

## I. ANALYTICAL PART

### 1. INTRODUCTION

The establishment of competitive European education, research and cultural environment plays a crucial role in the process of formation of the common European Education Area (EEA). With its education, cultural and political traditions, Bulgaria gradually takes its place and actively participates in the realization of the European Community's common policies and establishes conditions for their adaptation to its own environment.

The development of knowledge and innovation-based economy requires to increase the quality of education, its approximation to the practice and making it a source of innovation. The European policy in terms of education, and higher education in particular, is formed on the basis of the following strategic documents:

- Bologna declaration and the main priority goals of the higher education reform until 2010 for establishment of common European education area – comparable two-level system of education degrees; common European qualification framework; mobility based on a credit awarding and transfer system; enhancement of education and research quality through comparable standards and criteria;
- Renewed Lisbon strategy mapping the road to establish a knowledge-based economy in united and strong Europe;
- The new program document for development of the European Union “Europe 2020” that sets out the strategic goal to ensure **smart, inclusive and sustainable growth** based on knowledge and innovations;
- The program for modernization of higher education systems in Europe adopted by the European Commission on 20.09.2012;



- Resolution of the European Parliament of 20 April 2012 for modernization of the higher education systems in Europe – 2011/ 2294 (INI)

The Strategy for Development of Higher Education in the Republic of Bulgaria 2014-2019 and its related Action Plan are in full compliance with the above documents. Within its objective for significant enhancement of the higher education quality, the Plan focuses on:

- Promoting internationalisation of academic standards and electronic study;
- Promoting the opening of more joint academic standards;
- Encouraging the increase of the number of academic standards taught in foreign language.

## **2. ANALYSIS OF THE CURRENT CONDITION OF THE EUROPEAN POLYTECHNICAL UNIVERSITY**

### **2.1. Short-history**

The European Polytechnical University (EPU, the University) is the newest education establishment within the system of the higher education in Bulgaria. It is established upon initiative of a group of outstanding Bulgarian scholars and recognized representatives of the business from different fields of science and practice supported by private investments.

The draft documents for the University passed through all governmental procedures for approval as set out in the Higher Education Act. It obtained the positive assessment of the Accreditation Council (Decision of 09.07.2010) supported by the Council of Ministers and was established by decision of the National Assembly promulgated in SG no. 46 of 18.06.2010 from which date the University exists officially.

By resolution of the Accreditation Council EPU was given a capacity of up to 2000 students and PhD students and option to develop specialties in other fields of higher education and professional



trends. The National Assembly gives the University the right to provide education for bachelors, masters and PhD students of all academic standards in two languages – English and Bulgarian. Since the 2011/2012 academic year, the fundamental disciplines of higher education are being taught only in English.

The management structure of EPU is established in compliance with article 36 of HEA and comprises the Board of Trustees, President, Academic Council and Rector. The management of the University has ambitious short-term objective with a priority to further develop the facilities and to achieve the average European standards and requirements for higher education establishment's facility. In addition, great efforts are made to further develop the university facilities in order to make them compliant with the highest European standards and requirements by 2 – 3 years only.

## **2.2. Managing bodies**

The University's managing bodies are as follows:

1. Board of Trustees;
2. President of the University who is a chairman of the Board of Trustees;
3. Rector;
4. Academic Council;
5. Supervisory Council;

**The Board of Trustees** comprises 7 members 6 of whom are nominated by the university founder (owner), and one – by Pernik Municipality. The Board of Trustees adopts strategic resolutions.



**The President of the University** chairs the meetings of the Board of Trustees, observes for the implementation of its resolutions and for the observance of the University's academic standards. They are responsible for the development and the finance of the University. They enter into the employment agreements and define the individual remunerations.

**The Academic Council** is the supreme academic managing body of the University and is elected for a period of 5 years.

**The Rector** of the European Polytechnical University has a five-year' term of office and is a single-member managing body responsible for the academic affairs of the university.

The allocation of competences and powers for adoption of resolutions among different managing levels corresponds to the statutory frames and the basic principles of the EPU management.

### **2.3. Teaching staff**

Pursuant to the Rules on the Teaching and the Research Load, the University's Academic Staff is classified into two groups:

- Lecturers whose main task is to take part in all forms of the study process;
- Researchers whose main task is to organize and take part in research activities but may also teach.

The actual annual load of academic activities of the academic staff members comprises main and additional work. The main work comprises teaching to bachelors and masters and the related additional didactic, teaching-methodological and managing works. Teaching works may not be less than 60% of the minimum annual obligatory load, including for the academic officials. Research and/or applied activities are obligatory for lecturers and comprise not less than 30% of their annual load.

For all specialties 119 highly qualified pay-roll lecturers are ensured. The lecturers:students ratio is now  $119:464 = 1:3,9$ . This is too low and non-optimal ratio with view of the University's economic position, however, such ratio is beneficial for the education quality and for the

implementation of the University's mission to "customize its relations with its students and PhD students, to take in consideration their individual abilities and desires".

In the course of the University's development and the increase of the number of students up to the specified capacity of 2000 students, the "lecturers:students" ratio will also increase but not more than 1:10 for technical specialties and 1:12 for humanitarian and social sciences, which is optimal for achieving the required education quality.

#### **2.4. Non-academic staff**

The administrative staff of the University comprises 21 members who perform auxiliary investigation, service, organization, coordination, protocol, registry and other supporting functions. It is organized in compliance with the administrative structure of EPU – <http://epu.bg/bg/index.php/en/structure-bg/administration#1>.

#### **2.5. Students, study trends and specialties**

The academic (institutional) profile of the University is formed by the demanded engineering sciences and innovations in advanced technologies in the field of informatics, computer networks and systems, telecommunications, civil engineering, green energy, as well as some social and humanitarian sciences related to the application of the university product in the knowledge-based economy.

The admission of students is subject to the University's mission and values. At the same time, the requirements of the European and the National Qualification Framework are taken in consideration. The latter sets out the requirements for theoretical and/or evidence-based knowledge, for cognitive, communication and practical skills, for personal, social and professional competences.

During the 2013/2014 academic year, 434 students studied in five trends, 302 of such students studied for the degree "bachelor" (in eight specialties) and 132 students – for the degree "master" (in 12 specialties) (*see Table 1*).

*Table 1. Information for the number of current students/ PhD students for the 2013/2014 academic year – second semester*

bachelor					master					Master studies		Graduates	Total
1 year	2 year	3 year	4 year	Individual curriculum	1 year	2 year	3 year	4 year	Individual curriculum	1 year	2 year		
<b>Academic Standard “Psychology”</b>													
18	3			18									39
<b>Academic Standard for trend “Administration and Management”</b>													
35	24		1	38						10	9	43	160
<b>Academic Standard for trend “Informatics and Computer Sciences”</b>													
16	1		7						2			1	27
<b>Academic Standard for trend “Communication and Computer Equipment”</b>													
11	4	5	7	3	0	0	0	0	-2	2	0	0	30
<b>Academic Standard for trend “Energy”</b>													
	3	4											7
<b>Academic standard for trend “Architecture, Civil Engineering and Geodesy”</b>													
23	8	24	17	32	17	14	20	9	1	2		4	171
<b>Total number of students</b>													<b>434</b>

<sup>1</sup> Marks with letters are according to the European Credit Transfer System (article 77, paragraph 1, item 1 of the Rules of the European Polytechnical University).

## 2.6. International cooperation

The University's international policy is subject to the idea for using all opportunities in which the cooperation with universities, business structures, non-governmental organisations and administrative authorities in other countries can contribute to the fulfillment of its mission and strategic goals.

One of the ways for internationalization is the joint work with leading foreign universities with analogical profile. During the four years in which EPU operates, a number of contracts and agreements with 30 universities from Asia and Europe have been entered into (see Table 2).

<i>Table 2. International agreements for cooperation and exchange</i>		
No	Name of the University	Country
<b>Region of Asia</b>		
1	Chagchun University of Science and Technology	China
2	South-Central University for Nationalities (SCUN), Wuhan	China
3	Karaganda State Technical University E. A. Buketova, Karaganda	Kazakhstan
4	Kalmyk State University	Kalmyk
<b>Russia</b>		
5	Moscow Humanitarian and Economic Institute	Russia
6	Moscow Technical University of Communications and Informatics	Russia
7	National Academy for Slavic Culture	Russia

<b>EU Member States</b>		
8	Attico College	Greece
9	MBS College of Crete	Greece
10	University of Ulster	Ireland
11	University of Architecture and Urbanism "Ion Moncu"	Romania
12	Vilnius University of Applied Engineering Sciences	Lithuania
13	Bucharest University	Romania
14	University in Catania	Italy
15	University in Ferrara	Italy
16	CME Studio & Polymetis	Italy
17	SRH Hochschule Berlin, International Management Unit Ernst	Germany
18	IMC University of Applied Sciences	Austria
19	Boleslaw Markowski Higher School of Commerce	Poland
<b>Balkan Region</b>		
20	University of Tourism and Management	Macedonia
21	Istanbul Technical University	Turkey
22	Istanbul Aydin University	Turkey
23	Ankara University	Turkey
24	T. C. Sakrya universitesi	Turkey
25	Akademistanbul	Turkey
26	University of Banja Luka	Bosnia and Herzegovina





27	University of Nis	Serbia
28	Kristal University	Albania
29	Institute of Scientific Research Victory, Pristina	Kosovo
<b>Ukraine</b>		
30	National Technical University of Ukraine	Ukraine

The cooperation in the field of construction sciences of EPU with the University of Ulster, North Ireland is especially active, and some of the lecturers in this academic standard come from this university.

The student mobility under Erasmus program is also active.

For the purposes of achieving the aims in the field of international cooperation, EPU has established the following practices:

- The general university course “European Values and Culture” is introduced for the first time in Bulgaria. This discipline, which is new for Bulgaria, supports the integration of students from non-European countries and their adaptation to Europe;
- The curriculum and the study content are coordinated with the foreign partner university under the academic standard in a way aimed at “avoiding content issues upon students’ transition from the University to another country for one semester” (see article 68, paragraph 4) of EPU’s Rules;

For its short existence, EPU has clearly demonstrated its active attitude to cooperation, science and researches. Yet upon its first anniversary, the University organized and since then has conducted annual scientific conference for discussion on different topics in the field of innovations in education and research issues, which is interesting for the lecturers.

Since 2012 EPU is a member of the International Federation of Public Administration and Management (IFPAM).

Since 2014 the University is a member of CUAM – Consortium of Universities of Africa and Mediterranean.

Since 2015 EPU is a member of the family of academic institutions accredited by the German accreditation agency ACQUIN.

The university actively cooperates with the Bulgarian Academy of Science, whose laboratories are used for joint researches and for conducting practical seminars with the students.

## **2.7. Research activities**

The typical feature of EPU research activities, as planned concept, is the practical applicability of researches and their binding with the needs of the business and the public practice. Representatives of leading companies, outstanding experts and professionals in the trends in which EPU is profiled are involved in the research and education activities of EPU. They are members of mixed teams of research and business projects, in which students are also actively involved. Business participates not only with investments in innovations, but also as beneficiary of scientific knowledge and products, as well as of stable partner in the organic trinity “science – education – business”. The university works for the establishment of new generation of pragmatic scholars and entrepreneurs.

Despite its recent institutionalization, the European Polytechnical University makes serious attempts to participate as a leading and wanted partner of national and international projects and initiatives.

EPU works successfully and is currently implementing three major projects funded by the EU Funds:

1. “Efficient use of competitive services in higher education” under scheme BG051PO001-3.1.08 “Improvement of higher education establishments’ management systems”. The main objective of the project is to improve the competitive power and the quality of education services of the European Polytechnical University through an assessment of activities and improvement of the quality management system.

2. “University – Business Network: Harmonisation between education and the labour market requirements” under scheme BG051PO01-3.1.07 “Updating of academic standards in higher education in compliance with the requirements of the labour market”. The Bulgarian Chamber of Economy – Bulgarian Business Union is a partner. The objective is to establish a “university-business” network for updating of academic standards and practical study in the University in pursuance of the social procurement of the business for new professionals of 21<sup>st</sup> century. Integration of competence-based approach and promotion of synergy between “education – research – innovations” based on information technologies and in compliance with national and European policies and documents.

3. “With expert knowledge to successful career” under scheme BG051PO001-7.0.07. No Guarantees – Component 1 – Phase 2. Institute of Population and Human Studies at the Bulgarian Academy of Science and Università degli Studi di Catania (Italy) are partners. The main objective is transnational cooperation for establishment of innovative scheme of specialized training seminars for obtaining new skills for successful career development of students.

4. The works for the implementation of the COSMOS Project funded by the TETRACOM Program (European Framework Program FP7) commenced on 01.01.2016 are in progress.

In terms of different research topics and trends, the university works with foreign scholars and engages its lecturers in international teams, supports the participation of its research teams in international and European programs.

## **2.8. Financial policy**

The study in the University is paid. Tuition fees are fixed by the Board of Trustees. The Board of Trustees adopts annual budgets considering the expenses foreseen by the academic and administrative units.

In principle, the sources of funding comprise contributions from the founders, own proceeds generated from semester tuition fees, administrative and other services, revenues related to the scope

of operation of the University, funds received under international projects and programs, wills, grants and sponsorship, earmarked contributions and financial aid from central and local authority bodies. Practically, at present grants from the first founders Investeck OOD and Bulgarian Properties OOD, and from partner business companies are received.

Tuition fees are individual and depend on student's result from the previous academic year.

Three months ago EPU received material financial support from its new owner – the company Pegaso Consulting (see below).

#### Information about the owner of EPU

Since 28.10.2016 EPU is ownership of the company Pegaso Consulting established under the laws of the Republic of Italy. Thus, EPU has become part of the network of universities developed by the Italian-American holding Multiversity whose member the company Pegaso Consulting is.

Within this network of universities online study methods, wide exchange of students and lecturers and multilingual teaching are applied, which is in compliance with the mission and the development strategy of EPU.

The strategy of Multiversity in the competitive environment of the higher education market is to establish a network of universities with global structure allowing unified education and research activities and the acquired degree and/or qualification is recognised across the entire network.

With view of the implementation of this strategy for establishment of a global network, Multiversity plans to finalise the purchase of 6-7 universities in Europe, Asia and America during the next 18 months. The purchase of EPU by the company Pegaso Consulting is part of the implementation of this plan for which Pegaso Consulting has already invested about 3 million euro. During the recent years, this is one of the biggest investments in the field of higher education in Bulgaria.

The accession of EPU to the network of university Multiversity strengthened the financial position of the university. New standards are successfully implemented and post-graduate qualification courses are organised. Students from the network's member universities are expected to be admitted, which will increase the revenue of EPU.

### **3. EVALUATION OF THE ENVIRONMENT IN WHICH THE EUROPEAN POLYTECHNICAL UNIVERSITY DEVELOPS (PEST ANALYSIS)**

The economic and demographic processes in the country play a crucial role for the functioning of the education structures in Bulgaria.

The world economic crisis has mostly affected Europe, and for Bulgaria it has dramatic consequences, as our economy is still in processes of restructuring. The strive to improve the efficiency of the national economy is strongly hindered by the need to solve problems of the day.

The deteriorating demographic situation is an unfavourable factor that has severe adverse effect on the higher education system in the country.

As a result of these negative demographic processes, it is expected that by 2015 approximately 2 times less school students than in 2003 would complete secondary education.

The percentage of children who are not involved in school education, who start later and who drop off school after a few years increases.

Young people prefer to graduate higher education outside the territory of our country – in the developed EU member states, in the USA, Canada, etc. This trend, however positive, is not due to the government's efforts and is not subject to a clear strategy for promotion of international student mobility in both directions: out of and to the country. The increasing outgoing mobility of Bulgarian students added to this shows that the processes of brain drain and drain of young talents that Bulgaria has witnessed during the 90s of the last century repeats again.

The challenges in the field of higher education during the recent years are as follows:

- Wide access to higher education, where the number of vacant places in universities exceeds the number of secondary school graduates;
- Great share of students dropping off after the first year of study due to low results;
- Lack of feedback about the needs of the labour market, which results in production of non-competitive specialists.

The efforts in the higher education sector are directed to the improvement of the quality of education and research and development, as well as to the enhancement of study and social conditions of young students. A number of steps have been undertaken:

- amendments in the Higher Education Act allowing more efficient integration with the European education structures;
- Development of Academic Staff in the Republic of Bulgaria Act (DASRBA) and its implementing rules are adopted;
- since 2014 there is a Strategy for Development of Higher Education in the Republic of Bulgaria for the period 2014 – 2019;
- there are European targeted programs and national operational programs funding education and training and research projects of universities, which result to greater approximation to the European vision for development of the sector.

Efforts of the central government are sometimes compromised by the actions of individual employees in the state administration, which per se, does not change the priorities of the government policy, however in some cases this results in putting artificial obstacles and difficulties faced the universities.

Factors	Issues affecting the development of the institution			
	Trends	Causes	Consequences	Evaluation/ weight (+/-)



<b>Political factors</b> <i>(impact of the regulatory framework on the institution)</i>	Need to continue the reforms in the higher education sector for its full harmonisation with the European standards	Conflict with the Lisbon strategy for economic and social renovation of Europe. Discrepancy between public needs and the higher education product.	Fragmentation of the policies for development of higher education;  Lack of synchrony between undertaken measures for reforms in higher education and coordination among institutions responsible for these measures;  Self-closeness and self-sufficiency of academic institutions;  The European Credit Accumulation and Transfer System (ECTS) is not applied at the required international level.	-2
<b>Economic factors</b> <i>(impact of the status of the economy, income of families and teachers, etc.)</i>	Delayed economic development of the country;  Lack of direct link among education – science – business;	Underdeveloped transition to market economy;  There is no national alternative for reaction to the global economic	Chronic shortage of funds for the ongoing functioning of the higher education system and for the support of commenced reforms – public expenses for education remain relatively low and range between 3.6 –	-3



	<p>Low income of families;</p> <p>High unemployment rate;</p> <p>Low payment rates for teaching and research work</p>	<p>and financial crisis;</p> <p>Deterioration of the indicators for innovation of investments in production.</p> <p>State's failure to understand and underestimation of the importance and role of the academic and research work;</p> <p>Sharp discrepancies between the profile of specialists prepared in the higher education establishments and the actual demand on the labour market.</p>	<p>3.5% of GDP for the period 2011 – 2013;</p> <p>Lack of interest of the business for investments in the higher education and science sector; according to Eurostat, private expenses for education in 2010 are 0.63% of GDP;</p> <p>Inefficient connection mechanism between higher education establishments – as qualified specialist provider, and business – as a user of highly educated, proactive and motivated staff easily adapting to structural and qualification changes on the labour market;</p> <p>Difficult professional realization of university graduates.</p>	
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<p><b>Social factors</b> <i>(demographic processes, lifestyle and values, as well as environmental and cultural factors)</i></p>	<p>Aggravation of demographic indicators;  Higher education of young people is a family and public value;  Despite the low income, families purposefully invest in the education of their children;  Relatively low social status of lecturers and scientific workers.</p>	<p>Impact of the economic crisis;  Worse quality of living and preferences to migrate abroad;  Inefficient social policy for people with fewer opportunities;  Lack of motivation of families with fewer opportunities for education;  Low motivation due to low level of salaries of lecturers and scientific workers.</p>	<p>Decreased number of first-year students;  Increased preferences of young people to obtain higher education outside the country;  Difficult access of young people from low-income social groups to higher education establishments due to increasing poverty;  Underestimating the issue of dropping off elementary and secondary schools;  Delayed reforms in the higher education academic standards.</p>	<p>-3</p>
<p><b>Technological factors</b> <i>(advanced technologies, information flows, organization and management of</i></p>	<p>Gradual improvement of technological provision in the sector of higher education;  ICT, internet and intranet in higher education</p>	<p>Introduction of ICT in the study process;  Unclear and imprecisely formulated goals of higher education;</p>	<p>Improvement of facilities that provide conditions for enhancement of education efficiency;  Gradual overcoming of conservatism in education;</p>	<p>+5</p>



<i>institutional relations)</i>	establishments and universities.	Old education paradigm that does not correspond to the new public demands	Achievement of new quality of the study process on the basis of innovation thinking.	
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**Average assessment from the PEST analysis: -2**

The following conclusions may be made on the basis of the external factors analysis:

- 1) Most strongly expressed negative factors are within the political, economic and social environment, which have crucial impact on the development of higher education and science in the country;
- 2) The legal framework in the field of higher education should be improved at national level in compliance with the European legislation;
- 3) The European Union’s policy in the field of higher education is aimed at stronger governmental and private support for universities, variety of forms of education and closer “university – business” relations;
- 4) The economic crisis has negative impact not only on the business sector, but also on the higher education system, which limits the options to attract more revenue with relatively constant expenses of higher education establishments;
- 5) The economic crisis has negative impact on the business’ opportunities to introduce innovation products and technologies and on the interest to assign procurements for such products and technologies to the research units;
- 6) The demographic situation in Bulgaria deteriorates and the number of potential candidate students will continue decreasing;



7) To be able to develop in this situation, a new higher education establishment, such as EPU, should implement strategies of vertical and horizontal integration with other structures at the same and at higher and lower hierarchy levels, should establish strategic alliances, use the potential of other countries to attract students and confirm its position of a highly respected higher education establishment while focusing on the quality of the study and research process. To this end, the accession of EPU to the family of universities of the Italian-American group Multiversity will to a great extent facilitate the achievement of the measures identified above for overcoming the consequences from the unfavourable economic and demographic conditions.

#### 4. SWOT ANALYSIS

The objective of the SWOT analysis /strengths, weaknesses, opportunities and threats/ is to quantify and qualify the position of EPU as a system. When developing the analysis we applied a group working approach for ensuring more objective evaluation. It provides strategic diagnosis and is a basis for outlining strategic goals. The type of the strategy is defined depending on the prevailing trend. The focus group made the following analysis:

Strengths	Weaknesses
<ul style="list-style-type: none"><li>• Strong ambition of EPU management to develop and reinforce the position of EPU in the country and abroad;</li><li>• The university covers a wide range of knowledge fields, which are a good basis for interdisciplinary and multidisciplinary researches;</li><li>• The course of study in EPU is only in English, which gives the opportunity for education and realization of students from different countries and limits the competition in our country;</li></ul>	<ul style="list-style-type: none"><li>• Unfinished own technical and social infrastructure (student residence halls; canteens; academic building) – EPU uses leased building;</li><li>• Insufficient capacity for project development and management;</li><li>• Relatively high % of dropped off students – 15,5% during the three years of operation of EPU;</li><li>• Lack of sufficient human resources (employees and academic staff working under main employment agreements),</li></ul>



<ul style="list-style-type: none"> <li>• As a new structure in the field of higher education, there are no negative remnants, consolidated structures and dependences from the past and ability to take the University's vision, and not only what its scholars and lecturers are able to do, in consideration;</li> <li>• Academic profile in advanced technologies and opportunity for flexible dynamic reactions and changes to develop and closely monitor them;</li> <li>• Curricula and study content with focus on knowledge and skills applicable in practice;</li> <li>• Use of innovations, advanced methods and means in the study content, university management, teaching and studying;</li> <li>• Cooperation with European, Asian and US universities not only at contact level, but also as a constituent of the institution;</li> <li>• Orientation to partnerships with leading companies and involvement of business in the University's management, which is a fact;</li> <li>• Availability of remote centers in other countries, which will be used as education and scientific centers;</li> <li>• Implementation of active policy for cooperation with respected universities in Asia and Europe for education of students in the form of exchange.</li> </ul>	<p>most of them our own young and perspective lecturers;</p> <ul style="list-style-type: none"> <li>• High level of involvement of lecturers in teaching works and other professional duties for the establishment of the new university, which limits the time for research activities;</li> <li>• Insufficient participation in international research projects;</li> <li>• Insufficient use of the wide specter and set of sciences in EPU for cooperation among different academic standards for joint participation in interdisciplinary projects;</li> <li>• Insufficient infrastructure for researches in some fields (laboratories), which is typical for a new university;</li> <li>• Great diversification of opportunities and motivation of first-year students not only to efficiently learn the taught material, but also to actively participate in teams for research, production and design activities;</li> <li>• Insufficient library fund with specialized foreign language literature;</li> <li>• Difficult communication with Higher Education Directorate of the Ministry of Education and Science.</li> </ul>
<p><b>Opportunities</b></p>	<p><b>Threats</b></p>
<ul style="list-style-type: none"> <li>• Improvement of the business climate and development of economic sectors with potential for job creation;</li> <li>• Rapid development of new technologies in all sectors of the economy;</li> <li>• European and national priorities in the field of green economy and innovations;</li> <li>• Improvement of access to the EU common market;</li> </ul>	<ul style="list-style-type: none"> <li>• The political climate in the country and the delay in the required legislative reforms relevant to higher education and science;</li> <li>• Long-term trend to population aging and decrease of groups in youth age range who enter the labour market;</li> <li>• High level of unemployment and increasing unemployment among</li> </ul>

<ul style="list-style-type: none"> <li>• Reforms and development of higher education are priorities in the education process (the National Assembly is in process of adoption of a Strategy for Development of Higher Education in Bulgaria);</li> <li>• Separate operational program “Science and Education for Smart Growth” will be implemented during the 2014-2020 program period;</li> <li>• Easy access to knowledge and involvement in European research networks through the EC 8<sup>th</sup> Framework Program “Horizon 2020”;</li> <li>• Opportunity for increase of lecturers’ capacity, transfer of good practices in the study process and promotion of mobility of students through the EC “Erasmus+” Program;</li> <li>• Strengthening the economic relations between Bulgaria and the Asian countries (China, India, Vietnam, etc.)</li> </ul>	<p>disadvantaged groups on the labour market, in particular among young people;</p> <ul style="list-style-type: none"> <li>• Lack of sufficient engagement of employers in the education and qualification of young people completing secondary vocational and higher education;</li> <li>• Weak market of research products and low absorption capacity;</li> <li>• Insufficient and inefficient use of funds under the operational programs for the period 2014-2020;</li> <li>• Lack of interest on behalf of the business for partnership and investments in higher education and science.</li> </ul>
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The ratio of considered factors is as follows:

Classification of factors	Number of characteristics	Percentage of the total number
Opportunities	9	24,00%
Threats	8	22,00%
Strengths	10	27,00%
Weaknesses	10	27,00%
Total	37	100,00%

<b>Factors</b>	<b>Internal</b>	<b>External</b>	<b>Total</b>
Positive (S/O)	10	9	19
Negative (W/T)	10	8	18
Total	23	18	37

Positive factors are more than negative, which suggests to focus efforts on the most priority fields in which EPU is strong and for which favourable development opportunities exist, such as:

- Integration with universities from the Multiversity network
- Development of cooperation for exchange with other universities in Europe, Asia and Africa (including through active involvement of the EU Erasmus program);
- Development of franchising programs in other universities within the Balkan region and the European Union;
- Establishment of the required infrastructure for introduction of online study;
- Development of research activities in EPU through the establishment of an Institute of Science, Research and Innovations.

## **II. STRATEGIC PLAN**

### **1. VISION**

According to the conclusions made and taking in consideration the impact of global, common European, national and regional factors and announced priorities of the European community for development of higher education, the European Polytechnical University defines its vision, mission, strategic goals, priorities and tasks for the next years in short-term aspect.

The vision of the European Polytechnical University is *to reach the level of the best European universities in its academic profile, becoming a model of European education in South-Eastern Europe through successful integration in the family of Multiversity universities.*

## **2. MISSION**

In order to achieve the desired vision in compliance with the European Commission Program for modernization of higher education, the management of EPU defines its **mission** as follows: *To make the University a centre of interaction among modern education, researches and innovations, international academic and business cooperation. The University should customize its relations with its students, while taking in consideration their individual abilities and desires and to prepare them for professional realization in market environment of the dynamically changing world.*

This mission distinguishes the European Polytechnical University from the other universities in the Republic of Bulgaria and outlines its identity with the fact that as a member of the Multiversity network the university is able to adequately realise its objectives. It provides information about the long-term priorities and objectives of the University and has impact on the students, the academic staff and the employees by encouraging them for their achievement. It is the differentiation criterion for what is appropriate and what is not both for the formation of its education and scientific policy and for the actions of the management, the lecturers and the students in the everyday life of the University. The mission of the European Polytechnical University is reaffirmed by the governing bodies of the University – the Board of Trustees and the Academic Council. This mission is specified in the draft documents for the European Polytechnical University approved by the Accreditation Council of NEAA with its decision of 09.07.2009, as well as upon its opening on 10.06.2010 by the National Assembly of the Republic of Bulgaria. It shows that the University does not consider itself a regional or national higher education establishment. According to its concept of 2008, it is an international, English language and oriented to Europe and European values in higher education. As part of the network of universities of the Italian-American group Multiversity, the University becomes



South-Eastern European Academic Centre, which attracts foreign students to study and scholars to develop creative, innovative and entrepreneurial knowledge-based economy.

The so defined mission and vision create interrelated **values, which the University strives to achieve:**

1. International nature of education as an attribute of the University and a mean to achieve and maintain quality corresponding to the needs of the knowledge-based economy;

In the light of the strategy for development of the university network Multiversity for becoming a Global University, as a member of the network, EPU has the perspective to be an equal partner in the family of a global university that builds up its global nature on:

- the strive to provide modern education product highly esteemed and recognised all over the world;

- attracting students from across the world to give them the opportunity to obtain education of the highest quality and personal uprising in a multicultural environment;

- the use of the resources of the European Union for exchange of students and lecturers recognising their education qualifications;

- the establishment of a powerful research centre allocated within the network of universities;

- the efforts to face the challenges of these days with adequate educational and training proposals in favour of a sustainable development under the sign of prosperity and peace.

2. European traditions and standards in higher education<sup>1</sup> combined with US pragmatism;

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<sup>1</sup> This means the European Qualification Framework, the ENQA Standards and Guidelines for Quality Assurance in the European Higher Education Area, as well as the standards of the European Professional Organisations and Accreditation Agencies.



3. Learning the study content and achieving professional training corresponding to the requirements of modern business and entrepreneurship;

4. Orientation of researches and innovations to the needs of the modern international and Bulgarian professional practice;

The result of the university's researches corresponding to the needs of the market will be materialised through:

- Transfer (technological transfer) of knowledge, operating models, evaluation criteria, products of research activities of the university's lecturers and students intended for the benefit of the society and to contribute to its development and promotion;

- Interaction comprising development of joint programs, partnerships, cooperation for the purposes of maintaining a common level of competitiveness.

For this purpose, an Institute of Research and Innovations is established in EPU, which coordinates:

- the establishment, maintenance, monitoring and promotion of new forms of entrepreneurship, in accordance with the satellite companies' model ("spin-off") and the model of partnership;

- a set of non-profit activities that mainly have educational, cultural and social development promoting function in compliance with the methods and forms of public involvement;

- a set of scientific activities for the benefit of institutions, agencies and companies with which the university has partnership relations;

- relations with the labour market

5. Development of personal qualities and abilities of students with view of achieving the maximum of their intellectual potential by applying didactic model of study where:

- the student is in the focus of the attention being treated as a carrier of experience that need to be assessed;
- the opportunity for education corresponding to life experience combined with the understanding that when theoretical knowledge becomes practical skills, it gets importance and value;
- the idea that the effective mark is not the one that surprises the student but the one that involves them actively in the flow of the cognition process allowing them to get use of obtained knowledge personally;
- the multimedia equipment and different advanced methods used in the process of study ensure student's implication in the culture of our own times.

### **3. GENERAL GOALS, PRIORITIES, SPECIFIC OBJECTIVES**

<b>MAIN OBJECTIVE</b>
ESTABLISHMENT OF MOTIVATED AND HIGHLY QUALIFIED SPECIALISTS WITH EXCELLENT REALIZATION ON THE LABOUR MARKET AND IN SCIENCE
<b>PRIORITIES</b>
1. HARMONIZATION OF UNIVERSITY'S WORK WITH THE DECISIONS OF THE EUROPEAN COMMISSION FOR MODERNISATION OF THE HIGHER EDUCATION SYSTEMS IN THE REPUBLIC OF BULGARIA (2014-2019) FOR MODERNISATION OF THE HIGHER EDUCATION SYSTEMS THROUGH INTEGRATION TO THE MULTIVERSITY NETWORK OF UNIVERSITIES
2. ACHIEVING HIGH QUALITY AND PRAGMATISM IN EDUCATION THROUGH INNOVATIVE EDUCATION TECHNOLOGIES



3. DEVELOPMENT OF RESEARCH ACTIVITIES FOR THE PURPOSES OF CREATING AND DEVELOPMENT OF NEW APPLIED IDEAS, TECHNOLOGICAL SOLUTIONS AND INNOVATIONS AND TECHNOLOGIES THROUGH PARTICIPATION IN NATIONAL AND EUROPEAN PROGRAMS
4. DEVELOPMENT OF MODERN UNIVERSITY INFRASTRUCTURE, INCLUDING WITH THE USE OF THE RESOURCES OF THE MULTIVERSITY NETWORK OF UNIVERSITIES
5. PROFESSIONAL DEVELOPMENT OF THE ACADEMIC STAFF AND HUMAN RESOURCES MANAGEMENT WITH THE USE OF THE PRACTICES OF THE MULTIVERSITY NETWORK OF UNIVERSITIES
6. INTERNATIONALIZATION OF THE UNIVERSITY AND DEVELOPMENT OF STUDENT POLICY ORIENTED TO UNITY OF TRAINING AND EDUCATION IN MULTICULTURAL AND MULTILINGUAL ENVIRONMENT
7. ENCOURAGING THE INTERNATIONAL COOPERATION WITH LEADING UNIVERSITIES AND COMPANIES.

PRIORITY 1. HARMONIZATION OF UNIVERSITY'S WORK WITH THE DECISIONS OF THE EUROPEAN COMMISSION AND THE STRATEGY FOR DEVELOPMENT OF THE HIGHER EDUCATION IN THE REPUBLIC OF BULGARIA (2014-2019) FOR MODERNISATION OF THE HIGHER EDUCATION SYSTEMS THROUGH INTEGRATION TO THE MULTIVERSITY NETWORK OF UNIVERSITIES

*Specific goals:*

- Development of the University in compliance with the European Commission Program {SEC(2011)1063};
- Development of the University in compliance with the Strategy for Development of Higher Education in the Republic of Bulgaria 2014-2019 and the Action Plan thereto;



- Integration with the universities from the owner's network Multiversity;
- Maintaining close relations, activities and business relations of the University with the European higher education and innovation institutions.

**PRIORITY 2. ACHIEVING HIGH QUALITY AND PRAGMATISM IN EDUCATION THROUGH INNOVATIVE EDUCATION TECHNOLOGIES**

***Specific goals:***

- Digitalisation of the study process and introduction of online study as a priority;
- Maintaining study process based on fundamental knowledge and appropriate balance between theoretical preparation and practical skills originating from modern business and advanced public practice;
- Flexibility and adaptability of academic standards bound by the needs of business and social practice;
- Franchising of academic programs of the universities within the Multiversity network;
- Introduction of competence-based approach in education in close cooperation with business;
- Introduction of multilingual education;

**PRIORITY 3. DEVELOPMENT OF RESEARCH ACTIVITIES FOR THE PURPOSES OF CREATING AND DEVELOPMENT OF NEW APPLIED IDEAS AND TECHNOLOGIES THROUGH PARTICIPATION IN NATIONAL AND EUROPEAN PROGRAMS**

***Specific goals:***



- Development of its own competitive research infrastructure, through the University's Institute of Research and Innovations, as an element of the European research area;
- Active research presence in the national and international research area;
- Symbiosis of education, science and practice;
- Subordination of researches to the principles of sustainable development.

**PRIORITY 4. DEVELOPMENT OF MODERN UNIVERSITY INFRASTRUCTURE, INCLUDING WITH THE USE OF THE RESOURCES OF THE MULTIVERSITY NETWORK OF UNIVERSITIES**

***Specific goal:***

- Establishment of appropriate conditions for development of the study AND research process through the establishment of joint laboratories with universities from the Multiversity network and with leading companies.
- Establishment of appropriate living and recreation conditions for students in the campus planned to be constructed by the owner, Pegaso Consulting.

**PRIORITY 5. PROFESSIONAL DEVELOPMENT OF THE ACADEMIC STAFF AND HUMAN RESOURCES MANAGEMENT WITH THE USE OF THE PRACTICES OF THE MULTIVERSITY NETWORK OF UNIVERSITIES**

***Specific goals:***

- Ensuring highly respected lecturers and scholars for the study process, including through exchange of lecturers from universities within the Multiversity network;



- Ensuring favourable opportunities for academic promotion of own teaching staff;
- Development of modern administration;
- Introduction of effective management systems.

PRIORITY 6. INTERNATIONALIZATION OF THE UNIVERSITY AND DEVELOPMENT OF STUDENT POLICY ORIENTED TO UNITY OF TRAINING AND EDUCATION IN MULTICULTURAL ENVIRONMENT

*Specific goals:*

- Promoting the mobility and international activity among students both within the Multiversity network of universities and outside it;
- Maintaining the students – university – business contacts;
- Strengthening the functions of the student council and of the student community;
- Development of club and cultural activities;
- Activation of out-of-school sports activities.

PRIORITY 7. ENCOURAGING THE INTERNATIONAL COOPERATION WITH LEADING INTERNATIONAL UNIVERSITIES AND COMPANIES

*Specific goals:*

- Expanding the network of partner-universities by using the favourable conditions established as a result of the accession of the university to the family of Multiversity;
- Deepening the partnership relations with universities with which partnership agreements are entered into;

#### 4. QUANTITATIVE INDICATORS OF THE EPU STRATEGY

The strategy of EPU described above is expected to be realised through the following major quantitative indicators: number of students, respectively income, number of departments and academic standards, etc.

In the conditions of financial stabilisation due to the accession of the university to the Multiversity network, objective prerequisites are created for achieving ambitious results through:

- Organisation of post-graduate qualification for students from Italy;
- Introduction of multilingual education (English and Italian)
- Franchising of academic programs of the Pegasus University;
- Opening new specialties for studies ordered and financed by the business;
- Introduction of online study



The charts show EPU's expected results for the period 2016-2019. As a minimum triple growth of educated students is expected, most of them using the online form of study. It should be noted that such forecasts are made on the basis of analysis of the international market, in particular the Italian and the Near East markets.

Respectively, considerable growth of income is also expected, which will give opportunity for improvement of the university's facilities.



The increased financial potential will stimulate the expansion of the scope of academic standards/ departments and maintaining high level of teaching staff.





## **5. DEVELOPMENT STRATEGY MONITORING, EVALUATION AND UPDATE ACTIVITIES**

The implementation of the EPU Development Strategy is a continuous, complex and multirange process, which depends on factors and changes in the internal and external environment. It is subject to continuous monitoring and control of implementation of set priorities, goals and activities/ measures.

For the purposes of monitoring and evaluation a monitoring and supervision system should be established comprising the forms and methods for collection of information, monitoring indicators, monitoring bodies and organization of monitoring and evaluation activities, as well as the system for reporting, information and visibility. Authorized administrative structures and the academic staff responsible for the development of the respective trend should take part in the overall monitoring process.

When updating the EPU Development Strategy, the dynamic effect of external and internal factors and conditions on the social and economic features of the development of the country and the region should be analysed and evaluated.

### **Principles for implementation of the EPU Development Strategy (2014-2020)**

- common approach for planning and programming;
- concentration of resources;
- additional funds from public sources upon joint funding with resources from private sources;
- administrative coordination of activities in the process of planning, programming, resource provision, realization, monitoring and evaluation;
- partnership, visibility and transparency at all levels during planning, programming, funding, monitoring and evaluation.

### **Monitoring of the implementation of the EPU Development Strategy (2016-2019)**



The implementation of the EPU Development Strategy is reported on the basis of data from the implementation of the Realization Plan based on defined result indicators. Annual reports on the implementation monitoring should be made and the President of EPU is responsible for their presentation to the Board of Trustees of EPU for approval.

For the purposes of regular monitoring and reporting of the progress in the implementation of the Strategy we need to establish a strict monitoring and control system with clear obligations and responsibilities. To this end, we plan to create a standing Working Group (WG) at the EPU President, which will manage the implementation of the Strategy and will control and monitor the results from its implementation. The realization management working group should comprise representatives of the academic staff, the administration and the student council. The meetings of the working group will be held once or twice a year, and if needed – extraordinary meetings will be convened.

The working group will perform the following functions:

- monitors the progress in the implementation of the Strategy and organizes the collection of input information under approved indicators;
- regularly informs the President for the achieved progress in the implementation of the realization plan;
- prepares annual reports on the monitoring of the implementation of the development strategy;
- organises the update of the EPU Development Strategy;
- discusses and makes decisions on problems and circumstances requiring specific measures and changes in the program for realization of the strategy;
- discusses and initiates changes in the development strategy.

The decisions of the WG are formalized in the form of minutes where specific tasks, deadlines and responsible persons for the decisions are set. The responsible persons may be members of the WG or collective units.



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