

# 2015

## Municipal Strategy for cooperation with the institutions of higher education and consolidation of Varna as an international university city



### **EUniverCities**

City-University Partnership for the  
development of sustainable Urban  
Economies and societies

### **URBACT II**



Connecting cities  
Building successes



# VARNA MUNICIPALITY



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## Annotation

This strategy has been developed within the framework of the project *“Partnership between Cities and Universities to Develop Sustainable City Economies and Societies”* (abbreviated to **“EUniverCities”**), implemented with the financial support of the EU URBACT II Operative Programme. The strategy was developed by the Local Coordination Council of Varna Municipality which has provided support to the Municipality during the project implementation period from January 2013 to April 2015. The strategy is based on the conclusions agreed during the council’s discussions and sets out the strategic goals of Varna Municipality leading to consolidation of the city’s status as a large European University Centre.

The strategy aims to intensify cooperation between the city authorities and the universities in Varna and to enhance the development of Varna as an international university city, a status it undoubtedly possesses at the moment. An important reason for the development of the Strategy is the role played by students in the economic development of the city. The fact that the 35 000 students spend approximately 210 million leva annually, i.e. an amount equivalent to the entire budget of the Varna Municipality, has made education an entirely new economic sector with an important significance for regional development. However, the most important reason for the development of the Strategy is the role which university cities in Europe play in the development of the European “knowledge economy” and the expectations that they will adopt the same role in Bulgaria.

The first objective of the Local Coordination Council of Varna Municipality was to identify the parties (subjects) who have an interest in the development of relations between the universities and the Varna municipal administration and precisely to define the issues and interests of each stakeholder. Subsequently the council outlined each stakeholder’s motivation for change as well as their authority and capacity, and further defined the principle directions of future actions targeted at the resolution of problems and achieving a balance of interests.

The most important result of the work of the Coordination Council was to define the basic problems and challenges which accompany the relationships between the universities and the municipal administration. Of a total of 35 problems identified by members of the council, 10 were assessed to be most important with a strategic significance for the sustainable development the local “knowledge economy”.

The actions targeted at consolidating Varna as a European university centre are now a fact, to the delight of all involved, and in recent years their implementation has become more organised and systematic. However, in order to guarantee timely and effective results which will be agreed between the different sectors and management levels, a global long-term strategic approach must be agreed to by all stakeholders. In reality this is the essence of the present Strategy.

## 1. Introduction

### 1.1. Assistance provided by URBACT Programme to European cities to resolve matters of strategic importance for their development

The **URBACT II** programme of the European Commission, through which the *EUniverCities* project is financed, was developed in order to assist large European cities resolve complex problems in a variety of management areas. A typical element of the URBACT Programme is that all its projects are finalised with the preparation of an Action Plan by each project partner (i.e. by each city, one of which is Varna) aimed at resolving the management problems which the project focused upon. In this specific case, these are the problems and objectives identified by the Coordination Council of Varna Municipality in the area of cooperation between the city authorities and Varna's universities as set out below in the following sections.

### 1.2. Parties interested in the implementation of the Strategy and practical benefits which it will bring to the decision-making process

The Strategy covers part of the management priorities of Varna Municipality and is designated for implementation by the Municipality itself. It is thus logical that the Varna Municipality be the primary stakeholder in its implementation since the presence of five universities and six colleges is important not only for the development of higher education but for the overall image and the economy of the city and the district. Given its large scale, education is already beginning to fulfil the role of an independent economic sector. Moreover, cooperation between the city authorities and the universities is an important factor in stimulating high-technology manufacturing and the re-orientation of the economy towards more profitable sectors which require the creation and retention of a suitably qualified work force in the city.

The management bodies of the universities and colleges located within the territory of Varna District are also interested in the implementation of the Strategy since their primary aims are connected with improving the attractiveness of the city for young people and students and accordingly to increase the number of young people who receive higher education here.

The business sector in Varna is particularly interested, since an increased number of students (given a better quality of education) also enhances the opportunities for the choice of potential future employees.

One special group of stakeholders consists of the academic research institutes and organisations involved in high-tech manufacturing, as well as those which support and develop innovations as their primary activity. These also include non-governmental organisation working in the sphere of innovations and high technologies. They are also interested in the consolidation of Varna’s status as an international student city since this supports and develops their own activities.

### 1.3. The role of EUniverCities partners’ experience and cross-border meetings for the development of this Strategy

The main objective of the EUniverCities project has been to strengthen and improve the cooperation between the city administration and the academic organisations within the territory of the participating cities as a primary factor in the development of the so-called “knowledge economy”, designated as a main priority in EU economic policy. A leading partner in the Project was Delft Municipality from the Netherlands and the lead consultant was Prof. Willem van Winden from the University of Amsterdam. The following European cities and universities were also full and equal partners in the Project:

<b>Delft</b>	The Netherlands	<b>University of Lecce</b>	Italy
<b>Delft Technology University</b>	The Netherlands	<b>Linköping</b>	Sweden
<b>Aachen</b>	Germany	<b>University of Linköping</b>	Sweden
<b>Aachen Technical University</b>	Germany	<b>University of Norrköping</b>	Sweden
<b>Aveiro</b>	Portugal	<b>Lublin</b>	Poland
<b>Aveiro University</b>	Portugal	<b>Lublin University</b>	Poland
<b>Varna</b>	Bulgaria	<b>Magdeburg</b>	Germany
<b>Naval Academy</b>	Bulgaria	<b>Otto von Guericke University</b>	Germany
<b>Ghent</b>	Belgium	<b>Magdeburg-Stendal University High School</b>	Germany
<b>University of Ghent</b>	Belgium	<b>Tampere</b>	Finland
<b>Lecce</b>	Italy	<b>Tampere Technology University</b>	Finland

Other cities and universities also took part in the project with observer status, covering their own expenses for participation. These additional partners were as follows:

<b>Aalborg</b>	Denmark	<b>Trondheim</b>	Norway
<b>Aalborg University</b>	Denmark	<b>Norwegian University of Science and Technology</b>	Norway
<b>Brno Technology University</b>	Czech Republic	<b>Zaragoza</b>	Spain
<b>Lvov</b>	Ukraine	<b>Zaragoza University</b>	Spain
<b>Lvov Polytechnic University</b>	Ukraine		
<b>Lausanne</b>	Switzerland		
<b>Lausanne University</b>	Switzerland		

The project was implemented in two phases: Phase I “Development” and Phase II “Implementation”: the “Development” phase continued for eight months – from April to December, 2012. The total duration of the second phase “Implementation” is 27 months, starting on 1<sup>st</sup> February 2013 and ending on 30<sup>th</sup> April 2015. The project provided participants with two very important opportunities: to familiarise themselves with the way in which cities and universities cooperate in-situ by carrying out separate visits to each partner city and 2) to perform so-called “peer reviews”, during which the visiting delegations evaluate the status and effectiveness of the cooperation in the host city from their own perspective and perform the relevant analyses, and make recommendations for improvement. Peer reviews are particularly useful from a methodological point of view since they are carried out through the experiential prism of each participant. They give a new perspective to issues in the corresponding city which the local authorities would be unable to give due to habituation to the challenges and their acceptance as daily routine.

When developing this Strategy, Varna was also given a chance to benefit from the experience and practice of the other European partner cities and their universities. During the “Development” phase visits were carried out with the objective of performing Baseline Study Visits in all participating cities including Varna. The Baseline Study Visit in Varna was carried out jointly by the Lead Expert and a representative of the Lead Partner in June 2012.

During Phase II, “Implementation”, representatives of Varna Municipality and Varna’s institutions of higher education were able to familiarise themselves with the problems and practices of cooperation experienced by 12 of the cities and universities participating in *EUniverCities*. Since the participating cities are located in different parts of Europe and their practices of further education have developed in different ways, their policies and practices in many cases differ, although they have proven their effectiveness in the specific local conditions. The partners’ experience has been exceptionally valuable for Varna since a large part of the methods of cooperation with universities are new and as yet unimplemented in Bulgaria. Nevertheless, many of the policies and practices have been seen to be suitable for the conditions in Varna.

A multi-lateral meeting was held in Varna between 2 and 5 June 2014, during which a “peer review” of the cooperation between the city and its institutions of higher education was performed. All the delegations present at the multi-lateral meeting took part. Varna’s Municipality, Varna’s universities, scientific institutes and a number of companies operating in the high-tech sphere gave fifteen presentations covering a variety of aspects of cooperation between the local authorities and the institutions of higher education. The partners were informed of the city’s policies in this area and the challenges facing the universities and colleges. Visits were made to a number of universities, the high-tech business incubator and the scientific institutes, at which representatives of the stakeholders also shared their problems and visions with the guests. The participants discussed their impressions of what they had seen. Divided into thematic groups, consisting of

representatives of the foreign delegations, Varna’s institutions of higher education and students, they analysed the individual aspects of cooperation between the city and the universities and made their final recommendations and proposals. The results of the “peer review” were systematised by the Lead Consultant and many of the proposals were subsequently included in this Strategy.

The “peer review” method has been very influential upon the directions of subsequent work. It has also given an international dimension to the problems and challenges Varna and its universities face and has helped to form a long-term vision of achieving the strategic aims during the next decade and the transformation of Varna into a prosperous international student city.

## 2. Economic perspectives and challenges to the development of Varna and the need to expand cooperation between the local authorities and, universities and the scientific sector

### 2.1. Problems and perspectives to the economy of Varna

The region around Varna possesses good potential for business development and attraction of foreign investments. This is defined by its geographical location, good transport infrastructure, well-developed economic functions, and suitable natural and geographic conditions. According to a number of indicators, the economy of Varna is relatively highly developed in comparison with other regions in Bulgaria and has a diverse structure. The main sectors are harbour activities, shipping, ship building, ship repairs, tourism, chemical industry, machine building, food production, furniture production, construction and agriculture. The following sectors also possess a relatively high presence in the economy: processing industry (23%), production and diffusion of energy (16%), trade, repair and technical services (12%), transport and construction (11%). The hotel and restaurant industry occupy only 4.6% although they employ a significant part of the work force.

A particularly important sector in Varna is the so-called “Maritime industry”, which includes shipping, ship building and ship repair, harbour activities, maritime resources, maritime science and education, all activities and services which support maritime business as well as fishing and the production of aquacultures. All these activities have their own history, development and presence in Varna. More than 12 000 people are employed in the maritime industry in Varna District.

In the past Varna was also well-known for its well-developed industry both in the maritime sector and others. At the end of the 1980’s Varna’s Ship Building Company and its local suppliers used to manufacture seven large-tonnage ships annually employing a personnel of



more than 6000 people. During these years Varna was a powerful industrial centre. However, in recent decades the city has lost the majority of not only its maritime industry (mainly ship building) but also other manufacturing processes. This trend is particularly visible from the rusty remains of the ship building factory close to the harbour. Varna also possessed a well-developed domestic electrical appliances manufacturing industry. It also produced diesel engines and other types of devices and machines but today this is part of the history. After the democratic changes at the beginning of the 1990’s most local companies lost their

previous markets in the former socialist countries and were unable to withstand western competition and either disappeared or in the best case scenario, significantly reduced their activities.

Today the harbour is still an “economic” pillar but the city’s economy is strongly dominated by the tourist sector. Income is significantly lower in comparison with European levels (GDP per capita is about € 5,000<sup>1</sup>) and the city’s economy is still not showing any visible signs of stable growth.

The labour market displays a number of discrepancies. About 26% of the work force has university education, although there are not many jobs which require a university degree. Many employees have qualifications which in fact exceed the requirements of the job they do and many students leave the city (and frequently the country) after completion of their higher education. Unemployment in Varna stands at 13.7%, which in comparison is 1.8% higher than the average for the country, while youth unemployment is a matter of great concern at 28%<sup>2</sup>.

During the “peer review” in 2014 some of the representatives of the different institutions shared that there was a certain lack of a culture of cooperation and teamwork. Collective work skills seem to have been more common in the past during the socialist period but with time they have been lost.

A positive economic note is being provided at the moment by a number of new companies in the sphere of medium and high technology which have begun to appear recently in Varna. One remarkable example is **KORES Ltd.** which has developed a system for real-time monitoring and forecasting of the distribution of dredging sediment based on an unmanned sea vehicle powered by solar panels. It is able to measure the various parameters of the water in the dredge trail (primarily turbidity) and transmit it telemetrically to the shore



where the data is processed in a specialised digital model. The system allows for the modelling of the process and to make real-time forecasts of the distribution of sediments with the aim of protecting the shoreline (for example the resort beaches) from dredging sediment pollution. The apparatus also allows for samples to be taken for laboratory analysis in order to obtain referential data for comparison.

<sup>1</sup> Source: Presentation by Prof. Zoya Mladenova, University of Economics, 02-05 June 2014, Varna

<sup>2</sup> National Statistics Institute. (NSI labour market data should be taken with a certain amount of caution due to the presence of the grey sector of the economy.)

The **High Technology Business Incubator** is also important for the development of the city. At the present moment five promising leaseholders are developing new, innovative products for external markets.

**The Regional Agency for Entrepreneurship and Innovations – Varna (RAEIV)** is a unique driving force for the knowledge economy. It is a non-governmental, non-commercial organisation which offers assistance to innovative small and medium businesses and helps in the transfer of technologies and entrepreneurship (it also manages the High Technology Business Incubator). RAEIV implements a number of European projects connected with innovations and technology transfer (see [www.rapiv.org](http://www.rapiv.org)). Its activity is very important but it has limited resources only and depends on incidental external finance.

RAEIV contributed significantly to the development of the Municipal Development Plan 2014-2020 of Varna Municipality including a number of projects connected with the development of the knowledge economy. In addition, the Agency has also developed a plan to construct a High-Technology Park, something which does not exist in Varna at the moment. The only one of its kind at the moment in Bulgaria is in Sofia.

Varna has recently been focusing serious attention upon the urban environment and has been undertaking constant activities to improve it. The historical centre of the city is gradually being improved after having been neglected for many years. Varna airport has recently been expanded to provide regular flight connections to Sofia and a number of international destinations.

Although recent years have been a period of economic stagnation and industrial slow-down, the maritime industry in the future will undoubtedly determine the diversity and specificity of the economy and the entire social and cultural development of Varna and the district. During the multi-lateral meeting in Varna in June 2014 this view was shared by all the representatives of the maritime businesses in the city who expressed serious concern about the slowing down of the maritime industry and harbour activities.

The so-called Bulgarian “maritime cluster” will play an important role in the growth and sustainable development of the maritime industry at a district, regional and national level. Its strategy includes improvement of communication and cooperation between companies involved in the maritime industry, application of good practices, and the use of experience and know-how of similar clusters in other countries. The objective is to create conditions for enhancement of the competitiveness of the Bulgarian maritime companies, increasing the level of qualifications of specialists employed in the various maritime sectors, activation of the connection with universities and research institutes in the maritime industry sector. The fact that the EU has designated the maritime industry as a priority area is a precondition for the development of the sector in the future.

The development of Varna District as part of the Black Sea Region and EU coastal zones is a subject of special interest and is connected with a number of key European documents, particularly important of which is *The Marine Strategy Framework Directive (Directive 2008/56/EC)*. The objective is to lay the foundations for the integrated marine policy, with the aim of unifying priorities in the area of transport, fishing and aquacultures, tourism, security and safety, risk management, conservation of the environment, development of science and innovations.

A major challenge for Varna at the moment is how to “turn the tide” and to turn the service economy back to the “knowledge economy” sector. This will lead to a development of high-technology and much more profitable businesses. This Strategy, therefore, emphasises the potential role of the academic sector, together with other stakeholders in the city, as a driving force for this change. A key issue for Varna is the lack of strong traditions in the joint development of strategic documents and unification of the efforts of stakeholders and organisations. Instead they tend to compete (sometimes rather pointlessly) and focus on their own narrow interests, and unfortunately at present joint activities are a lucky exception to this rule.

## **2.2. The role of the institutions of higher education and scientific institutes in the technological renewal of Varna’s economy and for the development of innovations**

Varna is a place with good conditions for the development of innovative activities and productions, the most important of which are the available scientific potential and the favourable geographical location of the city. The best conditions for the development of innovation activities exist in the following sectors: *maritime industry, information technologies, tourism, services and energy*. New high-tech production processes are expected to appear in these sectors. They will create a high level of added value and will attract investments in science-centred production processes. However, at the moment the level of innovation activity achieved does not correspond with the level of opportunities. The expenses for scientific research activity in Varna District are still low, while the number of people employed in this sector varies between 1168 and 1419, or 1% of all those employed. Only 10% of the companies in Varna District set aside more than 20% of their turnover for innovation activities and most investments in innovation products are made by companies in the “ICT and “services” sectors<sup>3</sup>. Varna has five universities and six colleges with a total student population of about 35 000.

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<sup>3</sup> Strategy for the development of Varna District for the period 2014-2020:  
(<http://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg-BG&Id=843>)

## VARNA UNIVERSITIES

**Varna Free University** is a private university with a student community of about 12 000 students. It offers 19 bachelor's degree programmes, 50 master's degree programmes and 19 doctoral specialisations. The campus is situated about 10km north-east of Varna close to the coast. It uses the buildings of the former Academy of Social Sciences and Social Management from the socialist period.

**N.Y. Vaptsarov Naval Academy** is a specialised further education institution with a total student community of 3000 students and cadets. It is the oldest technical institute in Bulgaria and was established in 1881. Today it offers bachelor's and master's programmes in the area of navigation and machine engineering as well as postgraduate and professional training. 135 lecturers teach both military and civil specialists. The academy has strong connections with the local maritime industry. Students spend their professional internships in local companies, doctoral dissertations are developed in local companies and the companies themselves participate in the development of the curricula.

**Technical University of Varna** was founded in 1962. Over the years it has grown from a small institute which satisfied regional needs to a large technical university with national significance, training about 6500 students in 21 engineering specialities. It possesses a compact campus with its own halls of residence with 1450 beds, restaurants and a sports complex.

**Medical University of Varna** was founded in 1960. Today 3400 undergraduate and 132 postgraduate students, of whom 700 foreigners, study here. This makes it the most internationally oriented university in the city. The university has faculties of Medicine, Public Health Care, Dental Medicine and Pharmacy, as well as a Medical College and Department of Foreign Language training, communications and sport.

**University of Economics -Varna** was founded in 1920 as the Higher School of Commerce. Today it offers academic education and conducts research activity in many sectors of the economy and business management. 13 000 students study here ([www.ue-varna.bg](http://www.ue-varna.bg)).

In addition to the universities, Varna also has 6 colleges: **International University College, College of Tourism, Medical College, College of Administrative Management, Technology College and Bulgarian American Business College.**

The information shown in the inset block shows that four of the universities are specialised: the Technical University, the University of Economics, the Medical University and the Naval Academy, while one (Varna Free University) offers diversified education in many different areas.

Students' accommodation is widespread throughout the city. Some of them live in halls of resident close to their universities, while others rent apartments in the city.

Foreign students come mainly from neighbouring countries – Turkey, Serbia, Greece, Macedonia and Moldova. They come to Varna due to the high level of the Bulgarian academic community and due to the fact that rent for student apartments is affordable (in Varna there are about 25 000 available apartments exerting downward pressure on rent

levels), and the same may also be said about tuition fees. However, the reverse trend is also true – many Bulgarian students (including students from Varna) are leaving the country to study in Western Europe. There are no precise figures of how many of them are from Varna but figures for the whole of Bulgaria show that at the moment about 80 000 students are studying abroad, especially in EU countries<sup>4</sup>.

**Scientific research and applied science activities** in Varna are carried out in the institutes of oceanology, hydro- and aerodynamics, hydrometeorology, metal sciences and fishing resources, some of which are branches of institutes with main facilities in other cities. This concentrated network of scientific research centres in Varna is also a resource for the development of new high-tech production. Despite the slow-down in industrial development in recent decades, the traditional maritime activities in the city have been preserved (water transport, harbours, ship building, ship repair) and a significant percentage of the GDP is still being created in these sectors. These “long-term maritime assets” have also been maintained in the research sphere – a clear example of this is the Institute of Hydro and Aerodynamics (see inset).

<p><b>Pillars of the knowledge economy of Varna:</b></p>
<p><b>INSTITUTE OF HYDRO AND AERODYNAMICS</b></p>
<p><i>The Institute for Hydro and Aerodynamics, which is part of the Bulgarian Academy of Science, is a research centre with a staff of 80 employees. 20 years ago the staff was about 300. Today it continues to undertake research in the area of shipping hydrodynamics, hydro technology and industrial aerodynamics. The Institute has one of the biggest and best developed experimental bases in Europe for the study of water and air transport, generation of renewable energy, fishing, rescue activities and hydro technical facilities. The institute attracts foreign clients and cooperates with other universities and academic bodies within the territory of Varna. 30% of its budget is provided by the state and the remaining 70% is generated by the private sector and orders won on the free market.</i></p>

On the whole, however, the innovation activity of Varna’s economy is weak. Local production enterprises are dominated mainly by branches of other larger companies located outside Varna and local high-tech micro enterprises. There are almost no central company offices in the city and no large businesses are managed from here, and the number of high-tech companies is also small. Given such a situation, it is completely understandable that the regional economy offers relatively few places for specialists with higher education and even less places for highly qualified specialists.

The network of universities and scientific research centres with national significance and qualified personnel is clearly a resource for future development of high-technology production in the region. From a negative point of view, however, the wide

<sup>4</sup> University World News (<http://www.universityworldnews.com/article.php?story=20110513184652284&query=bulgaria>)

range of specialities at the universities and university acceptance processes do not always take into account the real needs of the economy.<sup>5</sup>

The general opinion of Varna employers is that the system of Varna universities, colleges and research institutes is on the whole not sufficiently flexible and reformed to comply adequately with the real needs of professional and technical specialists in the varying spheres of the regional economy. This can also be said of innovations development. A poor reflection of the effectiveness of the scientific research infrastructure was seen during the meeting of the EUniverCities partners in Varna between 2 and 5 June 2014 when they saw a “live” demonstration of only one innovative product. Two others were shown in the form of presentations. At the same time, European policy and expectations of so-called “blue growth” in the maritime sector, which is so important for Varna, requires the appearance of serious practical products as a result of scientific activity. Together with innovative technical objects, other expected results include the creation of a common database of maritime research, oil exploration, natural gas and raw materials in the sea, the development of underwater archaeology and underwater tourism, the precise designation of protected zones in Bulgarian territorial waters. Increasingly higher technology products are expected to be used in maritime conservation, bio-diversity protection, bathing waters and protecting the health of tourists.

Some of these results and products already exist in Varna albeit partially – for example the common maritime research databases as well as the designation of the boundaries of protected zones of the NATURA 2000 project but the majority are far from any stage of completion. Some are still in the conception stage.

### **2.3. Current cooperation between the city authorities, Varna’s universities and businesses**

The five universities and six colleges with their 35 000 students are undoubtedly a key asset to Varna. However, after graduation students are faced with limited opportunities to find well-paid employment which fulfils their professional ambitions. This obstacle has led to many students leaving the country. It is believed that 80% of all students who graduated with a degree in medicine in 2013 have left Bulgaria. This is often quoted as an evidence of the high-quality of education in Bulgaria. However, such an interpretation is also very controversial since the possession of good education is hardly a justifiable reason for a young person to leave the country.

With so many universities and colleges, the overall picture of education in Varna is very fragmented which is similar to the situation on a national level<sup>6</sup>. In addition to this,

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<sup>5</sup> Strategy for the development of Varna District for the period 2014-2020:  
(<http://www.strategy.bg/StrategicDocuments/View.aspx?lang=bq-BG&id=843>)

<sup>6</sup> National Strategy for the Development of Scientific Research (2008-2018)

cooperation between the individual institutions of higher education and between these institutions and other organisations is not very common practice. Despite the recent appearance of joint projects in Bulgaria and in Varna in particular, the traditions and culture of cooperation and collaboration in the area of science and higher education are not particularly well developed and there are reasons for this. Firstly, the universities are highly dependent on national financing and their primary duty is to implement complex and continually changing legislation and procedures. From this point of view, they do not have much room to manoeuvre. Their main objective is not to consider how to cooperate with each other and what innovative products to bring to the market but how to defend their own institution and how to produce the graduates required of them in compliance with centrally defined targets<sup>7</sup>. In Bulgaria, and in Varna as well, there is no formal requirement for institutes of higher education to discuss with each other the subject and scope of their research activities or curricula. As a result students are not offered inter- or multi-disciplinary programmes, while at the same time students in the various institutes of higher education in the same town are studying almost identical courses. In the short term, there is little clear prospect for change to this situation. Up to the present moment, the universities in Varna have not demonstrated the desire or own initiatives to unite their efforts in the name of strategic cooperation in their primary activities – higher education and scientific research. At a national level voices have been heard to suggest the consolidation of the system of higher education (at the moment there are 51 universities in the country). However, no specific steps have yet been taken in this direction.

The second reason for the lack of intensive cooperation between universities and companies is specific to Varna and is related to the structure of Varna's economy. During the peer review meeting in June 2014, the business sector made it known that education and research programmes are not adequately adapted towards public and company needs. On the other hand, students have complained of the predominantly theoretical nature of the courses which they attend and the lack of specialised internships and training while at work.<sup>8</sup> These problems to a large extent are a result of the structure of Varna's economy. Varna does not have enough companies oriented towards high technologies and highly qualified activities, while very few organisations are capable of or inclined to invest in areas which require collaboration with the academic sector. In practice, the academic sector has no one

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<sup>7</sup> Varna at a Crossroad: Towards a Knowledge-Based Economy?, EUniverCities Peer Review Report by Prof. Willem van Wined

<sup>8</sup> There are, however, a number of good examples: of which is the Naval Academy which teaches students about the narrowly defined practical duties within the shipping business and for the purpose maintains traditionally strong links with shipping companies. Another example is the Medical University in which practical teaching is an inseparable part of the curriculum. The Naval Academy operates a Centre for Technology Transfer in the harbour, the aim of which is to connect maritime companies with the scientific expertise of the Academy. In February every year, it organizes meetings with companies from the maritime industry during which they negotiate student internships for the following year. Another good example is the trilateral cooperation between Keppel Fels Baltech (KFB), the Institute for Hydro and Aerodynamics and the Shipbuilding Faculty of the Varna Technical University. For its part, the Technical University also cooperates successfully with a number of large wind-powered electricity generation operators with the aim of the practical training of students.

to cooperate with, while students have nowhere to obtain practical experience of their future profession.

Most Varna universities have career centres which should function as mediators between students and the labour market but, according to the students, they have insufficient personnel and are sometimes inaccessible. With regard to programmes, internships and the orientation of education towards the needs of the businesses, there is much to be desired. However, the processes and the obstacles to it need to be examined closely and cooperation between the institutes of higher education and companies in the city needs to be transformed into a long-term strategic aim.

There are also good practices in Varna. One of the good examples which were presented to the foreign cities and universities during the peer review meeting in Varna in June 2014 was the production cooperation between the Institute of Hydro and Aerodynamics, the Technical University and the companies in the maritime sector. For a number of years undergraduate and postgraduate students have been undertaking research work in the IHA, using the institute's facilities and the experience and knowledge of its staff who give lectures at the university and hold seminars for the students. IHA specialists participate in the commissions of a number of education programmes connected with hydro-technologies and in certain cases both organisations have submitted joint applications for financing of research objectives. IHA maintains good connections with Kepel Fels Baltech (KFB) – a leading company in maritime technologies (branch of Kepel Fels Singapore), which has a design centre in Varna. The University and KFB have set up the Maritime Laboratory where the students can undertake their practical work. This clearly demonstrates the potential which Varna can offer for such effective forms of cooperation.

Cooperation between Varna city authorities and the universities has its own history. Albeit sporadically, the universities over the years have always participated in resolving the problems faced by the municipality (see inset) and the municipality for its part has tried to assist their activities within the limits of their abilities.

**Examples of cooperation between the city authorities and the universities in Varna in the past two decades:**

For more than fifteen years the Medical University has contributed significantly to the development of the Varna Municipality's *Environment and Health 2000-2010 project*. A partnership was established between the Municipality, the University and a number of other organisations which performed this task on a joint basis. In the project participated 10 specialists from the Medical University.

Between 2001 and 2002, the Technical University participated in a World Bank project aimed at designing a detailed profile for energy use by Varna Municipality, and preparing the *Municipal Strategy for Heat Provision and Intelligent Energy Saving Lighting System*.

In 2010 the Naval Academy took part in a study of the ravine and river system within the territory of Varna's Municipality in order to further evaluate its capacity for the draining of torrential rain waters. Six teams were formed, each consisting of three cadets observed by an officer. The work gave practical experience to the cadets and saved the Municipality a lot of money since the alternative would have been to hire a private company to do the same study.

Every year the Faculty of Architecture and Town Planning of Varna Free University organises a competitive plein-air festival during which student teams from a number of countries come together to solve specific problems of Varna Municipality. In 2011 this led to the development of a redevelopment plan for the harbour and in 2012 a concept for the construction of artificial islands in the Black Sea. The plein-air festivals generate original ideas for the future development of the city.

The Municipality has always benefited from the experience and knowledge of the universities. University lecturers from a wide range of specialities have participated in all 19 Mayoral Public Councils over the last 10 years.

The Municipality has made significant investments in sports facilities in some of the universities (for example the Technical University and the Naval Academy). In this way it has endeavoured to encourage a more active lifestyle since these facilities are also used by the general public in Varna.

Cadets from the Naval Academy frequently take part in city festivals and official ceremonies as guards of honour. Their graduation ceremony takes place every year during the "Sea Week" festival.

Every year the Municipality of Varna awards the following student prizes: For the best dissertation, for the best young researcher, for the highest grades, and for public work.

In response to the challenges noted above, in 2012 specific actions were undertaken to expand joint activities. Within the framework of the EUniverCities project, a Coordination Council was established within Varna Municipality with the task to develop a Strategy for the consolidation of the status of Varna as an international student city. At the beginning of 2015 it was decided that the council would continue to exist and after conclusion of its work on the Strategy it would monitor its implementation. The council is composed of representatives of Varna Municipality, all the universities in the city, business organisations, students, companies and NGO's.

Within this context, in 2014, Varna organised a multi-lateral meeting of European cities with universities which has already been mentioned above. During this meeting (as part of the EUniverCities programme) a "peer review" evaluation was undertaken. Over a period of three days, the guests analysed the status of the connections between the city, the universities and the local businesses, policies and the intentions to develop high-tech and innovative production processes and activities, and to stimulate to a greater extent the economy of Varna towards the modern "knowledge economy".

Cooperation between the universities and the city authorities received a great surge of energy in 2014. A number of meetings were held with Varna Municipality under the

chairmanship of the Deputy Mayor with the Rectors of the institutions of higher education and an Action Plan for Joint Activity in 2015 was drawn up. Both sides declared their conviction that the universities and students are an important part of Varna's life and that the city's future to a great extent depends on the success of their cooperation.

#### **2.4. Organisational structures required for cooperation between Varna Municipality and the institutions of higher education**

At the moment Varna's Municipality has no programmes or strategies aimed at the institutions of higher education. The Municipality has no management structure officially responsible for establishing connections with them or allowing the Municipality to access their expertise, or which might allow the universities access to the decision-making process concerning the management of the city.

Principally, a good way of effective partnership between the Municipal authorities and the universities in Varna is the inclusion of representatives of the universities in the Public Consultative Committee of the Mayor.<sup>9</sup> Cooperation between the Municipality and the institutions of higher education should be looked for in two areas – the implementation of shared initiatives and projects and the introduction of young professionals into the municipal administration. The introduction of students into the municipal administration is very important to ensure the access of young people to the management and decision-making process. The question of access by students to the management process is discussed in the *Varna Municipality Development Plan 2014-2020*. The model of student internships was proposed as a good mechanism. They offer a relatively easy and effective way of preliminary orientation and professional self-determination, as well as subsequent employment of capable and promising students to permanent posts in the Municipality.

The *Municipal Development Plan 2014-2020* proposes a special type of cooperation in the form of the concept for the construction of the **Black Sea High Tech Park – Varna** which consists of a specially set-aside zone with its own infrastructure (buildings, offices, laboratories, training rooms, recreation areas, parks, etc.) and this would unite the efforts of scientific research institutes, universities, high-tech enterprises, investors, businesses and mediation organisations from Varna Municipality and the North Eastern region.

The main factors which would support the creation of a functioning technology park involve the commitment of the Municipality in its creation and the provision of the basic infrastructure, the availability of the scientific, research and technological potential and experience (which is available in Varna) and the interest of the private sector in the results obtained as a product of the activities of this park.

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<sup>9</sup> Municipal Development Plan of Varna Municipality 2014-2020, Regional Agency for Entrepreneurialism and Innovations - Varna, September 2013.

The general opinion of the members of the Coordination Council and the students from the various institutions of higher education in Varna is that the existence of a consultative unit to ensure the cooperation with managerial and educational bodies in the universities and colleges would be very useful and would provide the municipal administration with direct access to specific problems which could be resolved by joint projects. The trend towards looking for new opportunities needs to be strengthened in order to facilitate and improve the work of the municipal staff when planning, implementing and monitoring the strategic plans and programmes related to the local development.

## 2.5. Observations and decisions of the Coordination Council of Varna Municipality

The most important result of the work of the Coordination Council during the first year of its work (2013) was to define the basic problems and challenges which accompany the relationships between the universities and the municipal administration. The members of the council identified a total of 35 significant problems in this area, ten of which were assessed as being the most important and strategically significant both for the development of Varna as a student city and for the sustainable development of the local “knowledge economy”.

At its last meeting of the first year, conducted on 20/12/2013, the Coordination Council proposed that the Mayor should commence the development of a ***Municipal Strategy for Cooperation of the Municipality with Universities and Colleges and Consolidation of Varna as an International Student City*** at the beginning of 2014<sup>10</sup>. The activities and measures contained therein were to be grouped in the following five strategic areas (coinciding to a great extent with those recommended by EUniverCities Senior Consultant):

- 1) Orientation of the local economy towards a “knowledge economy” as the main economic priority of the Municipality of Varna;
- 2) Internationalisation of the City of Varna and the student community;
- 3) Resolution of the professional, cultural and domestic problems of students and their inclusion in the political life of the city;
- 4) Increasing the attractiveness of Varna and popularising Varna universities;
- 5) Integrating science in the public life of Varna.

These five areas were defined on the basis of observations and analyses carried out by the stakeholders and presented to the Coordination Council. They fully correspond to the basic

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<sup>10</sup> Report to the Mayor of Varna Municipality by Bisser Mladenov, Deputy Mayor and Chairman of the Project Coordination Council of *Partnership between cities and universities for the development of sustainable urban economies and communities (EUniverCities)*, EU URBACT II programme

problems and challenges which higher education needs to resolve, as well as the economy of Varna, and they delineate the context within which the Strategy will be implemented.

The Municipal Mayor reacted positively to the proposal of the Coordination Council and work on the Strategy began at the beginning of 2014.

## 2.6. Proposals made by the participants in the “Peer Review” of Varna in June 2014

During the “peer review” undertaken in June 2014 by the foreign guests, a number of basic proposals were made. These to a large extent coincide with the views of the Coordination Council and are reflected in the Report of December 2013 drafted by the Deputy Mayor to the Mayor of Varna Municipality.

The first recommendation by the “partners” was that the strategy should be seen as a tool not only to attract more students to Varna but also for **future re-orientation of the economy of Varna away from the service sphere and towards the knowledge economy**. The Strategy needs to delineate the foundations for the future marketing of the educational prospects which Varna Municipality offers, in the same way in which the Municipality markets its tourism prospects. This should create a framework for future financing of the activities set out therein, through EU funds, Bulgarian national funds and investments from the Varna Municipality itself.

The second recommendation by the partners was in relation to the specific prospects for development which Varna demonstrated during the meeting. The partners proposed that the strategy focuses upon **a number of proven strong aspects of the economy** such as, for example, the maritime industry and tourism. These are areas in which the city has traditions and potential for cooperation between businesses, the research sector and the local authorities. In order to attain the maximum mutual benefit and “synergy”, **cooperation between the municipality, universities and businesses needs to focus on activities of greatest interest**. The precise definition of the areas of cooperation will allow for the marketing policy to precisely target the necessary segment of foreign companies and potential investors. By accurately defining the areas of cooperation, municipal policies will be more specific rather than abstract and thus accessible and understandable by the public. Public information about cooperation between “city-university-companies” in the areas of high technologies and prestige businesses will have a positive effect upon the **self-image of citizens and will make them feel part of the objectives**.

In addition to the general proposals, the partners made a number of specific proposals most of which they have tested in their own cities;

- Establishment of a connection between tourism (a strong side of the local economy) and contemporary high-tech conceptions in the area, for example, energy-saving

resorts, new technologies for street and decorative lighting, extreme tourism, underwater archaeological tourism, innovative tourist information systems etc.

- Varna needs to find a solution to the problem of insufficient places for student internships suitable for their specialisations. This is one of the most important factors in modern higher education and its influence to the decision of students as to what city and university they will chose for their studies continues to grow. To resolve this question, a more intense level of cooperation needs to be established between universities and local companies and businesses. It is recommended that the Municipality sets an example by offering a larger number of internships to students;
- The problem with insufficient workplaces is not only a problem of internships but also a problem of temporary employment for students which assists them financially during their studies;
- The flow of external investment into Varna is insufficient. The city and the universities need to make joint efforts to attract foreign companies which can contribute to the regional “knowledge economy”;
- Higher education needs to be orientated to a greater extent towards the needs of the labour market. To this end the managers and specialists from companies based in Varna need to be included in the councils of university education programmes;
- Knowledge and technology transfer in Varna needs to be improved. A useful measure will be to combine the efforts of the universities to co-create one or more centres for technology transfer which will be well-equipped with technology and trained personnel. In addition to the primary objective (knowledge and technology transfer), these centres need also to support the entrepreneurial process (creation and organisation of companies), to disseminate good practices, to provide support services to protect intellectual property and other legal matters, to provide support to researchers and students to gain access to European and other financing;
- Varna has no so-called “creative zones” which exist in almost all of the large European cities. One such zone in Varna could be combined with the science museum or other similar institutions and be constructed in a place which offers sufficient space – most frequently old industrial buildings and workshops, purchased by the Municipalities or leased for a low rent. Everywhere these so-called “creative zones” have proven their effectiveness and positive influence upon children and students, and upon people of all ages with unusual and non-standard thinking and like experimenting in different areas of science and technology.

The "peer review" report<sup>11</sup> was sent to the members of the Coordination Council and the above-mentioned proposals made by the partners were also taken into account during the development of the Strategy.

### **3. Strategic objectives in relation to the economic development of Varna and its consolidation as an international university city**

After observing the results of the studies and analyses undertaken during the individual phases of its work, the EUniverCities Coordination Council of Varna Municipality accepted the main strategic directions and measures which need to be implemented for Varna to develop and consolidate its status as an international university city. When formulating the two main strategic aims and their expected results, the proposals made by the cities and universities from the EUniverCities network during the peer review in 2014 were also taken into account.

#### **Strategic objective 1: Development of the international identity of Varna and the Varna community**

Varna has been a student city for more than 100 years. However, it still cannot be said that the city has its own particularly vivid image which identifies itself to everyone who visits, studies here or has just heard about the city. The main reason for the lack of a clear identity is that it has not been of particular concern for the city authorities and the institutions of higher education and has not been an object of targeted actions. In order to develop and consolidate the identity of Varna as a student city with an international student community, in which the presence of students can be felt in everything and part of the life of the city, measures need to be taken which will lead to the achievement of the following three practical results:

#### **Expected result 1.1: Cooperation between Varna Municipality and the institutions of higher education is intensive and covers a wide range of matters concerned not only with education but with the problems of the city**

While working on the project the Coordination Council defined two circumstances which according to the opinion of its members show that the level of cooperation between Varna Municipality and the universities and colleges in the city needs to change. These circumstances are as follows:

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<sup>11</sup> Varna at a Crossroad towards a Knowledge-Based Economy?, EUniverCities Peer Review Report by Prof. Willem van Winden, June 2014

- In 2014 Varna Municipality made serious attempts to enhance the level of cooperation with the institutions of higher education and over a very short period time a number of practical questions of mutual interest were identified. In addition to being very promising, this fact also demonstrates the scale of opportunities which until now have been unused, as well as the mutual benefit from the municipal administration and universities and colleges working together.
- As of today, however, there are practically no joint projects between companies and institutions, and the level of practical application of the academic activities and academic projects within the territory of the Municipality and related to Municipal matters is still unsatisfactory.

The partners from the EUniverCities network also came to similar conclusions after the peer review in Varna in June 2014. In their opinion the key parties who should be the main driving force of the municipal knowledge economy have still not “built bridges” with each other and their cooperation is mainly in the area of domestic matters and issues of regional development. Such a situation is understandable since pro-active behaviour is frequently neutralised by bureaucratic and administrative barriers and the excessive level of regulatory documents. A wide range of measures may be proposed to establish effective cooperation. They may appear easily achievable “on paper” but in practice their implementation encounters many obstacles and stumbling blocks which cannot be overcome quickly. In such cases there needs to be a **period of discussions involving all stakeholders to clarify the common problems and benefits**. Such a period is taking place at the moment and then a period of planning measures and actions needs to begin. The URBACT II programme was created specifically to provide methodological and financial assistance during such periods preceding the resolution of serious problems, in which many stakeholders in the management of the city are involved.

In Varna this period has been productive and the Coordination Council has managed quite accurately to outline the interests of the individual stakeholders and the benefits which they would receive from better cooperation between the city authorities and the institutions of higher education. Students from the individual institutions of higher education were also involved. They were a key factor in this cooperation and they have the advantage that they can organise themselves without waiting for decisions and initiatives from higher levels.

In this context, the Coordination Council defined the first condition for the consolidation of Varna as an international student city as the **need for expansion of cooperation between the Municipality and the institutions of higher education and the inclusion of a wide range of matters concerned not only with education but with city problems as well**. In order to achieve this result the council outlined the following measures:

1. Enhancing the functions of an existing unit within the municipal administration (for example: the Directorate of Education, Youth Activities and Sport) **with the following objectives:**
  - Establishing connection with the institutions of higher education and scientific research institutes within the city;
  - Providing assistance to universities and institutions when resolving the problems of Varna Municipality which require special experience and expert knowledge, which the municipal specialists do not always possess;
  - Ensuring assistance from universities and institutes when drafting technical parameters for very complex and important public tenders;
  - Providing assistance when establishing contacts between commercial companies and academic institutions and supporting the implementation of high-tech and innovative projects and products.
  
2. Creation of a **public body (council) which will define and observe the strategic directions of the cooperation between Varna Municipality and the institutions of higher education** within its territory, which will have the following objectives:
  - Defining the strategic objectives of cooperation between the Municipality and the academic bodies within its territory and the specific goals for a defined planning period (preferable for the coming year);
  - Defining the strategic aims of work with students and mainly with those who are interested in entrepreneurial activity connected with innovations and high technologies;
  - Monitoring the implementation of the strategic objectives and the specific goals;
  - Assessing the progress achieved by Varna in transforming into a “city of science” and the development of the “knowledge economy” on a two-yearly basis. Preferably this objective should be implemented with the inclusion of foreign practitioners and experts in the council who will provide an “external view” of the progress achieved. These could be specially invited foreign experts but if this is problematic, then experts who are temporarily participating in other partner projects within the city could be invited on the basis of the same principle as the “peer reviews” carried out by the EUniverCities project.

In order to ensure sustainability, the function of this public body in the future will be performed by the Coordination Council of the EUniverCities project. For this purpose, after completion of the project, it will be renamed as the **Public Council monitoring the implementation of the strategy to consolidate Varna as an international student city** and, if possible, the Municipality may extend and change the composition of its members.

The latter will have the leading role in the establishment of good cooperation between the universities and colleges and the municipal administration. Working with students is of particular importance for the implementation of **Result 1.1**. Whatever bodies are created, they must include students from all the universities and colleges in the city. This approach is based on the understanding that the universities exist for the sake of the students and not the other way around, and that in order to keep talented students in the city, we need to cooperate with them long before many of them have taken a decision about their future.

**Expected result 1.2: Varna is a large student city with an attractive environment and with internationally famous universities**

To achieve this result, the Municipality needs to undertake systematic work with the universities to enhance the attractiveness of Varna and to popularise the universities in Varna. Joint efforts need to be directed at the “academic branding” of the city and the establishment of Varna’s own “academic brand”.

***“Varna – International Student City”***

The Coordination Council considers this result as decisive for the future of Varna - for the following reasons:

- Demographic problems are a fact both for Bulgaria and for Europe and universities in all the neighbouring (and not only neighbouring) cities and countries are competing for the same students;
- The second main factor, after professional interest, which defines students’ choice of where to study is the quality of life in the relevant city;
- At the present moment, the functional environment in Varna, the technical infrastructure, access to health care, public transport and conditions for working and leisure are not particularly attractive for students, academics and lecturers;
- Students who are not from Varna have problems finding apartments with good conditions, internet and television;
- Varna does not have suitable vacancies for general work which would provide temporary employment for students during their studies;
- There are insufficient specialised jobs in Varna which would provide the opportunity for professional internships for students.

Clearly the universities are not in a position to resolve these problems themselves without the support of the Municipality. The attractiveness of the city is not only of concern to the students but all its citizens and guests. In this particular case, the presence of a constantly changing contingent of temporary residents, equivalent to more than 10% of the permanent population, creates challenges for the city authorities and requires special attention. The measures which need to be taken to achieve the implementation of Result 1.2 are directed

not only towards the general improvement of the quality of life in Varna, which is a routine objective of the municipal authority, but also towards attracting more students to Varna universities.

From an economic point of view, it is significant that the amount of money students spend in the city during their studies is almost **equal to the annual municipal budget**.

The measures envisaged to enhance the attractiveness of Varna and popularising Varna's universities are as follows:

1. Improving the **signage of streets and squares and showing directions** to important administrative, cultural and archaeological sites.
2. Optimising the public transport network, in order to **create better transport connections between the universities, halls of residence and their sites**.
3. Installing public transport maps on transport stops.
4. Construction of **car parks in and around the institutions of higher education** and ensuring road safety around them.
5. **Future oriented urban territorial planning** with special attention paid to the following issues:
  - Provision of **integration of university campuses**;
  - Creation of **conditions for cycle and motorcycle transport**;
  - Construction of urban clusters with mixed communicative functions, **meeting the needs of young people**;
  - Transforming **public spaces and commercial buildings** into attractive sites;
  - Development of a project to define the urban environment (zone) as an area for active youth (student) activities.
6. Improving the **quality of accommodation used by students**. This question has two aspects:
  - Improving the residential conditions and communication systems in the halls of residence (television and internet);
  - Improving the residential conditions in the areas around the apartment blocks (car parking and landscaped areas) as differentiated recreational areas;
  - Creation of student campuses which comply with the needs and requirements of students and young people in the city of Varna;
  - Construction of new halls of residence in order to attract students who are less able to afford expensive accommodation but fill student vacancies and increase the number of students in the universities;

7. Construction of an **internal system in every university or college to inform students about events taking place in the city** in the arts and culture area, professional and academic spheres, and in politics.
8. Creation of a functioning “Student Radio” which will use the existing studio of the Varna Free University.
9. Creation of **conditions for cultural and social events for students** or which are organised by students (including foreign students) **in public places in the city**, for example:
  - The establishment of a European student festival under the conditional title “VARNA, THE SEA AND THE STUDENTS”.
  - The creation of functioning summer university camps in specific areas of interests (history, life and culture, folk art, archaeology, architecture etc.) for students from European universities.
10. Organising **cultural events** and **tourist events** by Varna Municipality **jointly with the academic community** in the city.
11. Organising a **competition between students for a slogan/phrase which describes the perception of the city in the best way**.
12. **“Bringing back” sport into universities** – providing support to the institutions of higher education by the municipal administration for the construction of sports facilities in the campuses and organising student sports competitions.
13. Organising **international student sports events** (preferably during the summer) in types of sports which are popular with students.
14. Training volunteer students to create **student volunteer groups to fight natural disasters**, etc.
15. Organising an annual competition *“Young tourism business-person”* in connection with the international day of tourism on the 27<sup>th</sup> September.
16. Improving the condition of the **architectural and historical heritage** in the city and its inclusion in the marketing policy to support and popularise the institutions of higher education in Varna.
17. Improvement of the **language skills of state and municipal officials** who come into contact with foreigners (banks, police, bus drivers, doctors). The absence of language barriers in communication is particularly important for newly-arrived foreign students who will have to learn Bulgarian and have to live in Varna for a certain period of time without knowledge of the language.
18. Increasing the **possibilities for professional internships for students in the administration** of Varna Municipality.

19. Creation of a working group with the objective of establishing connections between the Municipality, the institutes of higher education, the Employment Agency and other organisations involved in employment mediation services and **studying the possibilities** for:

- Creation of **databases for suitable employment for general work within the territory of Varna Municipality** which might offer temporary employment for students during their studies;
- Creation of **databases for specialised jobs within the territory of Varna Municipality** which might offer the possibility of professional student internships;
- Inclusion of the existing career centres and their websites within a network of information structures for young people, enabling them to acquire the skills needed to prepare application documents and establish direct contact with companies and institutions;
- Use of information of annual summer student internships in the state administration published at [www.staj.government.bg](http://www.staj.government.bg). This offers the possibility for Varna Municipality to become involved in a greater number of areas;
- Creation of student work agencies in institutions of higher education for hourly-paid work.

20. Development of an integrated **marketing policy of the Varna Municipality to assist universities and colleges** by popularising their educational programmes and training conditions, both in Bulgaria and abroad.

21. Construction of a **Varna “brand” as an international student city** (branding).

The matter of establishing and consolidating Varna’s international identity as a student city is complex and sensitive and requires an extremely professional approach. To a large extent this question corresponds with the matter of the identity of Varna as a tourist city, and this matter cannot be treated in isolation only for the student community. All measures which need to be implemented in accordance with Result 1.2 will be implemented in close cooperation with all institutions of higher education and Varna Municipality. The responsibilities will also be shared equally between the municipal administration and the management bodies of the institutions of higher education.

**Expected result 1.3: Students participate in the resolution of the professional, cultural and domestic problems of the city and in its management**

The presence of 35 000 students in Varna offers great potential. The municipality can use their creativity and abilities to resolve a variety of urban planning, technical, social and cultural problems, as well as developing pilot and conceptual projects. The inclusion of students in the resolution of the professional, cultural and domestic problems of the city and its management will help the Municipality and will re-orient higher education towards practical application. In addition, the successful selection of mixed student work groups from different universities will be a step towards a more unified system of universities in Varna.

The measures which need to be implemented in accordance with Result 1.3 are as follows:

1. Assessing the possibilities of creating a **municipal company** (or one with mixed ownership which includes municipal participation). The main objective will be to **develop solutions for municipal problems and objectives with the use of student labour**. The solutions developed will be on a conceptual level and will take into account the capabilities of the students and the fact they still do not possess professional qualifications. The company will be able to provide services which will contribute to the resolution of a given municipal problem on the condition that they do not contradict legislation. The contracting entity for such tasks may be the Municipality itself or other interested parties which are involved in the resolution of a given municipal problem. The aim of this measure is to familiarise students with the practical tasks relating to the management of a city and to learn from an early age how to undertake analyses and formulate decisions. Last but not least is the benefit from the contribution of youthful creativity and the lack of the burden of a daily routine.
2. **Assessing the opportunities to include students in the ownership and management** of the above-mentioned municipal company. This will stimulate their interest and their feeling of belonging to the city and the municipality. The second main aim of including students is connected with their accumulation of experience in the area of corporative management.
3. The public body which supports the cooperation between the municipal administration and the institutions of higher education (see measure 2 of Result 1.1) shall draft and propose an annual **package of municipal tasks** in the areas of management, urban planning, environmental conservation, energy efficiency, use of renewable energy sources, culture, education, economic and financial sector, etc., which can be **delegated to student collectives**.
4. The joint organisation by the Municipality and the universities of **regular student plein-air gatherings** (annually or biennially) with the aim of resolving problems of urban planning, such as environmental conservation or architectural and historical

heritage. To better advertise this event, a prize may be offered in some form – monetary, scholarship or other, which will further motivate the participants.

5. The creation of a **budget item in the budget of Varna Municipality to develop conceptual and pilot projects** by students to resolve municipal problems which will be financed by national and European funds.
6. The inclusion of students in the **work of the permanent commissions of the Municipal Council** as observers, and also in the public councils of the Municipality. Students involved in this way shall be given technical tasks which correspond with their specialities, such as the preparation of documents and proposals for forthcoming meetings, notification of results, communication with stakeholders, carrying out surveys (including public opinion surveys), etc.
7. The inclusion of students in the **discussion and decision-making process connected with incidental domestic, planning, transport and other matters** of concern to student life and higher education, the functioning of the institutions of higher education, etc.
8. The inclusion of students in the work of the municipal administration and municipal companies including the provision of regular internships. The students involved in this project shall be given tasks which correspond to their professional training.

Some of the measures are already being implemented by Varna's Municipality in a variety of forms which is a good precondition for the implementation of Result 1.3. However, the rich and diverse experience of other European university cities also needs to be applied. The practice of using student labour is extremely useful from many points of view and in the education systems of a number of European countries it is obligatory.

The use of student labour is one of the most important preconditions for the stimulation and development of student entrepreneurship – something which at this stage is practically non-existent in Bulgaria.

## **Strategic objective 2: Assisting the orientation of the local economy towards a “knowledge economy” as the main economic priority of Varna Municipality**

The vision adopted in the Municipal Development Plan (MDP) for the period 2014-2020 states: ***Varna – a European municipality with sustainable development and an attractive environment for life, well-preserved cultural and historical heritage and prospering spiritual, maritime, cultural, academic, transport and tourist centre.*** The first objective of Priority Area 1 of the MDP “Economic Growth” places emphasis upon entrepreneurship, science and innovations: *Achieving intelligent economic growth by means of providing a favourable environment for entrepreneurship, increasing the quality of education and scientific research, in accordance with the requirements of the economy, introduction of innovations and encouragement of investments.*

In this context, the Coordination council of Varna Municipality, assisting the implementation of the EUniverCities project, sees cooperation between the municipal administration and universities in the city not only as an aim in itself but as a powerful tool in achieving the second strategic objective of this Strategy: ***Formation of a local economic policy aimed at re-directing the current low profit and low profile economy towards a “knowledge economy”.*** Although this strategic aim is the most important, it is presented as number 2, since to a great extent it is a result of the consolidation of Varna as an international student city. Thus its successful implementation follows chronologically after the implementation of the measures set out above and depends upon them.

The main arguments of the Coordination Council to re-direct the municipal economy towards a knowledge economy and making it a global strategic objective are as follows:

- The economy of Varna Municipality at the moment is focused primarily on the service sector and low profit and low qualified activities and production processes. The municipal economic priorities need to be reconsidered and the profitability of the local economy needs to be increased;
- The motivation of students and their professional skills directly affect the business of their future employers. The main problem for students after graduation, however, is that their knowledge and skills frequently do not match with the needs of the labour market;
- There are practically no examples of students or young people in general creating new small companies (so-called “start-ups”) oriented towards production and high-tech activities;

- The flow of investments towards Varna Municipality is very weak and there are no specially created conditions or municipal policy oriented towards the development of high-tech activities;
- There is no policy directed towards keeping highly qualified young people in the city, with the purpose of improving the economic and demographic conditions of the city and the region. As a result a large number of young people, including graduates with a good degree, leave Varna.

In this context, the re-orientation of the economy of Varna from its current unenviable conditions towards a “knowledge economy” cannot be achieved without cooperation with the institutions of higher education and scientific institutes in the city. For the purposes of this “re-orientation”, a number of measures will be undertaken and achieved which will lead to the following four results:

**Expected result 2.1:                    Establishing conditions and motivation for the development of high-tech activities within the territory of Varna Municipality**

1. **Publishing investment opportunities on the website of Varna Municipality**, including the designation of plots set aside for the development of scientific activity and high-tech production processes.
2. Attribution of the **following responsibilities** to the administrative unit set up to liaise between the Varna Municipality and the institutions of higher education (see. Measure 1 of Strategic Objective No. 1) and the presentation of an **annual implementation report to the Municipal Mayor**:
  - To **define the priority scientific areas** which are key to the resolution of complex high-tech problems and objectives of Varna Municipality (for example: managing air quality, water conservation, energy efficiency, the use of renewable energy sources, waste management, transport control, etc.);
  - To **monitor the development and appearance of new scientific products with commercial value** created by companies, scientific or educational institutions within the territory of Varna Municipality;
  - To gather **information about the number and value of contracts for research services** from the institutions of higher education and technology companies, performed for external contractors, as well as the **number and value of EU programme projects** won by them in connection with priority scientific areas for the Varna Municipality.

3. Formation of a **budget line in the budget of Varna Municipality designated to assist high-technology products and items** connected with the maritime industry and/or the construction of innovative systems which will provide service to the city (for example monitoring the condition of the environment, traffic, car parks, waste management, use of renewable energy sources, early crisis warning, etc.)
4. Announcing an **annual competition run by the Varna Municipality to assist in the development of innovative products on the principle of a prize fund**, using funds from the special budget line (see. Measure 3). The Municipality will help innovative products produced by companies registered within its territory, with the exception of those commissioned by the municipality itself.

Varna Municipality undertakes to support the creation and development of a research and creative environment which is important for the municipal economy. However, the support will be a joint priority of all the institutions of further education in the city.

#### **Expected result 2.2: Integrating science in the public life of Varna**

The city of Varna needs to look for the possibility of creating a youth innovation centre (for example – a science museum), in which young people can obtain information in an entertaining way about the development and achievements of the different sciences and to acquire the habit and desire to become involved in scientific activities from an early age. There is no real presence of the numerous institutions of higher education and scientific institutes in the city, and hardly any mention is made of the high-tech companies.

At the same time a large number of university lecturers, scientists and students live here and their presence is a real fact. However, the professions of these people barely affect the atmosphere in the city.

It is impossible to develop a knowledge economy or high-tech production processes without a healthy relationship between community and science, and Varna cannot achieve the status of a large international university city with its own image and identity without such connections. Therefore, the Coordination Council shall work to formulate expected Result 2.2 to foster the establishment of this connection.

The following measures have been envisaged to contribute to the aim of connecting scientific activity with the community life in Varna:

1. Creation of conditions to develop the interest of school pupils and students in science by creating **an urban science centre** which will fulfil the role of a science museum. At the same time this will be a “creative zone” in which elementary experiments will be carried out to “verify” basic scientific hypotheses. In addition serious lectures involving specialists will be held.

2. Designating a **building** in which the urban science centre (combined with the city science museum) will be located. Suitable buildings are derelict industrial premises or harbour facilities, or an old station building which can be renovated to provide a specific atmosphere for this purpose. The urban science centre can be structured in accordance with interests, clubs, laboratories, workshops, academies, etc. to involve students, school pupils and specialists. It might bear the corresponding title “URBAN ACADEMY” for example and students will be able to study, examine and resolve complex issues relating to the development and management of the city.
  
3. Improvement of knowledge and technology exchange by creating **technology transfer centres (TTC) in the institutions of higher education**. Such centres have been set up in many large European universities and they have the following purpose:
  - Transfer of knowledge and technology created by and involving the relevant institution of further education to enterprises and companies;
  - Assisting entrepreneurship, particularly amongst students;
  - Establishing contacts between scientists and people who are interested in high technologies;
  - The dissemination of good practice in the creation and management of high technology companies;
  - Supporting activities, for example consultations about the creation of new companies, mainly by students, relating to issues of intellectual property and other legal matters;
  - Providing support to researchers who want to gain access to European Union research finance.

This measure is recommended and its implementation depends entirely on the desire of each individual university or college. Varna Municipality will do all it can to provide encouragement but it cannot insist on its implementation.

4. The creation of an **Eastern European scientific research centre** with the possible title “*Education, Science and Business*”. This will be aimed at combining the efforts of Varna and foreign researchers and students, as well as to gain maximum benefit from scientific activities in the city. A similar centre may also be established in combination with or at least within the “URBAN ACADEMY” building (see measures 1 and 2 above).
  
5. The public council which monitors the implementation of the Strategy for Establishing Varna as an International Student City (created in accordance with point 2 of Expected Result 1.1) **will discuss every two years the possibilities of attracting investments, including foreign investments**, which may contribute to the

development of the “knowledge economy” and will make recommendations to the municipal authorities.

6. Organisation of the public spaces in Varna in a way compatible with the status of an international student city with designations of distances and directions to the institutions of higher education in the same way in which this is done for museums and sites of cultural and historical heritage.

Varna has long been associated with science, however, the implementation of the above-mentioned measures will not only enhance this connection but will give it greater visibility and emphasise it as part of the specific Varna urban landscape. In other words, science will become an element of the “academic brand” of Varna.

**Expected result 2.3:                    Creation of incentives for the development of student entrepreneurship and the development of innovative products by students**

World practice shows that the most significant achievements in the high-tech sector and innovative businesses are achieved by people who began their involvement with entrepreneurial activities as students. A very clear example of this are the companies created in the legendary Silicon Valley close to Stanford University in the USA. In Varna student entrepreneurship is very rare and the main reason for this lies in the lack of a creative and entrepreneurial atmosphere, both in the institutions of higher education and outside them. In order to create an atmosphere which will stimulate student entrepreneurship, the following measures will be taken:

1. **Assisting student entrepreneurship** with funds from the specially established budget line in the municipal budget aimed at assisting high tech products and items (see Result 1.3) in the following ways:
  - a. Since students are not aware of the possibilities for travelling abroad, for using funds from operative programmes from European funds or the municipal budget, information days will be organised. They will be accessible by all students and devoted to questions relating to the organisation of own businesses. The information days will be organised and held by the Municipality and the institutions of higher education with the involvement of experienced entrepreneurs, and the students will receive credits for participating in them;
  - b. Small grants and loans will be provided by the Municipality to assist the new small businesses created by students (so-called “start-ups”) relating to innovative production processes and high-tech oriented activities;

- c. This assistance will be provided jointly by Varna Municipality and the relevant institution of higher education where the students who set up the company study;
  - d. Provision of assistance to business ideas will be competitive in nature and the decision to provide municipal assistance will be based on open competitions in which all students and lecturers can participate;
  - e. The competitions will be held in the framework of other public student events and festivals thus benefiting from the relevant atmosphere and providing the necessary publicity.
2. Funds from the newly created municipal budget line will be used to fund an annual project for students and researchers from different areas to **develop one large project with clear significance for the city**. The aim is for this project to be emblematic<sup>12</sup> and form a potentially new “brand” for Varna.
  3. The development of similar large projects shall **connect modern high-tech concepts with tourism** and will thus be a clear contribution to the economy of Varna (for example energy efficient resorts, innovative technologies for street and advertising lighting, eco-tourism, ethno-tourism, golf tourism and other alternative types of tourism).
  4. **Improvement of the use of the High-tech business incubator in Varna** in the following way:
    - a. Provision of information within the institutions of higher education and on the website of Varna Municipality displaying concessionary conditions for students and lecturers for availability of office space in the Incubator to experiment with new ideas and concepts;
    - b. Establishment of links between the Incubator and successful Varna entrepreneurs and their use as advisors and potential investors in student products and items;
    - c. Intensification of links between the Incubator and the institutions of higher education and scientific institutes in the city.
  5. **Greater orientation of higher education towards the real needs of the labour market**, for which purpose the institutions of higher education shall involve specialists from the leading companies in Varna in the design of their curricula.

Entrepreneurship and student entrepreneurship in particular is sensitive to the environment in which it is undertaken. The presence of unfavourable elements (classical examples are corruption, unfavourable pressure by the state authorities, lack of justice) stifle the entrepreneurial spirit and investment intentions in the bud. The lack of specialised knowledge of company management and incentives for creative behaviour in the institutions

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<sup>12</sup> Such projects could be: „*The development of a concept for high-tech, low-carbon floating hotel*” or „*Battery installation for street lighting for the needs of the city based on renewable energy sources*”.

of higher education (particularly in the technical institutes) is the other factor which has the same inhibiting effect on student entrepreneurship. For this reason, the responsibility for the creation of incentives for the development of student entrepreneurship and the development of innovative and high-tech products by students shall be shared equally between the management bodies of the institutions of higher education and the municipal administration.

**Expected result 2.4:                   Creation of preconditions to keep talented students in the city after the completion of their higher education**

The knowledge economy is created by highly educated, talented and predominantly young people. The municipality may create a favourable environment but the drain of young talent makes the development of the knowledge economy and a competitive conventional economy impossible. For this reason, one of the main priorities of Varna Municipality is to create good conditions to keep at least some of the talented students in the city after their graduation.

To a large extent, the same factors which favour the influx of students and lecturers to Varna, create an atmosphere to keep the young people in the city after they complete their studies. In order to create preconditions for them to remain in the city, the following measures need to be undertaken:

1. Improving the quality of the public spaces and the overall attractiveness of Varna. In this context, the implementation of the measures set out above to achieve **Result 1.2** is very important:
  - a. Construction of urban clusters with mixed communicative functions to meet the needs of young people;
  - b. Transforming public spaces and commercial buildings into attractive sites;
  - c. Improving the condition of the **architectural and historical heritage**;
  - d. Development of **restaurants, entertainment and cultural institutions and events** in the city.
2. Commissioning the administrative unit of Varna Municipality responsible for liaison with institutions of higher education to review the possibility of creating an **on-line system** based on relational databases (or other suitable principle) which will fulfil the following tasks: 1) identification of talented and successful students, 2) provision of publicity for their achievements and results, and 3) providing opportunities to companies, state and non-governmental organisations to monitor their development and establish connections with them. This system may contain the following elements and technical possibilities:

- a. **Database of high-achieving students from all institutions of higher education in Varna.** Students can be included in the database on the basis of the following criteria:
    - High grades;
    - Awards from competitions;
    - Participation in plein-air and conferences;
    - Creators of innovative items, products and developments;
    - Company founders;
    - They possess other types of professional skills and talents;
  - b. The database of high-achieving students may also include **interviews with the students themselves** in which they are asked to nominate their colleagues who possess certain abilities and demonstrate a greater interest in their future profession than other students;
  - c. The database of high-achieving students will be **accessible for public use through the Varna Municipality website**;
  - d. **The institutions of higher education will be able to update this database with information about their own high-achieving students** and to provide a link to it from their own sites.
  - e. The database of high-achieving students shall include a section with the **specialisations required within economic organisations** operating within the territory of Varna, indicating the areas in which the new specialists shall possess knowledge and skills;
  - f. Companies, institutions, state and non-governmental organisations shall be able to **register their requirements** within this database;
  - g. The possibility needs to be explored of **commissioning students to develop** the on-line system, following the example of other software programmes for public needs in Varna developed also by school pupils and students.
3. The administrative unit responsible for liaison between Varna Municipality and the institutions of higher education shall send information in a suitable manner and on a regular basis to the high-achieving students about forthcoming events which concern them, as well as existing problems and forthcoming plans and projects of the municipality in which they might participate.
  4. The public council responsible for monitoring the implementation of the Strategy (established in accordance with measure 2 of Result 1.1) shall on an annual basis conduct meetings with the high-achieving students whose information figures are in the database, assess their requirements and clarify the factors which would influence their decision to remain in the city after the completion of their education.

5. Students who have participated in the **development of large projects in Varna** financed by the Municipality (see measures related to Result 1.3) shall be included in the work of the permanent commissions of the Municipal Council or municipal administration. In this way they will remain involved in municipal plans, thus leading to their natural involvement and employment within the Municipality after graduation from their higher education.
6. In the future, the responsibility for the maintenance of the database of high-achieving students and the requirements of the business sector for young specialists and specialities may be taken over from the municipality by a municipal company such as Experienenet ([www.experienenet.com](http://www.experienenet.com)), Demola ([www.demola.net](http://www.demola.net)) Yes!Delft ([www.yesdelft.nl](http://www.yesdelft.nl)), using the web databases to connect future professionals with companies who would like to use their services.

Capable and talented young people are the most valuable capital of every city and community. Attracting them to Varna and then keeping them here is a complex task which requires patience and professionalism. Success does not come to any European city by chance and thus the administrative unit responsible for liaison between Varna Municipality and the institutions of higher education should appoint specialists in psychology and human resources. It is important that the work of this unit is reported in the same way as the Municipal Development Plan is reported, on an annual basis for example, since the appointment and maintenance of human capital is just as important as all the other objectives of the Municipality taken together.

#### 4. Possibilities for providing finance for the implementation of the Strategy

There are a wide range of potential sources of finance for the implementation of this Strategy (the following list is not exhaustive):

- 1) Varna Municipality budget;
- 2) State Budget of the Republic of Bulgaria;
- 3) Operative programmes;
- 4) European programmes (other than operative);
- 5) Private capital;
- 6) Private-public partnerships.

The question of orientation towards specific sources of finance is to a large extent technical and depends on the priorities of the potential sponsor at a given moment, the convenience of operating with certain funds, as well as the preferences of Varna Municipality.

#### 5. Observation (monitoring), assessment and control of the implementation of the Strategy. Assessment criteria

The structure which will be responsible for monitoring the implementation of the Strategy was proposed in measure 2 of Result 1.1:

1. Creation of a public body **which will define and observe the strategic directions of cooperation between Varna Municipality and the institutions of higher education** within its territory, which will have the following objectives:
  - Defining the strategic objectives of cooperation between the Municipality and the academic bodies within its territory and the specific goals for a defined planning period (possibly for the coming year);
  - Defining the strategic aims of work with students and mainly with those who are interested in entrepreneurial activity connected with innovations and high technologies;
  - Monitoring the implementation of the strategic objectives and the specific goals;

In order to ensure sustainability, the function of this public body in the future will be performed by the Coordination Council of the EUniverCities project. For this purpose, after completion of the project, it will be renamed as the **Public Council Monitoring the Implementation of the Strategy to Consolidate Varna as an International Student City** and, if possible, the Municipality may extend and change its composition.

2. **Two-yearly assessments of the progress achieved by Varna in transforming into a “city of science” and the development of the “knowledge economy”.** This activity shall be undertaken by the *Public Council responsible for implementing the Strategy* (created in accordance with Measure 2 of Expected 1.1). It is recommended that it be fulfilled by attracting foreign practitioners and experts to the council who will ensure an “external view” of the progress achieved. These could be specially invited foreign experts, but if this is problematic, then experts who are visiting the city temporarily to participate in other partner projects with the Varna Municipality, could be invited on the basis of the same principle as the “peer reviews” carried out by the EUniverCities project.

The system used to assess the implementation of the strategy should be simplified and not contain more than 5-6 assessment criteria. These could be:

- 1) The number of students studying in Varna;
- 2) The number of foreign students;
- 3) The number of students involved in the management of the city in any form;
- 4) The number of student events taking place in the city (scientific, sport, cultural, rescue, etc.);
- 5) The number of students who remain in Varna after the completion of their higher education;
- 6) The number of companies created by students (“start-ups”);
- 7) Other criteria.

One or more indicators for each expected result could be defined but this would complicate the monitoring process (as well as its cost) and would hardly be absolutely necessary, taking into account that monitoring of the Municipal Development Programme of Varna Municipality 2014-2020 is carried out on an annual basis.

The administrative unit responsible for the liaison between Varna Municipality and the institutions of higher education shall prepare an **annual report presented to the Mayor of the Municipality** to implement the present *Strategy for Cooperation with the Institutions of Higher Education and Consolidation of Varna as an International student city*.

