

# DEFENCE ENGINEERING COMPANIES STRATEGIC PLANNING AND COUNTRY'S REGIONAL DEVELOPMENT

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## Introduction

The goal of the current report is to study how regional development and strategic planning in the Republic of Bulgaria's (RB) Defense Industry engineering companies (DIEC) are connected. The report presents how the companies in focus are geographically located within the territory of the country. It seeks territorial "nests" with certain concentration among those. It seeks also for explanation what causes that concentration if any exists.

The report analyses how the large economic activity of DIEC influences the development of the regions. It looks for if their activity accelerates the regional development through their supply chain and partnerships. On the other side, the report considers if their activity, lowers the unemployment of the local population as well as decreases the migration to other regions. It also considers if the DIEC activity ensures the local budgets with finance funds through payment of local taxes and fees. It also observes that if it is expected DIEC to sponsor local cultural and other charity initiatives helping the local communities.

The report also analyses if utilization of local resources which makes the DIEC more competitive on the market and gives them the opportunity for sustainable growth.

## Exposition

The regional development incorporates legislative, economic and administrative activities that are conducted by state or local authorities <sup>[1]</sup>. These activities are planned and conducted to achieve the following goals: <sup>[2]</sup>

- Reducing the inter-regional and intra-regional disparities in economic, social and territorial development.
- Ensuring rapid economic growth conditions and high level of employment.
- Regional cooperation development.

The result of the successful achievement of the goals is expected to be sustainable and balanced development of every region and the country as a whole.

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EU and national legislation introduces a new territorial range for Level 1 and Level 2 country regions in order to comply with provisions of Regulation 176/2008 amending Regulation 1059/2003 concerning the establishment of a common classification of territorial units for statistics (NUTS) <sup>[3]</sup>.

The territory of the Republic of Bulgaria is divided into the following regions [4]:  
Level 1 (NUTS 1) Regions:

- **Northern and Southeastern Bulgaria Region** comprising the Northwestern Region, the North Central Region, the Northeastern Region, and the Southeastern Region.
- **Southwestern and South Central Bulgaria** comprising the Southwestern Region and the South Central Region.
- Level 2 (NUTS 2) regions:
- **The Northwestern Region** comprising the districts of Lovech, Montana, Pleven, Vidin, and Vratsa.
- **The North Central Region** comprising the districts of Gabrovo, Razgrad, Rousse, Silistra, and Veliko Tarnovo;
- **The Northeastern Region** comprising the districts of Dobrich, Shoumen, Targovishte, and Varna;
- **The Southeastern Region** comprising the districts of Bourgas, Sliven, Stara Zagora, and Yambol;
- **The Southwestern Region** comprising the districts of Blagoevgrad, Greater Sofia metropolitan area, Kyustendil, Pernik, and Sofia;
- **The South Central Region** comprising the districts of Haskovo, Kardzhaly, Pazardzhik, Plovdiv, and Smolyan;

**Level 3 (NUTS 3)** is assigned to districts as administrative territorial units. There are 28 of them as per the Law for Administrative and Territorial Division of the Republic of Bulgaria (LATDRB). [5].

A new territorial division of Level 2 regions is being currently considered. This is done because of the fact that the Northwestern Region population is already below the required minimum level of 800 000 people and the North Central Region one will be below that minimum in the next couple of years.

The suggested new regional division which is in process of discussion suggests the country to be divided in four administrative regions: Danube Region, Black Sea Region, Southwestern Region and Tracia-Rodopi Region and these will not have their own local centers. [6]. It is expected that this regional division will improve the planning processes.

It is suggested that the Danube Region comprises the districts of Vidin, Montana, Vratza, Pleven, Lovech, Gabrovo, Veliko Tarnovo, Russe, Razgradm Silistra, and Targovishte.

The Black Sea region comprises the districts of Shumen, Dobrich, Varna, Burgas, Yambol, and Sliven.

The Southwestern Region is supposed to comprise of the districts of Sofia-City, Sofia, Pernik, Kyustendil, and Blagoevgrad.

The Tracia-Rodhopi Region comprises the districts of Pazardzhik, Plovdiv, Stara Zagora, Haskovo, Kardzhali, and Smolyan.

The analysis of the current regional indicators shows that they lag behind the average EU regional development levels. An exception is the Southwestern region which demographic, economic social and infrastructure indicators are far ahead those of the others and list it close to the average levels of the EU regions. The contribution of the Southwestern Region is close to the half of the national GDP and is almost equal to all the remaining five regions GDP contributions altogether. In the same time, the Northwestern region is at the last place in terms of almost all fundamental indicators. The rest of regions and particularly the North Central Region are closer to the Northwestern rather Southwestern and remain far behind the latter [7].

The sustainable development of Bulgaria regions is troubled because of the general tendency of country's population reduction, migration from the poorly developed regions to the more attractive and well developed ones, as well as to the cities and mostly to the capital city Sofia. The economic crisis deepens further the demographic problems and strengthens the disproportion of the territorial population distribution [8].

The Bulgarian Defence industry (known also as Bulgarian Defence Industry Technological and Industrial Base – BOTIB) follows the general regional development trends, although some variations can be observed due to the government policy in 70-ties and 80-ties of 20<sup>th</sup> century. The main goal of the government authorities at that time was similar to the current one namely, to provide equal and balanced sustainable development of the country's regions. As a result, the defence companies were founded in both strategically important as well as in poorly developed regions. This was done through a careful state strategic planning and allocating the required for its implementation financial, human and other necessary resources. The main goal for targeting the well-developed regions was to utilize the highly qualified human resources found there. The main goal for targeting the poorly developed region was providing jobs for and retain the population in those regions. In addition, some of the defence companies were founded in strategically important regions because of their country strategic importance.

The Defence industry territorial analysis of shows that defence companies are located all over the entire country. Despite that a few "nests" concentrating such companies could be observed. An example of these is the geographical area around towns of Sopot, Karlovo, Kazanlak and Plovdiv. These locations have strategic importance for the logistics of the Bulgarian Armed Forces (BAF). In the area of Sopot, Karlovo and Kazanlak, primarily companies manufacturing armaments

and munitions are located. In the area of Plovdiv primarily companies related to the defence aviation industry such as "Avionams" EAD and "Aviotechnika" EOOD are located.

Another important geographic region is located in and around the capital city of Sofia. A number of Defence Industry companies are located in it and those are primarily dealing with information and communications technologies (ICT).

The thirds "nest" is the region of Varna. A number of companies dealing with research and development, manufacturing, maintenance and repair of defence equipment and armaments for the Navy are located there.

DIEC follow the general industry trends. The analysis of their geographical allocation shows the following peculiarities.

Most of the DIEC companies are located within the territory of the Southwestern Region and predominantly Sofia city and Sofia Greater metropolitan area district. "Terem" AD, "Electron Progress" AD, "Promax-99" AD, "Balkantel" OOD, "Lema Trading" OOD, "TMC and Co" OOD and "Electron Consortium" AD are located in the city of Sofia. apart from "Terem" AD, all these companies predominately conduct research and development, manufacturing, support, maintenance, and repair of ICT systems for the national security and defence. Each of these companies is specialized in a specific area.

"Electron Progress" AD is engaged with engineering of large fixed and mobile communications and information systems (CIS) [9], "Promax-99" OOD specializes in upgrade and maintenance of radar systems, predominantly of Russia's origin. "Lema Trading" OOD is installing structure cable systems and performs engineering of satellite communications systems [10]. "Balkantel" OOD is engaged with airport navigation systems engineering.[11] "TMC and Co" OOD delivers and installs TETRA wireless networks [12]. "Electron Consortium" AD manufactures and installs meteorological radar systems and mobile communication centers [13]. In the city of Sofia is located also "Terem-Letec" EOOD which is a daughter company of "Terem" AD and specializes in maintenance and repair of helicopters and the related engineering [14].

The largest DIEC located in the Sofia Grater metropolitan district is "Samel-90" and it is established in the town of Samokov. It is mainly a production company which manufactured mostly tactical radios in the past. Currently its engineering activity is related to the installation of equipment for combat vehicles [15]. Recently "Samel-90" created a joint-venture company called "SAMARM" together with the company "IAG Bulgaria". The goal of this joint-venture is to do engineering of wheeled vehicles for the Ministry of Interior (MOI) and Ministry of Defence (MOD) needs.

The town of Plovdiv is a "nest" of DIEC, in the South Central Region of Bulgaria. One of the companies located there is the company of "AVIONAMS" AD. Its activities include maintenance and repair of airplanes. The company is

ancestor of "Georgi Benkovski" factory which before its privatization was part of "Terem" AD. The company became state owned again recently and is currently owned by the "State Consolidation Company" [16]. The company performs maintenance and repair of "MIG" and "Su" Russian jets for the Bulgarian Air Force (BAF). Another company that performs research and development, manufacturing and maintenance of Unmanned aerial vehicles (UAVs) and light multipurpose airplanes, called "Aviotechnika" EOOD is also located in Plovdiv [17]. Two companies for defence electro-optics are located in the same administrative region as part of Pazardzhik District and in the town of Panagurishte. These two companies produce a wide range of optical equipment, night vision goggles etc., which have wide application area for defence equipment and armaments as well as for civil purposes.

In the Northeastern Region of Bulgaria, companies like "Terem-KRZ-Flotski Arsenal Varna" EOOD, Varna, "MTG-Dolphin" AD, Varna, "Tcherno more" AD, Varna, "Terem-Khan Krum" EOOD, Targovishte town and "Terem-Ovech" EOOD, Provadia town are located.

The company of "Terem-KRZ-Flotski Arsenal Varna" EOOD – Varna is part of the defence maintenance and repair group "Terem" AD. It specializes in support and maintenance of navy ships for Bulgarian Navy as well for the navies abroad. "MTG-Dolphin" AD located also in Varna is a company that performs predominantly building, maintenance and repair of civil ships but recent years it expanded its portfolio with building navy patrol vessels.[18] The company was awarded to build the new Bulgarian Navy patrol vessels in the end of 2017, but it rejected to sign the proposed contract at the very last moment.

The company of "Tcherno more" AD, Varna specilises in research and development, manufacturing, maintenance and repair of special ground and coastal surveillance radars and the associated engineering [19]. "Terem-Ovech" EOOD, Provadia, is part of "Terem" AD group and its main activity is maintenance and repair of wheeled and armored vehicles as well as manufacturing of mobile shelters and the related engineering. "Terem-Khan Krum" EOOD, Targovishte performs maintenance and repair of armored tanks and manufactures spare parts for them, as well as does engineering in this area.

"Terem-Ivailo" EOOD is located in the town of Veliko Tarnovo, which is part of the North Central Region of Bulgaria. It specializes in maintenance and repair of artillery and rocket armaments as well as the related engineering.

The analysis of the territorial allocation of the Bulgarian DIEC shows that the majority of them located at a single place and perform their activities from there. An exception is "Terem", which daughter companies are located all over the country. The reason for latter is the fact that the holding company of "Terem" AD was actually formed through uniting administratively already existing state owned companies located geographically at different locations.

DIEC influence quite a lot the regional economy because of their relatively large economic activity. They provide jobs for the local population as well as through their human resources demand they help in the preparation of new qualified specialists. On another side the DIEC pay significant local taxes and fees and help the local budget this way. They are also often sponsors of local charity activities. They help also in the development of a number of other local companies, because of the deep cooperation of DIEC with a number of suppliers and subcontractors, hence help a lot to the development of the local economy.

Because of the deep connection with the territorial communities, on another side, DIEC need support from the local authorities in order to successfully perform and develop their activities. This support may include additional space (land, production space, office buildings) offered from the local authorities at acceptable terms and conditions, as well as building schools and universities for education and training of required specialists, building convenient rail, road, electric power, ICT and other infrastructure. It is especially convenient for DIEC development to be located at tech parks or to participate in specialized clusters where to get access to required know-how, labs, highly expensive equipment and other resources. Examples are like "Sofia Tech Park" AD where a number of high-tech companies are located or the idea for building a "VMZ" AD, Sopot tech park [20].

## Conclusion

When doing strategic business planning of their future development the DIEC take into account the heritage they possess and given resources they already have as well as the expected trends for the future development of the regions. In most of the cases the companies conduct their activities at the place where were founded because they possess there the necessary resources (tangible, human, etc.) and they have their supply chain built. On the other side the newly formed companies choose for place of conducting their activities places where they can find easily the resources they need. If these companies are high-tech, they prefer places where can find educational centers, preparing the required specialists. In most of the cases these are big cities like Sofia, Plovdiv and Varna. If the companies need low qualified and low cost labour they choose poorly developed regions like Northwesterns. The latter is attractive because of the fact that the companies established there get tax and other preferences if they conduct its activity there and hire local personnel.

It could be summarized that the development of the country regions is dependent on the DIEC activity because of their demand for highly qualified personnel and significant financial tax and fee contribution. On the other hand, the competitiveness of these companies is dependent on getting easily the necessary



tangible, human, financial and other resources some which they may have built over the past decades but others still buy. The strategic planning for these companies must take into consideration these facts. For the newly established companies as well in case of diversifying and expanding their activities in new areas, the management teams of these companies can take a decision to open branches or establish daughter companies in other regions where easy access to resources or preferences for doing economic activities are available. These decisions are typically on a rational basis which calls the regions to compete to each other providing these resources. Taking into account all these considerations and implementing these opportunities in the real business, without any doubt, improves the development potential for DIEC and the administrative regions and make both of them more competitive.

**Notes:**

[1] Stamenov B., Regionalno razvitie I strategija na Bulgaria v usloviata na evropeiskoto regionalno razvitie, p. 181., available at: [http://ibsedu.bg/media/Trudove/2016/Body\\_181\\_210.pdf](http://ibsedu.bg/media/Trudove/2016/Body_181_210.pdf) (accessed 21 September 2018).

[2] National Regional Development Strategy (NRDS) of the Republic of Bulgaria for the period 2012-2020, p.2., available at: <https://www.mrrb.bg/bg/national-regional-development-strategy-of-the-republic-of-bulgaria-2012-2022/> (accessed 21.09.2018).

[3] See above, p. 2.

[4] See above, p. 9.

[5] Law for Administrative and Territorial Division of the Republic of Bulgaria (LATDRB), available at: <https://www.lex.bg/laws/ldoc/2133622784> (accessed 21 September 2018).

[6] Available at: <https://www.mrrb.bg/bg/chetiri-vmesto-shest-rajona-ot-nivo-dve-predvijda-proektut-za-izmenenie-i-dopolnenie-na-zakona-za-regionalno-razvitie/> (accessed 21 September 2018).

[7] National Regional Development Strategy (NRDS) of the Republic of Bulgaria for the period 2012-2020, p.77, <https://www.mrrb.bg/bg/national-regional-development-strategy-of-the-republic-of-bulgaria-2012-2022/> (accessed 21 September 2018).

[8] See above.

[9] Available at: [www.eprogress.bg](http://www.eprogress.bg) (accessed 22 September 2018).

[10] Available at: <http://www.lematrading-bg.com/bg/> (accessed 22 September 2018).

[11] Available at: <https://balkantel.bg/> (accessed 22 September 2018).

[12] Available at: <http://www.tmsco.bg/> (accessed 22 September 2018).

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- [14] Available at: <https://www.terem.bg/> (accessed 22 September 2018).
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- [16] Available at: <http://www.avionams.com/bg/home.html> (accessed 22 September 2018).
- [17] Spassov, S., 2016, Razvitie na otbranielnata industria v Bulgaria. Tom III, Sofia, Izdatelski kompleks-UNSS, p. 506.
- [18] Available at: <https://dolphin1.bg/en/home/> (accessed 22 September 2018).
- [19] Available at: <http://www.tchernomore.com/> (accessed 22 September 2018).
- [20] Available at: <http://news.bnt.bg/bg/a/izgrazhdan-nauchno-tehnologichen-park-vv-vazovskite-mashinostroitelni-zavodi> (accessed 22 September 2018).

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## **DEFENCE ENGINEERING COMPANIES STRATEGIC PLANNING AND COUNTRY'S REGIONAL DEVELOPMENT**

### **Abstract**

This report considers how Republic of Bulgaria territory is divided into administrative regions. It examines how Defence Industry Engineering Companies (DIEC) are geographically established and looks for patterns in their location and concentration. It analyses how the regional development and DIEC influence each other. It examines how this influence is taken into account when doing business strategic planning. The report makes an attempt to explain how this mutual influence changes the region's and company's competitiveness.

**Key words:** regional development, defence industry, engineering companies, strategic planning, competitiveness

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