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COOPERATION OF A UNIVERSITY WITH BUSINESS PRACTICE

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Summary

The article presents forms of cooperation and social benefits resulting from cooperation between universities and business practice. Basic kinds and directions of mutual relations arising from common areas of interest, possibilities, needs and conditions for the functioning of each side, have been presented. Solutions carried out by universities with the participation of business practice have been discussed. In case of business practice, potential areas of cooperation with schools and joint ventures in the area of R&D have been discussed.

Keywords: business practice; cooperation of universities with practice, social benefits resulting from participation of practice in education, commercialization of research results, business consulting, science, education, student apprenticeship programmes

Introducing

The article presents forms of cooperation and social benefits resulting from the cooperation between universities and business practice. The basic kinds and directions of mutual relations resulting from common areas of interest, possibilities and needs, as well as the conditions for the functioning of each side are presented. In case of universities it will be: commercialization of research results, business consulting, science, education, training and student apprenticeship programmes; job offers for graduates and cooperation with professional associations (e.g. economic professions) for the purpose of maintaining the attractiveness of the educational offer. The long-term purpose of these activities will be building the competitiveness of university graduates on the labour market.

At the same time, in case of business practice the potential areas of cooperation will cover: lectures given by business practicians at universities, at I, II and II grade studies, as well as post-graduate and MBA courses; study lectures and workshops conducted by business practicians for university students in a company; joint promotion of BA/BSc/MA of the employees of universities and representatives of business practice; student apprenticeships organized by business practice (organization, costs of recruitment, remuneration and the implementation of training/student apprenticeship programme is covered by the company); apprenticeship programmes for scientific-didactic employees, scholarships for students and university employees, sponsoring, or patronage of the events organized by universities (conferences), or financing didactic and R&D infrastructure.

The third possible solution are joint projects of the two sides in the area of R&D carried out for the benefit of business practice under grants (the sides act as project partners); joint works on the commercialization of the results of research conducted by universities in cooperation with practice; consortia of universities and business practice, joint organization and co-financing of scientific conferences with the participation of the representatives of science and practice; companies' membership in the Clubs of Partners of universities; the membership of companies in university and faculty Business Councils (participation in shaping and forming opinions of the process of education and improving university's

didactic offer focused on the needs of business practice); joint promotion of BA, BSc and MA theses; joint education programmes (eg.: ordered specialties), training and student apprenticeship programmes organized together by universities and business practice, or job offers for university graduates.

Out of the above-mentioned broad range of potential cooperation solutions, the solutions giving in particular market benefits in the social dimensions and those which can be regarded as promising will be discussed. The deliberations contain practical references resulting from the experiences of Authors gained on the basis of scholarships, many years of cooperation with practicians on the creation of specializations and study programmes, as well as participation in research projects for the benefit of business practice, preparation and commercialization of many categories of products.

University as an entity on the educational, research and labour market

The strategy for the years 2009–2020 prepared for the Ministry of Science and Higher Education, where the basic tasks associated with higher education are formulated, contains also goals concerning science. Among the defined groups of goals for science there are the following:

- creating new knowledge through scientific research motivated by both cognitive inquisitiveness, as well as for the common good;
- absorbing the results of research conducted around the world and adapting them for the benefit of the society;
- popularization of science and spreading the awareness of its significance for the information society;
- developing contacts with the social and economic environment for the purpose of creating and commercializing innovation[1].

Obviously, these are not all goals, as there are also issues associated with expert knowledge support for the government and public

administration, or the support for the development of regions and modernization of the country. Thus, it is possible to say that the necessity to change the role of universities as entities influencing market and manufacturing processes is becoming more and more apparent in the ever more globalized, professional and international economy.

Picture 1. Key areas of university cooperation with business practice

MARKET DEVELOPMENT (R&D):	**MARKET DEVELOPMENTjoint R&D works and commercialization of research results; creating joint scientific-research teams;** ↓ Innovativeness and competitiveness of companies, products and market solutions
HUMAN RESOURCES:	**DEVELOPMENT OF HUMAN RESOURCESComplex and long-term activities:supporting eductaion through the participation of business practicians; joint creation of educational offer;joint implementation of apprenticeship projects,** ↓ Competitiveness of university graduates on the labour market Competitiveness of the employer achieved thanks to attracting and hiring the best graduates
EDUCATION	**SUPPORT FOR THE PROCESS OF EDUCATION Current activities which involve enriching education with:joint promotion of dissertations;study visits, lectures of practicians, case studies, professional training** ↓ Verification of knowledge and skills acquired during studies The usefulness of research results for the development of companies, products and market solutions

Source: Own materials.

On the one hand it is a role of universities, particularly emphasized nowadays, to support economic growth through scientific research, which brings results that can be applied to creating new, innovative products, processes and market solutions. On the other hand, their goal is to educate and prepare human resources for the economy (various levels of studies), in such a way that their knowledge, skills and competences are possibly best adapted to the needs of employers, market challenges and so that they build

their competitiveness on the labour market. These activities have a direct impact on the competitiveness of the participants of branch markets employing university graduates. In the future they may also be highly valuable for the implementation of joint research projects and commercialization of their results by teams created on the basis of scientific units and various market entities. Picture 1 reflects key areas of cooperation of universities with business practice.

The competitiveness of university graduates on the labour market more and more often determines the candidates' choice of studies at a particular university and the foundation of their further professional development. What determines the attractiveness of a university is not just interesting educational programme, didactic personnel and material resources, but mainly the educational offer supported with elements of practice (competences, practical experience, participation in projects); which prepares the candidate for work in mentally and economically attractive sectors of the economy with prospects for development, directly after graduation. It is because what is becoming the key factor behind the competitiveness of university graduates on the labour market is not just knowledge, but mainly practical skills relevant to the dynamically changing needs of the labour market (actually, branch markets). Employers more and more often look for candidates who easily find their way around work environment thanks to experiences and competences acquired during numerous apprenticeships, trainings and participating in projects. Candidates whose CV's don't show professional activity, or student apprenticeships are usually less attractive for potential employers recruiting new employees. This has been confirmed by the results of surveys conducted by Polish Agency for Enterprise Development (PARP) and others among employers and students, which show the necessity to adapt the skills of graduates to the needs of employers, as well as the need to substantially improve the preparation of graduates[2].

Among the most important actions which universities take while building an attractive educational offer, which contributes to the competitiveness of its graduates on the labour market is continuous cooperation with companies. This cooperation involves mainly inviting the representatives of business practice to programme councils, researching the needs of the labour market in chosen areas associated with the subject of study, organizing open lectures

given by business practicians, organizing study visits in companies for students, who this way can learn about the characteristics of functioning of various companies, as well as the requirements of future employers. What is also an important — in some cases the most important — element of building an attractive educational offer is organization, in cooperation with business practice, student apprenticeships and trainings in companies, included in educational However, it is also true that many companies avoid, or even abandon the possibility of taking advantage of apprenticeship offers, or trainings as forms of participation in acquiring experience and practical skills, due to the necessity to get deeply involved in the process of organizing apprenticeships (excessively high formalization of procedures) and the problem with finding places in commercial entities for potential candidates, which may result from the lack of will to systematically build relations (obviously, everybody claims to have 'good will') and establish closer relations with business practice[3]. Both in public and non-public universities the activities described above don't result from systemic solutions of education on the university level. Activities aimed at raising the competitiveness of students and graduates on the labour market are conducted on the initiative of universities, or employers looking for attractive candidates for various positions. After all, the research conducted by Deloitte shows clearly that the system of education on the university level requires big changes adapting it to the requirements of the economy and the needs of contemporary society and the above-mentioned activities should be a symptom of these changes. It is necessary to depart from passive transfer of knowledge towards interactive skill training[4]. In Poland the most common way of financing initiatives of this kind are the funds of companies organizing apprenticeships and trainings, or the participation of universities in competitions finances by the European Union, organized by intermediary institutions, for example, National Centre for Research and Development, or financed with other funds from the state budget (funds from regional programmes). One of the limitations for the implementation of training projects and apprenticeships funded by the EU, or the state budget is the limit of funds which can be granted in total to all beneficiaries of a particular competition. Moreover, what plays a major role are formal and content-related requirements for universities participating in competitions for project financing and carrying out the winning competition project. This means that what is becoming more and more significant is skilful project

management and the ability of the beneficiary (university) to achieve all goals defined in a project. This includes goals of the university, goals of the employers and above all the achievement of educational and competence-related goals by students, who are the target of a particular apprenticeship project. At the same time, it is necessary to remember that the surveys conducted by employers in the recent years show that there is a clear competence gap between the expectations of employers with regard to the candidates for various positions and the knowledge and skills of university graduates. This issue is exceptionally important for every side, as a university can build its competitiveness only by trying to reduce, or even eliminate the competence gap. At the same time, for the practicians (employers) it creates additional problems in form of the necessity to spend additional funds on the elimination of shortcomings in education and possessed skills. The above-mentioned employers also highlight further barriers appearing in cooperation with universities, in form of:

- excessive bureucracy with complicated and time-consuming procedures, as well as numerous documents accompanying the establishment and implementation of cooperation;
- lack of satisfactory legal solutions, which would support, or facilitate taking up joint activities;
- often very different expectations of companies and universities concerning forms of cooperation (flexibility and smaller formalization of solutions);
- lack of internal sources of financing;
- maladjustment of eductaional programmes to the needs of employers (different expectations);
- university's unwillingness to start cooperation or get involved in cooperation (often lack of good will)[5].

Thus, what is necessary is a very clear change, or rather a fundamental turnaround in the approach to the educational process on the university level in the aspect of adaptation of the profile of education to the expectations of business practice. This requires not just cooperation of the two sides, but in our market reality solutions of a systemic character determining the introduction of solutions not just encouraging to take up such activities, but forcing the process of building durable,

multidimensional relations with business practice. These multidimensional relations have been outlined in table 1 and they reflect the potential directions of forms of cooperation and the benefits they bring for participants themselves, as well as numerous social benefits. The awareness of the existence of these benefits is very important, as it should serve as encouragement (following positive practices and the results of other projects) to apply for funds for the implementation of programmes taking into consideration current and future needs of business practice, universities, or the competitiveness of graduates on the labour market. Managing the benefits resulting from cooperation of universities and business practice skilfully and intentional planning of actions aimed at achieving these benefits is a necessary condition for building efficient strategies for the development of cooperation between these entities and building the competitiveness of countries on the global market.

Table 1. Cooperation of universities with business practice (university for practice)

Area	Form of cooperation	Benefits for universities, business practice, social benefits
R&D	R&D works conducted by universities financed with public funds (university acts as project leader)	• Competitiveness of national economy on the global market • Creation of new technologies • Economic progress • Improvement of people's quality of life • Technological progress • Innovativeness of the economy • Financial support for conducted projects • Acquisition of new knowledge
R&D	R&D works conducted by universities on individual order from business entities	• Raising the innovativeness and competitiveness of a company • Creation of innovative technologies • Introducing innovative products to the market • Acquiring new knowledge • Prestige and promotion of a university as a scientific-research centre • Acquisition of funds by universities • Source of companies' future profits
Commercialization of research results	Support for companies in commercialization of the results of research on products, services and innovative technological solutions, as well as in	• Building the trust of the consumers of new technologies created in cooperation with science • Safety of products and services • Minimizing the costs and risk associated with the introduction of innovative products to the market

Cont. table 1

Area	Form of cooperation	Benefits for universities, business practice, social benefits
	commercialization of products, services and innovative technological solutions on national and international markets	• Reaching target groups of buyers of products and services efficiently • Building the credibility of the market offer of a company • Acquisition of new knowledge • Prestige and promotion of a university as a research-scientific centre • Acquisition of funds by universities • Source of companies' future profits
Consulting	Economic consulting, expertise	• Support for the economic and competitive potential of companies • Financial benefits of universities and companies
Science	Research and scientific works focused on applications in business practice	• Commercial utilization of research results published in course of dissemination of knowledge and scientific achievements
Education	Postgraduate studies, MBA studies, MPA studies, open and closed trainings conducted on the order of companies	• Raising the knowledge, skills and competences of company employees • Business contacts of studies participants active in economic life • Exchange of knowledge and experiences between employees of various branches
Apprenticeship programmes Job offers	Organizing and coordinating training and student apprenticeship programmes financed with EU funds, Support of University Career Offices for the recruitment processes in companies: — publication of the employers' advertisements at a university and at a university's website — organization of job fairs and the meetings of employers with students	• Raising the competitiveness of a company through gaining access to attractive employees • Lower costs of labour (remuneration financed with public funds) • Raising the competitiveness of graduates/participants of apprenticeship projects on the labour market • Better preparation of students for carrying out duties in future employment, thanks to apprenticeship • Support for companies in acquiring attractive employers • Support for students in finding attractive employers in the country and abroad • Shaping an educational offer adapted to the needs of the labour market (practical dimension of science) • Creating attractive jobs • Raising the knowledge of students on the labour

Source: Own materials.

Business practice as a stakeholder of the educational process of a university

As has been mentioned above, enriching the process of education with practical knowledge and skills is an exceptionally important 'specific' educational imperative resulting from the expectations of not just the labour market, but mainly the economy becoming more and more globalized and more and more internationalized, as well as the challenges created by the development of information technology (e.g. the Internet of Things). However, it is necessary to emphasize clearly that currently business practice more and more often formulates expectations and declares it is 'open' to indirect and direct participation in the educational process of universities. Despite the fact that business practice very clearly exposes the emerging barriers in cooperation with universities (mentioned above), it is necessary to emphasize its strong will to cooperate. Looking at this aspect from the perspective of the range of possibilities which emerge in the process of education on the university level, it is possible to divide them into two groups of activities/cooperation. First is active support for the didactic process carried out by universities, which involves mainly active participation in didactics on all levels of studies — MSc/BA, MA and PhD, as well as postgraduate and MBA Forms of participation can be diversified and adapted to the needs reported by the basic organizational units of universities. An obvious requirement is the adaptation of its scope to the programme of studies and national qualification framework. Among the most typical forms carried out in course of support for the didactic process there are the following:

1. lectures of business professionals conducted by professionals at universities and I, II and III level studies, as well as at postgraduate courses and MBA courses:
   – lectures included in the didactic programme,
   – open lectures conducted by professionals upon invitation of a university (participation of students and scientific-didactic employees);
2. study lectures and practical workshops conducted by business professionals for university students in a company;
3. Joint promotion of BA/MSC and MA theses of university employees and

representatives of business practice,
- companies providing data for BA/MSc, MA, or PhD theses,
- students conducting research in companies for the purpose of preparation of BA, MSc, MA and PhD theses,
- students conducting research for the purpose of preparation of BA/MSc and MA theses in cooperation with a company, or on the order of a company.

Each of these forms takes the shape of a detailed, individual solution adapted to the kind of university, faculty, level of studies, as well as the scope and rules of cooperation with partners representing business practice. At the same time the second group of activities/cooperation is forming practical skills and expanding the competences of a university's students and employees by business practice. Here, we should treat this mainly in the context of building awareness and conviction of complementarity and synergy of theoretical (academic) and practical education of each of the sides participating in the process. In this group of activities there are the following forms of cooperation:

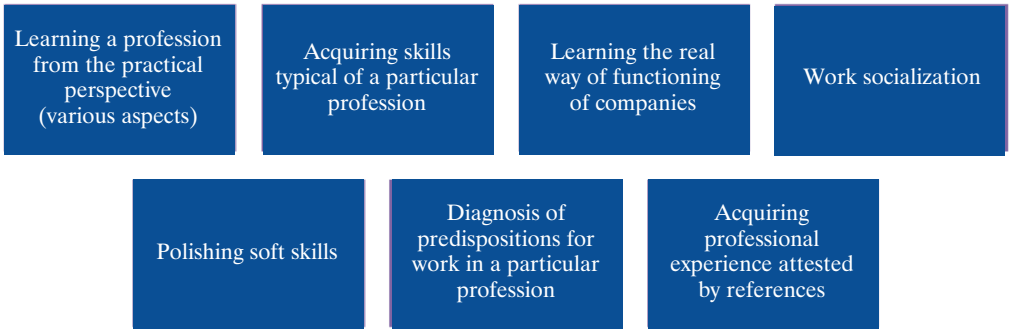
1. student trainings/apprenticeships organized by business practice (organization, costs of recruitment, remuneration and implementation of a training programme/student apprenticeship programme are covered by the company),
2. apprenticeship programmes for scientific-didactic employees organized by business practice,
3. scholarships for students and university employees,
4. sponsoring/patronage of events organized by universities (conferences, symposia, exhibitions, shows),
5. financial support for provision of appropriate didactic and R&D infrastructure.

The most common and most desirable solutions, due to mutual benefits and comparably short time of implementation, are student trainings and apprenticeships. These terms are often used interchangeably, but apprenticeships are usually associated with obligation resulting from the process of education, at the same time trainings are connected with

carrying out professional duties serving the purposed of gaining skills and acquiring new competences. Nevertheless, their functions are very similar and are supposed to lead to acquisition of skills and experience and carrying out particular professional duties (picture 2). The benefits arising from them are perceived both from the perspective of universities and business practice. In case of universities among these benefits there are:

- giving students better opportunities for finding work after studies,,
- enriching the process of education,
- raising the attractiveness of universities for future students,
- building strong position of a university in the region,
- increased prestige among potential students and partners as a result of the above-mentioned issues,
- attracting the adequate number of students, that is, a number which makes it possible to secure the continuity of functioning of a university[6].

Picture 2. **Functions of trainings and apprenticeships**



Source: Evaluation survey of an ongoing character, identifying good practices in the implementation of practical elements of education in projects co-finances under the IV Priority of Operational Programme Human Capital and in other activities in the area of higher education National Research and Development Centre 2015, p. 22.

At the same time the benefits for business practice are associated with the support for the organization and the functioning of the entity in economic reality and concerns above all:

- looking for and educating future employees;

- building a positive image in the academic environment;
- expectation of work contribution from trainees and interns (temporary employee substitution, forming a temporary project group);
- manager training for employees cooperating with interns and trainees;
- financial support achieved thanks to implementation of trainings and apprenticeship programmes[7].

In case of other distinguished forms of cooperation, that is, scholarships, sponsoring/patronage of events organized by universities and financial support for didactic and R&D infrastructure they are much less common and are usually the consequence of lasting relations between business entities and universities. Among such lasting relations there are partner clubs created by universities, patronage clubs, councils of business professionals, or business practice convents.

A synthetic view of the forms of cooperation between business practice and universities in various distinguished areas is presented in table 2.

Table 2. Cooperation of business practice with universities (practice for universities)

Area	Form of cooperation	Benefits for universities, business practice, social benefits
Education	Lectures by business professionals conducted at I, II and III level studies and at postgraduate and MBA courses – lectures included in the programme – open lectures	• Diffusion of knowledge of the participants of the educational offer (professionals and students) • Didactic materials presenting examples of business practice, case studies, real decision-making problems in companies • Competitiveness of a university's educational offer
Education	Study lectures and practical workshops conducted by business professionals for university students in a company	• Better knowledge of the labour market and the work environment of various companies • Students get better chances for employment in SME's • Improvement of the competitiveness of SME's • Students learn the realities of management and implementation of processes in global companies
Education	Study lectures and practical workshops conducted by professionals in companies	• Conveying the latest practical knowledge (application of knowledge in practice) • Students get a chance to learn about advanced technologies in various branches

Cont. table 2

Area	Form of cooperation	Benefits for universities, business practice, social benefits
		• Building the image of a company supporting educational processes of universities • Competitiveness of a university's educational offer
Education	Joint promotion of BA/MSc and MA theses of university employees and representatives of business practice	• Support for students in conducting scientific research in a company • Application of research conducted for the purposes of graduation theses in business practice of a company • Competitiveness of graduates on the labour market — better chances for employment in a company after graduation • Innovations with high potential for application, improving the competitiveness of companies and people's quality of life
Student trainings and apprenticeships	Organization and financing of recruitment, remuneration and implementation of a programme by a company, promoting the programme of trainings and apprenticeships among students	• The possibility of recruiting and acquiring from the labour market students with high potential for development • Increased competitiveness of graduates on the national and global labour markets • Improving the financial situation of students participating in trainings and apprenticeships • Students gain financial independence • Knowledge gained during studies is supported with experiences and skills gained during student training and apprenticeship projects • Prestige and image of a university as an active participant of the labour market
Apprenticeship programmes in companies for scientific-didactic employees	Organization and financing of remuneration and the implementation of a programme by a company	• Increasing the attractiveness of a university's educational offer (knowledge and skills of a scientific employee become a part of a university's educational offer) • The implementation of practical projects in companies is supported with the latest scientific achievements • Creation of innovative practical solutions based on the results of scientific research • Establishing broadly understood cooperation between universities and business practice e.g. the implementation of future joint projects) • Diffusion of knowledge

Cont. table 2

Area	Form of cooperation	Benefits for universities, business practice, social benefits
Companies' scholarship programmes	Scholarships for students and university employees	• Students and university employees get the opportunity for professional (scientific) development • Absorption of innovations and practical knowledge by students and scientists • Higher competitiveness of science • Possibility of applying science in companies • Competitiveness of the educational offer • The possibility of applying the results of scientific research in the economy • Competitiveness of graduates on the labour market • Financial support for scholars
Sponsoring	Sponsoring/ patronage of events organized by universities (conferences), financing didactic and R&D infrastructure of universities	• Financial support for events of scientific-economic character carried out by universities • Better access to the results of scientific research for economic and scientific environment • Promotion and image of companies sponsoring an event, or R&D and didactic infrastructure • Students and scientists gain access to new technologies • Better conditions for studying • Absorption of innovation and the results of scientific research in companies' business activity
Patronage	Providing IT and research equipment for didactic rooms and laboratories	• The possibility of improving the didactic process • The possibility of expanding knowledge and professional skills • Raising the competitiveness and quality of education

Source: Own materials.

Joint projects of universities and business practice

The last area of cooperation of universities and business practice, which is hardest to define and execute, are joint projects of the representatives of both groups. In many cases joint projects are started as a result of many years of cooperation between entities, or representatives/employees of universities, or university research teams, who convince entities from the

area of business practice of the purposefulness and legitimacy of starting cooperation in form of projects with the level of knowledge and experience (e.g. obtained patents, or implementations). However, in national economic reality such relations are not common in character, in fact there are rare, specific and limited to certain branches of the economy and universities. In this respect universities of technology can be distinguished (AGH University of Science and Technology, Wrocław University of Technology, Lublin University of Technology, universities of technology and some State Research Institutions)[8]. In the recent times there have been more and more programmes and grants forcing the establishment of broadly understood cooperation of universities with practice. Under operational regional programmes there have been subsidies, grants and projects providing comparably low level of financing (PLN10 , 20, 5, or 100 thousand), which required implementation only in form of cooperation between practice and universities (joint project). Among the solutions that can be identified and distinguished in course of research on joint projects we can find the following:

1. Joint R&D projects carried out for the purposes of business practice, conducted in course of grants (the sides act as project partners)
2. Joint works on the commercialization of research results conducted by universities in cooperation with practice
3. Consortia of universities and business practice
4. Joint organization and co-financing of scientific conferences with the participation of the representatives of science and business practice
5. Membership of companies in Partner Clubs of universities
6. Membership of companies in university and faculty Business Councils (participation in shaping and giving opinions on the process of education and improvement of the didactic offer of a university focused on the needs of business practice)
7. Joint promotion of BA, MSc and MA theses.
8. Joint education programmes (not just ordered specializations)
9. Programmes of student trainings and apprenticeships organized jointly by universities and business practice
10. Offers of work for graduates of universities as a result of implementation of a project under the ordered specialization scheme

Similarly as in case of directions of cooperation analysed earlier, that is, university for practice and practice for university, also in case of carrying out joint projects it is possible to name a series of benefits whose beneficiaries are not just the sides participating in them, but also (perhaps, above all) the society, national institutions and economy. Table 3 presents benefits in the areas of R&D, Education, Science and Labour Market.

Table 3. Joint projects of universities and business practice

Area	Form of cooperation	Benefits for universities, business practice, social benefits
R&D	Joint R&D projects conducted by universities (grants, partnership, clusters), Joint works on the commercialization of the results of research conducted by universities in cooperation with practice	• Joint patents of universities and companies • Commercialization of research results, introducing new technologies and products to the market • Financial benefits for universities and companies • Improving people's quality of life • Acquisition of new knowledge (know-how) • Competitiveness of local companies on global markets
R&D, Education, Science	Companies' membership in Partner Clubs of universities	• Building the prestige of the members of Partner Clubs • Financial support for universities • The participation of companies in formation of the educational offer of universities • The access of member companies to students with high qualifications, high potential for development, competitive on the labour market • Other benefits resulting from the kind of activity and the kind of cooperation of a Partner Club member with a university
R&D, Education, Science	Membership of companies un university and faculty Business Councils	• Participation in shaping and giving opinions on the process of education and improving the didactic offer of universities
R&D, Education, Science	Cooperation of employers with universities in students' scientific associations, Joint organization of competitions for students, membership of company	• Support for education, practical skills and competitiveness of students and graduates on the labour market • Support for students in the development of their scientific and research interests

Cont. table 3

Area	Form of cooperation	Benefits for universities, business practice, social benefits
	representatives in the chapters of competitions organized in cooperation with universities	• Students gain experiences in conducting projects, which are sought after by business practice • Applicational character of the results of scientific research and conducted projects
R&D, Education, Science	Joint promotion of BA, MSc and MA theses	• Applicational character of graduation theses • Student is more likely to get employment in the company, which was involved in his or her graduation thesis • Employer's access to competitive human resources on the labour market
Education	Joint programmes of education (ordered specializations)	• Employers' access to students with specialist knowledge of key significance for the economy • Better adaptation of students' competences and skills to the needs of the labour market
Trainings and aprenticeships	Programmes of trainings and apprenticeships organized together by universities and business practice	• Supporting the educational offer with practical elements of education • Better adjustment of students' skills and competences to the needs of the labour market • Employers' access to human resources with broad knowledge and high practical skills • Greater competitiveness of university graduates on the labour market
Employment	Job offers for university graduates covered by companies (future employers) with mentorship programmes	• Acquiring a 'ready' employees with attested predispositions

Source: Own materials.

Summing up the above deliberations, it is necessary to emphasize that the three mentioned areas should be strongly supported, carried out consistently and systematically developed. Due to the existence of broadly

understood social benefits from the cooperation of universities with business practice, discussed in the article, as well as of numerous barriers accompanying this cooperation, such as the necessity to apply for funds for their implementation in course of competitions, or the temporary, non-continuous character of the conducted projects, Authors of this article point to the needs for creating systemic, long-term solutions in this respect, supported by surveys of the needs and preferences of the participants of the process, systematic evaluation of achieved benefits and modifying, as well as adapting them to the changing conditions of the economic environment.

These activities should be reflected in the categorization of universities as units shaping economic reality on the border of science, education and business and responding to the current future needs of their participants.

Another important issue is the possibility of shaping, thanks to the cooperation discussed in the article, the image of a university as an innovative and business-friendly higher education entity open to broadly understood cooperation with the environment. Communicating about the activities conducted in this area, the achievements and social benefits arising from them will in the future, according to the Authors, become the necessary condition for maintaining competitiveness and attractiveness of a university from the perspective of both business entities, students and student candidates. Implementation of these activities cannot constitute just a point in a university's strategy, but considering their growing significance and real social benefits, it requires very clear mental, organizational, financial and mutual involvement of the sides engaging in cooperation.

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[7] Ibidem, pp. 52–54.

[8] See: *Współpraca nauki i biznesu. Doświadczenia i dobre praktyki wybranych projektów w ramach Programu Operacyjnego Innowacyjna Gospodarka na lata 2007–2013* (2013). Warszawa: PARP. http://innpoland.pl/117835,akademia-gorniczo-hutnicza-w-krakowie-najbardziej-innowacyjna-uczelnia-w-polsce-wg-fundacji-perspektywy (odczyt 10.102016).

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