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INNOVATIVE DEVELOPMENT OF UKRAINE WITHING THE FRAMEWORK OF THE ASSOCIATION AGREEMENT WITH THE EUROPEAN UNION

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Abstract. The signing of the Association Agreement in 2014 provides for the development of innovative cooperation between Ukraine and the European Union (EU), so it is advisable to analyze and study the development of innovative activity in Ukraine since the signing, assess the effectiveness of this agreement, identify the weaknesses and strengths of Ukraine as an innovator in this aspect and provide appropriate recommendations. *Theoretical framework.* Theoretical framework of the study is based on the analysis of the works of scholars and legislative potential. The works prove the connection between innovative development and the association process with the EU. An analysis of the Database with international ratings, such as the Global Innovation Index, the Bloomberg Innovation Index, the Global Competitiveness Index and the EU Innovation Scoreboard, is carried out. The object of research is the innovative development of the country and, accordingly, the current state of Ukraine's innovative development in the context of the implementation of the Association Agreement with the EU. *The purpose* of the study is to determine the level of innovative development in Ukraine, to identify the main advantages and disadvantages and to provide relevant recommendations for improving the conditions for innovative development in the country within the framework of the Association Agreement. *Scientific novelty.* The results of the study are aimed at improving the mechanisms for innovation implementation based on a thorough analysis of the dynamics of indicators characterizing the level of innovative development in the country since the signing of the Agreement and provide an opportunity to systematically build a program for further development and show the prospects for innovation implementation. *Conclusions.* In the context of modern challenges, imperfect innovation policy, legislative framework and especially threats to the sovereignty of Ukraine, we have a low level of development of institutes, research institutions, clusters and infrastructure, and no mechanisms for protecting copyright, intellectual property and investors. In order to solve the existing problems in the field of innovative development in the country, the main tasks of the state innovation policy of Ukraine should be the creation of effective government institutions, transparent tax system and mechanisms for protecting foreign investors, copyright and intellectual property, the increase in funding for research and development, the creation of technology transfer centers based on UN standards and full use of the advantages and opportunities of the Association Agreement with the EU. Based on the analysis of the dynamics of indicators of the level of innovative development in Ukraine, the article identifies weaknesses that impede the realization of Ukraine's innovative potential. Despite the current EU-Ukraine Agreement, which should stimulate the development of technologies in Ukraine, the level of innovative development in the country is still low and lags far behind the level of EU countries. Thus, Ukraine does not fully enjoy the benefits of the Association Agreement, and the recommendations for increasing the level of innovative development in Ukraine based on European experience should contribute to the development of a strategy for creating and implementing innovations, and to finding ways to increase the competitiveness of the Ukrainian economy by realizing its innovative potential.

Keywords: Association Agreement with the European Union, European integration, indicators of the level of innovative development, innovative potential.

Introduction

Sustainable development of the economy of Ukraine is impossible without intensification of innovations within the country. The developed innovation system of the country allows to combine economic and social relations, knowledge and technological innovations. Effective innovative potential is not only a way of dynamic development, but also a means of ensuring the sovereignty of the country and its competitiveness in the modern world. In 2014, Ukraine signed the Association Agreement with the EU, which provides for the creation of a free trade zone and is the first step towards deepening European integration of Ukraine. The text of the Agreement also refers to cooperation in the field of innovation. Chapter 5 of the Agreement states that cooperation between Ukraine and EU countries in the field of technology and science involves mutual exchange of information on programs that provide the opportunity to implement joint projects at the level of governments, scientific institutions, enterprises, as well as the participation of Ukrainian organizations in various fields of the EU Framework Program for research and innovation "Horizon" (Association Agreement between the European Union and Ukraine, 2014). Therefore, the analysis of the level of innovative development of Ukraine will allow to develop a strategy for the innovation implementation, to find ways to increase the competitiveness of the economy by realizing its innovative potential. Currently, this is very important for the state, as Ukraine is most interested in the development of innovative cooperation with the EU and provides an opportunity for economic development, which is one of the main factors in the choice of European integration of Ukraine. *The purpose of the article* is to determine the level of innovative development in Ukraine, to identify the main advantages and disadvantages, and to provide relevant recommendations for improving the conditions of innovative development in the country within the framework of the Association Agreement. We believe that it is possible to solve these problems by developing a unified state strategy for the implementation of innovations during the association process with the EU, as well as by making changes to the current legal acts aimed at harmonizing these program documents with strategic directions of socio-economic development and its main principles.

Methodology

In the process of our research, we have used the following general scientific theoretical methods: system analysis aimed at identifying the object and subject of research; an abstract and logical method for summarizing and drawing conclusions about the prospects of innovative development of Ukraine during the association process with the EU and presenting the mechanism of innovation implementation and substantiation of measures aimed at strengthening this implementation by methods of legal regulation.

Theoretical framework or literature review

Recently, the issue of the results of the signing of the Association Agreement in 2014, which provides for the development of innovative cooperation between Ukraine and the EU, has led to the appearance of a number of scientific monographs and articles aimed at an in-depth analysis of this issue and the search for solutions in Ukraine. Therefore, it is advisable to analyze and study the development of innovative activity in Ukraine since the signing, evaluate the effectiveness of this Agreement, identify the weaknesses and strengths of Ukraine as an innovator in this aspect, and provide appropriate recommendations. Many domestic economists have considered the problem of assessing the readiness of countries for innovative changes. Thus, in his works, M. Kyzym considers the problems of assessing the readiness of Ukraine for innovative transformations and assesses the possibility of forming innovative clusters (Kyzym, 2011). Researchers I. Egorov, I. Odotiuk, and O. Salikhova analyze the possibility of introducing high technologies into the economy of Ukraine and evaluate the indicators of the development of biotechnology, nanotechnology, new materials, and nuclear technologies (Egorov, 2016). A. Rusnak and

S. Prokhorchuk investigate innovative potential of the Ukrainian economy in the international context and perspectives (Rusnak, 2018). E. Maslennikov and M. Dimitrieva conduct fundamental studies of innovative development in the industry (Maslennikov, 2016). A. Kniazevych and V. Kyrylenko study the ways of improving the innovative infrastructure of Ukraine (Kniazevych, 2018). Foreign economists, in particular: K. Schwab, U. Bainbridge, E. Brynolfsson, J. Greengard, K. Kelly, D. Ross, and others study the innovative development of the state. The issues of the article require further research and the provision of proposals regarding the tasks for the implementation of innovations during the period of the association process with the EU.

Results and discussion

Determination of the level and state of development of innovations in Ukraine in the international context, in particular within the framework of European integration processes, will be carried out in accordance with international ratings that assess innovation potential, technological and innovative competitiveness. To do this, we have studied and analyzed the most authoritative ratings for determining the innovation potential of the economy, namely: the Global Innovation Index, the Bloomberg Innovation Index, the Global Competitiveness Index and the EU Innovation Scoreboard.

The Global Innovation Index is prepared jointly by Cornell University, INSEAD business school and the World Intellectual Property Organization. In 2019, the Global Innovation Index covered 129 global economies based on 82 indicators, which are divided into seven areas: institutions, human capital and research, infrastructure, market sophistication, business sophistication, knowledge and technology outputs and creative outputs. Therefore, let's consider the dynamics of these obstacles for Ukraine since the signing of the Association Agreement, that is, since 2014 (Fig. 1).

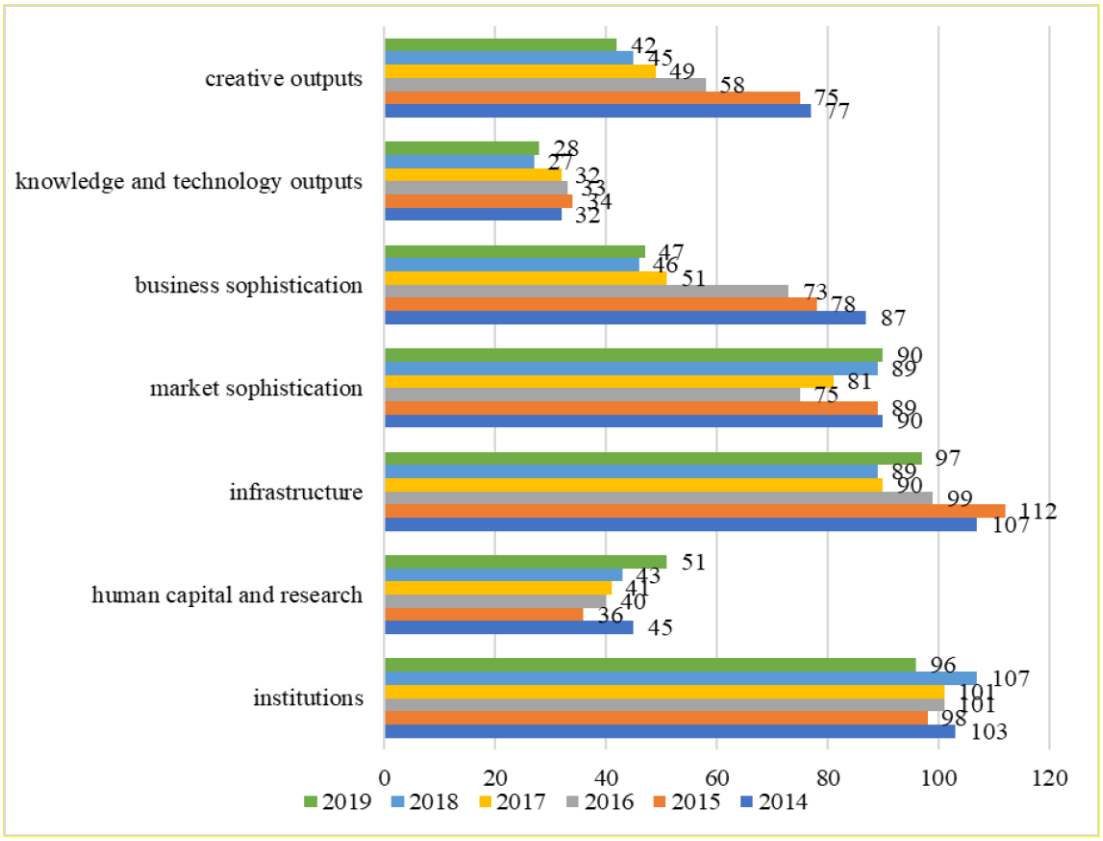

Figure 1. Dynamics of indicators of the Global Innovation Index for Ukraine for 2014-2019

Source: compiled by the authors based on The Global Competitiveness Report. World Economic Forum (2020)

If you look at the dynamics as a whole, you can see that since the signing of the Association Agreement, Ukraine has improved its indicators in almost all areas of the Global Innovation Index rating. Therefore, the greatest achievements can be seen in the development of the index of creative potential. If in 2014 Ukraine ranked only 77th according to this indicator, then in 2019 the country ranked 42nd among 129 countries. Over the past five years, Ukraine has climbed 35 positions, which is currently its best result. According to the index of creation of knowledge and technologies, Ukraine ranks 28th, ahead of such EU countries as Slovenia (40th), Slovakia (29th), Poland (39th), Romania (41st), Bulgaria (37th), Portugal (43rd), and Latvia (45th). Thus, in five years, Ukraine has improved its results by four positions, compared to 2014, when Ukraine took 32nd place, but the best result was in 2018, when Ukraine took 27th place. This shows that scientific and educational potential of the country, the knowledge of the population are the greatest advantages of Ukraine, which today ensure the country's competitiveness in innovative activities.

Analyzing the indicator of business development, we can say that Ukraine has improved its results here as well. Thus, in 2019, Ukraine took 47th place against 87th place in 2014, ahead of Croatia (49th), Romania (51st) and Greece (59th). The country has moved up 40 positions over the past five years, but still lags far behind most EU countries. Speaking about the degree of market development in Ukraine, it is worth noting that in 2014, Ukraine remained at the 90th place among the studied economies. This is the lowest indicator compared to all EU countries, and Ukraine had the best result in 2016, when it took 75th place. According to the level of infrastructure development, Ukraine has the worst result among all seven indicators, i.e. 97th place, although the country has improved its results compared to 2014 (107th place) and lost eight positions compared to 2018, when it took 89th place, which today is the best result of Ukraine in terms of infrastructure development. Therefore, it can be argued that the state of development of the infrastructure necessary for the development of the country is currently not at a high level, and the conclusions of our study can contribute to improving the results. Thus, for comparison, Latvia has the worst result in terms of infrastructure development among all EU countries, which ranks 51st, and Ukraine lags behind the worst indicator of the EU by 46 positions.

According to the Human Capital and Research Index, Ukraine ranked 51st in 2019, which is the best indicator of the country in terms of the implementation of knowledge and technology outputs and creative outputs. However, compared to 2014, Ukraine lost six positions (51st place against 45th), and the best result was 36th place in 2015. Then we began to gradually lose our positions, namely: 40th, 41st, 43rd and 51st places, respectively, although there are promising trends when Ukraine is ahead of Bulgaria (62nd place) and Romania (69th place) but lags behind other EU countries. Thus, human capital is a driver of innovation, but requires significant attention from public and private sectors, as the country may lose one of its strongest competitive advantages. In terms of the quality of institutions, Ukraine ranks 96th, which is the second worst result of our country after the indicator of infrastructure development. Compared to 2014, Ukraine has risen seven positions (106th place in 2014), which is its best result in five years. However, compared to EU countries in 2019, Ukraine lags behind the worst result, which belongs to Greece, by 45 positions. Thus, the quality of institutions is not a strong characteristic of Ukraine as an innovator and lags far behind all EU countries.

Next, we analyze the place of Ukraine according to the indicator of the development of innovations in the rating of global competitiveness. A large number of different criteria determine the competitiveness of national economies. The Global Competitiveness Index consists of more than 100 indicators that assess the competitiveness of almost all countries. All these variables are combined into 12 components that determine the competitiveness of a country. Thus, the 12th indicator is the innovative potential of the country, which, in turn, corresponds to a number of indicators. Let's consider the dynamics of the most important

indicators in our opinion, which directly affect the development of innovations in the country. It is worth noting that in 2018 there were changes in the methodology for calculating the IPD, which was used for the past 12 years. The update of the methodology in 2018, according to the WEF, should help countries better take into account the factors of competitiveness in the fourth industrial revolution. However, because of this, it is difficult to conduct a retrospective analysis of the dynamics of various indicators of competitiveness for a period of more than one year, so we have analyzed two referrals according to various indicators in the period from 2014 to 2017 and from 2018 to 2019.

Taking into account the indicator of the availability of qualified labor in the country, namely engineers and scientists, we see that Ukraine has the best results here and in 2017 took 25th place, which is the highest result in the last five years. Since 2014, the country has improved its results by 23 positions, ahead of such countries as Portugal, Cyprus, Austria, Italy and Spain, while the first place in this ranking is occupied by Finland. Next, we will proceed to the analysis of the quality of cooperation between institutions and business in the field of R&D. Here, Ukraine has one of the worst results, ranking 73rd among 137 countries surveyed. In addition, the dynamics shows that since 2014, Ukraine has risen by only one position, since there is almost no cooperation between the state, business and scientific institutions in our country. At the same time, EU member states: Finland, the Netherlands, Germany, Belgium and Sweden are among the top ten. The analysis of the indicator of companies' R&D expenditure has shown that in the period from 2014 to 2017, Ukraine only worsened its indicators. Thus, in 2014, Ukraine took 66th place, and in 2017 - 76th one. The top countries according to this indicator are Switzerland, the USA, Germany, Japan, etc. The dynamics of the indicator of the quality of scientific institutions shows that in 2017, Ukraine took 60th place in the rating, which is seven positions higher than in 2014, when Ukraine was in 67th place. Ukraine has overtaken EU countries such as Greece, Croatia and Slovakia, and lags behind all other EU member states, including neighboring Bulgaria (59th) and Poland (49th). However, the country fell 10 places from 2016 and 17 places from 2013, when it ranked 54th, its best performance since 2014-2017.

Next, we will consider the indicators of Ukraine within the limits of innovative potential for 2018-2019, which are calculated according to the new WEF methodology, adapted to modern conditions of the fourth industrial revolution (Figs. 2-3). Thus, according to the number of patent applications per 1 million inhabitants in 2019, Ukraine was in 62nd place, or in quantitative terms, 1.5-1.6 patents per 1 million Ukrainians. This is the lowest indicator compared to the countries of the European Union. The lowest indicator among EU countries belongs to Romania, which is in 49th position, where there are 3.6 patents per 1 million inhabitants. In countries such as Great Britain, Belgium, Luxembourg, France and the Netherlands, this figure exceeds 100 applications per million inhabitants, and in Denmark, Sweden, Austria, Finland and Germany - 200 applications per million inhabitants.

As for government R&D expenditure as a percentage of GDP, the country lost 11 positions: in 2018, Ukraine was in 56th place, when R&D expenditure was 0.6% of GDP, and in 2019, Ukraine was already in 67th place, having spent on R&D 0.4% of GDP. This is the lowest indicator among all the countries of the European Union. Among all EU member states, Sweden has the most R&D expenditure - 3.4%, Austria - 3.2%, Germany - 2.9%, Denmark - 2.9%, Finland - 2.8%. Malta has the lowest costs among EU countries - 0.5% and Bulgaria - 0.8% of GDP. Analyzing the level of companies' cooperation, we see that Ukraine has improved the situation by only two positions in a year: 59th place in 2018 against 57th place in 2019. Among EU countries, the closest interaction and cooperation of companies is observed in Germany, the Netherlands, Sweden, Finland and Denmark, which ranked 3rd, 5th, 6th, 7th and 13th respectively. The lowest positions are occupied by Hungary, Croatia, Greece, Poland and Cyprus.

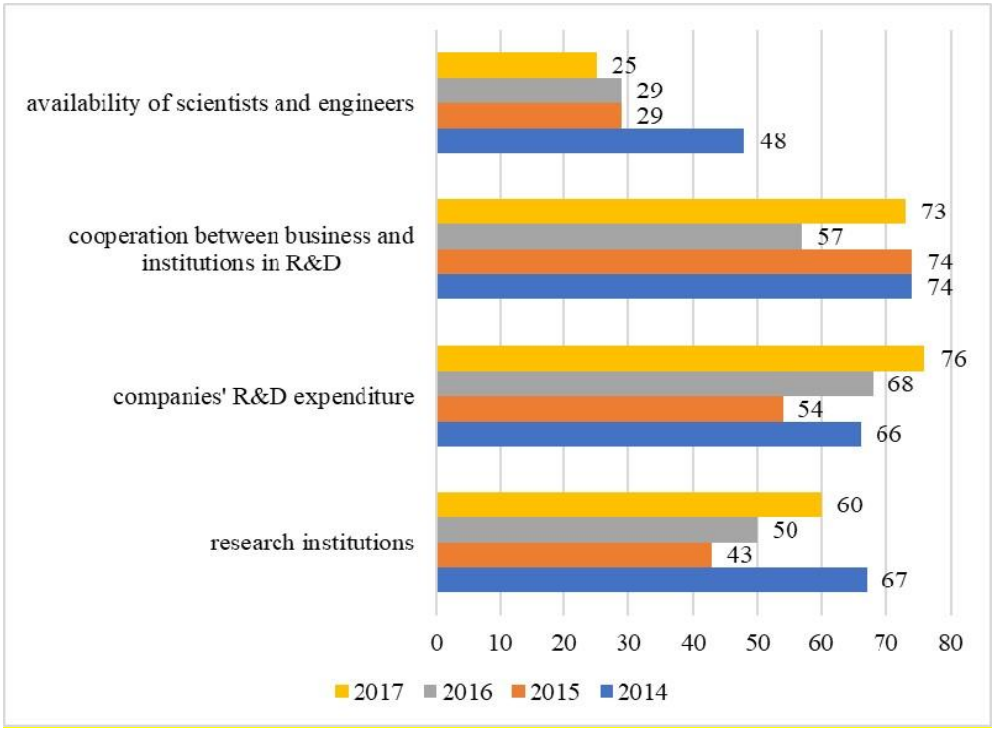

Figure 2. Dynamics of innovative potential indicators for Ukraine for 2014-2017
Source: compiled by the authors based on The Global Innovation Index (2022)

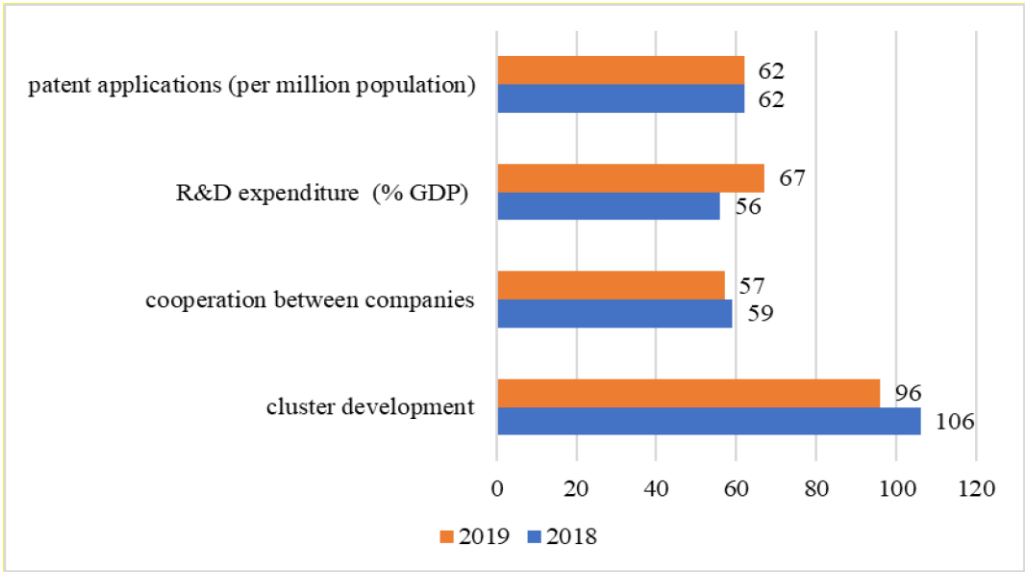

Figure 3. Dynamics of innovative potential indicators for Ukraine for 2018-2019
Source: compiled by the authors based on The Global Innovation Index (2022)

Now let's move on to the analysis of the indicator of the level of cluster development in the countries. In one year, Ukraine has been able to improve its position in the rating immediately by 10 positions, but it still remains quite low. In 2018, Ukraine was on 106th place, and in 2019 - on 96th. Only Lithuania, Romania, Greece and Croatia, which ranked 97th, 108th, 129th and 132nd, had worse results. Among all studied countries, the clusters in Italy (1st place) and Germany (4th place) are developing the best. Next, we will move on to the rating of Ukraine in the European Innovation Scoreboard, when the country's innovation efficiency is determined by the consolidated innovation index, which, in turn, consists of more than 25 indicators, which are divided on the basis

of conditions, investments, innovations. We have identified five key indicators from each group, namely: human resources, attractiveness of the research system, funding, intellectual property, export of medium- and high-tech products. After the analysis, we present the dynamics of the consolidated innovation index in the period from 2014 to 2018 (Fig. 4).

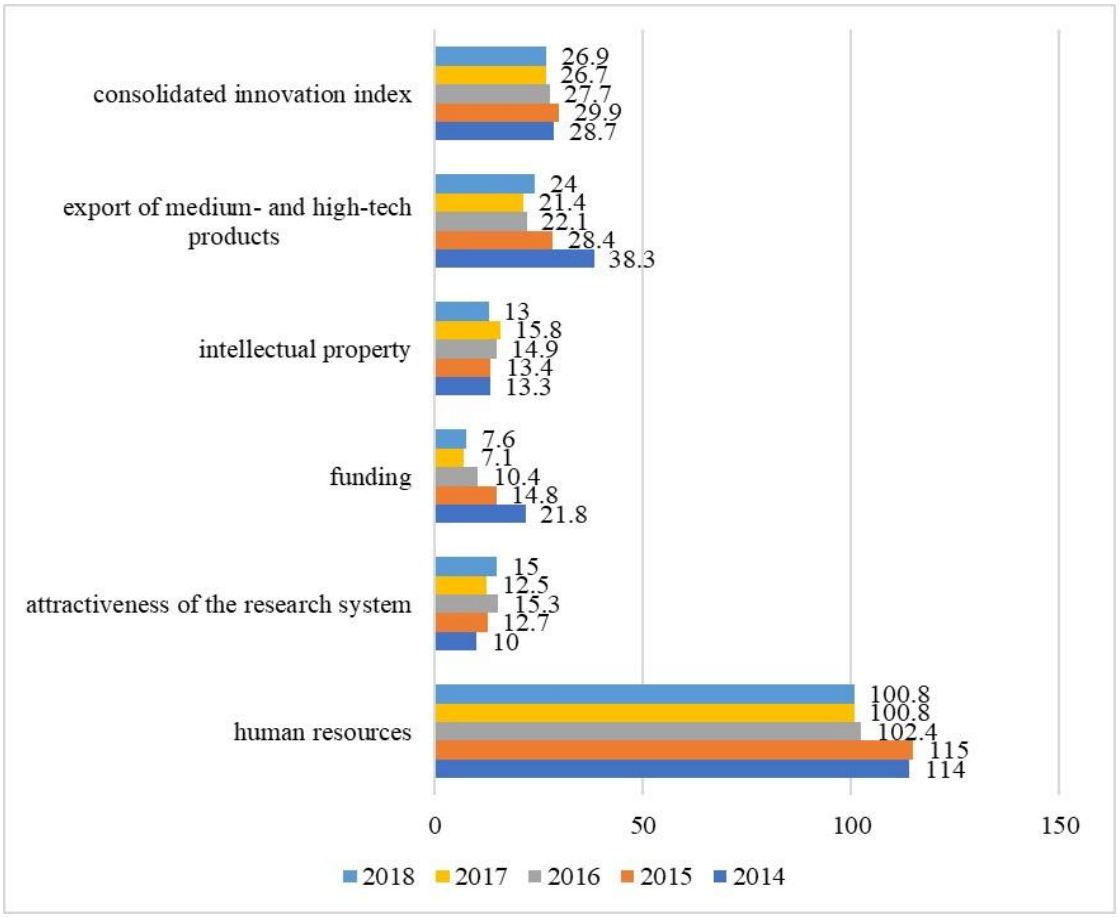

Figure 4. Dynamics of indicators of Ukraine in the European Innovation Tabloid 2014-2018
Source: compiled by the authors based on the European innovation scoreboard (2023)

Thus, in the analysis of human resources, Ukraine has 100.8 points, which is on the same level as Germany, but the development indicator, which includes the human resources index, is lower than in 2014, when this indicator was 114 points. Next, we will proceed to the analysis of the attractiveness of the research system, which includes indicators of international publications, foreign doctoral students, citations of scientific publications, etc. Thus, according to this indicator, Ukraine has 15 points, which is five points more than in 2014. Despite the progress, we have low indicators, lagging behind the countries of Eastern Europe: Bulgaria (23.1 points), Romania (27.2 points), Poland (34.6 points), and we have a huge gap with the countries of Western and Northern Europe: France (129 points), Great Britain (177 points), Denmark (207 points), Sweden (189 points), etc. As for the financing of innovations in the country, the dynamics shows that since 2014 financial infusions have decreased significantly. In 2018, this indicator received 7.6 points, while in 2014 it had 21.8 points, which is the worst result of all analyzed indicators. So, neighboring countries Poland, Hungary, Romania and Slovakia in 2018 had 39, 45, 29 and 26 points respectively, while Denmark, the Netherlands, Great Britain, France and Germany have more than 100 points. Taking into account the dynamics of the intellectual property index, which characterizes patent activity, it can be said that Ukraine has not changed its position here compared to 2014 - 13 points in 2018 against 13.3 points in 2014, but compared to 2017 Ukraine lost three points. According to this indicator, Ukraine's results are the worst among EU countries. Romania

also has low results - 23 points, and Croatia has 29 points. In the countries of Eastern Europe (Poland, Hungary, Slovenia, Slovakia, the Czech Republic), this indicator exceeds 39 points.
The dynamics of the export of medium and high-tech products of Ukraine shows that Ukraine is also gradually losing its position. In 2018, Ukraine had 24 points, and in 2014 - 38, that is, it lost 14 points. In the Baltic countries - Lithuania, Latvia and Estonia, this indicator is at the level of 50-60 points, and in Finland, the Netherlands, Belgium, Great Britain - at the level of 80-100 points. Thus, considering the dynamics of the general consolidated innovation index, it should be noted that the country has lost 2 points since 2014. In 2018, the index was only 27 points, which is the lowest among all EU member states. At the same time, the average index is about 100 points. Next, we proceed to the analysis of the Bloomberg Innovation Index (Fig. 5). This index is derived from an assessment of seven indicators: R&D intensity, value-added production, labor productivity, high technological density, higher education efficiency, concentration of researchers, and patent activity. As can be seen from the dynamics of patent activity indicator, which includes the number of patent applications by residents, the total volume of applications and valid patents per million population, since 2014, Ukraine has lost eight positions and in 2019 took 36th place. Germany, which is in third place, is the leader among EU countries.

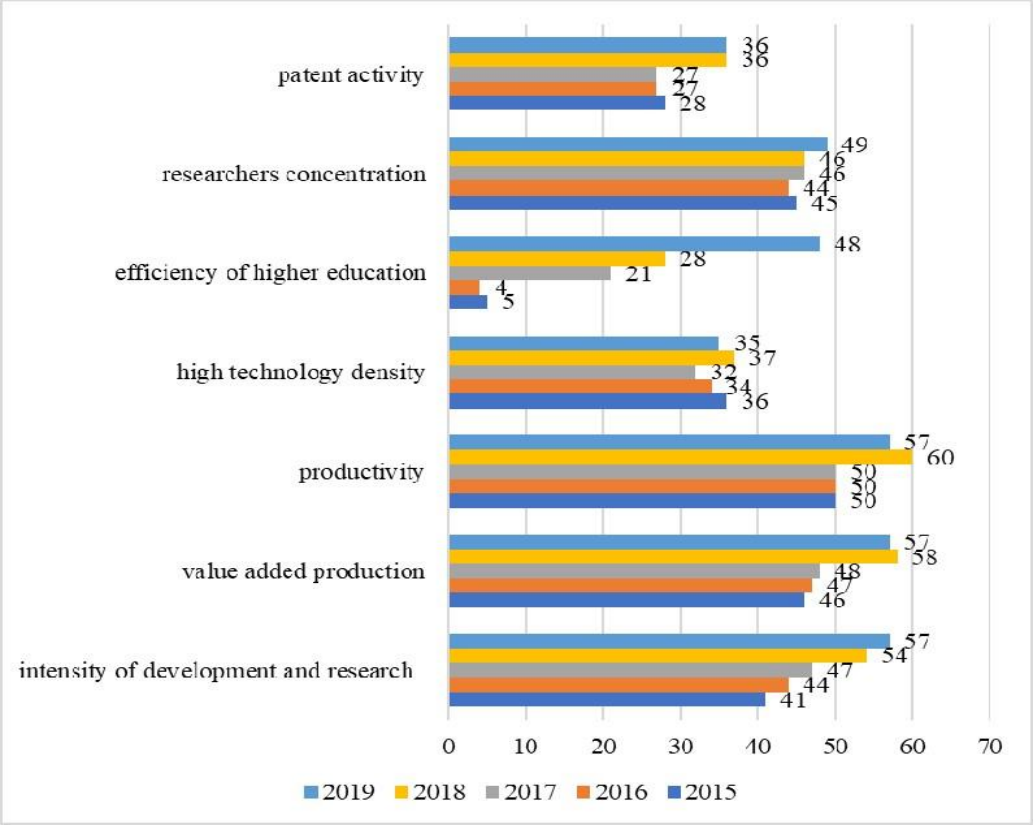

Figure 5. Dynamics of the rating of Ukraine according to the Bloomberg Innovation Index 2015-2019

Source: compiled by the authors based on The Bloomberg Innovation Index (2015)

In terms of the concentration of researchers, that is, the number of people employed in R&D per million population, Ukraine has also dropped four positions since 2015 and ranks 49th out of 60 countries. Denmark is in first place. Analyzing the quality of higher education, it should be noted that education, which was the driving force of innovative development, has lost its effectiveness. This indicator includes: the total number of students in the higher education system as a percentage of the number of school graduates; the minimum share of the workforce with higher education; the annual number of new engineering graduates as a percentage of the total number of university

graduates and as a percentage of those who have been employed. Thus, in 2016, Ukraine took fourth place out of 50 countries, and in 2019 - only 48th place, so the regression in four years reached 43 positions. In 2019, Ukraine ranked 35th in terms of high-tech density (share of registered high-tech public companies from the global level), which is one mark better than in 2015. Second place belongs to France, and third to Germany. The dynamics of the labor productivity indicator (the value and three-year change of GDP and GNP per worker aged 15+) shows that Ukraine has the worst results here, ranking 57th among 60 countries. Ireland is in 1st place, Denmark is in 6th place, Finland is in 9th place.

In terms of value-added production (percentage of GDP for PPP per capita), Ukraine lost 11 positions in four years, taking 57th place out of 60. Ireland is in 1st place, Germany is in 4th place, and the Czech Republic is in 7th place. In terms of R&D intensity (expenditure on R&D, percentage of GDP), Ukraine ranks 57th out of 60 countries. In four years, the country has lost 16 positions, which indicates a reduction in R&D funding in the country. Sweden completes more studies than other EU countries, ranking fourth out of 60, followed by Austria and Denmark. Having analyzed the state of innovative development of Ukraine, it is advisable to consider in detail what factors prevent Ukraine from realizing its innovative potential and what advantages the country has that can positively affect its innovative development. To do this, we have conducted a SWOT analysis, the matrix of which is presented in the Table 1. From the SWOT matrix, it can be seen that Ukraine has many unrealized opportunities in the field of innovative development. Therefore, in order to implement existing opportunities and avoid potential threats, it is advisable to take into account the experience of EU member states in realizing their innovative potential, which can also be applied to Ukraine. First of all, it is necessary to create, develop, implement and support innovative potential in the EU, which is achieved by stimulating innovation within strategic programs of various levels. The first such program was the Lisbon Strategy, launched in 2000 by EU heads of state and government. The goal of the Lisbon Strategy was to make Europe the most competitive with a dynamically growing economy based on knowledge and capable of sustainable development. After the implementation of the Lisbon strategy, in 2010 the European Union adopted a new program called "Europe 2020".

Table 1. Matrix of SWOT analysis

Strong characteristics	Weak qualities
1. Employment of the population in knowledge-intensive industries. 2. Population with complete secondary and higher education. 3. Number of graduates of scientific and technical specialties. 4. Education expenditures. 5. Creative potential. 6. Ease of obtaining a loan.	1. Absence of a mechanism for attracting foreign investors. 2. Low development of clusters. 3. Low quality of research institutions. 4. R&D expenditures. 5. Low share of export of creative and high-tech products. 6. ICT use and access to them. 7. Share of medium and small businesses with innovative products.
Prospects	**Threats**
1. Implementation of third and fourth generation mobile technologies. 2. Creation of a legal framework for the protection of investors. 3. Development of modern national and international clusters. 4. Involvement of qualified specialists in the creation of innovative technologies. 5. Preferential lending to innovative sectors. 6. Provision of educational institutions with modern material and technical equipment.	1. Outflow of scientific potential due to non-realization of abilities in Ukraine. 2. Increase of the gap with the EU in the field of innovation. 3. Lack of up-to-date information on technological progress in the world due to the low use of ICT. 4. Consolidation of the status of the raw material supplier country. 5. Inability to occupy a niche in the global market of innovative goods. 6. Loss of confidence of foreign investors.

Ukrainian organizations also joined the Horizon 2020 program in 2014. As of January 2019, Ukrainian participants received 171 grants for a total of 30 million euros. In total, domestic institutions and enterprises participated 238 times since 2014, which indicates scientific potential of our country (Horizon 2020. Ministry of Education and Science of Ukraine, 2020).

So, mostly innovative ideas and projects in Ukraine originate in research organizations of universities, research institutes and independent laboratories, because they own the largest number of patents. However, despite their relatively large number, the number of inventions is much smaller due to the fact that the implementation of innovative ideas and projects requires the participation of many other structures, in which qualified engineers, managers and representatives of a number of other professions also participate. In this case, regular contacts of the main participants of innovation process (clusters) are the most effective form of cooperation. Today, the policy of EU countries is aimed at helping clusters through the development of innovative infrastructure, strengthening of networks and training, investing, spreading knowledge among cluster members, which will lead to a large-scale EU development strategy. Thus, EU experience can become the basis for the formation of national mechanisms of cluster regulation in Ukraine, the development of national programs of strategic development and cooperation in the European Economic Area, for example, through the creation of national and international clusters and active participation in future EU framework programs.

Scientific novelty

The results of the study are aimed at improving the mechanisms for innovation implementation based on a thorough analysis of the dynamics of indicators characterizing the level of innovative development in the country since the signing of the Agreement and provide an opportunity to systematically build a program for further development and show the prospects for innovation implementation.

Conclusions

Investigating the state of innovation development in Ukraine based on international ratings, it has been established that according to the Global Innovation Index, the Global Competitiveness Index, the Bloomberg Innovation Index and the EU Innovation Scoreboard, after signing the Association Agreement, Ukraine improved its creative potential, achieved success in the development of business environment, educational potential at the level of most European countries. However, in the context of modern challenges, imperfect innovation policy, legislative framework and especially threats to the sovereignty of Ukraine, we have a low level of development of institutes, research institutions, clusters and infrastructure, there are no mechanisms to protect copyright, intellectual property and investors. In order to solve the existing problems in the field of innovative development in the country, the main tasks of the state innovation policy of Ukraine should be the creation of effective government institutions, transparent tax system and mechanisms for protecting foreign investors, copyright and intellectual property, the increase in funding for research and development, the creation of technology transfer centers based on UN standards and full use of the advantages and opportunities of the Association Agreement with the EU. Based on the analysis of the dynamics of indicators of the level of innovative development of Ukraine, weak points that prevent the realization of innovative potential of Ukraine have been identified. Despite the current Agreement between Ukraine and the EU, which is supposed to stimulate the development of technologies in Ukraine, the level of innovative development in the country still remains low and significantly lags behind the level of EU countries. Thus, Ukraine does not fully enjoy the benefits of the Association Agreement, and the given recommendations for increasing the level of innovative development in Ukraine based on European experience should contribute to the development of a strategy for the creation and implementation of innovations, and the search for ways to increase the competitiveness of the Ukrainian economy by realizing its innovative potential.

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Conflict of Interest
None.

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ІННОВАЦІЙНИЙ РОЗВИТОК УКРАЇНИ В РАМКАХ УГОДИ ПРО АСОЦІАЦІЮ З ЄВРОПЕЙСЬКИМ СОЮЗОМ

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Анотація. Підписання Угоди про асоціацію у 2014 р. передбачає розвиток інноваційного співробітництва між Україною та ЄС. Тому доцільно проаналізувати і дослідити розвиток інноваційної діяльності в Україні з моменту підписання, оцінити ефективність цієї угоди, виявити слабкі і сильні сторони діяльності України як новатора в цьому аспекті та надати відповідні рекомендації. Теоретична база дослідження ґрунтується на аналізі праць науковців і законодавчому потенціалі. В працях доводиться зв'язок інноваційного розвитку з асоціаційним процесом з Європейським Союзом (ЄС). Проводиться аналіз Бази даних з міжнародними рейтингами, такими як Глобальний інноваційний індекс (Global Innovation Index), Індекс інновацій (Bloomberg Innovation Index), Індекс глобальної конкурентоспроможності (Global Competitiveness Index) та Табло інновацій ЄС (EU Innovation Scoreboard). Об'єктом дослідження є інноваційний розвиток країни і, відповідно, сучасний стан інноваційного розвитку України в умовах імплементації Угоди про асоціацію з ЄС. *Метою* дослідження є визначення рівня інноваційного розвитку в Україні, виділення основних переваг та недоліків та надання відповідних рекомендацій щодо покращення умов інноваційного розвитку в країні в рамках Угоди про асоціацію. *Наукова новизна.* Результати дослідження спрямовані на вдосконалення механізмів впровадження інновацій на основі ґрунтовного аналізу динаміки показників, що характеризують рівень інноваційного розвитку в країні з моменту підписання Угоди, дають можливість системно вибудувати програму подальшого розвитку і показують перспективи впровадження інновацій. *Висновки.* В контексті сучасних викликів, недосконалої інноваційної політики, законодавчої бази і особливо – загроз суверенітету України маємо низький рівень розвитку інститутів, науково-дослідних установ, кластерів та інфраструктури, відсутні механізми захисту авторських прав, інтелектуальної власності та інвесторів. З метою вирішення існуючих проблем у сфері інноваційного розвитку в країні основними завданнями державної інноваційної політики України мають стати створення ефективних інститутів влади, прозорої податкової системи та механізмів захисту іноземних інвесторів, авторського права та інтелектуальної власності, збільшення фінансування наукових досліджень і розробок, створення центрів трансферу технологій на базі стандартів ООН та повне використання переваг і можливостей Угоди про асоціацію з ЄС. На основі аналізу динаміки показників рівня інноваційного розвитку України виявлено слабкі місця, що перешкоджають реалізації інноваційного потенціалу України. Незважаючи на чинну Угоду між Україною та ЄС, яка має стимулювати розвиток технологій в Україні, рівень інноваційного розвитку в країні все ще залишається низьким та значно відстає від рівня держав ЄС. Таким чином, Україна не повною мірою користується перевагами Угоди про асоціацію, а наведені рекомендації щодо підвищення рівня інноваційного розвитку в Україні на основі європейського досвіду мають сприяти розробці стратегії створення та впровадження інновацій, пошуку шляхів підвищення конкурентоспроможності економіки України шляхом реалізації її інноваційного потенціалу.

Ключові слова: Угода про асоціацію з Європейським Союзом, європейська інтеграція, показники рівня інноваційного розвитку, інноваційний потенціал.