in developing their competitiveness on the foreign market.**

Name of the institution	Year of establishment
1. Ministry of Economy (ME)	1991
2. Chamber of Commerce of North Macedonia	1922
3. Development Bank of North Macedonia <sup>163</sup>	1998
4. Directorate of Technological and Industrial Development Zones <sup>164</sup>	2002
5. Entrepreneurship Support Agency	2003
6. State Industrial Property Office	1992/2004 independence
7. Agency for FDI and export promotion	2005
8. Ministry of Industry and Investment Policy Department	2021
9. Innovation and Technological Development Fund	2013
10. The Commission for the Protection of Competition (CPC)	2005

- **Ministry of Economy (ME)** is responsible for implementing and coordinating industrial policy<sup>165</sup>, the energy policy, attracting FDI, supporting SMEs, encouraging exports and trade. This ministry is key to industry-related issues with a special focus on the manufacturing industry, also responsible for creating, securing approval for the industrial strategy and action plan, as well as coordinating its implementation (inter-ministerial coordination, donor coordination and coordination of stakeholders) and is also the creator of energy policies through harmonization of legislation in the field of energy. Also, ME has the leading role in mobilizing state and non-state funds (donors and IFIs) as well as monitoring, reporting and evaluation.
- **Sector for industrial and investment policy within the Ministry of Economy** do oversees the entire process and will coordinate the implementation of the strategy and its action plans. Inter-ministerial coordination is even more important than usual, given the importance of measures from the Economic Growth Plan for the effective implementation of this strategy. This coordination process will include regular (half-yearly) meetings of the Sectoral Working Group for Competitiveness and Innovation, which will implement the strategy and action plan.
- **Chamber of Commerce of RNM (CC)** is an institution in which, on a voluntary basis, legal entities with headquarters in North Macedonia who carry out economic activity and are registered in the

<sup>163</sup>Development Bank of North Macedonia [Profile \(mbdp.com.mk\)](http://mbdp.com.mk)

<sup>164</sup>The Directorate for Technological Industrial Development Zones, TIRZ, (2021), <https://fez.gov.mk/?lang=MK>

<sup>165</sup>The Industrial Policy 2009-2020, prepared by the Ministry of the Interior and adopted by the Government in June 2009, was a national strategic document for increasing the competitiveness of the industry and the economy.

commercial register come together. Other entities that contribute to the improvement of the operation of the economy with their activity can be joined in the Chamber of Commerce. At the same time, CC is involved in the activities related to the "Open Balkans" initiative, with the aim of improving the working conditions of companies in the region, facilitating the import, export and movement of goods, the free movement of agricultural and food products, as well as the free movement of non-food products, labor and capital. Services provided by CC for companies are: documents for foreign trade operations, dispute resolution, arbitration<sup>166</sup>, mediation<sup>167</sup> and other services such as: implementation of projects of interest to the business sector, provision of training for entrepreneurs, owns a Center for Education and Development of Human Resources<sup>168</sup>, Center for quality improvement in production and services<sup>169</sup> (introduction of standardization for service quality - ISO-9001, ISO-14001, ISO-22000, ISO-45001, HACCP, HALAL), club of managers - entrepreneurs, organizes events in the Chamber and offers professional reading services for business and science ;

- **Development Bank of North Macedonia** promotes exports, through lending and other forms of support. At the same time, it provides support to the development of SMEs, through the approval of investment loans, and enables the insurance of the collection from the performed exports and protection from commercial risks in the short term. She is the only one developmental Bank in North Macedonia established with special Law for establishment on Macedonian Bank for support on the development on 21 May 1998 year.<sup>170</sup> In 2009, the new Law on Development Bank of North Macedonia (LDBNM) was adopted (Official Gazette of the Republic of North Macedonia No. 105/2009), with the aim of improving its position and specific role as a development bank in the banking sector and in the economy of the RSM. For the same purpose, in April 2021, the Law on Amendments and Supplements to the Law on the Macedonian Bank for Development Support was adopted (Official Gazette of RSM No. 77/2021). The main activities it carries out are: financing the development of the Macedonian economy and infrastructure, supporting the development of SMEs, encouraging and insuring the export of Macedonian products and services from commercial and political risks and supporting regional development.
- **Directorate for Technological and Industrial Development Zones TIDZ** manages the technological-industrial development zones in North Macedonia, and works to attract FDI in the TIDZ zone through cooperation with foreign businesses that want to invest in the country by offering access to renewable energy sources in the TIRZ. Special priorities are: attracting investments with higher added value, companies investing in innovation and research and development, expansion of investments in various industrial sectors, health, pharmacy, IT, etc. At the same time, it provides assistance to domestic companies through activities that encourage and stimulate exports from the TIDZ zone. From 2021, a program for the technological advancement of domestic companies has been introduced, within the framework of the Project for Encouraging the Entry of Companies from the Western Balkans Region into Global Supply Chains.<sup>171</sup>, while the plans until 2025/2026 refer to the incentive of investments in green buildings, green technologies, infrastructure and technological advancement of

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<sup>166</sup>Chamber of Commerce of the Republic of Moldova, (2021), <https://arbitraza.mchamber.mk/index.aspx?lng=1>

<sup>167</sup>Chamber of Commerce of the Republic of Moldova, (2021), <https://www.mchamber.mk/Default.aspx?mId=37&lng=1>, - Resolving disputes through negotiation, in a peaceful manner with the help of one or more licensed mediators, in order to reach a mutually acceptable solution expressed in the form of a written agreement.

<sup>168</sup>Chamber of Commerce of the Republic of Moldova, (2021), <https://www.mchamber.mk/Default.aspx?mId=33&lng=1>

<sup>169</sup>Chamber of Commerce of the Republic of Moldova, (2021), <https://www.mchamber.mk/Default.aspx?mId=32&lng=1>

<sup>170</sup>Fig. Gazette of the Republic of Moldova no. 24/98, 6/2000, 109/2005 and

130/2008, <https://www.slv.esnik.com.mk/besplaten-pristap-do-izdanija.nsp#>

<sup>171</sup>TIRZ, (2021), Annual work program of TIRZ, [godishna-programa-TIRZ-full.pdf](https://godishna-programa-TIRZ-full.pdf) (fez.gov.mk)



domestic companies. At the same time, major tax exemptions are included through this institution, such as exemption from profit tax in the first 10 years, exemption from PD based on salary, exemption from VAT for the turnover of goods and services in TIRZ and exemption from VAT for the import of goods in TIDZ. Also TIDZ will be included in pillars 1 and 2 of PER.

- **Entrepreneurship Support Agency (ESA)** is in charge of and implementation and enforcement of Government policies for SMEs and implementation of projects/programs adopted by the Government to support entrepreneurship, competitiveness and innovation. At the same time, ESA supports sustainable economic development, regional development and the increase of employment, the support of Macedonian enterprises for starting a new business, their growth and development and achieving a technological level for a competent performance on the international market. In short, Frthe areas they cover are: improving access and financing costs for companies: through policies that will reduce the collateral required for companies to obtain a loan; implementation of existing legislation, provides assurance that companies will receive their VAT reimbursements in less than 60 days, which also represent a large part of the working capital of companies, mediates the reduction of import duties for imported textile products, which are largely relies on the garment manufacturing industry in the region and which can represent over 60% of the total costs incurred by an average textile firm, and mediates the improvement of logistics channels: improving transport infrastructure and reducing delays resulting from customs clearance, trade and bottlenecks .
- **State Industrial Property Office (SIPO)** is an independent body of the state administration responsible for carrying out activities related to the acquisition and protection of industrial property rights. The regulation of the protection of industrial property begins after the independence of the country. From that moment on, Macedonian companies can submit applications for the protection of industrial property. In June 2002, with the new Law on Industrial Property (in force since 2004), harmonization was made with international standards and basic principles of the Agreement on Trade-related Aspects of Intellectual Property Rights with that of the World Trade Organization and EU regulation.

In **Table number 11**, shows the total of requests submitted to SIPO for the recognition of industrial design, trademarks and patents, from domestic and international applicants for the period 2015 - 2021.

**Table number 11. Applications submitted to SOIP for recognition of patents, trademarks and industrial design<sup>172</sup> from domestic and international entities<sup>173</sup>, (natural and legal persons) for the period 2015-2021**

Year of filing	Industrial designs from SP	Industrial Designs by DP	Patents from SP	Patents from DP	Trademarks from SP	Trademarks from DP
2015	4	21	688	31	539	815
2016	2	20	894	49	487	782
2017	0	35	951	51	488	780
2018	0	31	1062	32	474	843
2019	2	34	972	48	601	870
2020	5	21	991	44	472	813
2021	6	33	968	41	600	782

**Source. Data obtained from the annual reports of SOIP**

**\*SP stands for Foreign Applicants while DP stands for Domestic Applicants**

<sup>172</sup>With one industrial design application, the protection of several product designs can be requested (multiple applications). Thus, of the 39 applications submitted in 2021, there are a total of 76 industrial designs

<sup>173</sup>State Industrial Property Office 2022, Annual Reports, [About SOIP \(ippo.gov.mk\)](http://ippo.gov.mk)

According to the data obtained from the review of the annual reports of SIPO in 2021, it can be noted that the number of submitted applications for patents for 2021 is a total of 1,009 new applications, of which 41 are domestic, 1 application is through DSP, while 967 are European patents recognized by the European Patent Office (EPO). For us, the applications submitted by domestic entities in 2021, which were 41 in total and for which a downward trend compared to previous years, is significant. At the same time, the number of issued decisions for patent recognition grew from year to year, so in 2021 it amounts to 1238 and there is a 72% increase compared to 2015.

Competences of SIPO are: receiving applications for recognition of industrial property rights and issuing decisions for domestic and foreign international entities. The data published and processed by this institution, on the number of issued patents, industrial design and trademarks, are of great importance because the increase in their number also means advancing the competitiveness of the economy, through the protection of innovations in the patent market.

Among the other services offered by this institution are: implementation of an administrative procedure for the acquisition of industrial property rights in the territory, implementation of an international procedure for the recognition of industrial property rights in accordance with the international agreements to which the country has acceded; keeping registers of applications and acquired rights, publishing in the official gazette data on registered and recognized industrial property rights and making available to the public the databases on recognized industrial property rights, representing the state before international, European and regional organizations for industrial property property, monitors the development of international and European regulation and initiates initiatives to harmonize national legislation, undertakes initiatives for the ratification of international agreements in the field of industrial property, provides information on procedures for the protection of industrial property rights in the country and abroad, provides search services in databases in the field of intellectual property, promotes the protection of industrial property , conducts training and conducts an exam for representatives in the field of industrial property.

Also, SIPO has an active cooperation with the EPO, in which the organization North Macedonia has been a member since 2009, and with the Intellectual Property Office of the EU, with whose help it started implementing the electronic submission of trademark applications. Active cooperation with the EPO is achieved through participation in various workshops and webinars organized by the EPO, but also by participating in the administrative council with regular delivery of monthly and quarterly reports. This is of great importance for keeping up with all the news and innovative approaches in patent applications. All this contributes to the improvement of the quality of data exchanged with the EPO, but also the possibility of knowledge transfer in North Macedonia, through the exchange of ideas and learning of innovative approaches used in developed countries.

At the same time, SIPO annually awards a cash prize for a category of registered or protected patent by a female innovator or young innovator. From North Macedonia, in 2021, only one application was submitted to the EPO by a Macedonian domestic company, which is managed as an international one, and it was submitted by the pharmaceutical industry Alkaloid AD Skopje.

- **Agency for FDI and export promotion** is the official government agency for FDI attraction and export promotion by offering a set of services that guides clients through the entire process by presenting all the opportunities available to them, according to their requirements and needs. Their mission is

to encourage and support FDI in the country, establish and strengthen business cooperation with local suppliers and promote the export potential of local companies by promoting domestic products and services in foreign markets and offering assistance in the process of increasing their exports. They also offer research for interested investors, organize a suitable travel plan and meetings for visiting the country. Namely, once the potential exporter is present in the country, the team from the Agency helps him through analysis and by providing an objective assessment of the potential success of the project based on the current business climate. Then, care for users-investors, monitoring the needs and requests of the exporter, promotion of exports through the help of companies they generate contacts for development on the business and that: trade fairs, trade missions and B2B meetings.<sup>174</sup><sup>175</sup>. The export promotion sector helps Macedonian companies to generate contacts for business development through participation in fairs, trade missions and B2B meetings. This activity is carried out according to the Government Action Plan<sup>176</sup> and marketing and economic promotion of the state.

- **Fund for Innovation and Technological Development (FITD)** is a state institution founded in December 2013 in accordance with the Law on Innovation Activity<sup>177</sup> and the support program through the "Skills Development and Innovation Support Project" financed through a loan from the World Bank<sup>178</sup> which falls under the third pillar of the plan for economic growth of the Government of North Macedonia. Namely, FITD as an institution finances innovative projects that fall into the domain of research and development (R&D) of new products and services. Its purpose is to ensure the stimulation of innovation, by providing additional sources of funding for innovation, due to the need to build a competitive economy based on knowledge. It is particularly important that the Fund is a leading government institution for supporting startups and innovative companies. Other important activities of FITD are: co-financing startups and offering advisory programs for them as well as supporting SMEs. FITD achieves this through a national startup council whose goal is the transformation of the Macedonian startup ecosystem, the program for corporate innovation with the aim of encouraging cooperation between the private sector and startups and a partnership with Amazon Web Services, through which the Fund provides credits for the use of this global platform in the amount of 10,000, 25,000 and 100,000 US dollars. At the same time, FITD has a separate portfolio for investments in digitization of agriculture and public institutions, development of a National Strategy for Artificial Intelligence and mentoring support for potential and current users. The fund also supports the development of three accelerators in the country: X factor, Sivus Accelerator and Business-technologically accelerator UKIM. FITD has established a Fund for Young Minds<sup>179</sup> through which it supports young innovators. Its scope includes the following sub-programs related to financial support of technological development:
  - [Co-financed grants for technological development to overcome the consequences of COVID-19](#)<sup>180</sup>
  - [Co-funded technology development grants](#)<sup>181</sup>
  - [Co-financed grants to improve innovation](#)<sup>182</sup>

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<sup>174</sup>Invest North Macedonia, [Export promotion – Invest North Macedonia](#)

<sup>175</sup>Invest North Macedonia, <https://investnorthmacedonia.gov.mk/export/>

<sup>176</sup>Ministry of Economy, (2021), Industrial Strategy of the Republic of Macedonia 2018-2027, with Action Plan <https://economy.gov.mk/Upload/Documents/Finalna%20Industriska%20Strategija.pdf>

<sup>177</sup>Law on innovation activity, consolidated text ("Official Gazette of the Republic of Macedonia" no. 79/2013, 137/2013, 41/2014, 44/2015, 6/2016, 53/2016 and 190/2016) <https://fitr.mk/wp-content/uploads/2020/05/Zakon-za-inovacijska-dejnost.pdf>

<sup>178</sup>FITR (2021), Support program through the "Project for the development of skills and support of innovations" financed through a loan from the World Bank - Fitr ([fitr.mk](http://fitr.mk))

<sup>179</sup>The Fund for Innovation and Technological Development (FITR, (2021) <https://rb.gy/wgizqj>

<sup>180</sup>The Fund for Innovation and Technological Development (FITR, (2021) <https://rb.gy/njcfwj>

<sup>181</sup>The Fund for Innovation and Technological Development (FITR, (2021) [Co-financed grants for technological development - Fitr \(\[fitr.mk\]\(http://fitr.mk\)\)](#)

<sup>182</sup>The Fund for Innovation and Technological Development (FITR, (2021) [Co-financed grants for improving innovation - Fitr \(\[fitr.mk\]\(http://fitr.mk\)\)](#)

- Co-financed grants for professional development and practice for newly employed young people<sup>183</sup>
- **The Commission for the Protection of Competition (CPC)** was founded in 2005 as an institution responsible for the protection of competition on the Macedonian market and acting in accordance with the laws. It is also responsible for implementing the legislation in the field of state aid control and competition protection. The CPC as an independent body is composed of a president and 4 members, and for 2021 it had a budget of 379,919 euros.<sup>184</sup> According to the efforts that every institution responsible for controlling the application of laws in the field of competition should have, it can be concluded that the CPC is insufficiently staffed for such extensive work and there is a need to strengthen the capacities and advance the degree of financial independence. Just for example, in Slovenia, a country with the same market size as that of North Macedonia, the Agency responsible for the protection of competition has 32 people, who work in 4 different departments<sup>185</sup>, and the total income available in 2021 amounts to 1,528,506.69 euros<sup>186</sup>.

In order to create a competitive climate in the market, the 10 listed institutions must be well coordinated in order to encourage competitiveness, innovation and FDI. For that reason, it is important that all strategies adopted by the government are focused on avoiding overlapping obligations and activities, although some are unavoidable and can add value, if coordinated effectively.

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<sup>183</sup>The Fund for Innovation and Technological Development (FITR, (2021), [Co-financed grants for professional development and practice for newly employed young people - Fitr \(fitr.mk\)](#)

<sup>184</sup>CPC, 2021, Annual report on the work of CPC, [Annual-Report-of-the-KZK-for-2020-year.pdf \(kzk.gov.mk\)](#)

<sup>185</sup>Department for Restrictive Procedures and Offenses, Department for Concentrations and Economic Analysis, Civil Servants in Support Functions, and Department for Prevention of Abuse of the Food Supply Chain

<sup>186</sup>Slovenian Competition Protection Agency (2022), [Slovenian Competition Protection Agency: About the Agency \(varstvo-konkurence.si\)](#)

## **7. CHALLENGES FACED BY MACEDONIAN EXPORT COMPANIES**

In order to directly identify the challenges and problems faced by Macedonian export-oriented companies, an online questionnaire covering a wide range of factors was sent to 70 of them. The questionnaire was sent using the Google Forms tool. The data was collected through the online questionnaire in the period June - August 2022, where companies were randomly selected from the industries of 5 different sectors, which were taken as a target. The aim of the analysis was to cover equally industries that have weathered the crisis caused by the pandemic well and those that have seen stagnation or decline. Accordingly, the selection of target industries was made on the basis of data obtained from past economic analyses<sup>187</sup>and publications, which indicated that certain industries saw revenue growth during the pandemic, such as the IT sector, the chemical and pharmaceutical industries, and others such as the textile and metalworking industries, which saw revenue decline during the pandemic.

Data on export companies from the 5 sectors that were taken as a target were collected from the Central Registry of North Macedonia and the Chamber of Commerce, where there is a list of export-oriented companies, by sector. In the direction of a clearer picture, the results of each of the 5 targeted industries have been analyzed separately. The companies from the following 5 industries were covered in more detail: the textile industry, the furniture manufacturing industry, the metalworking industry, the chemical industry and companies from the IT sector. In more detail by sector, the questionnaire was sent to

- 18 companies from the textile industry;
- 14 from the metal processing plant;
- 19 of the country's IT sector and
- 4 of the chemical industry in our country and
- 15 from the furniture manufacturing industry;

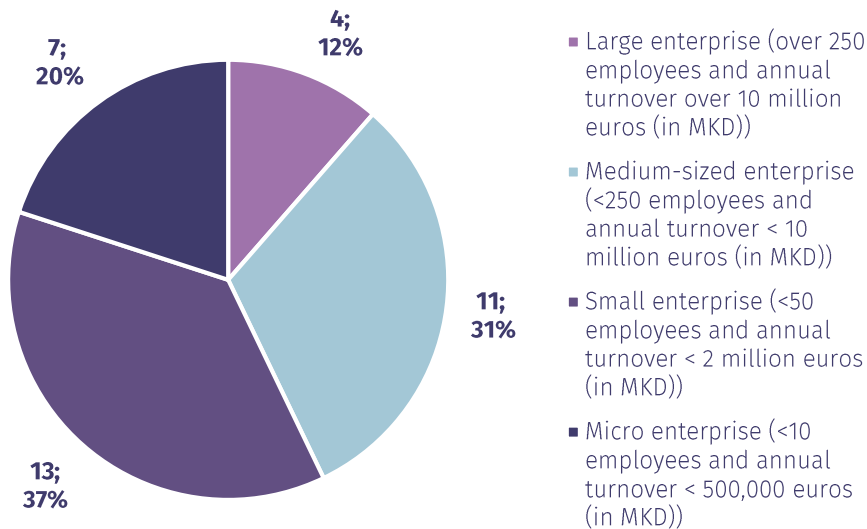
The questionnaire is divided into 3 basic segments:

- **The first part**, consists of 5 basic questions and covers only basic and fundamental information such as year of establishment, size of the company, assessed by number of employees and annual turnover, and finally the position of the person answering the questionnaire to get an impression of the bias in giving of the responses by the respondents;
- **The second part**, which consists of a total of 13 questions that refer to the production capacities and technical standards possessed by the companies through which their willingness to invest and export to the foreign market, innovation and the possibility of patent protection of the competitive products they own and export are evaluated on the foreign market. Also questions about what they used from the private sector assistance programs offered by the Government;
- **The third part**, with a total of 12 questions, it refers to the need for training and professional development and is aimed at evaluating the level of qualifications of the workforce available to the companies, and thus their ability for their own promotion on the foreign market.

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<sup>187</sup>International Labor Organization, (May 2020), "The impact of COVID-19 on enterprises in North Macedonia"[MK-Report-on-the-impact-of-Covid-19-FINAL-24-8-20.pdf \(socialendijalog.mk\)](#)

**Chart No. 9 Results of the conducted questionnaire for analyzed enterprises by size**



Below the paper analyzes the results of 35 companies or 50% of the total of 70 companies from the 5 industries, to which the questionnaire was sent and which responded to it.

Source:

*Questionnaire sent to companies July – August 2022*

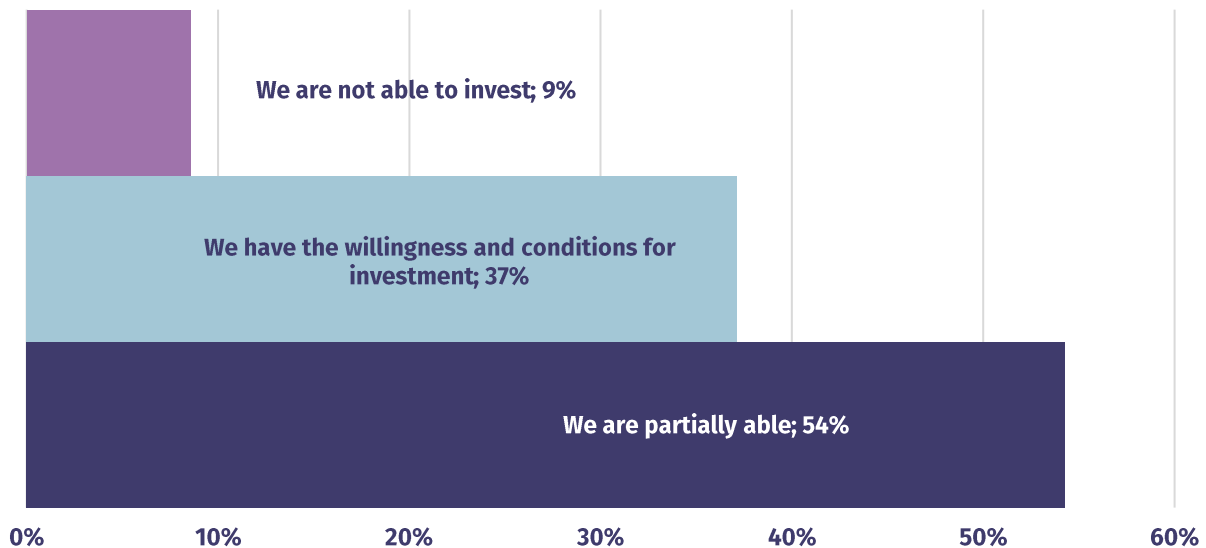
During the scope of the included enterprises, care was taken to ensure that they were of different sizes, or rather that there were representatives of micro, small, medium and large enterprises. According to this criterion, the analysis shows that the majority of the investigated companies that responded to the questionnaire are small enterprises with up to 50 employees and an annual turnover of no more than 2 million denars, or 37% of the 70 companies involved. Furthermore, 31% of the examined companies are medium-sized companies with up to 250 employees and an annual turnover of up to 10 million denars or 20% are micro enterprises and only 4% are large companies with over 250 employees and an annual turnover of over 10 million denars (Chart number 9).

## **I. Production capacities and technical standards**

Considering that only exporting companies were targeted, it could be noted from the answers that 86% of all surveyed companies have been exporting abroad for more than 5 years, which indicates that most of them are already well acquainted with the markets of the countries in which they operate and export their goods or services. At the same time, the oldest company that responded to the questionnaire is from the chemical industry, established in 1947, and it has been exporting to the countries of the region for more than 30 years, which indicates that it managed to overcome the period of transition and survive, so that after independence it could start exporting to foreign markets. While the youngest was established in 2016 in Bitola as a small textile company and it has been exporting for 4.5 years to foreign markets in the USA and Saudi Arabia. Related to the period when companies started exporting, the analysis showed us that most companies from the chemical industry started exporting after 30 years of establishment or immediately after the independence of the country, mainly to the countries of the region (Serbia, Bulgaria, Greece, Albania, Kosovo, Montenegro, Bosnia and Herzegovina), which means that they kept the markets where they were present before the independence of the country. All other analyzed companies

were established after independence and they start exporting on average 8 years after the establishment. In terms of the EU countries where the companies mostly export, Germany prevails, while immediately after it is Greece as an EU member state and a country that is part of the region. While from the rest of the countries in the region besides Greece, the biggest partners are Serbia, Kosovo and Albania. From the EFTA countries, Norway and Switzerland prevail, where mostly the companies involved in the production of furniture export. The growth of the percentage of the export of goods as a % of GDP is also confirmed according to the data from the Eurostat database, where in 2010 it was 39.8%, while already in 2021 it is 65.9%, which represents a 65.58% growth, which means that exports are on the upswing and growing year

**Graph number 10. Willingness to invest in new equipment and technology**



by year<sup>188</sup>.

Source: Questionnaire sent to companies July – August 2022

It is interesting that almost 95% of the surveyed export companies answered the question "What equipment and technology do you have?" stated that they have the most up-to-date technologically advanced equipment and technology for the production of their products that they export abroad, while when asked "Are you facing any type of problems in terms of the level of development of the equipment you have?", 80% answered that the production equipment corresponds to the standards required in the respective sector. The given answer indicates that our domestic companies are well equipped and ready to respond to the demands of the markets in the countries to which they export. At the same time, the technical equipment available to export companies corresponds to the standards for the production of advanced and sophisticated products, as demanded by the foreign market. The remaining 20% of the companies, mainly furniture manufacturing companies, answered that constant investment and progress is needed, as indicated by the statement of the CEO of a small company "In certain sectors, we need to replace the semi-automatic equipment with digital, so that we can be competitive with the prices on the foreign market". Of course, nowadays, following the rapid development of technique and technology is the basis for progress and better and higher quality production, which must follow the changes and demands of the market. Accordingly, domestic enterprises also need new machines and equipment that

<sup>188</sup> [Statistics | Eurostat \(europa.eu\)](https://ec.europa.eu/eurostat/)

will enable them to shorten the time for producing a unit of product, increase precision, and reduce total costs.

On the question *"How willing are you to invest in new equipment and technology in order to increase the quality and competitiveness of your products/services?"* most companies or 91% of those analyzed have full readiness and conditions for investment or are partially ready for new investments. Only 9% or 3 companies are unable to invest in new equipment.

On the question *"Do you think you are competitive with the products you export to the European market?"*, 86% of the companies answered that they are competitive with the products they export, and the factors they highlighted as the reason for their competitiveness are the quality of the product they offer on foreign markets and the flexible price. This answer was given by 57% of the surveyed companies who consider that both factors are equally important to achieve competitiveness in the foreign market, or as the answer of a medium enterprise from the textile industry *"You need quality to start negotiations and price to export."* The remaining 23% of the companies base their competitive advantage only on the quality of the product that they export to the market, ie they have unique characteristics of an existing product that influences the company to stand out from the rest of the companies listed on the foreign market. Only one company from the IT sector, in addition to quality, also mentioned the ability to innovate, which affects maintaining a competitive advantage, while 2 companies (or 6% of the respondents) base their advantage on the low price. The remaining 14% or only 5 companies answered that they are not competitive on foreign markets, and they cited *"The high prices of reprodromaterials"*, *"the need for digitization of processes to increase productivity"* and *"serious administrative and customs barriers and other charges. But also the poor logistics opportunity, that is, transport costs for placing the products on the developed European market, which contribute to the growth of the price of the final product"*. The mentioned 3 reasons for the poor ranking are given by companies whose primary activity is the production of furniture to order.

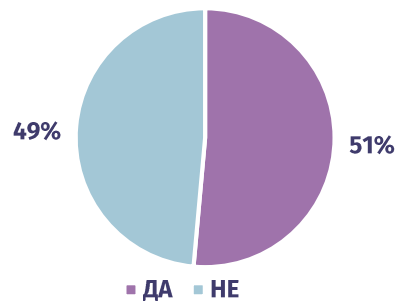
On the other hand, what the companies themselves perceived as an opportunity to improve the competitiveness of the market and what they believe should be undertaken by the competent institutions in order to achieve the necessary change, largely depends on the type of industry. So, for example, companies from the IT sector face a lack of staff and believe that the educational system should be improved, and thus the quality of the students who leave the student desks. This is a real problem despite the fact that this profession in North Macedonia is among the most profitable. Among other things, the need to improve communication with customers is also mentioned. Among companies from the textile industry, the risk factors do not differ greatly, almost the majority answered that the lack of professional staff is a major obstacle to growth, *"the lack of finance for equipment for the production of a competitive product and the conditions offered by the state affect our competitiveness"*.

At the same time, some companies see the weak link in their company through the need and opportunity to increase the volume of production by expanding the range of products they place on the market, as stated by the statement of the manager of a textile company from Bitola *"to increase production and the range of products that we offer to foreign markets"*. From the chemical industry, four of the analyzed companies stated that they do not face major difficulties except for the need to reduce production costs and improve logistics as a process of planning and executing efficient transportation and storage of goods from the point of origin to the point of consumption. While according to the responses of furniture manufacturing companies, it can be concluded that most of them as the biggest problem they face is unfair competition in the market, or carpenters who perform this activity privately without paying taxes to the state, at whose expense are also more competitive with the price in front of the customers. At the



same time, they have obstacles in terms of the need for digitization of processes and the use of modern technologically advanced equipment, as well as professional staff trained to work with the equipment. The last one, the lack of qualified staff, is a problem that was noticed by almost all the industries analyzed by the companies. The metal processing industry to the greatest extent faces the need to modernize the equipment they have, but also customs costs higher than those in the EU countries. A large company from this industry on the question "What do you think you need to improve to increase the competitiveness of your products?" he stated "input costs, (import customs rates that are higher than those of the EU), general handling above the set quality standards". This suggests that companies must cover increased input costs by making efforts to reduce operating costs. While the government's role is to carry out a comparative analysis through which it will propose measures that will enable the harmonization of rates and the reduction of import costs for improved competitiveness of this industry in the markets of EU member states. What is significant for almost all industries is the fact that 51% of them change ISO production standards (chart 11), which of course differ depending on the industry they belong to.<sup>189</sup>

**Chart number 11. Do you apply standards in the work process**



Regarding the difficulties and challenges they faced during the introduction of the standards, part of the companies or 26% answered that it was the resistance offered by the employees in accepting the standards, which is also indicated by the statement of the executive director of a small furniture manufacturing company. "Resistance on the part of the employees to accept the new standards that are more and more fulfilling".

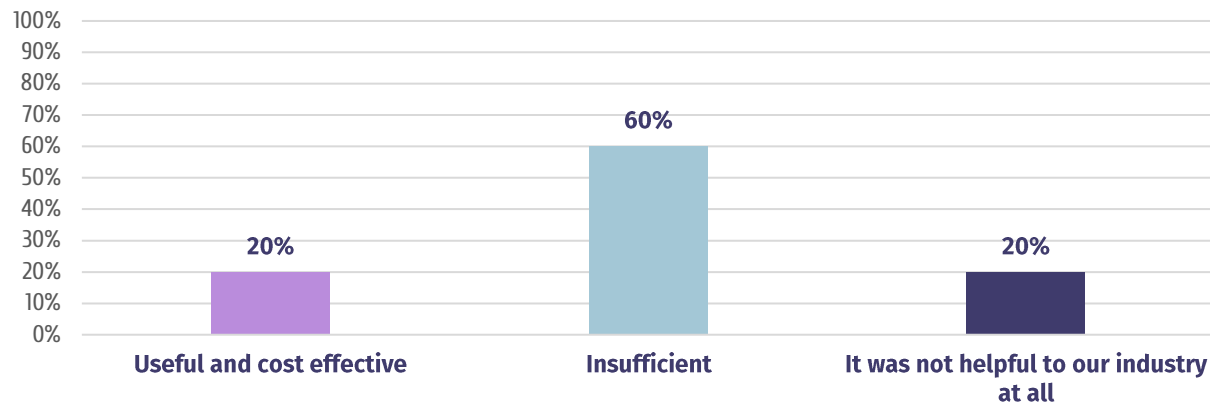
*Source: Questionnaire sent to companies in the period July - August 2022*

While 43% of the companies mentioned the difficult bureaucratic process during the introduction of the standards and the lack of professional staff to implement the certification process itself through long processes of employee education. The remaining 17% perceived that the insufficient quality offer from renowned certification houses that implement and revise the certification process, as well as the excessively high prices of the existing houses in charge of monitoring the certification process, which represent a burden for companies that are already facing increased operating costs, largely due to the energy crisis that plunged our economy deep into 2021, which is predicted to deepen in the last quarter of 2022. While it will reach its peak in the first quarter of 2023.

Regarding the willingness to invest in patent protection, acquisition of new licenses or other type of intellectual property, most of the companies or 69% answered that they are willing to invest in this type of investment, of which 2 of the analyzed companies are already in process of investing in patent protection, while only one company from the chemical industry has made this type of investment in the past year 2021.

<sup>189</sup>The most common standards divided by industries are the following: IT sector: ISO 9001, ISO 27001, ISO 20000-1, 27001, ISO 140001, PMP, BPMN 2.0, ESOMAR, NMSPA; metal processing industry: ISO 9001:2015, ISO 45001:2018, ISO 14001:2015, as well as other ISO9001, ISO14000 standards for environmental protection and ISO18000 for occupational safety; Textile industry: BSCI, ISO 9001:2015, OekoTex, BSCI, FWF, ISO 14001:2015; Chemical industry: ISO 9001:2000, 14001:2004, ISO 22000, Pas 220, ISO 180000, A-Integrated environmental permit;

**Chart number 13. How do you evaluate the help offered through government programs?**



Source: Questionnaire sent to companies in the period July - August 2022

Of course, the role of the government in the help it offered to companies is also indispensable, especially at a time when the whole world is facing the pandemic caused by the Covid-19 virus. For that reason, the companies were asked and "Have they used government programs for the survival of the business sector during the pandemic caused by Covid-19?" The analysis of the questionnaire showed a division regarding the companies that benefited from the measures that were offered by the government with 51% in favor of those that benefited against, 49% that did not reach for the measures that were offered. However, despite the high percentage of companies that used aid, a large part of them or 80% consider that it was either insufficient or not uWEful for their industry, only 20% of the companies that used the aid offered by the government through the economic measures for dealing with the crisis caused by Covid-19, they believe that it was uWEful and worthwhile (Chart number 12). While the answers from the companies showed that they used only the measure 25 of **financial support of salaries for employees**<sup>190</sup> which was offered in the amount of 1 billion and 920 million denars for certain months in 2021, covering about 60,000 workers per month. With this measure, the greater the drop in revenues at the companies, the greater the support from the government for the payment of salaries was planned to be, and it ranged from 14,500 to 21,776 denars. A very small part or only 2 companies used the interest-free loans.

Regarding the question "Do you need institutional support in finding foreign partners on EU markets and establishing contacts?", 66% of the companies responded that this type of support is more than necessary, as stated by the statement of a person engaged in the human resources sector of the textile industry from Shtip "Any support in finding foreign partners is welcome and if it is offered by the competent institutions, we would use it regularly. Only 7 companies or 20% of the companies either have no need or when they used this type of service it did not give the expected results. The remaining 14% did not express themselves in this field. The large percentage of companies that expect this type of help in finding foreign partners from the competent institutions, says that they are not aware of the existence of this type of service within the framework of the Agency for FDI and Export Promotion, which institution mediates on behalf of domestic companies in finding foreign partners. This was also confirmed by the responses from the survey, where the companies asked the question "Which services from institutions in North Macedonia for supporting exports and improving the competitiveness of Macedonian companies on foreign markets

<sup>190</sup>RSM Government, (2021), [Economic measures of the Government to deal with the crisis from KOVID-19 | Government of the Republic of North Macedonia \(vlada.mk\)](#)

are the most uWEful?" ,50% answered that they do not know them or that the help they offer is insufficient. The rest individually mentioned the following 3 institutions as the most uWEful for supporting exports: the Ministry of Economy, the Chamber of Commerce and the Agency for FDI and Export Promotion.

## **II. Staff qualifications and the need for training and development**

In this part of the paper, the key findings from the research on the necessary skills of the workforce, required by the 5 targeted industries, for the smooth running of the work processes, are presented. The data presented so far in the paper through the information received by the companies show that the companies are not only facing a lack of staff, but are also in constant search for it.

The lack of staff has been confirmed through numerous conducted surveys. Namely, according to the OECD report, 63% of companies in North Macedonia identified the skills of the workforce as a barrier that limits the operation and growth of their businesses.<sup>191</sup>This is primarily due to the enormous emigration observed through the high percentage of emigration of highly qualified labor from the country, which contributes to the fact that companies are facing a lack of staff who possess work skills. This situation is observed in every sector of the economy, including the industries that are part of this analysis. That is also the reason why 94% of the companies answered that they invest in improving the performance of employees, which says that there is a developed world among the management in the companies about the need for continuous upgrading as a need to follow world trends. Only 6% of companies gave a negative answer to this question. Wherein the type of investment and the degree of investment in personnel depends largely on the type of industry. The IT sector stands out in this field by offering different types of training for employees, business trips to upgrade knowledge, support and mentoring from team members, organized gatherings as team building activities and events outside of working hours for greater motivation and productivity the employees.

Whereas, furniture manufacturing companies have specified professional trainings for the use of technologically advanced equipment, sales trainings, human resources trainings, visiting trade fairs, visiting foreign companies engaged in the same activity and internal trainings for engineers and technicians. At the same time, they believe that they would be uWEful for the Internal Market organized gatherings such as team building activities and events outside working hours for greater employee motivation and productivity. Whereas, furniture manufacturing companies have specified professional trainings for the use of technologically advanced equipment, sales trainings, human resources trainings, visiting trade fairs, visiting foreign companies engaged in the same activity and internal trainings for engineers and technicians. At the same time, they believe that they would be uWEful for the Internal Market organized gatherings such as team building activities and events outside working hours for greater employee motivation and productivity. Whereas, furniture manufacturing companies have specified professional trainings for the use of technologically advanced equipment, sales trainings, human resources trainings, visiting trade fairs, visiting foreign companies engaged in the same activity and internal trainings for engineers and technicians. At the same time, they believe that they would be uWEful for the Internal Market visiting companies from abroad that are engaged in the same activity and internal trainings for engineers and technicians. At the same time, they believe that they would be uWEful for the Internal Market visiting companies from abroad that are engaged in the same activity and internal trainings for engineers and technicians. At the same time, they believe that they would be useful for the Internal Market "organized presentations by cities of smaller or larger companies, establishment of

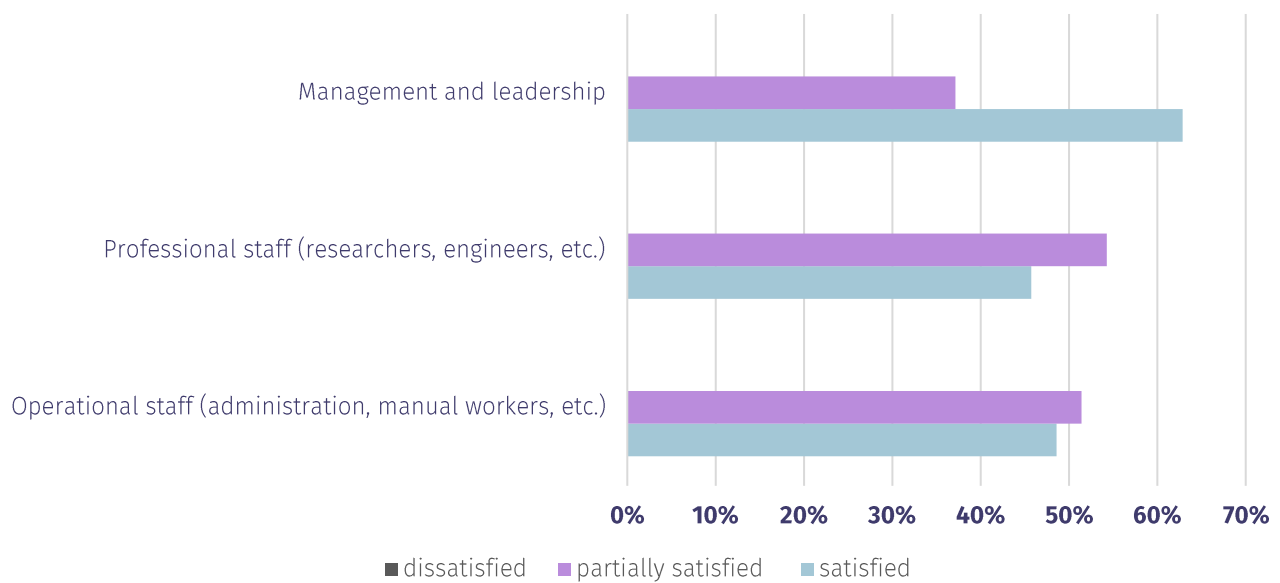
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<sup>191</sup>OECD, 2018, "Sector Specific Sources of Competitiveness in the Western Balkans", [45375074.pdf \(oecd.org\)](https://www.oecd.org/dataoecd/45/37/45375074.pdf)

regional centers where there will be employed experts, engineers, architects, fitters who would be at the disposal of a larger number of companies for the production of furniture, organized and joined in an association that will offer the opportunity for hiring them for a certain fee."All other industries use training, most of which is internal for knowledge transfer.

At the same time, there is a certain dissatisfaction with the expertise of the staff who possess it, and they believe that continuous improvement and requalification of the staff at all levels is necessary. Namely according to the data received from the companies, 63% of the companies are most satisfied with the management and professional leadership, while only 37% are partially satisfied, there are no dissatisfied at all levels (Chart 13). However, the subjective assessment cannot be left out here, especially if one takes into account the fact that the assessment of management satisfaction was given by the CEO and rated at a high level.

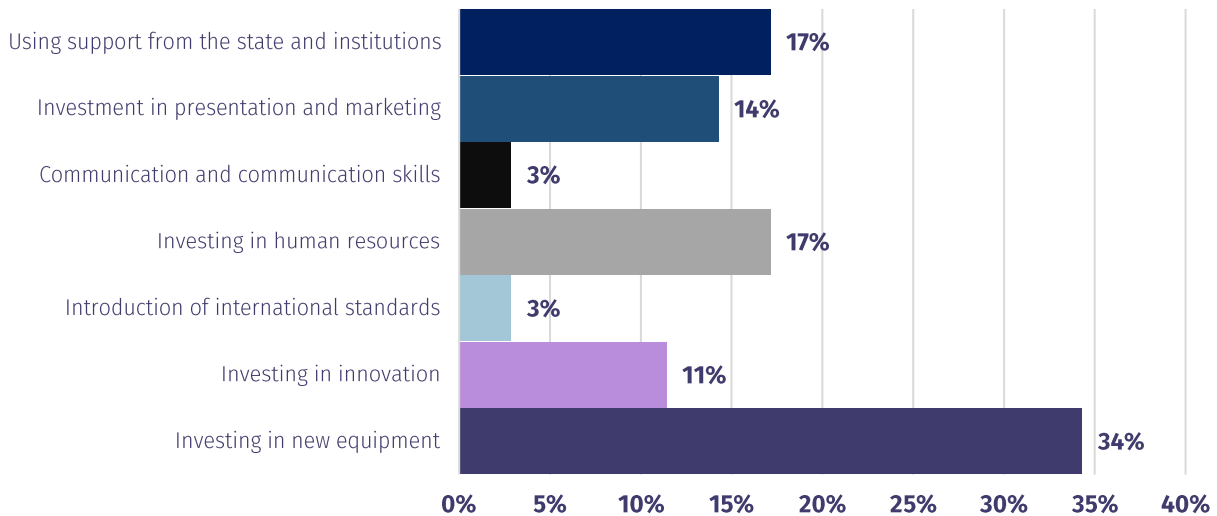
**Chart number 13. Are you satisfied with the level of qualification of your employees in the process of production/providing services?**



*Source: Questionnaire sent to companies in the period July - August 2022*

Regarding the need for the type of investment of the companies in order to improve competitiveness in foreign markets, most or 29% of the companies answered that they would decide primarily to invest in new equipment, while only 17% would invest in human resources and 11% in presentation and marketing (Chart 14).

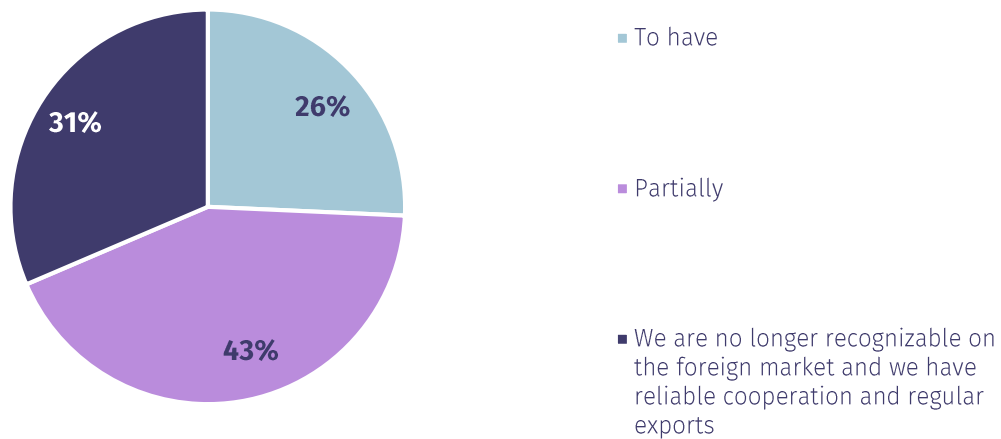
**Chart 14. What would you invest in to improve your competitiveness on the foreign market?**



Source: Questionnaire sent to companies in the period July - August 2022

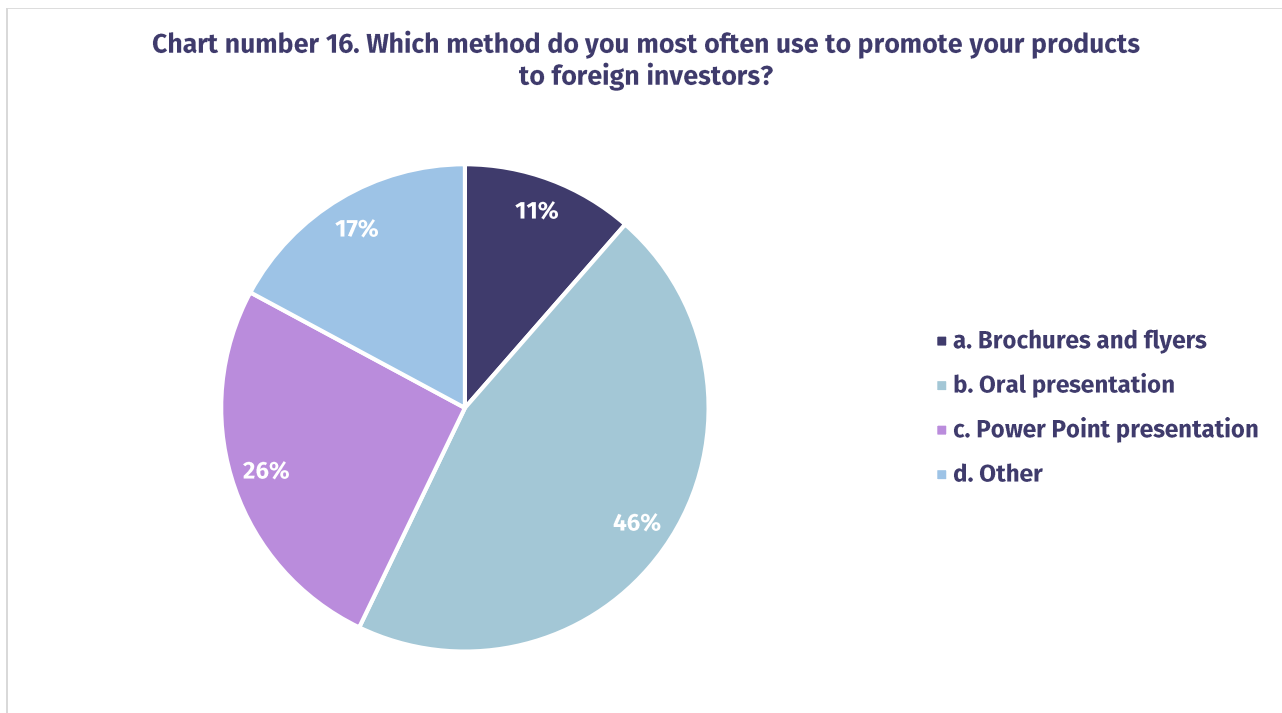
Among other things, the majority of furniture production companies stated that they mostly have a financial need for the presentation on foreign markets, which for small companies that are engaged in the handmade production of designer products from wood, represents an obstacle, due to the high prices of the fair stands, which it is also a unique place where they can present their unique handmade pieces.

**Chart number 14. Do you need training for better access and presentation of your products/services in foreign markets?**



Source: Questionnaire sent to companies in the period July - August 2022

While in terms of the need for training for better access and presentation of products on foreign markets, only 11 companies or 31% of the analyzed companies answered that they are already recognizable on the foreign market and have reliable cooperation and regular exports, the remaining 43% feel a partial need for improvement in this field, while only 26% of companies stated that they need help in this field, with the majority of them being companies from the furniture manufacturing industry. Regarding the technique they use for the presentation of their products or asked "*When you promote your products to foreign investors, what do you usually use?*" most of them mentioned the oral presentation as a method to promote their products mainly through direct contacts (Chart 15.) While under another, they mentioned going to fairs where they can make direct contact with customers. For example, a CEO of an IT company cited "Live demonstration of system functionality" as the best strategy.



*Source: Questionnaire sent to companies in the period July - August 2022*

While in view of that *what type of skills would you use to more successfully establish cooperation with foreign investors and product promotion*, 60% of companies stated that they use different approaches of presentation and promotion depending on the event (fair, B2B meeting, personal meeting with the investor). The remaining 40% of companies would practice establishing cooperation in the following order: networking skills (9%), sales (11%), communication skills (3%), presentation skills (14%) and finally the skilled workforce they possess (3%). This speaks to the fact that owners mostly focus on direct and personal contact with potential investors. Other methods available to companies are advertising, sales promotion, trade literature, electronic mail, exhibitions, trade shows, written materials, direct selling, sales staff, commission selling, sales advertising.

## 8. CONCLUSIONS AND RECOMMENDATIONS

Based on the conducted analysis, which aimed to evaluate the readiness of the Macedonian economy to join the EU's Internal Market, but at the same time the degree of competitiveness of Macedonian companies on foreign markets, the following conclusions were reached:

- ❖ The internal market was designed to make the EU the most competitive and dynamic economy in the world. However, in recent years the EU has been facing a decline in achievements compared to other growing economies such as the US, Japan and China. For that reason, the EC had several attempts through the introduction of strategies to boost the economies of the member countries, but due to the low amount of funds allocated for research and development (R&D), which only lead to innovation and are the driver of technological development, it failed in its idea. Namely, compared to the countries of the region, North Macedonia is in the penultimate place with a modest 0.38% of GDP invested in R&D for 2021. After North Macedonia are only Montenegro (0.36%) and B&H (0.21%). The average of EU countries is much higher. It is expected that with the new strategy that should make Europe greener, more digital and more resilient through the implementation of the 6 priorities set in the Work Program for which the EC will actively advocate, it will achieve the growth it is aiming for. The six priorities relate to the realization of the EU's green agenda, increasing Europe's digital resilience by introducing a digital strategy that implies digital transformation of the public and business sectors, increasing social resilience by transforming the migration and asylum system, as well as cooperation with all countries to strengthen cross-border cooperation and ensure joint fight against crime.
- ❖ The EU is also changing the agenda towards the countries of the World Bank in the direction of easier joining of these countries to the European family through recommendations for speeding up the process of joining the Internal Market of the EU. The screening process that North Macedonia started in September 2022 should serve to identify areas for accelerated integration, while simultaneously monitoring the Stabilization and Association Agreement. During the screening exercise, the Commission will also identify key anti-corruption reform priorities and assess relevant administrative capacity. In that direction, the Government must speed up the reform process in the areas where it shows the weakest results, such as the fight against corruption, where the country has the lowest rating.
- ❖ Every economic crisis highlights the shortcomings in society, but at the same time it is a road map towards which the government should move in every economy, by following the examples of successful countries that achieved progress through the lessons learned. Thus, during the Covid-19 pandemic, the EU member states realized the shortcomings and managed to come out stronger through the changes they made in the legal regulation by introducing flexible work systems, which increased the resilience of the labor market, especially through the introduction of policies, which make working in the formal economy more attractive than the informal economy. Namely, in North Macedonia it turned out that the most vulnerable in the labor market are the workers who work in the informal economy due to the impossibility of using the measures and assistance that were offered by the Government. For that reason, the Government should continue with the active policy of the labor market aimed at formalizing the business, which will lead to the reduction of informal employees and the gray economy.

- ♣ According to the WEF, the Macedonian economy is considered to be in stage 2 "A stage in which economies are driven by efficiency", along with 30 similar economies, including: Albania, Bosnia and Herzegovina, Bulgaria, Montenegro and Serbia. In the region, only Croatia is at a higher stage of development, as it has passed the transition from Stage 2 to Stage 3. All countries that are between Stage 2 and Stage 3 are countries in transition. Namely, as the country develops, more and more weight is placed on areas that become more and more important for the country's competitiveness, allowing the WEF to be able to gradually "punish" countries that are not ready for the next stage. That is why it is important to determine the factors that enable the development of the economy's competition and the possibility of its transition from one phase to another. It is in the interest of every country to be competitive and for the industry to be export oriented. Being competitive in the Internal Market of the EU is the task of both companies and the Government of North Macedonia. Putting an emphasis on competition is especially significant after the onset of the health-economic crisis, and soon after that the energy crisis caused by the war between Ukraine and Russia, from which moment the determinants that determine the competitiveness of the economy have largely changed. Namely, the analysis showed that only countries that in the past years invested intensively in R&D, innovation and developing digital skills among employees, whether in the public or private sector, were ready to face the economic crises. The state's investments were mainly through educational strategies that stimulate development and redirection to technical sciences, with various incentive measures. In North Macedonia, they are late with the educational reforms. At the same time, the Government should continue investing more intensively in renewable and alternative sources of energy in order for the country to be energy independent. This became especially important after the start of the war and the stoppage of the export of gas, coal and oil from Russia. Back in 2019, the EU launched the green transition that should help reduce energy bills and dependence on fossil fuel imports, thus improving the Union's energy and resource security. The geopolitical situation and the recent rise in energy prices caused by the conflict with Russia, which is considered the world's largest exporter of natural gas, further highlighted the need to accelerate the required changes.
- ♣ At a time when the whole world was affected by the pandemic caused by the Covid-19 virus, it was shown that the progress in information technologies and the accelerated process of digitization are an important factor that contributes to maintaining the competitiveness of the market. The government must have a strategy that will mean stimulating not only the public, but also the private sector in the process of digitization of the services/products they offer. This increases the importance of the Strategy for the Development of Digital Skills, through which the Government should contribute to the promotion of the digital literacy of the population. According to the data received from the SSO for 2021, only 35% of the population in North Macedonia possess basic digital skills. This indicates that the digital literacy of the population in North Macedonia is at a low level compared to the average of the EU-27 member states of 54%. Of the EU member states, only Bulgaria with 31% and Romania with 27% are below the EU average. The importance of digital literacy is confirmed by the fact that only countries that were able to manage most segments of their economy remotely were better positioned during the pandemic, compared to those that were not able to implement digital solutions. For example, companies in countries that were able to use flexible working arrangements (the top 5 include the Netherlands, New Zealand, Switzerland, Estonia and the USA) and those where digital skills are most prevalent (the top 5 include Finland, Sweden, Estonia, Iceland and the Netherlands), have adapted much better to the emerging market situation by using digitalization to improve economic activity. Although there are differences between sectors that were able to be digitized and those that were not able to use digital services, economies that were able to rely significantly on technology and the provision of digital services over the internet were relatively less affected by the pandemic.



- ♣ The need to change the services and quality of the educational system and its complete reconstruction was also perceived. The government instead of changing and improving the educational program in terms of promotion and introduction of new and advanced programs for the development of technical and information skills and investing in the same, due to the conflict and the blockage by Bulgaria in starting the negotiations, the Ministry of Education focuses on changing the programs in the field of history to meet the demands of neighboring Bulgaria. This means a setback and a loss of precious time that should be directed towards developing a competitive economy by improving the quality of the education system so that it produces quality staff who will know their theoretical knowledge, which they have acquired during the educational process, to put them into practice. At the same time, according to the data taken from the SSO, in 2021, 7,753 students graduated, of which only 14% were in technical sciences (information and communication technologies (ICT), natural mathematics, electrical engineering), 13% in medicine, 1% in religious faculties, the rest of 72% are social sciences (mainly legal and economic). This clearly indicates that the educational strategy does not work and creates an excess and oversaturation of certain sciences such as the social sciences, but at the same time a poor quality, due to the fact that the faculties cannot respond to the demands of the students. This problem should be removed with the educational strategy of the Ministry of Education and Science (MES), which envisages respect for the autonomy of the university and the dignity of professors, as well as accelerated economic development through investments in science and innovation. The government must follow the trend that the EU member states have been practicing for a long time. Namely, in the EU, with the new strategy for the digital transformation of Europe until 2030, it is planned to stimulate and accelerate the investment of an additional 20 million euros on the market in specialists for information and communication technologies (ICT), with the application of gender convergence and the possession of basic digital skills for at least 80% of the population.
- ♣ At the same time, there is still a discrepancy between the skills and competencies of students with the market demand and the needs of employers. Namely, the analysis showed that employers face a lack of quality staff, especially among technical sciences. At the same time, the degree of satisfaction with the staff that the companies currently have is relatively low, on average 40%. This indicates the fact that the companies themselves should invest to a much greater extent in improving the performance of their employees and use incentive measures and engagements for continuous progress. The analysis of the companies showed that employers are more interested in investing in new equipment than investing in improving the quality of human resources, or only 17% of them chose this option as an investment opportunity. While in the developed countries of the EU, investing in employees is seen as a long-term investment that returns twice to the company that made it. Namely, human capital (HC) includes assets such as education, training, intelligence, skills, health, but also loyalty and timeliness in delivery, as indispensable characteristics of employees, which employer's value. As such, HC is an intangible asset or quality that is not, and cannot be, part of a company's balance sheet. However, it increases the productivity to the greatest extent, and thus the profitability of the company. Of course, managers should be able to calculate the total profit before and after the investments made. In our country, there have been many delays in this field due to non-implementation of the Strategic Plan of the Ministry of Education 2022-2024.<sup>192</sup> For that reason, the recommendation to the institutions is to speed up this process in order for the country to be ready for the crises that are announced in the future, regardless of whether they will have the character of economic, energy or crises caused by a pandemic on a global scale.

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<sup>192</sup>Ministry of Education and Science, (2021), Strategic Plan 2022-2024, [Strategic plan 2022-2024.pdf \(mon.gov.mk\)](#)

- ❖ Investment in R&D and innovation in the country is at a very low level. According to the above shown in the section of science in the budget of the Ministry of Education and Culture, for 2015 and 2021, there is a decrease in the funds allocated for NID by -48% and a growth in the budget for learning institutes by 96%. On the other hand, within the scope of the total budget of the Ministry of Education and Science in the science section, there are funds intended for institutions that do not have a manager or employee, such as the National Agency for Nuclear Technologies, or funds related to the translation of books by renowned authors. The mentioned allocations from the budget have no influence on the development of science or on the stimulation of technological development and innovation, which, according to WEF, represent key links in creating a competitive advantage of the economy. According to the analysis, North Macedonia is in last place in terms of investment in science.
- ❖ The strategy for the development and support of SMEs did not produce the expected results. Namely, this sector is the main one for the economy of North Macedonia, because it constitutes about 99% of businesses, employs 76% of employees and generates almost 67% of the added value. But despite that, the productivity of SMEs is 80% below the EU average. The strategy for SMEs, like all the other strategies mentioned above, are more than well thought out, but their smart implementation is necessary, in order to give a visible result. Namely, the Government, through MIOA, introduced a large number of digital services, which should facilitate the functioning of SMEs. However, according to the analysis, the biggest obstacle for SMEs is access to finance, the rigidity and conservatism of banks, which, despite being extremely liquid, they require extensive coverage such as collateral (especially in real estate) and a credit history assessment, in order to be able to approve a loan. For financial support, SMEs can rely on the Development Bank and FITD, as well as other institutions that offer legal and other types of support and training, both for SMEs and startup businesses. On the other hand, SMEs should use the mentioned institutions to invest in the implementation of advanced standards in their operations in order to meet the demands of multinational companies (MNCs) in the country. Namely, in order to start cooperation with MNCs, they need to meet certain standards that are required both on the domestic and international markets. Although there were a large number of projects in North Macedonia that financially supported this step to finance the implementation of ISO standards, the interest in them on the part of SMEs is either at an unsatisfactory level or there is no persistence in the implementation of the standards. Some of the required standards are ISO/16949, IAF 16949, ISO:14001 and ISO:50001.<sup>193</sup>This argues that progress requires both parties, the government and institutions with financial support on the one hand, and SMEs on the other hand, through perseverance in the implementation of standards and adequate training for their application, to make their contribution in order to become more competitive as both on the domestic and foreign markets. Namely, regardless of whether it is a partnership with an MNC or not, a company that does not cooperate and does not evolve will be isolated and irrelevant to its customers in the near future. Therefore, SME owners must be aware of what is expected of them if they really want to move up the value chain.
- ❖ North Macedonia in the area of internationally protected patents for 2021 has only one recognized request by the EPO and it was submitted by a reputable company from the pharmaceutical industry that has the financial means to bear such a burden. According to the World Intellectual Property Organization (WIPO), provisional patent applications are initially cheaper to file than non-provisional applications and are up to US\$5000, while permanent ones which are of longer duration are between US\$13,000-50,000 depending on the nature of the innovation. This amount also includes costs for

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<sup>193</sup> <https://cup.org.mk/publication/smes-infografici.pdf>, gradually December 2022

preparation and submission. Moreover, this cost does not include any additional activities or maintenance fees, which have the greatest impact on costs. Companies can find information about the fees payable on the USPTO website. . . For SMEs, this represents a heavy financial burden for which the state should take appropriate actions in order to arouse interest in innovation in order to increase the number of international applications and submitted requests for patents. For 2021, a total of 41 requests have been submitted to DZIS, of which only 17 are from legal entities. This is not a small number, but in order for it not to remain only at the level of a national application, it needs financial assistance and interest from the Government.

- ♣ Finally, for easier penetration of the foreign market, companies must invest in the development and application of marketing-mix strategies. They should invest time and funds in applying and finding alternative methods and ways of self-promotion, as well as invest in improving the negotiation function and strategies for entering foreign markets. But the most important thing is to adapt to the changes that occur in the market as a result of global developments (economic, health and energy crisis) which, depending on their dynamics and the extent to which they have affected the economy, dictate different strategies. New changes are actually opportunities for companies that need to follow the changes to build strategies that will help them perform in the changing global market. Which means, companies should continuously follow the local needs of foreign markets, through prices, distribution channels, the application of promotional strategies, to harmonize the quality and characteristics of products in order to meet the needs of consumers in the global market. All this is done in accordance with the characteristics and needs of the foreign markets where the companies want to perform. Simultaneously and more intensively use the services of the Macedonian institutions that offer help in finding reliable and tested partners for export to foreign markets.

## ATTACHMENTS:

### Annex number 1. Questionnaire for assessing the competitiveness of domestic export companies on the foreign market

The data that will be collected and processed will be used exclusively for the purposes in the mentioned paper that derive from the Law on Personal Data and in the direction of fulfilling project activities, based on the consent of the subject of personal data.

The analysis will serve to evaluate the achieved progress of the Macedonian economy in terms of competitiveness and in the direction of determining the current situation and proposing measures to bring the business sector closer to the targeted industries in the country to EU standards and directives.

#### 1. GENERAL INFORMATION ABOUT THE COMPANY

1. Year of establishment: \_\_\_\_\_
2. Company Location: \_\_\_\_\_
3. Position of the person filling out the questionnaire: \_\_\_\_\_
4. Main activity: \_\_\_\_\_
5. Size of the enterprise

Enterprise	Number of employees	Annual turnover (in MKD)
<input type="checkbox"/> Micro	< 10	< 500,000 euros
<input type="checkbox"/> Little	< 50	< 2 million euros
<input type="checkbox"/> Medium	< 250	< 10 million euros
<input type="checkbox"/> Big	over 250	over 10 million euros

#### 2. QUESTIONS ABOUT THE PRODUCTION CAPACITIES AND TECHNICAL STANDARDS OF THE COMPANIES

6. Does your company export to foreign markets:  
a. Yes b. No
7. What are the countries where your company exports? \_\_\_\_\_
8. How long has your company been exporting to the foreign market? \_\_\_\_\_
9. What are the products that you export to the foreign market?  
\_\_\_\_\_  
\_\_\_\_\_
10. What equipment and technology do you have?  
\_\_\_\_\_
11. Are you facing any type of problems in terms of the level of development of the equipment you have?  
\_\_\_\_\_  
\_\_\_\_\_

12. How willing are you to invest in new equipment and technology in order to increase the quality and competitiveness of your products/services?

- a. We are not able
- b. We are partially able
- c. We have the willingness and conditions for investment

13. Are you willing to invest in patent protection, acquisition of new licenses or other type of intellectual property?

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14. Do you think you are competitive with the products/services you export to the European market?

Yes  No

14.1 If the answer is YES, do you base your competitive advantage on the quality of the product/service you offer or on the price? \_\_\_\_\_

14.2 If NO, what are the reasons for the weaker competitive position on the foreign market?

14.3 What do you think you need to improve to increase the competitiveness of your products?

15. Does your company apply any standards in the work process

Yes  No

15.1 If YES, what standards do you apply?

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16. What difficulties did you face during the process of introducing standards in the operation?

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17. Have you used government programs for the survival of the business sector during the pandemic caused by Covid-19?

Yes  No

17. 1 If yes, please indicate what type of financial (or other type of) aid you used.

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18. How do you evaluate the help offered through government programs?

- UWEful and cost effective
- Insufficient
- It was not helpful to our industry at all

### **3. NEED FOR TRAINING AND PROFESSIONAL DEVELOPMENT**

19. Are you satisfied with the level of qualification of your employees in the process of production/providing services? (choose one option in each category)

- Operational staff (administration, manual workers, etc.)
  - a. satisfied
  - b. partially satisfied
  - c. dissatisfied
- Professional staff (researchers, engineers, etc.)
  - a. satisfied
  - b. partially satisfied
  - c. dissatisfied
- Management and leadership
  - a. satisfied
  - b. partially satisfied
  - c. Dissatisfied

20. What else could you do to improve your competitiveness in the foreign market?

District	
1. Investing in new equipment	<input type="checkbox"/>
2. Investing in innovation	<input type="checkbox"/>
3. Introduction of international standards	<input type="checkbox"/>
4. Investing in human resources	<input type="checkbox"/>
5. Communication and communication skills	<input type="checkbox"/>
6. Investment in presentation and marketing	<input type="checkbox"/>
7. Using support from the state and institutions	<input type="checkbox"/>
8. Improved quality of own products	<input type="checkbox"/>
9. Mentoring support	<input type="checkbox"/>
10. Other (specify what) -----	<input type="checkbox"/>

21. Do you need training for a better approach and presentation of your products/services in foreign markets?

- a. To have
- b. Partially
- c. We are no longer recognizable on the foreign market and we have reliable cooperation and regular exports

22. Does the company invest in improving employee performance?

Yes No

23. What type of employee investments are you making? List some of them

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24. What systems and procedures would you like to improve in the operation of your company? (list three most important)

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_

25. How successfully can you respond to the demands of foreign markets for timely delivery of products/services when they are related to:
- a. Increase in production volume:  
\_\_\_\_\_
  - b. Need to store the products:  
\_\_\_\_\_
  - c. Organization and transport costs:  
\_\_\_\_\_
  - d. Other:  
\_\_\_\_\_  
\_\_\_\_\_
26. When you promote your products to foreign investors, what do you usually use?
- a. Brochures and flyers
  - b. Oral presentation
  - c. Power Point presentation
  - d. Other
27. What type of skills would you use to more successfully establish cooperation with foreign investors and promote your products
- o Different approaches to presentation and promotion depending on the event (fair, B2B meeting, personal meeting with the investor)
  - o Communication skills for promotion
  - o Sales skills
  - o Presentation skills
  - o Networking skills
  - o Other, what: \_\_\_\_\_
28. Do you need institutional support in finding foreign partners on EU markets and establishing contacts?
29. Which institutions in Macedonia for supporting exports and improving the competitiveness of Macedonian companies on foreign markets do you think are the most uWEFul?
30. Which of the programs you used helped you the most in positioning yourself on the foreign market?  
Additional comments (if any):  
\_\_\_\_\_  
\_\_\_\_\_

Date: \_\_\_\_\_ Place: \_\_\_\_\_

## Annex number 2. GCI for 2015 and 2021 for North Macedonia

### The Former Yugoslav Republic of Macedonia

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#### Key indicators

Population (millions)	2.1
GDP (US\$ billions)	11.3
GDP per capita, PPP\$	11,395.3
Income group	Upper-middle income
Region	Europe

	Score 0–100 or value (hard data)	Rank
<b>Global Innovation Index (out of 141)</b>	<b>38.0</b>	<b>56</b>
Innovation Output Sub-Index	32.1	55
Innovation Input Sub-Index	44.0	56
Innovation Efficiency Ratio	0.7	64
Global Innovation Index 2014 (out of 143)	36.9	60

<b>1</b>	<b>Institutions</b>	<b>67.7</b>	<b>55</b>
1.1	Political environment	47.3	77
1.1.1	Political stability*	54.9	87
1.1.2	Government effectiveness*	39.7	71
1.2	Regulatory environment	69.8	55
1.2.1	Regulatory quality*	56.4	59
1.2.2	Rule of law*	42.3	70
1.2.3	Cost of redundancy dismissal, salary weeks	13.0	50
1.3	Business environment	86.1	15 ●
1.3.1	Ease of starting a business*	98.1	3 ●
1.3.2	Ease of resolving insolvency*	65.9	33 ●
1.3.3	Ease of paying taxes*	94.2	7 ●
<b>2</b>	<b>Human capital &amp; research</b>	<b>32.7</b>	<b>55</b>
2.1	Education	66.2	5
2.1.1	Expenditure on education, % GDP	n/a	n/a
2.1.2	Gov't expenditure/pupil, secondary, % GDP/cap	n/a	n/a
2.1.3	School life expectancy, years	13.4	74
2.1.4	PISA scales in reading, maths, & science	n/a	n/a
2.1.5	Pupil-teacher ratio, secondary	10.5	31
2.2	Tertiary education	28.8	78
2.2.1	Tertiary enrolment, % gross	38.5	67
2.2.2	Graduates in science & engineering, %	19.1	60
2.2.3	Tertiary inbound mobility, %	2.2	65
2.3	Research & development (R&D)	3.0	93
2.3.1	Researchers, FTE/mn pop.	331.1	65
2.3.2	Gross expenditure on R&D, % GDP <sup>Ⓞ</sup>	0.2	85 ○
2.3.3	QS university ranking, average score top 3*	0.0	73 ○
<b>3</b>	<b>Infrastructure</b>	<b>31.4</b>	<b>94</b>
3.1	Information & communication technologies (ICTs)	38.4	88
3.1.1	ICT access*	65.5	56
3.1.2	ICT use*	42.2	54
3.1.3	Government's online service*	24.4	113 ○
3.1.4	E-participation*	21.6	119 ○
3.2	General infrastructure	16.3	126 ○
3.2.1	Electricity output, kWh/cap	2967.8	63
3.2.2	Logistics performance*	17.2	108 ○
3.2.3	Gross capital formation, % GDP	n/a	n/a
3.3	Ecological sustainability	39.6	60
3.3.1	GDP/unit of energy use, 2005 PPP\$/kg oil eq	6.6	76
3.3.2	Environmental performance*	50.4	79
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP	5.0	20 ●
<b>4</b>	<b>Market sophistication</b>	<b>52.3</b>	<b>46</b>
4.1	Credit	39.1	46
4.1.1	Ease of getting credit*	65.0	34
4.1.2	Domestic credit to private sector, % GDP	49.2	68
4.1.3	Microfinance gross loans, % GDP	3.1	17 ●

4.2	Investment	34.2	75
4.2.1	Ease of protecting investors*	66.7	21 ●
4.2.2	Market capitalization, % GDP	5.8	99 ○
4.2.3	Total value of stocks traded, % GDP	0.3	84 ○
4.2.4	Venture capital deals/tr PPP\$ GDP	n/a	n/a
4.3	Trade & competition	83.4	35
4.3.1	Applied tariff rate, weighted mean, %	1.9	44
4.3.2	Intensity of local competition <sup>†</sup>	73.2	41
<b>5</b>	<b>Business sophistication</b>	<b>35.9</b>	<b>62</b>
5.1	Knowledge workers	40.0	64
5.1.1	Knowledge-intensive employment, %	27.9	50
5.1.2	Firms offering formal training, % firms	46.0	35
5.1.3	GERD performed by business, % of GDP <sup>Ⓞ</sup>	0.0	75 ○
5.1.4	GERD financed by business, %	n/a	n/a
5.1.5	Females employed w/advanced degrees, % total	11.4	56
5.2	Innovation linkages	31.8	66
5.2.1	University/industry research collaboration <sup>†</sup>	45.2	58
5.2.2	State of cluster development <sup>†</sup>	41.0	92
5.2.3	GERD financed by abroad, %	n/a	n/a
5.2.4	JV-strategic alliance deals/tr PPP\$ GDP	n/a	n/a
5.2.5	Patent families 3+ offices/bn PPP\$ GDP	0.0	108 ○
5.3	Knowledge absorption	35.8	59
5.3.1	Royalty & license fees payments, % total trade	0.6	48
5.3.2	High-tech imports less re-imports, % total trade	6.1	80
5.3.3	Comm., computer & info. services imp., % total trade	1.6	35
5.3.4	FDI net inflows, % GDP	3.7	45
<b>6</b>	<b>Knowledge &amp; technology outputs</b>	<b>26.3</b>	<b>69</b>
6.1	Knowledge creation	9.6	73
6.1.1	Domestic resident patent app./bn PPP\$ GDP	1.6	52
6.1.2	PCT resident patent app./bn PPP\$ GDP	0.1	57
6.1.3	Domestic res utility model app./bn PPP\$ GDP	n/a	n/a
6.1.4	Scientific & technical articles/bn PPP\$ GDP	12.6	62
6.1.5	Citable documents H index	67.0	98 ○
6.2	Knowledge impact	40.1	54
6.2.1	Growth rate of PPP\$ GDP/worker, %	1.1	70
6.2.2	New businesses/th pop. 15–64	3.6	33
6.2.3	Computer software spending, % GDP	n/a	n/a
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP	15.2	25 ●
6.2.5	High- & medium-high-tech manufactures, %	19.6	58
6.3	Knowledge diffusion	29.0	63
6.3.1	Royalty & license fees receipts, % total trade	0.1	47
6.3.2	High-tech exports less re-exports, % total trade	1.9	51
6.3.3	Comm., computer & info. services exp., % total trade	2.5	28 ●
6.3.4	FDI net outflows, % GDP	0.4	69
<b>7</b>	<b>Creative outputs</b>	<b>37.9</b>	<b>46</b>
7.1	Intangible assets	48.9	52
7.1.1	Domestic res trademark app./bn PPP\$ GDP	n/a	n/a
7.1.2	Madrid trademark app. holders/bn PPP\$ GDP	0.6	38
7.1.3	ICTs & business model creation <sup>†</sup>	60.1	50
7.1.4	ICTs & organizational model creation <sup>†</sup>	54.9	60
7.2	Creative goods & services	27.3	47
7.2.1	Cultural & creative services exports, % total trade	0.7	30
7.2.2	National feature films/mn pop. 15–69	8.2	22 ●
7.2.3	Global ent. & media output/th pop. 15–69	n/a	n/a
7.2.4	Printing & publishing output manufactures, %	2.6	16 ●
7.2.5	Creative goods exports, % total trade	0.2	80
7.3	Online creativity	26.5	50
7.3.1	Generic top-level domains (TLDs)/th pop. 15–69	7.2	52
7.3.2	Country-code TLDs/th pop. 15–69	1.9	72
7.3.3	Wikipedia edits/pop. 15–69	3131.7	43
7.3.4	Video uploads on YouTube/pop. 15–69	73.7	48

NOTES: ● indicates a strength; ○ a weakness; \* an index; † a survey question.  
Ⓞ indicates that the country's data are older than the base year; see Appendix II for details, including the year of the data.

I: Country/Economy Profiles

THE GLOBAL INNOVATION INDEX 2015










# North Macedonia

GII 2021 rank

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Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$ (bn)	GDP per capita, PPP\$	GII 2020 rank
<b>69</b>	<b>40</b>	<b>Upper middle</b>	<b>EUR</b>	<b>2.1</b>	<b>34.5</b>	<b>16,609</b>	<b>57</b>

		Score/ Value	Rank			Score/ Value	Rank
	<b>Institutions</b>	<b>68.9</b>	<b>52</b>		<b>Business sophistication</b>	<b>25.4</b>	<b>65</b>
<b>1.1</b>	<b>Political environment</b>	<b>58.1</b>	<b>65</b>	<b>5.1</b>	<b>Knowledge workers</b>	<b>32.5</b>	<b>62</b>
1.1.1	Political and operational stability*	73.2	44	5.1.1	Knowledge-intensive employment, %	29.9	48
1.1.2	Government effectiveness*	50.6	74	5.1.2	Firms offering formal training, %	39.0	31
<b>1.2</b>	<b>Regulatory environment</b>	<b>67.9</b>	<b>58</b>	5.1.3	GERD performed by business, % GDP	0.1	62
1.2.1	Regulatory quality*	56.8	49	5.1.4	GERD financed by business, %	23.6	63
1.2.2	Rule of law*	40.3	75	5.1.5	Females employed w/advanced degrees, %	15.3	48
1.2.3	Cost of redundancy dismissal	14.4	55	<b>5.2</b>	<b>Innovation linkages</b>	<b>13.5</b>	<b>116</b> ○
<b>1.3</b>	<b>Business environment</b>	<b>80.7</b>	<b>30</b> ● ●	5.2.1	University-industry R&D collaboration†	30.2	112 ○ ○
1.3.1	Ease of starting a business*	88.6	63	5.2.2	State of cluster development and depth†	38.6	108 ○
1.3.2	Ease of resolving insolvency*	72.7	28	5.2.3	GERD financed by abroad, % GDP	0.0	65
				5.2.4	Joint venture/strategic alliance deals/bn PPP\$ GDP	0.0	94 ○
				5.2.5	Patent families/bn PPP\$ GDP	0.0	71
	<b>Human capital and research</b>	<b>30.2</b>	<b>73</b>	<b>5.3</b>	<b>Knowledge absorption</b>	<b>30.2</b>	<b>57</b>
<b>2.1</b>	<b>Education</b>	<b>55.6</b>	<b>[47]</b>	5.3.1	Intellectual property payments, % total trade	1.6	21 ● ●
2.1.1	Expenditure on education, % GDP	n/a	n/a	5.3.2	High-tech imports, % total trade	5.7	103 ○
2.1.2	Government funding/pupil, secondary, % GDP/cap	n/a	n/a	5.3.3	ICT services imports, % total trade	1.1	66
2.1.3	School life expectancy, years	13.5	77	5.3.4	FDI net inflows, % GDP	4.3	26 ●
2.1.4	PISA scales in reading, maths and science	400.1	67 ○	5.3.5	Research talent, % in businesses	26.6	47
2.1.5	Pupil-teacher ratio, secondary	8.3	13 ● ●				
<b>2.2</b>	<b>Tertiary education</b>	<b>31.0</b>	<b>72</b>		<b>Knowledge and technology outputs</b>	<b>22.7</b>	<b>57</b>
2.2.1	Tertiary enrolment, % gross	43.1	68	<b>6.1</b>	<b>Knowledge creation</b>	<b>11.5</b>	<b>73</b>
2.2.2	Graduates in science and engineering, %	23.6	48	6.1.1	Patents by origin/bn PPP\$ GDP	1.6	43
2.2.3	Tertiary inbound mobility, %	5.2	48	6.1.2	PCT patents by origin/bn PPP\$ GDP	0.2	54
<b>2.3</b>	<b>Research and development (R&amp;D)</b>	<b>4.1</b>	<b>83</b>	6.1.3	Utility models by origin/bn PPP\$ GDP	n/a	n/a
2.3.1	Researchers, FTE/mn pop.	786.7	55	6.1.4	Scientific and technical articles/bn PPP\$ GDP	13.4	66
2.3.2	Gross expenditure on R&D, % GDP	0.4	74	6.1.5	Citable documents H-index	6.2	94
2.3.3	Global corporate R&D investors, top 3, mn US\$	0.0	41 ○ ○	<b>6.2</b>	<b>Knowledge impact</b>	<b>36.8</b>	<b>35</b>
2.3.4	QS university ranking, top 3*	0.0	74 ○ ○	6.2.1	Labor productivity growth, %	-1.1	85
				6.2.2	New businesses/th pop. 15-64	3.6	39
	<b>Infrastructure</b>	<b>46.9</b>	<b>49</b>	6.2.3	Software spending, % GDP	0.1	79
<b>3.1</b>	<b>Information and communication technologies (ICTs)</b>	<b>71.2</b>	<b>56</b>	6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP	15.5	17 ●
3.1.1	ICT access*	67.4	65	6.2.5	High-tech manufacturing, %	42.4	22 ● ●
3.1.2	ICT use*	60.1	61	<b>6.3</b>	<b>Knowledge diffusion</b>	<b>20.0</b>	<b>55</b>
3.1.3	Government's online service*	74.1	58	6.3.1	Intellectual property receipts, % total trade	0.1	47
3.1.4	E-participation*	83.3	38	6.3.2	Production and export complexity	45.5	57
<b>3.2</b>	<b>General infrastructure</b>	<b>20.1</b>	<b>109</b> ○	6.3.3	High-tech exports, % total trade	2.9	50
3.2.1	Electricity output, GWh/mn pop.	2,691.8	71	6.3.4	ICT services exports, % total trade	2.7	41
3.2.2	Logistics performance*	30.6	80				
3.2.3	Gross capital formation, % GDP	n/a	n/a		<b>Creative outputs</b>	<b>19.5</b>	<b>83</b>
<b>3.3</b>	<b>Ecological sustainability</b>	<b>49.2</b>	<b>18</b> ● ●	<b>7.1</b>	<b>Intangible assets</b>	<b>18.4</b>	<b>109</b> ○
3.3.1	GDP/unit of energy use	11.8	52	7.1.1	Trademarks by origin/bn PPP\$ GDP	n/a	n/a
3.3.2	Environmental performance*	55.4	41	7.1.2	Global brand value, top 5,000, % GDP	0.0	80 ○ ○
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP	9.9	5	7.1.3	Industrial designs by origin/bn PPP\$ GDP	2.0	48
				7.1.4	ICTs and organizational model creation†	41.1	112 ○ ○
	<b>Market sophistication</b>	<b>63.7</b>	<b>12</b> ● ●	<b>7.2</b>	<b>Creative goods and services</b>	<b>17.9</b>	<b>60</b>
<b>4.1</b>	<b>Credit</b>	<b>41.0</b>	<b>64</b>	7.2.1	Cultural and creative services exports, % total trade	0.9	30
4.1.1	Ease of getting credit*	80.0	23 ●	7.2.2	National feature films/mn pop. 15-69	5.1	44
4.1.2	Domestic credit to private sector, % GDP	51.5	65	7.2.3	Entertainment and media market/th pop. 15-69	n/a	n/a
4.1.3	Microfinance gross loans, % GDP	0.3	43	7.2.4	Printing and other media, % manufacturing	2.2	12 ● ●
<b>4.2</b>	<b>Investment</b>	<b>82.0</b>	<b>[2]</b>	7.2.5	Creative goods exports, % total trade	0.2	84
4.2.1	Ease of protecting minority investors*	82.0	12 ● ●	<b>7.3</b>	<b>Online creativity</b>	<b>23.2</b>	<b>52</b>
4.2.2	Market capitalization, % GDP	n/a	n/a	7.3.1	Generic top-level domains (TLDs)/th pop. 15-69	6.8	47
4.2.3	Venture capital investors, deals/bn PPP\$ GDP	n/a	n/a	7.3.2	Country-code TLDs/th pop. 15-69	5.6	52
4.2.4	Venture capital recipients, deals/bn PPP\$ GDP	n/a	n/a	7.3.3	Wikipedia edits/mn pop. 15-69	68.6	41 ●
<b>4.3</b>	<b>Trade, diversification, and market scale</b>	<b>68.1</b>	<b>70</b>	7.3.4	Mobile app creation/bn PPP\$ GDP	9.3	48
4.3.1	Applied tariff rate, weighted avg., %	1.9	54				
4.3.2	Domestic industry diversification	91.5	47				
4.3.3	Domestic market scale, bn PPP\$	34.5	118 ○ ○				