CITY OF KNOWLEDGE

Economic profile and trajectory of development | 2020





































VARNA CITY OF KNOWLEDGE



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KEY INDICATORS FOR VARNA

Varna is the largest economic center in Northern Bulgaria with total production for 2018 grossing over BGN 10 billion and 215,000 people employed in the whole region in the year of 2019. The "martime capital" of Bulgaria has high-qualitaty educational infrastructure, traditionally attracts talent and has managed to successfully reorient its economy towards higher added value, building upon digital skills and development activities in ship manufacturing, informatics and medicine.

VARNA - CITY OF KNOWLEDGE



HPOPULATION IN THE MUNICIPALITY OF VARNA

(number of people in the Municipality of Varna in 2019)

470,000

POPULATION IN THE DISTRICT OF VARNA

(number of people in the District of Varna in 2019)



FOREIGN TOURISTS

(number of foreign tourists in the Municipality of Varna, 2019)



BGN 15,479

GDP PER CAPITA

(data for the District of Varna, 2018)



BGN 10,5 billion

PRODUCTION VALUE OF NON-FINANCIAL ENTERPRISES

(data for the District of Varna, 2018)



BGN 1,7 billion

CUMULATIVE FDI

(data for the District of Varna, 2018)



6300

STUDENTS IN THE 12 LOCAL TRADE SCHOOLS

(data for the Municipality of Varna, 2019)



30,950

STUDENTS IN LOCAL SCHOOLS AND THE 7 SPECIALIZED HIGH SCHOOLS

(data for the Municipality of Varna, 2019)



30%

OF THE LABOR FOURCE WITH HIGHER EDUCATION

(data for the District of Varna, 2018)



29,764

STUDENTS IN THE 6 LOCAL HIGHER EDUCATION INSTITUTIONS

(data for the Municipality of Varna, 2019)



70%

EMPLOYMENT RATE

(data for the District of Varna, 2018)



215,000 EMPLOYED PEOPLE

15-64 YEARS

(data for the District

of Varna, 2018)

2,8%

UNEMPLOYMENT RATE

(data for the Municipality of Varna, 2019)



BGN 1128

AVERAGE MONTHLY WAGE

(estimation for the Municipality of Varna, 2019)



>10%

WAGE GROWTH

(data for the Municipality of Varna, 2018-2019)

THE DYNAMIC ECONOMY OF VARNA



BGN 10,5
billion
District of Varna

BGN 7,9
billion
Municipality of

Varna

Varna is the largest economic center in Northern Bulgaria with total production value for 2018 exceeding BGN 10 billion. The district is strongly dominated by the diverse economy of the city of Varna and supported by the industry in Varna's outskirts. The cumulative production value of enterprises within the municipality of Varna amounts to BGN 7.9 billion. Devnya municipality, where large industrial plants are located, amounts to around BGN 1.3 billion. The wider Varna Economic Center includes almost all municipalities in the district and has a total population of over 450 thousand people.

There are three main factors which drive the potential of the local economy. The maritime capital is a hotspot for tourism, especially in the summer months, as at least 820 thousand foreigners visit the municipality of Varna yearly, spending over BGN 1 billion during their stay. The strong education sector of Varna and the permanent influx of young talent is probably the most important advantage of the city. Varna is home to over 30 000 students, spread across 6 universities, with the education sector amounting to BGN 450 million per year. The intertwinement of science and business is the third key factor that shapes the potential of the city. In the fields of medicine, information technology, transport and shipping, investment and local business meet growing interest among young professionals and international students towards the city.



The summer capital

Number of foreign tourists in the Municipality of Varna and income in the local economy

820 thousand foreign tourists

(2019)

> BGN 1 billion

in the local economy

City of knowledge

Number of students in the 6 universities in the municipality of Varna and the size of the "higher" economy

30 thousand students

(2019)

> BGN 450 billion

in the local economy

Science, innovation and business

Sectors with high potential, investments in science and increasing interest in their respective fields in higher education

- **✓ Medicine and healthcare**
- **⊘** Informatics and computer science
- **Transport and shipping**



Bulgarian Districts	GDP per capita (BGN, 2018)	Growth in the past two years (2016-2018)
Varna	15,479	+19%
Plovdiv	13,141	+17%
Ruse	12,585	+12%
Bourgas	11,769	+9%
Stara Zagora	17,237	+5%



Varna couples a strong economy with some clearly positive developments during recent years. The gross domestic product (GDP) per capita in Varna district reached over BGN 15,000 in 2018, performing better than other major economic centers such as Plovdiv, Bourgas and Ruse. During the last two years, GDP per capita growth in Varna has reached close to 20%, as in this indicator the district is ahead of all other major economic centers in the country. This development has also been reaffirmed by the fact that in 2019 the Varna administrative district achieved record employment rates - nearly 70% in the 15-64 years old age group.

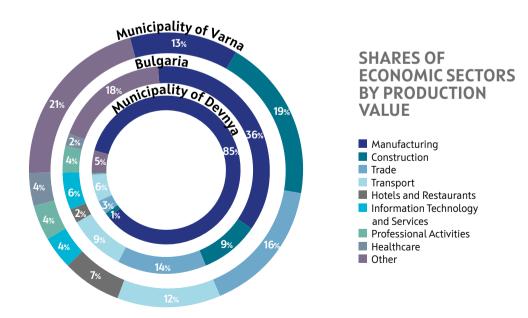
OVERTAKING GROWTH IN THE LAST TWO YEARS

(2016-2018)

LEADING ECONOMIC SECTORS

The economy of Varna is extremely diverse. The seashore which attracts hundreds of thousands of tourists also to a large extent also shapes the industrial production and transport profile of the local economy. The production of industrial enterprises in the municipality of Varna grosses BGN 1 billion, with more than BGN 220 million of it in shipbuilding. At least 100 companies, including the largest and best equipped shipyard in the country, construct, repair and perform maintenance of vessels while employing nearly 3,700 people. In total, Varna's manufacturing industry employs over 14,000 people.







On the outskirts of Varna there are several highly industrialized municipalities. The total value industrial production in Devnya and Aksakovo reaches over BGN 1.5 billion, and the largest enterprises in the field of chemicals in the country are located here. The latter provide high-paying jobs to a large pool of skilled specialists and workers. The port of Varna-West is the most modern and promising port on the northern Bulgarian Black Sea coast and is located in close proximity to the chemical plants in Devnya.

Overall production value in transportation grosses over BGN 900 million, and the sector employs over 8,500 people as of 2018. The Port of Varna and Varna Airport are the sector's largest employers, with around 1,500 and 1,200 employees, respectively. The majority of the revenue generated in transportation stems from sea cargo, Varna being home to the largest shipping company in Bulgaria, and the few large companies in road cargo. The transportation sector in Varna has proven to be stable over the years, and the value added per employee is among the highest in the local economy - over BGN 36,000 per employee.

THE LARGEST EMPLOYERS IN TRANSPORT:





Construction and trade gross a production value of BGN 2.8 billion and account for over 1/3 of the economy of Varna. Both sectors are further strengthened by the influx of young talent and strong sea tourism in Varna. In recent years, Varna has experienced a boom in construction, with production value increasing by about 60% over the timespan of just two years (2016-2018). This positive trend is driven by the upward trending real estate market, as well as the completion of Vasil Levski Blvd., often seen as the most significant road construction project in Varna carried out in recent decades.

The development of the business services sector in Varna is mostly propelled by information technologies and services. This is the fastest growing sector in the maritime capital - within the timespan of three years (2015-2018) the revenue of tech companies has almost doubled, creating 600 new jobs. A further 400 jobs have been added in the financial sector, which, along with information technology, are by a large margin in the best position to offer the highest salaries in the city, as their added value reaches over BGN 55,000 per employee.

Company indicators in the Municipality of Varne (select industries, 2018)	Production value (million BGN)	Share of the total economy (%)	Number of people employed *	Value added by person employed
Total nonfinancial economy	7,883	100%	107,593	29,480
Manufacturing	989	12.6%	14,213	23,400
Incl. Shipbuilding	220	2.8%	3,629	30,280
Construction	1,517	19.2%	12,314	28,760
Trade	1,259	16.0%	26,346	24,300
Transportation	937	11.9%	8,531	36,400
Hotels and restaurants	566	7.2%	12,914	19,950
ICT	288	3.7%	3,622	53,000
Incl. Information technology and services	258	3.3%	3,148	55,940
Healthcare	322	4.1%	6,478	27,500

^{*} Data on employed perosns in nonfinancial companies - does not include some public sector employees, including government, edciation as well as those employed in finance



Varna is already claiming the position of a leading point of entry for technology companies and expectations are that solid growth will continue in the following years. Good connectivity, also due to the expansion of Varna Airport and the completion of the Hemus Highway, as well as high quality educational infrastructure, skilled labor force and the influx of young talent, coupled with good living conditions, are the factors that shape these processes to the largest extent. In 2019 two large and strategically significant investments helped confirming growing interest in Varna - Coca-Cola opening a financial services center being one, the other being Belgian banking group KBC opening their new shared services center in Varna.

The healthcare sector in Varna also stands out. A total of 8,700 people are employed in healthcare, and in the last three years (2015-2018) 450 new jobs have been created. Two hospitals are among the top 10 non-financial enterprises in Varna in terms of number of employees. The St. Marina General University Hospital for Active Treatment is the largest employer in Varna with over 2,000 employees, and Sveta Anna General Hospital for Active Treatment employs more than 1,000 professionals. The Medical University "Prof. Dr. Paraskev Stoyanov" is the most rapidly developing higher education institution in Varna and is invariably among the top 3 universities nationwide in the fields of medicine, dentistry and healthcare.





TOP COMPANIES IN VARNA

Many large enterprises operate in the District of Varna in different sectors, the largest of which in trade. It is by intention that only the leading companies in manufacturing and services, including construction and transport, are represented.

Companies in the District of Varna /manufacturing and services/ (2018 data)	Total revenue (thousand BGN)	Number of people employed	Location	Field
SOLVEY SODY AD	475,222	485	Devnya	Manufacture of other basic inorganic chemicals
AGROPOLYHIM AD	416,222	717	Devnya	Manufacture of nitrogen compounds and fertilizers
ELEKTRORAZPREDELENIE SEVER-AD	290,942	1,680	Varna	Electricity distribution
PLASTHIM-T AD	284,313	1,098	Akcako- βo	Manufacture of plastic packaging
HIDROSTROY AD	265,339	561	Varna	Construction of motorways, roads and airfields
FRAPORT TWIN STAR AIRPORT MANAGEMENT AD	145,283	1,228	Varna	Ancillary activities in air transport
DEVNYA CEMENT AD	140,901	236	Devnya	Cement production
SHIPPING BULGARIAN SEA FLEET AD	130,996	384	Varna	Freight sea and coastal transport
DISCORDIA AD	128,094	780	Varna	Freight road transport
UNIVERSITY MULTIPROFILE HOSPITAL FOR ACTIVE TREATMENT "SVETA MARINA" EAD	114,264	2,017	Varna	Дейност на болници
INZHSTROYINZHINERING EOOD	92,152	392	Varna	Construction of motorways, roads and airfields
PLANEX EOOD	84,970	597	Varna	Construction of residential and non-residential buildings
INFRA EXPERT AD	79,597	196	Varna	Construction of motorways, roads and airfields
PORT OF VARNA EAD	71,321	1,493	Varna	Cargo handling

SCIENCE AND BUSINESS IN THE SEA CAPITAL









Varna has unique characteristics that allow for the intertwinement of scientific potential and professional talent with entrepreneurship. 13,000 students in humanities and social sciences, especially focused on economics and governance, support the colorful profile of the local economy and fuel the entrepreneurial and business spirit of the maritime capital. The oldest economics university in Bulgaria - the University of Economics Varna - carries this tradition into the 21st century.

Despite the increasing transition of young people from the humanities to STEM in recent years, the large number of students in humanitarian studies remains one of the strengths of Varna. Some of the most significant investments in the maritime capital from the last years in the field of business services have been unlocked with the help of the large number of students and the high-quality education at UE-Varna. In essence, the wide array of humanitarian fields of study educate the workforce appropriately for the new shared and financial services.



The 15,000 students in STEM shape the specific economic profile of Varna, with the greatest potential arising in medicine, information technology, transport and shipping. All those areas report steadily growing interest in the last 5 years. Good universities are well-positioned to attract and retain academic personnel, who can in turn count on growing investment in infrastructure and equipment. This is a prerequisite both for enhancing scientific research and for transferring the accumulated knowledge into the business world by creating new ventures.

The promotion of innovative startups is a natural way to propel future expansion of knowledge-intensive business activities. The structure of the economy in Varna and especially the profiles of industry-leading companies is favorable and allows for bilateral partnerships to form for scientific research with higher education institutions in the respective areas. Additional impetus will be given by the development of a "Quarter of innovation"- a partnership project with the participation of all universities and research entities in the city.





15,000 students IN APPLIED AND TECHNICAL FIELDS

HEALTHCARE



5,300 students IN THE MEDICAL UNIVERSITY OF VARNA

In recent years' healthcare has established itself as one of the leading sectors in the economy of Varna, feeding off of a symbiotic relationship between science and business. The Medical University of Varna trains 5,300 students, of which 1,500 foreign were foreign students as of 2019. The regional placement of these workers is above 50%, which helps illustrate the strong integration between higher education and the healthcare sector in Varna. MU-Varna is becoming the leading university in the maritime capital, and also has the largest budget - over BGN 70 million for 2019. The capital expenditures of MU-Varna are nearly BGN 19 million worth of investments in the material base and modernization of equipment for various laboratories.

A modern center for robotic surgery

These laboratories include a biochemistry lab with a focus on nutrition science, a 3D technology laboratory in dental medicine, as well as various pharmacy laboratories. Medical students benefit from the clinical base of UMHAT "St. Marina", including the laboratory of virology, microbiology and medical genetics. In 2019, a modern center for robotic surgery was built. UMHAT "St. Marina" is the largest diagnostic-treatment and consultative university hospital complex in Northeastern Bulgaria with over 1,300 beds, taking care of patients from all over the country with its state-of-theart equipment and highly qualified staff.



INFORMATION TECHNOLOGY AND COMPUTER SCIENCES



Information and communication technologies (ICT) are the most dynamic sector in the economy of Varna. Nearly 3,200 people are employed directly in information technology and services, and their number is constantly growing - with about 300 people joining the sector in 2018 alone. The average monthly salary in the sector is over 2,000 BGN, which is almost twice the average for the maritime capital. Contributing to this are the suitable conditions in Varna, attracting talent and entrepreneurship alike. Good connectivity, young people, quality education and dynamic social life, reinforced by lower operating costs compared to other digital hubs in the region reduce the barrier to entry of companies with a suitable profile, thus setting the groundwork for sustainable long-term development.

In 2020, the Financial Times included Varna in the top 10 small European regions of the future on the basis of cost efficiency. The ranking reiterates the fact that despite strong wage growth in the digital sector, Varna remains one of the most attractive near-shoring destinations for technology companies. This is confirmed by the annual report of the Bulgarian Outsourcing Association for 2019, which points to Varna and Plovdiv as the fastest growing cities in the digital sector nationally besides the capital Sofia.

3,200 people employed
IN INFORMATION TECHNOLOGY AND SERVICES

Varna is among the fastest growing cities in terms of ICTs





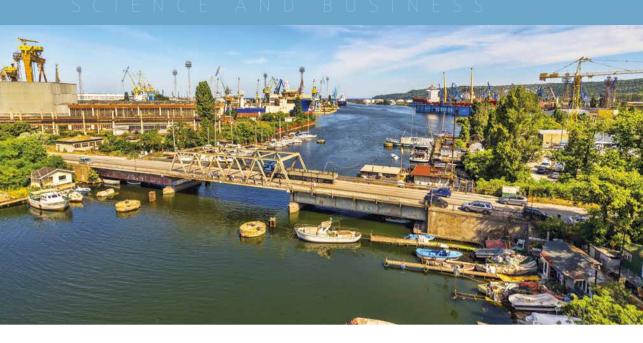
The higher education institutions in Varna are taking new trends into account and increasingly turn towards information technologies. A total of five universities in Varna offer degrees in informatics and computer sciences. Over 2,500 students in Varna pursue studies in this field, marking an increase by about 750 students during the last five years. The leading institution in this regard is the Technical University Varna with nearly 1,700 students in the field of communications and computer technology. The regional placement there is over 40%, which means that almost half of the attracted students pursue a career within the local economy. TU-Varna also opened its own high school for computer science, which also confirms the trend towards enhancing education in digital technology by transferring the same educational concepts from higher education to secondary education.

2,500 students

FIVE UNIVERSITIES
HAVE MAJORS
FOCUSED ON
INFORMATION
TECHNOLOGY



COMPUTER SCIENCE



TRANSPORT AND SHIPPING

Shipbuilding and maritime transport are among the natural strengths of Varna, with an extensive history in development and accumulation of investment and know-how. The potential provided by the Port of Varna, including planned new investments, the multitude shipbuilding companies, including the largest and best equipped shipyard countrywide, as well as the routing of maritime freight transport and the presence of the largest shipping company in Bulgaria, taken together make for excellent prospects for the development of the maritime capital.

Over 3,600 students, about 560 foreigners among them, receive expert training in transport and shipping at the Higher Naval School and the Technical University of Varna. Nearly 2,700 of them are in HNS Varna, this number having grown by nearly 600 people in the last 5 years.

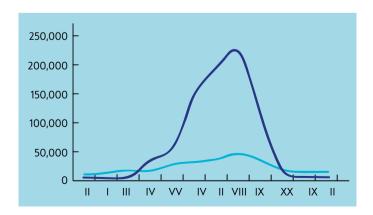
These traditions are complemented by the Varna Naval High School, a maritime high school already offering dual training for ship technicians and fitters.

The Center for Hydro- and Aerodynamics is also key to the shipping ecosystem, as it hosts an experimental complex for marine research, transfer of technology and innovation. CHA-Varna has a serious global presence, as it serves organizations and companies from 25 countries. The Institute of Oceanology at The Bulgarian Academy of Sciences is also located in Varna and is developing a research laboratory complex, including a laboratory for underwater technologies, a laboratory for ship structures and equipment diagnostics, marine chemical laboratory and laboratory for marine medicine.



SEA TOURISM

Summer tourism is key for the economy of Varna. Golden Sands, one of the three major Bulgarian maritime resorts, is close to the city and part of Varna municipality. The hotel and restaurant sector encompasses over 7% of the local economy and provides employment to about 13 thousand people. In 2019, the total number of tourists in Varna was over 1.1 million people - an increase of 33% for the period 2015-2019. Of these, 820 thousand were foreigners and 300 thousand were Bulgarian citizens. Nearly 90% of foreign tourists visit Varna in May-September period.





Foreign tourists – number of tourists per month (2019)
Bulgarian tourists – number of tourists per month (2019)

НАУКА И БИЗНЕ (



The total revenues from overnight stays amount to BGN 300 million, and the revenues from foreigners are BGN 260 million. Official estimates for tourism show that the cost of overnight stays is about ¼ of all costs of foreign tourists. Expenditure on food and drink, transport and cultural events are other major items. In total, foreign tourists contribute to revenues of over BGN 1 billion per year in the economy of the municipality.

Traffic data from Varna Airport allow us to trace the dynamics of passengers, as well as the countries from which most tourists arrive in the summer months. Nearly 2.1 million passengers passed through Varna Airport in 2019, and 1.6 million in the May-September period. In the strongest months- July and August, over 400 thousand passengers passed through Varna Air-

port per month. Good management of the airport in recent years is a factor that supports the development of Varna.

In 2019, most flights to and from Varna were made by German citizens - 534 thousand passengers throughout the year. In second place are Bulgarian citizens - 260 thousand passengers per year. The latter also reflects the constant traffic between Varna and Sofia. They were followed by British citizens - 191 thousand passengers, Polish citizens - 171 thousand passengers, Russian citizens - 165 thousand passengers and Austrian citizens - 124 thousand passengers. The top 10 is complemented by citizens of Israel, Turkey, the Czech Republic and France.

HUMAN CAPITAL

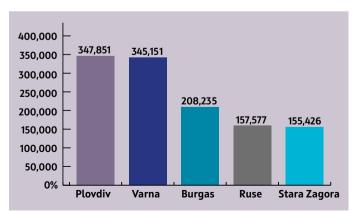




Varna is the third largest municipality in Bulgaria with a population of 345 thousand people, and 470 thousand people live within the district. If we take into account the incoming tourists in the summer, Varna is the second largest city after the capital Sofia. In recent years, the municipality is one of the few in the country that is increasing its population. Varna is the largest city with access to the Black Sea, which naturally makes it the maritime capital of Bulgaria, and the municipality is at least twice as large as all other municipalities north of Stara Planina (Balkan mountain range).

POPULATION AS OF DECEMBER 31ST 2019

(number of people in municipalities)





345,151

POPULATION OF THE **MUNICIPALITY OF VARNA** (2019)

THE HUMAN CAPITAL



The Municipality of Varna has a clear positive mechanical growth of the population, i.e. the number of people setting in the city is greater than the number of emigrations. In the 2016-2018 period the mechanical growth in Varna was over 1,000 people per year -1,355 people in 2018, and in this respect Varna has no competition in Northern Bulgaria. The effect of tourists should be taken into account, as they increase the city's population every summer, generate additional demand for a wide range of services and drive a revival in the urban environment.

The positive mechanical growth is observed in all age groups, and those processes are most pronounced in children up to 14 years and especially in young people up to 29. The influx of young people is a characteristic feature of Varna, which differs from almost all other municipalities in Bulgaria and sets good prospects for the development of the municipality. Good secondary education, the availability of successful universities, as well as a good living environment are the main reasons for attracting and retaining young people in the maritime capital.

Inflow of people in Varna

(data for 2018)

MECHANICAL GROWTH

+1,355 people

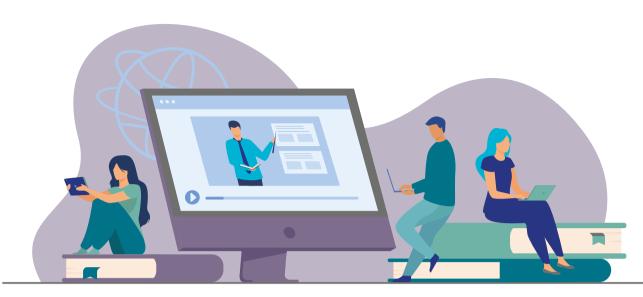
+364 people
IN THE 0-14
AGE GROUP

+761 people
IN THE 15-29
AGE GROUP

POSITIVE GROWTH FROM THE FOLLOWING CITIES

Dobrich, Shumen, Razgrad, Ruse

THE HUMAN CAPITAL



YOUNG TALENTS IN LOCAL SCHOOLS

The number of students in primary and secondary education in Varna is a total of 37.3 thousand, 31 thousand students are in general and special schools, and 6.3 thousand are students in vocational schools. There are over 60 schools in Varna, incl. 7 specialized high schools and 12 vocational high schools. In 2019, nearly 1,700 children graduated from secondary education in Varna and more than 1,100 children graduated from vocational high schools.

The three leading language high schools - with a total of over 600 children who took the state matriculation exam in 2019, and one of the largest math high schools in the country - with over 200 children who took the state matriculation exam, play a key role in providing of the city with promising young workers. Large vocational high schools, incl. in tourism, technical, economics, trade, maritime and electrical engineering, match the profile of the local economy and engage in the dual form of education.



7 specialized



12 vocational high schools

Varna is in second place among the large municipalities in the matriculation exam with an average grade of 4.43 on the state matriculation exam in Bulgarian language and literature. There are two high schools in the municipality ranked in the top 10 among the largest in the country. These are 1) High School for Foreign Languages "John the Exarch" with 184 students who took the state matriculation exam in Bulgarian language and literature and an average grade of very good 5.38, and 2). First Language High School with 214 students who took the state matriculation exam in Bulgarian language and literature and average success very good 5.34.

Mathematical High School "Dr. Peter Beron" and IV Language High School "Frederic Joliot - Curie" had more than 200 children who took the state matriculation exam in Bulgarian language and literature and achieved an average grade of very good 5.14 and very good 5.13.

Leading high schools in Varna	Number of students who took the matriculation exam in BLL (2019)	Average grade on the matriculation exam in BLL (2019)
High School for Foreign Languages "John the Exarch"	184	5.38
First Language High School	236	5.34
Mathematical High School "Dr. Peter Beron	203	5.14
IV Language High School "Frederic Joliot - Curie"	200	5.13

The Mathematical High School "Dr. Peter Beron" is among the leaders in the country with a grade of the state matriculation exam in mathematics - Very Good 5.46, and this is the mathematical high school with the most children (148 students) who took the state matriculation exam in mathematics in 2019. A total of 1,200 children studied at the Mathematical High School in 2019, which makes it one of the largest in the country. More than 1,000 students also took the state matriculation exam in English, with an average score of 4.74.





THE LARGEST **MATH SCHOOL IN** THE COUNTRY

CITY OF KNOWLEDGE

Nearly 30,000 students study in 6 local universities in Varna. More than 16 thousand students in total in Varna Free University "Chernorizets Hrabar" and the University of Economics - Varna, more than 10 thousand are students in the Medical University "Prof. Dr. Paraskev Stoyanov "- Varna and Technical University - Varna, nearly 2.9 thousand are students in the Higher Naval School" Nikola Yonkov Vaptsarov "- Varna and a little over 600 are students at the Higher School of Management. The total number of foreign students is over 2,700, which provides a constant influx of young people from abroad.

In Varna there is also a Department for Information, Qualification and Continuing Education at the University of Shumen "Bishop Konstantin Preslavski".



thousand students

IN 6 LOCAL UNIVERSITIES

Universities in Varna (data for 2019)	Teaching staff	Students (number)	Foreign students	RnD expenditures (thousand BGN)
VFU - Varna Varna Free University "Chernorisets Hrabar"	152	8,716	182	917
EU - Varna Economics University - Varna	197	7,420	240	2,333
MU - Varna Medical university "Professor dr. Paraskev Stoyanov"	729	5,296	1,473	2,050
TU - Varna Technical university - Varna	248	4,811	164	2,118
NA - Varna Naval Academy "N. Vaptsarov"	120	2,887	463	1,687
VUM - Varna Varna University of Management	49	634	207	1,697
оьщо	1,495	29,764	2,729	10,802

THE HUMAN CAPITAL



The total budgets of the six higher education institutions in Varna amounted to about BGN 165 million in 2019. The largest capital expenditures, including investments in equipment, were made by MU-Varna (BGN 18 million) and NA Varna (BGN 11 million). The funds specifically allocated to research were nearly BGN 11 million. The annual expenses of the nearly 30,000 students in Varna are estimated at BGN 285 million.

The total size of the "higher" economy of Varna - the budgets of the universities and the living expenses of the students in the city - is estimated at about BGN 450 million.

The profile of higher education in Varna is gradually changing to respond to the development and restructuring of the local economy. Students are increasingly turning to technical and applied specialties and are looking for areas with good opportunities for future realization. A total of 12,680 students study in the humanities and social sciences, 14,982 in technical and applied specialties and 2,102 in security and defense.

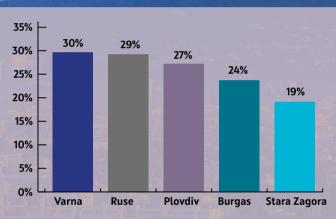
The directions in the higher education institutions in Varna, which generate more and more interest among the young people, are connected with the three sectors in the economy with high dynamics and great potential for development:

• Growth in medicine - 5,296 students are studying at MU-Varna, increasing by 2,141 in the last 5 years. The largest growth is in medicine, by nearly 1,181 students, followed by healthcare services and dentistry. The vast majority of the dynamics in medicine is due to the influx of foreign students. MU-Varna has steadily ranked in the top 3 of the country in the fields of medicine, dentistry and health care;

- · Growth in informatics and computer science five universities in Varna offer higher education in the field of informatics and computer science. A total of 2,550 students study in these fields, and their number has increased by about 750 in the last 5 years. The interest in the field is mainly from Bulgarian students, and the subsequent realization is at high pay levels;
- Growth in transport and shipping over 3,600 students are enrolled in this field at the Naval Academy and at the Technical University - Varna. Particularly significant growth is observed in the Naval Academy, as for the last 5 years the number of students in the field has increased by 583. The change is driven mainly by the interest of foreign students.

Students by field in tertiary education institutions in Varna	Number of students (2019)	Change in the number of students in the last 5 years (2014-2019)	Number of foreign students (2019)	Average monthly income Taxable income of graduates in the last 5 years (BGN)
Social studies and humanities	12,680	-6,195	512	1,129
Political science, law and psychology	2,118	-52	22	1,112
Administration and governance	2,401	-875	167	1,324
Economics	6,180	-5,133	174	1,122
Tourism	1,566	-8	139	959
Social activities	217	-93	2	840
Arts	198	-34	8	802
Technical and applied sciences	14,982	+2,197	2,209	1,349
Architecture, construction and geodesy	1,551	+266	67	1,426
Engineering and electrical engineering	1,760	-1,184	34	1,225
Informatics and computer science	2,547	+742	71	1,827
Transport and shipping	3,632	+179	564	1,156
Medicine and healthcare	5,296	+2,141	1,473	1,277
Horticulture	196	+53	0	1,201
Security and defence	2,102	-506	8	1,016
National security	1,960	-543	8	991
Military affairs	142	+37	0	1,365
Total students	29,764	-4,504	2,729	

In the entire District of Varna, 30% of the population aged between 25 and 64 has higher education - the highest share in the country after the capital. Most of the graduates in the district are concentrated in the city of Varna. From a business point of view, many graduates, as well as a strong specialized and professional secondary education guarantee the access to a welltrained workforce.



SHARE OF POPULATION WITH HIGHER **EDUCATION (25-64, %)**

Employment in the District of Varna in 2019 reached nearly 70% (15-64 years), which is a record for the labor market in the recent history of the maritime capital. The total number of employees was 215 thousand people. The serious growth in 2019 reflects the positive dynamics in the city. Unemployment in 2019 was also at very low levels - 2.8% in Varna and 3.9% in Devnya in 2019. The negative effect of the coronavirus crisis in 2020 is expected to be rather short-term and the market of labor in Varna to recover quickly.

The average salary in non-financial enterprises in the municipality of Varna reached BGN 1,128 in 2019 and was slightly ahead of the average levels in other major cities in the country. The highest salaries are in the field of information technologies and services - BGN 2,337. The average salary in healthcare is BGN 1,519, in shipbuilding - BGN 1,334, and in transport - BGN 1,265.



EMPLOYMENT RATE IN VARNA DISTRICT (15-64)

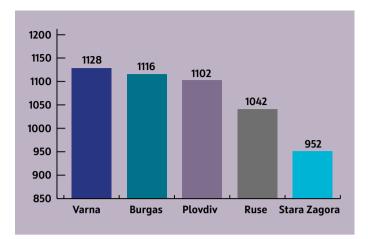
The higher cost of labor in Varna compared to other major cities in the country largely reflects the productivity of local workers and the structure of the local economy. The cost of labor and operating costs in Varna remain extremely favorable for potential foreign investors in the most dynamic export-oriented sectors.



1128 BGN

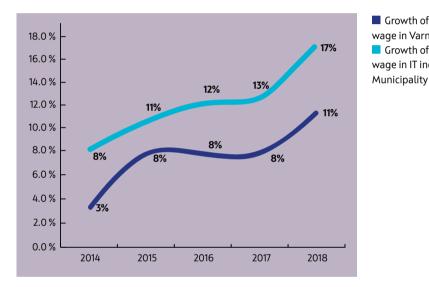
AVERAGE GROSS MONTHLY SALARY

ЧОВЕШКИЯТ КАПИТАЛ



GROSS AVERAGE MONTHLY WAGE (BGN, 2019)

IME estimation based on NSI data



Growth of gross average monthly wage in Varna Municipality
 Growth of gross average monthly wage in IT industry in Varna

Wage growth in Varna has been accelerating in the last five years, reflecting the shift of the economy to higher value-added sectors. The average salary in the maritime capital has increased by over 10% in 2019. In the field of information technology and services, the growth has already reached 17%, driven by the entry of new players into the market. However, labor costs in the digital sector remain highly competitive compared to the capital Sofia and more companies are expected to reorient to the maritime capital.



4

TRAJECTORY OF DEVELOPMENT





Varna is in the process of constructing its new model of economic development, which builds on traditions but takes an ambitious look to the future. Tourism continues to play a key role in the economic and social life of the city, but the potential of the maritime capital goes far beyond the familiar sea tourism. The challenges facing the European economy, including the coronavirus crisis gives a clear signal that innovation and smart specialization are key to the long-term development of any modern European city. The trajectory of development of the sea capital is under the motto "Varna - City of Knowledge".

The intelligent specialization of Varna is based on the established links between science and business and the positive dynamics in the sectors with the highest added value. These are primarily healthcare, transport and shipping, information technology and professional business services. These sectors are building on the educational infrastructure in the city, which is ready to take the next step.

There are several major projects that shape the future of Varna and can further unlock the potential of the sea capital.

INVESTMENTS IN AIRPORT AND ROAD INFRASTRUCTURE



The development of Varna Airport is a key factor for the growth of Varna in recent years. Numerous investments have made Varna Airport one of the most modern in Eastern Europe. More than 2.1 million passengers have passed through Varna Airport in 2019, and conservative estimates claim that this number will reach nearly 5 million passengers by 2040. The proximity of the airport to the industrial zones around Varna is an additional advantage of the maritime capital.

Huge investments in road infrastructure can further unlock the potential of Varna. The completion of the Hemus highway, which connects the capital Sofia with Varna, will drive a boom throughout Northern Bulgaria and will further increase interest in the maritime capital. Largescale investments in the city's road network are also changing the face of Varna. The new Vasil Levski Blvd. has been identified as the most significant road project for Varna in recent decades.





THE INDUSTRIAL ZONES OF VARNA

The industry of Varna is logically oriented to the northwest, near the airport, the western industrial port and the Hemus highway. The new VarnaIndustrial Zone, which was established jointly with the Municipality of Aksakovo, is huge - with an area of 8 thousand decares, and the construction of the relevant infrastructure is forthcoming. Varna Industrial Zone provides the necessary production space of Varna and opens the way for the entry of large foreign investors.

Varna also successfully develops two zones with the National Company for Industrial Zones. The first is the Transit Trade Zone - Varna, which is located in the southern industrial zone of the city and has a fully developed infrastructure. The second is theWest Varna Industrial Zone, which is close to the Hemus highway and the industrial port.



THE NEW INDUSTRIAL **ZONE OF VARNA**

VARNA INNOVATION QUARTER

The potential for a new innovation quarter in the area "Malka chaika", located along the Varna Lake and near the Asparuhov Bridge. The Center for Hydro- and Aero Dynamics has been located in this area for years, and it is preparing serious investments and is in the process of expanding its activities. The Medical University - Varna is already preparing a large-scale project in the area, including the development of the rowing base in the lake. The University - Varna and the Naval Academy also own properties in the immediate vicinity.

The partnership between higher education institutions and research institutes in the area is a huge opportunity for the development of industrial and experimental applied research in the most promising areas in front of the sea capital - medicine and health care, informatics and computer science, transport and shipping. The quarter of innovations is based on the scientific infrastructure of Varna, but has great potential for attracting private capital.





A NEW EDUCATION CAMPUS

The "Dr. Petar Beron" Mathematical High School in Varna is among the largest in Bulgaria and achieves high educational results. The project for the construction of a new building of the Mathematical High School, which will be in close proximity to some of the vocational high schools in the city, is in an advanced phase. The formation of a technological educational campus focused on STEM is an exceptional opportunity for Varna. The project provides an opportunity for partnership with higher education institutions and large technology companies for the creation of a technology academy within the educational campus.

THE SMART MARITIME CITY

The Municipality of Varna is in the process of integrating the SAP IoT Smart City Platform in city management. The platform allows for smart traffic management, city parking, lighting, waste, flood risk, air quality and city events. The platform also provides an opportunity to create a modern integrated portal for all citizens. As a first step, the municipality of Varna is investing in a much-needed smart flood risk management system. Investments in the management of the city are key in the process of transformation of the maritime capital.



FESTIVALAND CONGRESS TOURISM

The development of festival and congress tourism is an important priority in the effort to establish Varna as a 4-season tourist destination. The urban and social infrastructure of Varna is ready to meet a year-round tourist flow. The material base and the investments in the Palace of Culture and Sports and the Festival and Congress Center - Varna lay the basis for different types of tourism in the sea capital. Key in this respect are the development of new social spaces, incl. opportunities for investment in a new modern congress / cultural center by the sea.

DIGITAL INNOVATION CENTER

Varna is among the leaders in the country in the field of information technology and services, the formation of startup communities and innovation culture. In 2019, two large investments confirm the growing interest in Varna - Coca-Cola opened a center for financial services, and the Belgian banking group KBC opened a new center for shared services. In 2019, Varna hosted for a consecutive year the high-tech conference "Innowave Summit", the most important technology conference in Southeast Europe.

The technological development of Varna is taking place within the urban environment, and the formation of larger spaces to concentrate digital energy in the city is forthcoming. Such spaces could be formed in the vacated area of the port of Varna-East, which is a top location, close to the central parts of the city. There is vast potential for such development in the investment plot "Division" in the Vladislavovo district - similar to the military plot on which Sofia Tech Park was built.

TRAJECTORY OF DEVELOPMEN



THE NEW SOCIAL SPACES

In recent years, a new recreation and entertainment area has been established at the Sea Station, which is located in the area adjacent to the Port of Varna-East. The area is one of the best places in Varna and has great potential for development. The release of unused spaces from the port may open the possibility for the construction of a congress center or the separation of spaces for digital and startup companies.

The project for the construction of a new modern library in Varna, next to the municipal building, is emblematic for the maritime capital. The new building of the regional library will provide an opportunity for diverse public life, with the aim of becoming a place for culture, science, exchange of information and knowledge. The library will have an exhibition and concert hall, as well as spaces for seminars and trainings. Along with the library, an international architectural competition for a vision of the space in the city center, known as the "Hole", is forthcoming, which will be turned into a new cultural point.

Investment map of Varna

MACROECONOMIC STABILITY AND GOOD BUSIN	ESS ENVIRONMENT
Access to the EU single market Bulgaria has been a member of the EU since 2007	Ø
Low public debt In the 2016-2018 period Bulgaria has had budget surpluses	20% of GDP
Income and corporate tax 10% flat income tax and 10% corporate tax	10%
Fixed exchange rate of the lev to the euro Bulgaria has had a currency board since 1997 and is in an advanced phase for membership in ERM II and the euro area.	1.95583 BGN to 1 EUR
DYNAMIC ECONOMY AND HIGH GROWTH	
GDP growth Stable growth in the 2015-2019 period	>3%
Record employment In 2019, a record employment rate was achieved (15-64 years)	70%
Wage growth Wage growth in the country was over 10% in 2018 and 2019	>10%
VARNA - CITY OF KNOWLEDGE	
City of students Number of students in the 6 universities in Varna	30 thousand students
Port & Industrial Zones The new investments in the modern Port of Varna & the Development of the new Industrial Zone Varna	Ø
Innovation Quarter Initiative of universities and institutes in Varna	Ø
Municipality open for business Nimble municipal administration & low local taxes	Ø
SEA CAPITAL OF BULGARIA	
Summer capital Number of foreign tourists in the municipality of Varna for 2019	820 thousand foreign tourists
Modern airport Varna Airport welcomed 2.1 million passengers in 2019	Ø
Sea garden and urban environment Traditionally well developed areas by the sea, dynamic social environment and the emergence of new urban spaces	Ø





VARNA. City Of Knowledge. Economic profile and trajectory of development 2020