

MALOPOLSKA VOIVODSHIP

1. Describe the country/region you are coming from (basic data, short history and economic situation). - 1.000 words

Poland is a **country situated** in Central Europe. It covers more than 320 thousands square kilometers and has **population** of over 38 million people. Poland's **official language** is Polish. The climate is moderate there, which means that summers are usually hot and sunny, winters cold and springs and autumns quite **mild**. The longest river in Poland is **the Vistula River**.

While the north of Poland has **an access to the sea**, the south of Poland is dominated by **the mountains**. **The Tatra Mountains** are perfect for winter sports and **hiking**, so they attract a lot of tourists and **climbers** from all over the Europe. **The Baltic Sea**, on the other hand, is known for its healthy climate, sandy beaches and popular **holiday resorts**.

Poland belongs to **the European Union** and has **a great economic potential**. There are many Universities and Academies which offer the highest level of education. Polish culture and art have a long history and are recognisable abroad. Although Poland is **highly developed** and influenced by contemporary trends, it also retains its own unique tradition. The country is divided into 16 regions. Among them, the region Malopolska.

Małopolska Region is located in the central-southern part of the country. It has the total area of 15,183 km² and over 3,300,000 inhabitants. The capital of the Malopolska Region is Kraków and other bigger cities are Tarnów, Nowy Sącz and Oświęcim. In terms of economic development, the region is one of the most diverse regions in Poland.

Situated at the crossing point of communication routes between the West (Austria, Germany) and the East (Ukraine), the North (Scandinavian countries) and the South (Slovakia, Hungary), it has exceptional assets and each year attracts 10-12 million tourists, new investments and young people studying at regional universities. Małopolska is one of the leading Polish regions in terms of economic potential and investment attractiveness. Małopolska has a high potential for scientific research and higher education - Kraków is the second center for research - development in Poland. 32 higher education institutions and universities, representing 7.1% of all higher education institutions in Poland. Over 180 thousand students and more than 55 thousand graduates per year. In 2013, over 25 % of entrepreneurs' spendings on innovations were allocated on R&D (1st place in the country). More than 100 research - development centres including Foundry Research Institute, Institute of Forensic Research, Institute of Oil and Gas, Institute of Advanced Manufacturing

Technologies. In addition, numerous research and design centres of international companies: ABB, Google, Cisco, CH2M, Teva R&D Centre, Comarch R&D Centre, SYNTHOS R&D Centre, Delphi Technical Centre, Sabre Software Development Centre.

At a distance of 45 kilometers from Krakow on the international route no. 7 (E77), Miechów is the seat of the Miechów municipal-rural commune. The Miechów commune is located on the Miechowska Upland above the Miechówka stream. It has 11,497 inhabitants. The administrative structure is created by the city of Miechów and 34 village councils.

The city of Miechów is the main service center of the commune, in which all public utilities are located, including commune office, powiat starosty, kindergarten, hospital, health centers, restaurants.

The commune has a well-developed tourist infrastructure, which is one of the most attractive cities in Małopolska. Above all, it is worth paying attention to the Post-Brecon Monastery Complex with the Basilica of the Holy Sepulcher in Miechów, which is the central element of the city, visible from afar. A powerful church block with a tower topped with a helmet in the form of a ball is characteristic. This ball symbolizes the Earth. At the end of October 2006, a statue of the Resurrected Christ was placed on the tower's helmet.

Other attractions of Miechów are:

- Dworek Zacisze, in which feasts are organized with concerts of folk music and cabaret songs, as well as sculptural landscapes and art workshops. Dworek is also available to residents of Miechów for various family, name-day and occasional meetings. It is a favorite meeting place for team-building youth, who, after learning the history of Dworek, organizes in the bosom of nature, outdoor barbecue in the garden. and a number of other objects that attract with their beauty and history.

- Stefan Żechowski's Gallery of Creativity, where original works of the artist are made available. The collections contain unique works from the early period of creation, including works from before the start of professional artistic education.

- Monument of Maciej Miechowita - on the 490th anniversary of the death of this outstanding citizen, a solemn monument was erected at Tadeusz Kosciuszko Square.

- Museum of the Miechów Region is located in post-monastery buildings at the Basilica of the Holy Sepulcher in Miechów. Archaeological, ethnographic and historical monuments are gathered here which are related to the history of the Miechów region as well as collections of sacred art from the former treasury of the Order of the Knights of God. The Museum also intends to conduct educational activities by organizing museum lessons, workshops, as well as guided tours around the Basilica of the Holy Sepulcher and post-monastery buildings.

Recreational tourism allows you to develop your free time using the cultural resources and advantages of the commune, such as a healthy microclimate and clean environment, bicycle and tourist trails, a ski lift, horse stables, a swimming pool and many historical monuments.

Miechów obtained its municipal rights in 1290.

In January 1734, the battle of Miechów took place, in which the Polish forces defeated the Saxon branch, during the war.

In 1819, as a result of the suppression of the Order of the Knights in the Russian Partition, Miechów was left by the last monks headed by the parish priest of the Church of the Holy Sepulcher and the last provost of the Order (in one person) by Tomasz Nowina-Nowiński.

During the partition of Poland, Miechów was included in the following provinces: the Krakow province with its headquarters in Krakow (1793), the Krakow province with its headquarters in Kielce (1816) and the Kielce Governorate (1841) until 1915 Miechów in the years 1844-1867 temporarily included in the Radom Governorate.

During the Russian partition in Miechów, due to the proximity of Russia's borders, a several hundred-strong detachment of Russian soldiers was stationed. The former barracks are located at today's ul. Sienkiewicz.

Card. Karol Wojtyła visited Miechów many times, and as a pope he raised the church's dignity to the rank of the basilica less 10 April 1996.

The charm of the city is undoubtedly due to the beautiful landscape, fertile soils and abundance of forests. The region is perceived as an agricultural area. Thanks to favorable environmental conditions, the commune's area is a place of production of well-known vegetable and dairy products that are found not only in the Malopolska. Miechów itself with a well-developed administrative and technical structure, education (also higher), health service, trade and services is well prepared for the challenges that time brings.

There is no room for stagnation in the Miechów commune. It is inhabited by people which are full of passion and willingness to act. Therefore, year by year there are more institutions that deal with the promotion of the region, taking care of children, the elderly, as well as promoting sport and a healthy lifestyle.

2. Describe the institution where you are working (mission and vision of the institution, number of students, educational programs) – 1.500 words

Two partners from Poland take part in the project Strategic Partnerships for the Development of 3D Competences – Malopolska Region and The Vocational Schools No. 2 in Miechów. The Malopolska Region is the self-government body and it is represented by the Marshal Office of the Malopolska Region. The role of the Marshal Office is to fulfil tasks of the regional character not reserved for the public administration. Among them are: public education, health care and social policy, environmental protection, modernization of rural areas, water management, culture and heritage protection, transport, sport and tourism, promotion of the Region, regional development. The regional self-government is responsible for distribution of European Union Funds in the region.

The main tasks of the Department of Education and Life-long Learning, which is directly engaged in the project are: supervising the schools and educational institutions for which the Malopolska Region is the governing body, further training of teachers, cooperating with other self – government offices like communes or districts in the area of education, labour market and economy, coordinating and

implementing educational projects in cooperation with partner regions. The most important goal for the Office is the sustainable development of the region which cannot be achieved without the efficient and stable system of vocational education.

At present there are 162 technical schools with over 50 000 students and 183 basic vocational schools teaching over 17 000 students in Malopolska. Although the Malopolska Region is not directly responsible for education, it supports schools and educational institutions in many ways cooperating intensely with other bodies within many educational projects and programmes.. Between 2010-2015 The Marshall Office of the Malopolska Region had been the leader of the project “Modernisation of Vocational Education in Malopolska. The project was carried out in partnership with 22 counties, 3 communes and 8 private governing authorities of vocational schools in the whole Malopolska Region. 3 schools run by the Ministry of Agriculture and the Rural Development also participated in the project. The aim of the project was to modernise and improve the quality of vocational education by supporting schools in 7 key industries (mechanics-mechatronics, construction, information technology and electronics, tourist and catering industry, agriculture and food processing, health-care and services) in cooperation with local entrepreneurs. The budget of the project was 154 000 000 PLN. In the international component the Malopolska Region cooperated with the regions of Thuringen in Germany, Rhone Alpes in France and Istria in Croatia. In addition, 5 universities cooperated with our region within the Malopolska Educational Cloud. 288 schools introduced development programs aimed at developing the additional skills desired by entrepreneurs in the labour market, the development of key competences, career guidance and reinforcement of cooperation with entrepreneurs. 77 301 students received various forms of support within the project, 39 024 obtained apprenticeships, internships or study visits to companies. 165 309 certificates were awarded. 223 schools were provided with modern equipment and 10 schools cooperated with universities within the Malopolska Educational Cloud. 5 publications about the project were prepared. 1578 students took part in seminars and 327 students participated in study visits abroad within the international component of the project. But the most important result was the increase of the students choosing vocational education schools from 48% to 60%.

Zespół Szkół Nr 2 w Miechowie, has its roots in the year 1920. At its beginning it has been founded as a basic vocational school, which then in 1965 has been transformed into technical college called “Technikum Mechaniczne” teaching future mechanics. Few years later, in 1972 the offer for students embraced additionally post-secondary school and electronic technical college – introducing new broader offer implicated the change in name of the school complex to “Zespół Szkół Mechanicznych”. In early nineties with the development of technology the offer of school has been broaden again.

As a result of this change, the informational technology subjects have been introduced. The changes in offered courses over the years were mainly a consequence of labor market needs and education reforms. In 2001 in Poland was introduced an educational school reform. At that time was created

primary school (lasting 6 years)and lower secondary school (lasting 3 years).

In 2002 the name of school has been changed to “Zespół Szkół nr 2 w Miechowie”. Moreover, additional courses were added too. In 2006 the name was slightly changed again by adding the patron’s name – John Paul II.

Constantly, we do our best to meet the needs of market economy and local labor market by implementing new technologies into teaching methods as well as including new specializations in our curriculum.

At the moment, the technical school educates 521 students (150 women). Additionally 124 adults attend courses offered by post-secondary school including such specializations as : hospitality technician, food technologist, agricultural engineering technician, mechanic technician, IT technician.

At present, „Zespół Szkół nr 2 w Miechowie im. Jana Pawła II”, employs 61 teachers, who run the above mentioned courses.

Looking back into the past, we can say that a lot of our graduates finished studies and succeeded in finding important job positions being valuable resources for Lesser Poland and Silesian labor market.

We do our best to fulfill our mission and create conditions for comprehensive development of our students constantly encouraging them to acquire necessary knowledge. At the same time, we promote independence in thinking, creativity and efficiency.

We want to educate students in the field of cultural and technological aspects and provide them with innovative knowledge and skills.

To fulfill this vision we take many steps by:

- continuing the appropriate staff policy, motivating teachers to their further professional development;
- Upgrading the school equipment
- participating in many different innovative programs
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Between 1995 -1997 our school was chosen twice as a laureate of the „ My school - a school of entrepreneurship” program, run under the sponsorship of Educational Entrepreneurship Foundation and the Ministry of National Education. The prize in the program - quite large funds at that time, we used to enrich the workshop equipment for the education of students in new technologies i.e. IT and electronics technicians. In the years 1998-2004 we have implemented innovative pro market programs such as: "Young Entrepreneurs", "Youth Mini-Enterprise", "Road to Success", which imparted knowledge about the market economy in an interactive way . Another success of that program is, that many of our students have established their own companies and are currently operating in business.

In 2005, we were awarded in the competition of the Polish Agency for Enterprise Development as part of the pre-accession program of the European Union "Phare II".

Moreover, we have also gained some experience in the Socrates-Comenius programs during the years 2005-2008 in cooperation with schools in Italy, Belgium and Greece. Together with the above mentioned partners, we took part in the project "Agricultural economies, a meeting place for European nations". From the year 2010 to 2015, we have been participating in the program "Modernization of Vocational Training in Lesser Poland".

Our students took part in numerous industry courses, internships, study visits and workshops, improving key competences required by labor market. They have gained new professional qualifications and received certificates strengthening their position on the market.

We also systematically develop the competences of our teaching staff. Our teachers participated in the project called "Diamond" - aimed at perceiving and stimulating talented youth to extensive activity. Operational Program Human Capital –which stands POKL, 9.2) and the project called "School of Champions" (POKL, 3.4), which beneficiaries were the teachers leading the courses in area of gastronomy and hospitality.

Additionally, teachers of non-IT subjects participated in the project called "Professional development of teachers in the field of the use of information technology" (POKL, implemented by the Voivodship Labor Office).

Another project, in which the teachers took part, was "Modernization of the Vocational Personnel Education System in Lesser Poland "(POKL, 9.4). They also took part in the project called "Agro na 6- tkę " – aiming at the improvement of vocational education teachers of agricultural schools in Poland" (POKL, 3.4).

Furthermore, our teachers participated in the project called "NEW-TECH" (POKL, 3.4) and in the program called "Motopraktyki - Competent teachers of vocational training in the automotive industry".

Therefore, we could describe our organization as a school that is constantly strengthening its human resources.

Although, our laboratories are quite well equipped, we believe that nothing can replace the experience gained in the real working environment. As a result, we have established permanent contracts with local employers.

In the area of internships we cooperate with almost 90 employers. These are car repair workshops, car diagnostic stations as well as service companies in the field of information technology, restaurants, catering establishments and hotels. The partners are medium and reputable companies.

In didactics we use also cooperation with publishing houses and industry magazines in the area of innovative gastronomic didactics. As a part of the implementation of the "Modernization of Vocational Training in Lesser Poland", our students participated in many study visits, including 5 foreign, in which they had the opportunity to observe the real working and education conditions.

In 2016, we promoted the profession of automotive technician at the Education Fair in Lyon. At the moment we are participating in the project "Establishment and development of the Professional Competence Center in Miechów County based on Zespół Szkół No. 1 and Zespół Szkół No. 2". Thanks to the project, students can undertake qualification courses, including innovative technologies of vehicles diagnostics, get scholarships for their further professional development and participate in internships held by local and regional employers.

We do our best to fulfill the mission of our school, operating in as many areas as possible, because our experience shows that diversity and innovation in the transfer of knowledge is the best way to broaden the horizons of students and improve their learning outcomes.

At the same time, we are aware of our lack of experience in the European labor market. Therefore, we participate in the European Union programs in the field of student mobility. In 2017, students learning such professions as motor vehicle technicians, nutrition technicians and catering services as well as hospitality technicians completed internships under the "Erasmus +" program.

The internships were the result of the projects - "European practices - the key to a professional career" realized in Germany (Erasmus+) . "Cooks on the European job market" and "Hoteliers of Europe" were fulfilled during the year 2017 in Greece in the Operational Program Knowledge, Education, Development.

In 2018, the students of nutrition and catering services as well as hospitality and mechanic technicians (car mechanics) took part in another project "European mobility - our way to professional success" organized by Erasmus + . They have already completed internships in Italy.

Taking all that into consideration, we do believe that the experience of our students in the field of mobility on foreign labor markets is growing. Despite of constant development and participation in international programs, we are still aware of quite light experience in the international activity of students educated in the field of teleinformatic technician. As an answer to that, we wanted to move forward and take part in the program Erasmus + and the project Strategic Partnership for the development of 3D Competences" Our school systematically introduce the latest digital technologies to didactics as well as educate and cooperate in the project with foreign partners.

Taking part in the project we would also like to involve our human resources and bring our previous experience such as the skills of our staff, experience in the promotion of projects and their organization.

3. Shortly describe the vocational education system in your country (positive and negative aspects) – 1.500 words

The activity and organization of the education system in Poland is determined by the Act of September 7, 1991 (on the education system). According to the Constitution of the Republic of Poland, every citizen of our country has the right to education. Education in public schools is free. Only primary and junior high schools have the status of obligatory institutions. Teaching is obligatory from 6 to 18 years of age. The parents are responsible for not reporting the child to the school, and for not fulfilling the compulsory schooling that is his/ her legal guardians who will be fined in such situations. In Poland, education is subject to the Ministry of National Education and the Ministry of Science and Higher Education.

STAGES OF EDUCATION

Early education and care facilities for children aged 0-3:- nurseries,

- children's clubs. An access to the nursery is optional. Nurseries are not part of the education system but are subject to the Ministry of Family, Labor and Social Policy. Facilities for children aged 3-6.

- Kindergartens - children from 3 to 6 years of age attend them; organized in kindergartens or schools so called "Zeros" are now mandatory for every six-year-old.

Elementary education Science is carried out in 8-year primary schools for pupils aged from 6/7 to 15 years. Learning in an 8-year primary school includes two stages:- class 1-3 (early school education),- classes 4-8, in which teaching is divided into subjects.

Junior High Schools

Learning is carried out in obligatory 3-year lasting junior high schools (youth aged 13-16). At the end of the junior high school an external exam is taken, the results of which have an impact on the recruitment process to the particular secondary schools.

From 2017, junior high schools are gradually closed down. Students completing their studies in the 6th grade of elementary school become students of grade 7 of the new 8-year primary school. From the school year 2018/19, the obligatory external examination will take place in the 8th grade of primary school.

Secondary schools

The vast majority of junior high school graduates continue their education in grammar secondary or vocational secondary schools, although it is not compulsory (students are only subject to the obligation of studying). The creation and management of public secondary schools is the own task of the township. Secondary school is attended by young people aged 16-19 (students are at the age of 16-20 years old in technical secondary schools).

The school system includes the following schools:

1. A three-year basic vocational school - enabling to obtain a diploma confirming professional qualifications after passing examinations confirming qualifications in a given profession
2. a three-year grammar school - the graduation of which allows you to obtain a secondary school-leaving certificate after passing so called MATURA examination
3. four-year technical school - graduation enables obtaining a diploma confirming vocational qualifications after passing examinations confirming the qualifications of the given profession and secondary school-leaving certificate - after passing so called MATURA examination,

Vocational education is conducted in 194 professions divided into 255 qualifications (from 1 to 3 in each profession):

- 97 professions with 1 qualification
- 74 competitions with 2 qualifications
- 23 competitions with 3 qualifications

Each vocational school student besides typical professional skills also acquires so-called ,expected by employers, soft skills, such as the ability to work in a team, ability of negotiation, coping with stress or flexibility and readiness to changes,

Each student of a vocational school learns a foreign language, is prepared to take up and run a business in his profession.

Every student of technical secondary school and post-secondary school acquires additional skills in the field of work organization in small teams, especially useful in managing a team of people. The vocational school is designed not only to prepare the graduate via specializations classes to work for today, but also to convince him/her to the need of constant acquiring of new skills. Responding to the needs of the labor market, vocational education is flexible so that the graduate can expand and broaden their knowledge, skills and at the same time being able to work in a dynamically changing work environment, and flexible in such a way that the graduate can do his/her job in similar emplacement in different places and time.

Post-secondary education

This stage of education is classified in the Polish education system into secondary education. Post-secondary schools are intended for people with general secondary education and can obtain a diploma confirming professional qualifications after passing the exam. Education in post-secondary school lasts from 1 to 2.5 years. Post-secondary school students pass the same vocational examinations as students of elementary vocational schools and technicians. Post-secondary schools are not subject to structural changes as a result of the reform.

Qualifying Vocational Courses

Adults have the opportunity to combine general education with the acquisition of professional qualifications in the out-of-school system (in so-called qualifying vocational courses)

The qualifying vocational course takes into account the curriculum of education in the field of one qualification and allows you to take a vocational exam.

HIGHER EDUCATION

Education programs are implemented by two types of universities:

- university colleges,
- vocational colleges.

Both types of Universities carry out under graduate studies and graduate studies as well as full time master studies however, only academic institutions conduct doctoral studies and have the right to confer the title of doctor.

Studies can have two basic organizational forms: full-time and part-time.

The duration of the under graduate studies is:

- 3-4 years in the case of the bachelor's professional title
- 3.5 - 4 years in the case of the engineer's professional title.

Having a bachelor's or engineer's title entitles you to take up graduate studies. Graduate studies last from 1.5 to 2 years depending on the field of study.

Studies in the selected fields of study are taught as a homogenous master's program that lasts 4-6 years.

under graduate studies and graduate studies as well as homogenous MA studies are completed with a diploma exam. After passing it, students receive a diploma of higher education.

Having a master's degree entitles you to perform a given profession and allows you to enter doctoral studies at universities and research institutions, lasting from 3 to 4 years.

Since the beginning of 2017, a reform of education has been introduced, which main objective is to prepare students better, especially those who complete the entire education cycle to the needs of individual development and the needs of the modern labor market, to which a solid foundation of general education is needed.

The key elements of the reform are:

- The Change in the structure of the education system which is based on the introduction of a long 8-grade primary school and a 4-year high school and a 5-year technical high school.
- The obligation of the annual pre-school preparation for 6-year-olds, during which the child learns basic skills, and his/her education similar to learning at school, is covered by the educational subsidy from the state budget.

- Providing free textbooks.
 - Strengthening general and vocational education in secondary education by extending the learning cycle by one year.
 - Introduction of a 3-year trade education (1 qualification in a given profession) with the possibility of acquiring further qualifications and the preparation for the final exams in a 2-year second-degree industry school.
 - Popularization of dual education implemented in cooperation with entrepreneurs.
 - Increasing the participation of employers in co-financing vocational education through the creation of the Fund for the Development of Vocational Education.
- Changes began from the 2017/2018 school year. Students graduating the 6th grade of primary school in the 2016/2017 school year became students of the 7th grade of primary school.

The target structure of education will include:

- 8-year primary school;
- 4-year general high school;
- 5-year technical college;
- a 3-year industry school of the first degree;
- a 2-year industry school of the second degree;
- a 3-year special school for apprentices;
- post-secondary school.

The introduction of the industry-oriented primary school, instead of the vocational school, took place on September 1, 2017. The introduction of the second-cycle industry school for graduates of the industry-first school will commence from the school year 2020/2021.

Students of the 1st level trade school (before the reform of the main vocational school) and technical school may during or after graduation, take examinations confirming the qualifications in a given profession and obtain a diploma confirming vocational qualifications.

4. Please describe the organization of the school teaching system in your organisation (number of hours of vocational practice per week, time period/place when students are performing their vocational practice, share of practical exercises/practicum in the vocational curriculum etc.)?- 1.000 words

The aim of vocational education is to prepare learners to live in conditions of modern world, to do work and to function actively in the changing labor market.

In the process of vocational education it is important to integrate and correlate general and vocational education, including the improvement of key competences acquired in the general education process as well as including the lower educational stages.

Appropriate level of general and vocational knowledge contributes to the increase of professional skills of school graduates educating in the fields of hospitality techniques, nutrition and gastronomic services technicians, teleinformatic technician, freight forwarder technician, automotive technician ,agriculture mechanization , agtronics technicians offered by Zespół Szkół Nr.2 im. Jana Pawła II in Miechów . This school offer gives students a perfect opportunity to face the challenges of the changing labor market.

The organization of the school education system is defined in the Regulation of School Framework .

According to the framework teaching plans, Technical students have to complete about 2,000 hours of general education and 1,500 hours of vocational education courses divided into theoretical vocational training and practical vocational training in the four-year education cycle. The weekly duration of compulsory educational activities and classes with the tutor is: class I - 33 hours, class II - 35 hours, class III - 34 hours, class IV - 31 hours.

Teaching in the field of vocational subjects starts with the first class - mainly theoretical subjects to prepare students for practical classes. Vocational training may take place until February of the last year of education. In each profession one, two or three qualifications can be distinguished. Students take the final exam during the course of study. Qualification in the profession is a set of expected learning outcomes distinguished in a given profession which is confirmed by a certificate issued by the district examination board. The student receives the title of a technician of a given type of school if he obtains a positive result from all qualifications within the profession and graduates from school.

Students of the Zespół Szkół No. 2 Jana Pawła II in Miechów, achieve the results at level of 80% -100%.

The practical apprenticeship in our school is organized in the form of practical classes in school workshops and in the form of apprenticeships with employers on the basis of an agreement between the school principal and the employer (the employer provides a direct guardian at work, and the school provides pedagogical supervision).

The practical learning of the students' profession is carried out in groups. The number of students in the group should enable the implementation of the curriculum for a given profession and take into account the specificity of the profession taught, occupational health and safety regulations, as well as the premises and technical conditions at the place of practical vocational training. The division into groups is made by the director with the consent of the school's governing body.

In our school, practical vocational training takes place in well-equipped laboratories in all occupations and at school workshops - practical exercises laboratories. These activities take place in a few-hour class blocks and are run by a specialized team of teachers who are mostly examiners of the vocational examination in those qualifications.

In addition to practical classes, the school organizes apprenticeships that provides real working conditions appropriate for the profession taught in order to deepen the acquired knowledge and professional skills in real working conditions.

The number of hours of professional practice depends on the curriculum of a given profession and is 160 hours - 4 weeks (nutrition and catering technician, teleinformatic technician, freight forwarder technician, automotive technician and agricultural mechanization and agrotechnics technician), or 320 hours - 8 weeks (technician hospitality). The practice is carried out at local entrepreneurs, in specialized companies, hotels, catering establishments, in individual farms and in entities that are potential employment places for graduates of schools.

Students of our school have the opportunity to implement internships abroad thanks to the implementation of the Erasmus program. As part of this project, our students participated in monthly internships in Germany and Italy, and for two weeks in Greece. Evaluation of practices shows that our students have a lot of knowledge and skills gained at school in practical exercises laboratories. Therefore employers are willing to cooperate with our students, in many cases cooperating with them after finishing school.

5. Shortly describe the status of your vocational graduated students (number of students that continue their education/number of students who enter the labor market). – 300 words

The Regional Labour Office, the institution of the Malopolska Region responsible for surveys of labour market, carried out the survey concerning the career of vocational schools graduates in the Malopolska Region. The survey in 2016 covered 5 000 students. 48% of graduates were working, 24% both were working and studying and 9% were unemployed. The situation of graduates depends on the type of the school. 79% of graduates of basic vocational schools were working, among them 19% combined work with education. 76% of the post-secondary schools graduates were working (25% of them were additionally studying) and 70% of the technical schools graduates. As many as 48% of the technical schools graduates continued studying. The highest percentage of students continuing studying was among the IT and electronics graduates (61%) and the lowest among the agriculture and food processing graduates (28%).

The study of vocational career of graduates in Zespół Szkół Nr.2 in Miechów. It is carried out in two stages. The first stage covers the students of the last grades and consists of gathering students' contact data and being familiar with their educational and professional plans. In the second stage, using the telephone interview, the educational and vocational career of graduates after the school is examined. In the years 2014-2017, the study covered 316 graduates from all classes of Technical School in Miechów being educating in the profession of: motor vehicle technicians, teleinformatic technician, agriculture mechanization technician, hospitality technician, gastronomic service organization technician. The study of graduates showed that the largest group of people entered the labor market (186 people - 59%).

People who only study are in the amount of 44 (14%), young people who both work and study are in the amount of 64 (20%). Only 22 people are unemployed (7%).

The survey showed that:

- the professional path strictly depends on the general economic situation in the labor market,
- the unemployment rate in the Malopolska Region has decreased, therefore the situation of graduates has improved,
- there are stable groups of graduates who after graduating from vocational school continue their education,
- improvement of the situation on the labor market affects not only on applying for employment but also contributes to the greatest interest in studying,
- there is a greater number of people who combine education with work during better economic situation,
- for many graduates, further education is a luxury good on which they have to earn.

6. Describe the presence of STEM field of study (Science, Technology, Engineering and Mathematics) in the educational curriculum of your organization. – 500 words

Facing with the 3D problem on the premise of our school, it is evident that this aspect should be developed. This should encompass various educative fields such as: mechanical, automotive, agricultural, electronic, catering and hotel 's industry. Designing should cover the previously mentioned paths by developing the ability to handle a number of CAD, 3D and 2D design programs. This will allow to develop innovative skills, modernization and various modification. The issues of 3D visualization and analysis of technical cases can contribute to savings, environmental protection, and detection of irregularities. Thanks to 3 D printing it is possible to design anything you imagine from the pin to the plane.

One of many examples of supporting new technologies by the the Malopolska Region is the project “Malopolska Educational Cloud”.

The Malopolska Region is the leader of the project which is an innovative action aimed at the students of higher secondary schools from the Malopolska region concerning providing knowledge to them as well as informing them about scientific achievements of universities by using information and telecommunication technologies.

Aim of the project is establishing the framework for cooperation between universities and higher secondary schools in order to build up and develop the teenagers’ interests in the fields of study which are in line with the regional smart specialization.

Activities within the “Małopolska Educational Cloud” project

- educational activities in the form of “remote lectures”, “remote laboratories” and “backward lessons” for the students of higher secondary schools, prepared by Kraków universities in 10 fields of the following subjects:

- physics, computer science – mathematics, biology – chemistry, building industry – entrepreneurship, civil society – food and environment – foreign languages -
 - science clubs
- for the students of

higher secondary schools organised on the basis of the cloud computing platform
Moreover the Malopolska Region supports 50 Vocational Education Centres, endows them with new laboratories and equipment, finances additional trainings and courses linked with new technologies and 3D especially in the mechanical and IT Vocational Educational Centres.

7. How do you provide new equipment and technologies for school practicums? (Specify the problems you are facing with, do you get any help from the ministries, local or regional authorities, private companies etc.) – 1.500 words

Some examples of financing options for additional teaching equipment were provided in chapter 2 of “Describe the institutions you work for (...)”

In Poland, similar to other countries, the main financing stream is ensured by National Education System. The educational subsidy is calculated by local government body (District), according to given algorithm and is submitted to the central authorities that provide funding.

Local governments run various types of schools. Secondary schools including Technical School, Further Education School as well as Professional Qualification Courses in “Zespol Szkol no.2 of John Paul II in Miechow” are run by Miechow District Government - 2nd level of government administration. “Run” in this context means financing from educational subsidy. Government funding covers all fixed and non-fixed costs including professional staff and employees salaries together with administrative and maintaining costs.

When introducing new, especially technology related, fields of study, district authorities ensure, to some extent, funding for basic teaching equipment necessary for education. It is also responsible for providing funds for setting up a technical infrastructure to conduct .

The headmaster allocates a portion of school budget for purchasing technical/teaching aids. In reality, due to high prices and rapid technological depreciation, especially in ICT area, it is usually not sufficient to fully cover all vocational training equipment needs.

When possible, the school reach for other, external sources eg. European, ministerial and others. For example, initial funding necessary for teaching equipment in electronic profession were acquired thanks to teachers and students’ success in a national competition “My school – school of entrepreneurship”. Additional three computer labs were acquired during previous financial EU perspective from Ministry of National Education. Agricultural and welding laboratory equipment was acquired thanks to the participation in different projects organized by Ministry of Agriculture school’s participation in the program “Modernization of Vocational Training in Lesser Poland”.

Another example of successful program’s participation is “Creation of Professional Competence Center of Miechow District, on the basis of Zespol Szkol no.1 and Zespol Szkol no.2” where additional funding for ICT diagnostic equipment was acquired. The last above mentioned program includes participation of District authorities – our governing institution. These are relatively significant



funds being used for school rooms equipment as well as additional students' qualifications and scholarships. It is obvious that such significant amounts could not have been raised only from the School's budget.

Additionally, we also participated in "3D for VET" program where the 3D printer and it's software were acquired. The 3D printer will not only allow our students to be up to date with recent tech inventions but will also contribute to further development of our teachers. We also hope that it will help to create a positive image of our school

These are the main school's sources of fund raising. It is crucial to state that although private companies organize various displays and regularly present their products and services to our students, they do not provide any significant contribution to the extension of teaching equipment base. Their presentations and demonstrations mainly serve to marketing purposes. We systematically visit various industry trade fairs and exhibitions throughout the year in order to be up to date with constant changes in labor market.

The Malopolska Region finances through the EU Funds the purchase of new teaching aids and equipment in vocational schools. 100 mln PLN was granted within the ESF project Modernization of Vocational Education in Malopolska I. 300 mln PLN is planned for financing the Modernization of Vocational Education II Edition and Vocational Education Centres. 1/5 of this amount will be spent on the new equipment for vocational laboratories. Moreover the schools are endowed with new computer and communication equipment within the project the Malopolska Educational Cloud.

8. Which vocational programs in your organization will use the 3D technologies and equipment and in what way? (Through regular curricular programs, extracurricular activities, optional or additional activities)? – 1.000 words

Vocational programs in School that will use 3D technology and equipment. The ways of their usage and forms of classes in which 3D technology and equipment will be used.

3D printing technology will be disseminated in our School in the widest possible way, both during the classes resulting from the implementation of the school's curriculum, as well as during 3D science club classes. Preparing for the widest possible use of 3D spatial printing technology, we will introduce it to the implementation of teaching programs in the professions of teleinformatic techniques, automotive technician techniques and agricultural mechanization techniques.

Using 3D technology in the profession of ICT technician we will try to use this technique during the implementation of classes at the laboratories. In particular, we will want to use 3D technology for design, then to make enclosures and control panels for electronic modules (power supplies, meters, indicators). When designing and creating cases it will be important to prepare the elements together taking into account the places where the boards will be fixed. When preparing the control panels, it will be necessary to properly arrange the switches and potentiometers. We will also create switches and potentiometers by the usage of printer.

We will want to

use 3D technology



in the profession of motor vehicle technicians as part of the implementation of practical classes. Through the usage this technique during practical classes we will be able to develop ways to rebuild damaged control panels, switches and other interior fittings.

We would also like to learn the ways to renew some details, for example, in vintage cars, to which there are no longer available original details which are crucial to the look of the vehicle, its functionality. We would like to do it by rebuilding them via scanning. We are also interested in printing vehicles' handles and decorative strips.

Thanks to 3D printing technology, we will also make gears from gearboxes, engine components and miniature vehicle assemblies, which we will be used as teaching aids during theoretical classes, workshops and practical classes.

In the profession of mechanization technician of agriculture and agrotronics, 3D printing technology will be used to make models of machine working elements.

For example, seed potato container for potato planters, pin sowing unit for seed drill, feeders for livestock and many other original elements that can be replaced by models printed in 3D printing technology.

In order to meet the interests of our students related to 3D technology will be created in our School "3D Science Club", whose main goal will be to promote 3D technology among students of our School

In order to meet the interests of our students related to 3D technology will be created in our School "3D Science Club", whose main goal will be to promote 3D technology among students of our School. as part of the scientific club meetings, we will try to encourage students to broaden their knowledge connected with

3D modeling, preparation of model printouts and printing of details that the students themselves will draw in the 3D graphics program, What is more, they will prepare the printing process of the item. Teachers who are responsible for running the "3D Science Club" will support students with their knowledge and skills, and try to solve any potential problems. For example, problems which may occur during modeling of unusual and complicated things.

9. Briefly describe the level of teachers and students knowledge about 3D technologies. - 1.000 words

3D technology appears in the core curriculum for the subject computer science in basic vocational schools and technical schools. Students should know how to design three-dimensional models in raster and vector graphics. However in most schools in the Malopolska Region students learn the 3-D graphics using computers only. 3-D printers are present in some vocational schools but are used only during additional classes.

3D spatial printing technology is something new in our School, although for several years we have seen its development and its applicability. We often thought about the possibility of using this technology during lessons and extracurricular activities. Both our students as well as our teachers were interested in 3D printing technology, we participated in exhibitions and fairs connected with printing and 3D printing equipment.

The team of

teachers who have

undertaken activities related to the implementation of the project "Strategic Partnership for the Development of Competence in 3D - 3D FOR VET" consists primarily of teachers of vocational subjects teaching in the following professions: teleinformatic techniques, automotive technician techniques and agriculture mechanization techniques and agrotronics. Each of us was interested in modern technologies in their own way from the IT industry, however, the level of knowledge about 3D spatial printing and modeling in space is completely different.

However, the very process of creating from drawn sketch in the 3D design program (all the nuances associated with the preparation of the model for printing and specification of printing parameters) is a new knowledge for all of us. Therefore, when implementing this project, we would like to acquire as much knowledge as possible in order to be able to use the acquired skills in the future for our independent development as well as for teaching our students these new skills. Our students are very interested in all new products, they often learn about technological innovations by watching different thematic channels on websites or YouTube channels. They often asked questions about their possibility to learn about 3D printing technology (if the printer appears and if it enables them to print and model various details). The most interested in this technology were students from ICT and automotive technician classes.

In general, we know how 3D printing process works, we know that it consists of several modules: modeling, printing preparation and the printing process itself on a 3D printer. Some teaching staff in our team dealing with the implementation of the project "Strategic Partnership for the Development of Competence in 3D - 3D FOR VET" has a moderate knowledge of modeling in space, the others are more advanced in this matter.

The most interested in this technology were students from ICT and automotive technician classes.

In order to develop the interest of our students and our teachers with 3D spatial printing technology, we tried to participate in fairs connected with 3D technology, acquire materials available in the Internet resources, watch films dedicated to spatial printing.

Thanks to the possibility of joining the ERASMUS + program "Strategic Partnership for Development of Competence in 3D - 3D FOR VET", we will be able to further develop our skills and knowledge in the field of 3D technology in a theoretical way, but also thanks to the purchase of a 3D printer with its hardware and software it will be **possible to improve in the preparation of models for printing and in the printing itself.**

10. What are your expectations from participation in this project? Will the project contribute to the upgrade in the quality of practical teaching process in your school? – 2.000 words

The 3D project - VET that my school has joined will undoubtedly contribute to the process of improving the quality of practical teaching at school. The 3D technology to which the project relates is currently one of the most modern and at the same time one of the most dynamically developing technologies. Including of 3D technology issues in the educational offer of the school will allow students to get acquainted with it as well as with the latest paths of its development. It will also allow students and teachers to develop and update their knowledge about issues in the field of design and 3D printing. Thanks to this, they will acquire additional competences that will increase their chances on the labor market. It should be emphasized that these are competences corresponding to the growing demand for specialists in this field. Due to the high costs of both software and hardware used in 3D design and printing, the school's participation in the project will allow enriching the didactic base of the school in this area. Both hardware and software will allow students to be familiar with the design process and 3D printing . They will acquire the experience in practice through classes in the form of projects, exercises and workshops carried out as part of the learning process. An important role in this process is also played by cooperation with foreign partners thanks to which students will acquire skills in working in an international team as well as having a perfect opportunity to improve their language skills. This correlates perfectly with the already implemented project concerning youth foreign internships carried out under the Erasmus Plus program - "European mobility - our way to professional success". The aims of the project focused on participants, both teachers and students, in various areas of life, science, experiment, practical solutions, variants, ideas - show different paths of 3D technology.

The role of the Malopolska Region is to distribute the results and experiences gained in the project among schools of the region , other educational institutions and industry. The project will help us to get to know other educational systems, new ways of employing modern technology in vocational schools. We will find out how vocational schools cooperate with universities, science and industry. The models of cooperation will be especially useful in planning new activities in area of teaching new technologies in the Malopolska schools.