

---

# Defense and Security Market Report

## Romania

### June 2018



## Contents

<b>1</b>	<b>DEFENSE &amp; MILITARY</b>	<b>2</b>
1.1	TRANSITION FROM WARSAW PACT TO NATO MEMBERSHIP	2
1.2	MAIN BODIES AND INSTITUTIONS	3
1.3	ROMANIAN ARMED FORCES	4
1.3.1	<i>Air Force</i>	4
1.3.2	<i>Ground Forces and Special Forces</i>	5
1.3.3	<i>Naval Forces</i>	8
1.3.4	<i>Airspace / missile defence and surveillance</i>	9
1.4	INTERNATIONAL DEFENSE COOPERATION	10
1.4.1	<i>NATO Cooperation</i>	10
1.4.2	<i>US military presence in Romania</i>	11
1.4.3	<i>International missions, trainings &amp; exercises</i>	11
1.5	DEFENSE & MILITARY MARKET	14
1.5.1	<i>Defense budget and spending</i>	14
1.5.2	<i>Romanian defense industry</i>	15
1.6	MODERNIZATION AND ARMAMENT STRATEGY	20
<b>2</b>	<b>HOMELAND SECURITY</b>	<b>23</b>
2.1	INTERNAL SECURITY SYSTEM	23
2.1.1	<i>Ministry of Interior</i>	23
2.1.2	<i>Romanian Intelligence Service (SRI)</i>	23
2.1.3	<i>Police Forces</i>	24
2.2	DOMESTIC, REGIONAL AND INTERNATIONAL THREATS	25
2.3	CRITICAL INFRASTRUCTURE	26
2.4	PHYSICAL SECURITY MARKET	31
2.5	CYBER DEFENSE & SECURITY	32
<b>3</b>	<b>PUBLIC PROCUREMENT SYSTEM</b>	<b>35</b>
<b>4</b>	<b>ROUTE TO MARKET AND MARKET OPPORTUNITIES</b>	<b>38</b>
4.1	ENTERING THE ROMANIAN MARKET	38
4.2	ASSOCIATIONS, PUBLICATIONS AND FAIRS	39



# 1 DEFENSE & MILITARY

## 1.1 TRANSITION FROM WARSAW PACT TO NATO MEMBERSHIP

Romania was a founding member of the Warsaw Treaty Organization but President Ceausescu's policy (during the communist era) was to escape USSR influence from military, industrial and economic point of view. Romania's position in the Warsaw Pact was quite autonomous and also at economic level Romania started a special relationship with the USA, being the only socialist country from Eastern Europe that obtained the most favored nation clause from the USA in 1975. Around 1980, the U.S. had three times higher trade volume with Romania than with all of the USSR.

After the fall of communism in 1989, Romania started preparing to become a NATO member, initiating diplomatic relations with NATO in 1990 and informing the NATO Secretary General in 1991 of its willingness to engage in a close cooperation with NATO.

In 1994, Romania became the first post-communist country to join the Partnership for Peace program; its individual program was signed in May 1995. In 1996, the Romanian Parliament appealed to Parliaments of NATO Member States requesting support for Romania's aspirations to become a NATO member. Still, Romania was not granted membership for many more years.

In the next years, Romania continued to prove its commitment to support NATO activities; the military from Romania and the United States set up an air traffic monitoring center covering the Romanian territory and neighboring areas. In 2001, the Romanian Parliament decided by an overwhelming majority for Romania to participate, as a de facto NATO ally, in the war against international terrorism, through all means, including military ones, Romania being ready to grant access to its airspace, airports, land and sea facilities. At Prague NATO Summit in 2002, Romania was invited to start accession discussions and the country was finally granted NATO membership in 2004.

After accession, a number of legislative changes were made to harmonize national legislation with the NATO acquis, including the 2003 Revised Constitution. Thus, military service in peacetime was no longer compulsory and starting January 1, 2007, Romania needed to have a professional army. However in case of war, state of mobilization and state of siege, the military service would still become mandatory.

Romania's Act no. 384/2006 on the status of professional soldiers and graduates marked a significant achievement in the process of training and developing a modern army with enhanced operational capacity, interoperable with the armies of other NATO member states.

Having gone through a downsizing stage (2005-2007) and NATO and EU operational integration (2008-2015), the Romanian military has recently been going through the last phase of its transformation, which is to be finalized in 2025 and translates into full integration into NATO and EU.

GlobalFirepower website currently ranks Romania 40th out of 136 countries in terms of military strength. The country would have to heavily rely on NATO support in case of a military attack against Romania.



## 1.2 MAIN BODIES AND INSTITUTIONS

The supreme commander of the Romanian Armed Forces at time of war is the President of the Republic, Mr. Klaus Iohannis (as of June 2018). The highest military commander is the Chief of Defense Staff, Army General Nicolae – Ionel Ciuca.

Organization and unitary coordination of activities related to country defense and national security are in the hands of the Supreme Defense Council (CSAT) which is subordinated to the Romanian Parliament. Members of the Supreme Defense Council are:

- Minister of National Defense,
- Minister of Interior,
- Minister of Foreign Affairs,
- Minister of Justice,
- Minister of Economy, Trade and Business,
- Minister of Public Finance,
- Director of the Romanian Intelligence Service,
- Director of the Foreign Intelligence Service,
- Chief of Defense Staff,
- Presidential Counselor for National Security.

Responsibilities of the Supreme Defense Council include, among other:

- analysis of Romania's national security strategy, military strategy, and public policies
- approving the Army Endowment Plan<sup>1</sup>
- coordinating integration in European/Euro-Atlantic security structures, monitoring adaptation of armed forces to NATO requirements, formulating recommendations in line with NATO standards

### Ministry of National Defense (MoD)

---

The Ministry of National Defense is the specialized body of central public administration, subordinated to the Government, which conducts national defense activities. The MoD coordinates the Army, purchases military equipment and coordinates import and export of military equipment and technology.

The Ministry of National Defense is responsible to the Parliament, the Government and the Supreme Defense Council for the implementation of provisions of the Constitution, laws in force, decisions of the Government and the Supreme Defense Council, of international treaties ratified by Romania.

<b>Governing body:</b>	Romanian Government
<b>Minister:</b>	Mr. Mihai Viorel Fifor
<b>Headquarters:</b>	110 Izvor Str., 050561 Bucharest, Romania
<b>Website:</b>	<a href="http://english.mapn.ro/">http://english.mapn.ro/</a>

---

<sup>1</sup> Army Endowment is regularly used in English-language sources in Romania, even in legislation, to refer to equipment in possession and use by the Romanian army. In order to be consistent with local terminology, we use „endowment“ in the sense in this report.



## Romanian Army

---

The manpower of the Romanian Army has constantly decreased over the years and counted about 60,000 military personnel in 2017.

The Romanian military is engaged in the integrated NATO military structure contributing to defense operations and civil crisis management. It takes part in joint consultations, participates in joint exercises, and actively commits troops to NATO-led multinational operations.

## Defense Staff

---

The Defense Staff is subordinated to the MoD and provides for: force conduct, organization, planning and implementation, gradual increase of readiness levels; RAF's mobilization; conduct of joint operations; HQ and troop training; basic and specialty training of active-duty and reserve military personnel; military personnel individual career management; armaments planning; standardization in the military field; implementation of the C4ISR, logistic and infrastructure system; conduct of international military relations; religious assistance in the MoD; signing technical agreements with other states' armed forces; promotion of military culture and civil education values.

**Chief of Defense Staff:** Army General Nicolae – Ionel Ciuca

## Military Police

---

The Military Police operates within the army structures. Its attributions are to ensure discipline in military premises, surveillance of locations frequented by military personnel, investigation of incidents between militaries and civilians, participation in peacekeeping missions, providing VIP protection, guarding military facilities, searching missing soldiers, discovering hidden arm deposits or clandestine workshops for powder and explosive production, etc.

**Governing body:** Ministry of Defense

## 1.3 ROMANIAN ARMED FORCES

### 1.3.1 AIR FORCE

---

The Air Forces' mission is to defend the national airspace with air-to-air and ground-to-air means and to support other categories of forces and local authorities in emergency situations.

#### Endowment of the Romanian Air Forces

---

Romanian Air Forces use the following equipment:

- **Fighter aircraft F-16** (currently 12 units in use): first F-16 Fighting Falcon jets (purchased from Portugal) were brought to Romania in 2016. They were manufactured in the early 1980s and were repeatedly modernized to reach the version F-16 MLU M5.2. At the beginning of 2018, the



- Minister of Defense announced Romania's intention to **buy another four F16s followed by another 36** (to be bought ideally from the USA if available for sale). The company considered to be the future provider of maintenance and repair for F16 aircrafts is Aerostar ([www.aerostar.ro](http://www.aerostar.ro))
- fighter aircraft MiG21 LanceR (MiG21 LanceR A / MiG21 LanceR B / MiG21 LanceR C): a total of about 35 units in use / 65 units in storage
  - **cargo/transportation aircraft C-130** (3 units in service + 1 used for spare-parts): maintenance, service and repairs of C130 aircraft is done by Romaero Baneasa (<https://www.romaero.com/>)
  - cargo/transportation aircraft C-27-J (7 units)
  - cargo/transportation aircraft An-26 (2 units)
  - trainer aircraft/reconnaissance aircraft IAR 99 (10 pcs) / IAR 99C (11 units) – to be upgraded to Super Soim standard with modern avionics.
  - trainer aircraft Iak-52 : 12 units (license-built by the Romanian Aerostar company)
  - IAR 316 - training helicopter : 6 units, built in Romania
  - IAR 330 PUMA L/M - utility helicopter: 35 units, built in Romania
  - IAR 330 SOCAT – attack helicopter: 22 units, built in Romania
  - **UAVs: RQ7 Shadow 600**: 7 in use (from an initial number of 11, three have crashed in Iraq and one in Romania)
  - **UAV Scan Eagle**: 10 pcs
  - 57 mm anti-aircraft gun S60 (Soviet design): 250 units (to be replaced by SHORAD systems)
  - **surface-to-air missile MIM-23** : 8 units in use (bought from Holland as HAWK PIP III and later modernized by Raytheon to the HAWK XXI standard).
  - surface-to-air missile S-75 M3 Volhov (Soviet production): 6 units (delivered by USSR in the 1960s, in the meantime modernized three times; towed to Soviet era ZIL 131 trucks.
  - **AN / FPS 117** three-dimensional air search radars of US production: 10 units (in use since 1998)
  - P 18 (2-dimensional air search radars of Soviet production): in service since 1977 (mounted on Ural 375 D chassis)
  - **TPS 79R** three-dimensional air search radars: 9 units in service since 2004. Towed to DAC 665 T utility truck.
  - **Surface-to-air missile MIM 104 PATRIOT**: 7 systems have been ordered, out of which 4 will be used by Air Forces. The systems will be operational by 2020, in 2017 the first one was delivered.
  - reconnaissance aircraft- **Northrop Grumman RQ 4 Global Hawk**

Lockheed Martin will deliver a tailored simulation-based F-16 training environment for the Romanian Air Force in 2019. Under the contract the company signed with the Romanian Air Forces, Lockheed Martin will deliver the SciosTrain suite of simulators, and will also provide logistics support. The technology can be networked to enable multiple pilots to train together on advanced scenarios.

Romania is now negotiating the purchase of a total of **24 “AH-1Z Viper” helicopters** (Bell Helicopters wants to produce them in Ghimbav Brasov) and another **21 Venom helicopters**.

---

### 1.3.2 GROUND FORCES AND SPECIAL FORCES

Romania currently has 850 operational tanks, out of which 54 of Romanian production (TR 85 M1 - also named “Bizon”, modernized to meet NATO standards). Other tanks owned by the Romanian Army (in use or/and in storage) are: the Romanian TR 85 (227 units), the Romanian TR 580 (Romanian version of T55: 42 units); the Soviet T55 (AM/AM2): 394 units. In 2016, a total of 500 US tanks (M1 Abrams) were brought to Romania in order to strengthen the NATO force.

According to a convention signed after 1990, Romania is entitled to have 1350 operational tanks. Therefore plans have been announced in 2017 for the Romanian Army to purchase another 270 armored vehicles which would create six tank-battalions by 2027.

Other military equipment in possession of the Romanian Ground and Special Forces:

- Infantry fighting vehicles: Romanian MLI 84 (23 units) and MLI 84 M JDER (101 units)
- Romanian-built MLVM armored personnel carrier: 76 units (MLVM, MLVM M, MLVM-AR, ABAL, Ambulance)
- TAB B 33 “Zimbru” (armored personnel carrier built in Romania under BTR 80 license with modifications): 69 units
- TAB 77 (armored personnel carrier built in Romania as a modified version of BTR 70): 155 units
- TAB 71 (armored personnel carrier built in Romania under BTR 60 license with modifications): 401 units , to be replaced by TBT 8X8
- TAB C 79 (armored personnel carrier built in Romania): 401 units
- Anti-aircraft missile system 2K12M - KUB (SA - 6)
- Anti-aircraft missile system OSA-AKM 9K33M3 (SA-8)



- Engineering vehicles built in Romania: DMT-85 M1 (5 units built in Romania between 2007-2009), TEHEVAC MLI-84M
- AMT125 Romanian-built crane truck used by military engineering units
- Auto Greder (Romanian-built road grader) - used by military engineering units
- Bulldozers of Romanian production - used by military engineering units
- VW Transporter (SIBCRA van) - Sampling and Identification of Biological, Chemical and Radiological Agents vehicle
- BPZ-2 German armored recovery vehicle : 3 units
- Chevrolet LSSV Tahoe equipped with Harris radio equipment : 13 units
- Land Rover Defender – used by Military Police
- Romanian-built trucks: DAC (352 units) / Roman (124 units)
- Iveco trucks – over 200 units
- Mowag Piranha (Piranha IIIC): 31 pcs (wheeled) + another 12 purchased at the end of 2016



- Small number of HMMWV vehicles of US production
- URO VAMTAC multipurpose armored vehicle (S3, S3 HD): 62 units, mainly used by the Special Forces
- Wolf Armored Vehicle: 3 units used by Military Police
- Panhard PVP multipurpose armored vehicle: 16 units
- International Maxx Pro (mine resistant ambush protected vehicle): 60 units, provided by the USA, used by ISAF troops in Afghanistan
- Oshkosh M-ATV (mine resistant ambush protected vehicle): provided by the USA, used by ISAF troops in Afghanistan
- Cougar (mine resistant ambush protected vehicle): 108 units provided by the USA, used by EOD troops in Afghanistan
- Minelayers: Romanian-built DPM 4 – towed to DAC 6x6 trucks
- 35mm Oerlikon twin-cannon
- Harris and Panther radio stations



- Assault boats of Romanian and French manufacture
- Utility armored motorboats of Romanian production
- Self-propelled barges MLC 240 / ferryboats MLC 300 - of Romanian production
- Mortars of Romanian production
- Howitzers of Romanian production (built on Soviet /Yugoslav license)
- Multiple rocket launchers: LAROM (54 units), APR 40 (135 units)
- 100 mm towed anti-tank gun (model M1977 built in Romania): 208 units - upgraded with modern day and night fire-control system
- Anti-tank launcher vehicles: 138 units (Soviet production)
- Spike anti-tank missiles (over 2,000 units) – used for example on MLI 84 M JDER and IAR 330 PUMA SOCAT
- Rocket- propelled grenades of Romanian production
- Anti-tank missiles (9K 111 Fagot) of Soviet production
- Light anti-tank weapons (M72A5 LAW ) : 24 units purchased from Norway and used by Special Forces
- Anti-aircraft guns and machine-guns of Romanian production
- 72 “Orlikon GDF 203” anti-aircraft guns
- Self –propelled anti-aircraft guns (Gepard): 36 units + 7 vehicles for spare-parts
- Surface-to-air missiles of Soviet production
- 3 out of 7 ordered PATRIOT systems will be used by the Land Forces

- Amphibious short range surface-to-air missile systems of Romanian production: 48 units (model CA 95)
- Pistols, assault rifles and light machines guns are mainly of Romanian production
- M249 light machines guns - US version of FN MINIMI – are being used by Special Forces.
- M240 machine guns of US production
- Small number of Browning M2HBQCB heavy machine guns
- Special Forces use US –manufactured sniper rifles (Armalite AR 10, SuperSASS / Barret M82)

### 1.3.3 NAVAL FORCES



Romania's access to the Black Sea and over 1,000 km of natural border shaped by the Danube River contributed to the development of shipbuilding in this country since the mid-19<sup>th</sup> century.

The Romanian Shipbuilders Association (ANCONAV) report from 2015 presents Romania as one of the top 5 shipbuilding countries in Europe, with 9 active shipyards (5 of them having more than 100 years history) and employing over 17,000 workers in this field. Over 80% of production is exported. Romania accounts for about 5% of the European ship production. The shipbuilding industry generates about 1% of the Romanian GDP.

During the past 25 years, the working portfolio of the Romanian shipyards has diversified and Romania became known as an important player in the offshore and military industry.

Constanta shipyard is one of the biggest in Europe (85,000 sqm). Romanian Navy - Fleet Headquarters is located in Constanta (largest and deepest port in the Black Sea). Romanian Naval Forces also include a Frigate Flotilla, an Operational Command Group and a River Flotilla (Danube river). The 307 Marine Infantry Battalion operates as a Special Forces Unit.

Of all Romania's military services, the navy is the smallest. It includes only 6,600 personnel, but is the most technically and professionally challenging of the three. An aggression originating from the Black Sea or from the Danube can target and engage all of Romania's military services or at least two of them either simultaneously or successively.

The Romanian Navy fleet includes:

- 3 frigates which have the capacity to carry helicopters - each one comes with an "IAR 330 Puma Naval" helicopter. Out of these 3 frigates, one is of Romanian production. The other two (ex UK Type 22) are been won by the Turkish company Havelsan)



- a Kilo class submarine that is held in reserve and could be reactivated if funds become available.
- 4 corvettes (Tetal I/II); process has started for the purchase of 4 new corvettes to replace the old ones. These corvettes must be built in a Romanian shipyard. Among the biggest ship builders in the country the Dutch company Damen is worth mentioning (having a shipyard in Galati; on the way to buy also the Daewoo's shipyard in Mangalia) - Damen is very likely to win the contract for the 4 new corvettes.
- 6 naval missile ships: Tarantul I class fast attack crafts / mobile 4K51 Rubezh coastal defense systems.
- one mine layer and 4 minesweepers (of Romanian production).
- Romania's Danube flotilla is the strongest and most powerful force of its kind in NATO and Europe. It includes 3 river monitors and 5 armored gunboats. Both types of ship are heavily armed and armored. All ships are equipped with 100 mm cannons and 122 m Grad rocket launchers as well as light artillery of various calibers. They were designed and built in Romania in the late 1980s and early 1990s. Their weapons systems are of Romanian design and manufacture which greatly facilitates maintenance and supply – however, these are in Warsaw Pact calibers. Furthermore, the ships suffer from a lack of modern sensors and air defenses. The five armored gunboats in the squadron were slated to have their engines replaced.
- 4 anti-ship mobile missile launchers of Soviet production
- Auxiliary vessels of Romanian production

According to Omar Lamrani (Stratfor, 2016), in terms of overall capability, the Romanian Navy significantly lags behind the Turkish and Russian navies in the Black Sea, is of comparable strength to the Bulgarian Navy, and significantly ahead of Ukraine and Georgia. The vast majority of Romania's current vessels were built in the 1970s and 1980s. Therefore, Romanian vessels are aging, and much like its air force, in need of upgrading and replacement. Romania has a good number of frigates, corvettes, and minesweepers (though aging), but is considerably disadvantaged by very minimal naval aviation, very weak naval surface-to-air defense, and mediocre anti-submarine capability. Romania also lacks an effective submarine force.

A statement of the Romanian Ministry of Defense (dated Feb. 2018) emphasizes the fact that “the modernization of Romania's navy can no longer be postponed: in order to strengthen Romania's strategic position in the Black Sea, we need efficient naval forces”, therefore strong government investments in this direction are expected.

---

### **1.3.4 AIRSPACE / MISSILE DEFENCE AND SURVEILLANCE**

The Deveselu Air Base near Caracal hosts the first operational Aegis Ashore Missile Defense System in Europe (a second one is being built in Poland but is not operational yet). The Aegis Ashore Missile Defense System has many of the same components used at sea on guided-missile destroyers and cruisers, but has been adapted to perform the ballistic missile defense mission from land. The Aegis ashore system in Deveselu is part of the European Phased Adapted Approach (EPAA). EPAA is designed to protect European NATO allies and U.S. deployed forces in the region against current and emerging ballistic threats from the Middle East.

The land-based ballistic missile defense capability uses a defense system almost identical to that used on U.S. Navy Aegis-capable guided-missile destroyers and cruisers. The system is designed to detect, track, engage, and destroy ballistic missiles in flight.



Approved for Public Release 13-MDA-7431 (5 September 13)

The site consists of a fire-control radar deckhouse and associated Aegis command, control, and communications suite. Separately, it houses a number of launch modules containing SM-3 interceptors. SM-3 interceptors are for defensive purposes only and have no offensive capability. They carry no explosive warheads of any type, and rely only on their kinetic energy to collide with and destroy incoming enemy ballistic missile warheads.

According to the US Embassy in Romania, Aegis Ashore Romania is fully operational and fully funded, it is a critical contribution of the United States and Romania to NATO Ballistic Missile Defense and the legislation under consideration in the FY18 National Defense Authorization Act is regarding additional capabilities for air defense of the base in Deveselu.

The U.S. Ballistic Missile Defense site has approximately 430 acres (175 hectares) and is located within the existing Romanian Air Base at Deveselu. An estimated 200 military, government civilians, and support contractors operate the U.S. facility at the site.

## 1.4 INTERNATIONAL DEFENSE COOPERATION

### 1.4.1 NATO COOPERATION

Romania has been and remains a steady contributor and beneficiary of defense and security measures adopted since 2014, aimed at boosting the security of the Alliance and, implicitly, of the nation. The proactive efforts at military, political-military and diplomatic levels helped achieve a strengthened Allied presence on the Romanian territory and in the Black Sea region.

As a result, two new multinational entities were established as part of the NATO Force Structure – Multinational Division Southeast (MND SE) and the NATO Force Integrated Unit (NFIU), both located in Bucharest, meant to support NATO’s missions in the South East of the Alliance.



On top, a tailored forward presence was established based on a set of proposals advanced by Romania in the land, air and maritime domains. As part of this presence, a Multinational Brigade located in Craiova and a Combined Joint Enhanced Training Initiative (CJET) are being made operational, thus creating a framework through which Allies can affiliate and send troops in Romania for integrated training, in order to increase their interoperability and defense capacity.

Other decisions were aimed at increasing the Allied air and maritime presence and the establishment of a coordination function for maritime activities in the Black Sea. This will result in integrated training and more exercises with the participation of the NATO Standing Naval Forces, alongside the vessels of the Allied riparian states and other interested Allies. NATO will ensure the coordination of maritime activities in the Black Sea, which will allow for a better surveillance and reconnaissance of the situation in the region, as well as for a coherent and unitary approach between NATO activities in the Black Sea region and all the other maritime activities of the Alliance.

In parallel with the efforts to increase security in the Black Sea, Romania contributes to the implementation of enhanced forward presence with a unit deployed in Poland, together with the United Kingdom, within the US-led battlegroup.

---

#### **1.4.2 US MILITARY PRESENCE IN ROMANIA**

Romania encourages activities undertaken by the US military on the country's territory, in an allied or bilateral framework, and an increase of US military presence and equipment in the country. In early 2018, Romanian Defense Minister Mihai Fifor asked for a permanent US military presence at the Mihail Kogalniceanu military base near Constanta in Eastern Romania - the US has been using this base for the last 25 years and has also invested in its modernization and expansion. US military presence at this base has grown in recent years as tensions between NATO and Russia increased.

Several hundred US troops with tanks and modern military equipment are currently stationed at the Mihail Kogalniceanu military base near the Black Sea port of Constanta. The US Army has also used this base to support its military operations in Iraq.

As announced by the US Army in 2017, plans for modernizing Mihail Kogalniceanu military base included construction of a new railway and multimodal terminal, a new control center, several buildings and storage facilities, fuel storage facilities, and a new platform for cargo airplanes. The contract (estimated in the range of USD 25-100 million) was to be awarded in late 2017 and the work was to be accomplished within a three-year period.

---

#### **1.4.3 INTERNATIONAL MISSIONS, TRAININGS & EXERCISES**

Participating in missions and operations outside the territory of the Romanian state began in 1991, with the United Nations UNIKOM mission in Kuwait, following the Gulf War developments. Over time, Romania's participation in missions has constantly increased. Its armed forces participate in counter-terrorism, peacekeeping and humanitarian assistance international missions organized by NATO, EU and the UN.

The most substantial and also longest Romanian participation abroad was ISAF, a NATO-led mission in Afghanistan. The country's participation began in 2002 (even before the country became a NATO member) with a military police platoon and a C130 aircraft, which was constantly developed and reconfigured in accordance with requirements of the theater of operations. In their turn, the Air Force and the Naval Forces deployed a part of their forces in various theatres of operations.



**MANPOWER PARTICIPATING IN INTERNATIONAL MISSIONS**

THEATRE OF OPERATIONS:	MISSIONS UNDER THE AEGIS OF						MANPOWER
	NATO		Observation and monitoring missions	EU Training and counseling missions	EUNAVFOR/FOREFM SOPHIA OPERATION	UNO	
BOSNIA - HERZEGOVINA	-		EUFOR ALTHEA: 38		2	-	40
KOSOVO	KFOR: 55		-		-	-	55
AFGHANISTAN	693		-		-	-	693
OTHER	Air Defense Brigade Poland 120	Defense Staff manopwer & liaison personnel 11	EUMM GEORGIA 2	EUTM (RCA)/ SOMALIA/ MALI/ UCRANIA 9/1/1/0	1/1	MILITARY OBSERVERS & MONITORS 24	7
TOTAL	879		40	11	3	24	7

Source: MoD, updated June 25, 2018

Consistent participation was provided in NATO air policing mission, performed over August - October 2007 in the Baltic countries, with a 65-soldier detachment and four MIG 21 L aircraft.

The crises that occurred in several countries in the Middle East and North Africa required Romania's participation in the "Unified Protector" NATO operation, between April and July 2011, aimed at imposing an arms embargo on Libya. The mission was performed on 221 "King Ferdinand" Frigate (with a 207-soldier crew) and it actively contributed to the Allied effort for solving the conflict.

Romanian Armed Forces' missions have evolved throughout the last 25 years, from simple to complex ones, from individual missions performed with observers to missions conducted with contingents counting over 2,000 soldiers, and also from medical assistance missions to counterinsurgency and finally to institutional assistance and training missions.

Land, Air and Naval Forces have participated in over 100 multinational exercises and training activities, planned and conducted in cooperation with allied states and partners. Sarmis 15, Black Sea Rotation Force 16, Resolute Castle 2017, Saber Guardian, Noble Jump, Sea Shield 2018 or Spring Storm 18 are only few examples of exercises in which the Romanian Forces have participated.

Over 2004-2014, Romania participated in peacekeeping missions with nearly 40,000 soldiers (observers, senior officers, liaison officers, military police, combat units and subunits, campaign hospitals), ranking first among the Member States contributing to operations, as summarized below:

**Afghanistan**

Romania was the 7th contributing country to the ISAF mission, both in terms of the number of deployed military personnel and the complexity of the executed missions. An important contribution was provided by the Romanian Air Force's command of Kabul International Airport (KAIA) between April 2011 and April 2012, in two rotations of six months, with 75 per-captains. Romania's participation peaked in 2011, with two maneuvering battalions in Zabul province and other elements totaling 1,800 soldiers and leadership of the Kabul International Airport for a year (150 soldiers).



## Iraq

Romania was present in Iraq for more than six years, from March 2003 to July 2009. Simultaneously with contribution of forces to the IRAQI FREEDOM Coalition, the Army also participated with instructors at the second mission in NATO Training in Iraq (NTM-I) between January 2005 and November 2011. During 2003-2009, nearly 10,000 soldiers performed missions in this theater of operations.

## Western Balkans

The Romanian Army has participated in missions in both Bosnia and Herzegovina since March 1996 and in Kosovo since March 2000. Participation in the KFOR mission was with 68 troops, including major personnel and intelligence elements, as well as a maneuver company (128 soldiers) within the Strategic Reserve of SACEUR, deployed exclusively in the Kosovo operations area.

**NATO Air Force for the Baltic Countries** - between August and October 2007, four MIG 21 LANCER airplanes participated in the NATO Air Force mission for the Baltic countries "BALTICA 07".

**Active Endeavor** - Romania participated regularly, from 2005, with a Type 22 frigate at Active Endeavor in the Mediterranean and for three months in 2011, in the NATO Embargo on Libya (Unified Protector).

**Active Fence** - Romania participated between April and July 2013 in the NATO Active Fence operation in Turkey providing communications support to US Air Force units.

Besides forces deployed in the theaters of operations, Romania has a contingent of 800 soldiers assigned to the NATO Response Force. As an EU member, Romania fully supports the Common Security and Defense Policy. In this respect, Romania contributes to EU-led missions in the Mediterranean Sea, Aden Gulf, Georgia, the Central African Republic, Somalia and Mali with 8 soldiers, staff personnel and instructors. Together with Greece (framework nation), Bulgaria and Cyprus, Romania contributed with 68 soldiers to the UEHELBROC Combat Group.

Romania participated in the UN (Congo, Kosovo, Ivory Coast, Republic of Liberia, South Sudan, Afghanistan and Mali) and OSCE (Ukraine) observation missions with 42 observers, monitors, staff and liaison personnel. The smaller number of personnel participating in UN missions is due to the fact that Romania's Armed Forces' main effort is focused on supporting higher level intensity missions, especially the NATO operation in Afghanistan. Romania has also participated in the Resolute Support Mission to Afghanistan since its debut, and according to the Ministry of External Affairs' website the country had a contingent of approx. 650 troops in 2017, mainly in the Kandahar region, and at the Kabul headquarters.

Trainings and simulations for international missions take place at Cincu Combat Training Center.



## 1.5 DEFENSE & MILITARY MARKET

### 1.5.1 DEFENSE BUDGET AND SPENDING

In 2017 Romania made the commitment to set the defense budget at 2% of GDP and to maintain this percentage for the next decade. (Romanian GDP being about USD 200 billion in 2017). In 2017, Romania ranked first in NATO in terms of equipment expenditure as a share of defense expenditure.

		2010	2011	2012	2013	2014	2015	2016	2017
Defense spending	<b>RON</b>	<b>6,630</b>	<b>7,255</b>	<b>7,282</b>	<b>8,160</b>	<b>9,014</b>	<b>10,337</b>	<b>10,738</b>	<b>14,765</b>
	y-o-y	-	+9.42%	+0.37%	+12.05%	+10.4%	+14.6%	+3.87%	+37.5%

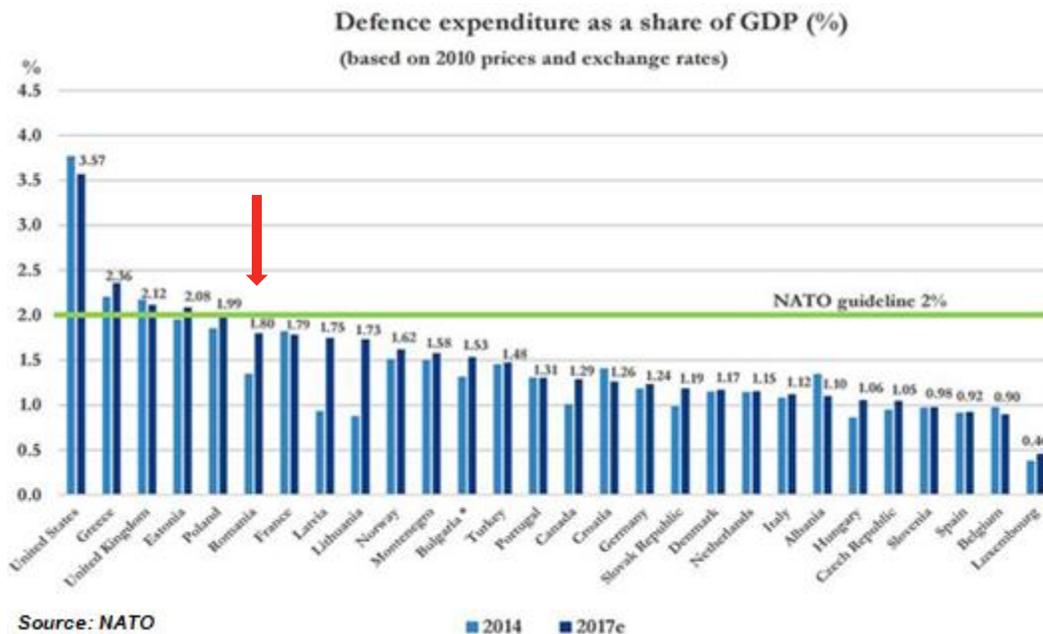
Source: NATO data and own calculations

#### Distribution of defence expenditure by main category

	Percentage of total defence expenditure							
	2010	2011	2012	2013	2014	2015	2016	2017e
<b>Equipment</b>	8.80	7.57	4.14	10.71	15.77	19.65	20.43	33.20
<b>Personnel</b>	79.07	79.11	84.00	78.99	71.15	63.30	65.01	54.67
<b>Infrastructure</b>	1.81	1.47	1.19	1.16	1.09	1.27	2.77	2.09
<b>Other</b>	10.32	11.85	10.68	9.13	11.98	15.78	11.79	10.04

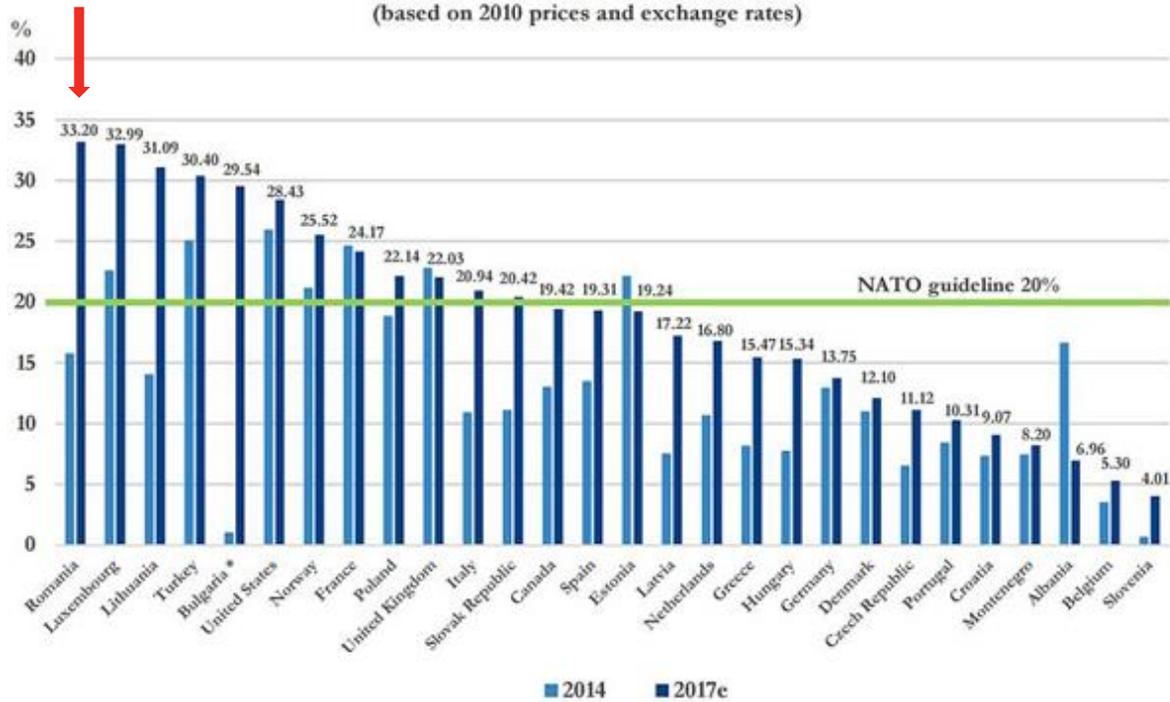
Source: NATO data

In 2017, defense spending was close to the 2%- of-GDP target:





**Equipment expenditure as a share of defence expenditure (%)**  
(based on 2010 prices and exchange rates)



Source: NATO

## 1.5.2 ROMANIAN DEFENSE INDUSTRY

### ROMARM (STATE ENTERPRISE)

<http://romarm.ro/>

The state enterprise ROMARM is the main Romanian supplier of defense technology and services and is well known all over the world, with constant presence in over 50 markets in Europe, North America, South America, Asia and Africa. ROMARM has 15 subsidiaries, as follows:

#### **Arsenal Resita S.A.**

[www.arsenal.ro](http://www.arsenal.ro)

Established in 1972; ISO 9001:2001 certified. Produces 25 mm automatic cannon (KBA type), anti-aircraft cannon (2x35 mm caliber), two-barrel anti-aircraft cannon (type GDF 103 AA, 35 mm), mountain cannon 76mm, anti-tank cannon, 130 mm cannon, 152 mm howitzer cannon. In 2016 Arsenal Resita employed 39 people and had a turnover of RON 0.7 million (USD 0.2 million).

#### **Bucharest Mechanical Factory ("Uzina Mecanica Bucuresti - UMB")**

<http://roumb.eu/>

Established in 1978 under the name "Special Heavy Machines Factory", the factory covers approx. 20 ha. Its activities currently include research, design, production, repair and upgrading of armored vehicles. The company will also assemble Piranha V vehicles bought by the Romanian army through a recent contract with General Dynamics. UMB has produced tank models TR-580 and TR-85, tank prototype TR-125 and PMA-50, evacuation and repair tractors TER-85. UMB is the producer of the modern tank model TR 85 - M1 (modernized version of the TR-85) also called "Bizon". With 268 employees, UMB had a turnover of RON 5.2 million (USD 1.3 million) in 2016.

**Carfil S.A.**

[www.carfil.ro](http://www.carfil.ro)

Carfil was established in 1922 under the name "Machine and foundry factory Dumitru Voinea". In 2005, the company started production of NATO-compatible armaments and ammunition. Since 2006, Carfil has been providing service and maintenance services for armaments in peacekeeping areas. The company is ISO 9001:2015 / AQAP2110:2016 certified. In 2016, Carfil employed 367 people and had a turnover of RON 49 million (USD 12 million).

**Cugir Arms Factory ("Fabrica de Arme Cugir")**

[www.facugir.ro](http://www.facugir.ro)

Factory established in 1799; producer of the first Romanian machine gun - Parabellum, type "Orita", 9mm caliber. Produces infantry weapons, weapons for civilian market, sniper rifles and machine-guns. 898 employees and sales of RON 67 million (USD 16.5 million) in 2016.

**Cugir Mechanical Plant**

[www.umcugir.ro](http://www.umcugir.ro)

Producer of NATO type ammunition (pistols, machine-guns, air-to-air cannons, link belts etc.). In 2016, the Cugir Mechanical Plant employed 1,135 people and had a turnover of RON 153 million (USD 37.7 million).

**Fagaras Powders Plant (Fabrica de Pulberi Fagaras)**

[www.fabricapulberi.ro](http://www.fabricapulberi.ro)

The only manufacturer of high-powered explosives and solid propellers in Romania, with clients from Europe, USA and Asia. This production has been stopped for a number of years. Plans for re-opening production were announced in 2017. Fagaras Powders Plant employed 197 people and had a turnover of RON 1.4 million (USD 0.35 million) in 2016.

**Electromecanica Ploiesti**

[www.elmecph.ro](http://www.elmecph.ro)

The only producer of rockets and missiles in Romania. Products of military use and products for the Anti-Hail National System. In 2016 Electromecanica Ploiesti employed 194 people and had a turnover of RON 13.4 million (USD 3.3 million).

**Metrom S.A.**

<http://en.metrom.ro/>

METROM SA is the sole manufacturer of copper and brass sheets and strips and is also a military manufacturer of ammunition components (cups/cartridge case cups / bullet cups for small ammunition, discs for artillery ammunition). In 2016, Metrom employed 126 people and had a turnover of RON 13.7 million (USD 3.4 million).

**Mija Mechanical Plant (Uzina Mecanica Mija)**

[www.ummija.ro](http://www.ummija.ro)

Producer of anti-tank grenades, military grenades, products for maintaining public order. In 2016, Mija Mechanical Plant employed 542 people and had a turnover of RON 69.3 million (USD 17 million).

**Moreni Mechanical Plant (Uzina Automecanica Moreni)**

[www.uamoreni.ro](http://www.uamoreni.ro)

Producer of amphibious armored vehicles 4x4, 6x6 and 8x8, amphibious armored vehicles SAUR 1 and SAUR 2, but also Zimbru carrier. In 2016, Moreni Mechanical Plant employed 309 people and had a turnover of RON 6.8 million (USD 1.67 million).

**Pirochim Victoria**

<http://romarm.ro/en/informatii-despre-companie/exhibitions/pirochim-victoria/>

The company produces military powders but although listed on the website of Romarm, its activity has been closed for a number of years and the company also does not have a website of its own. In 2016, Pirochim officially employed 73 people but its reported sales were close to zero.

**Plopeni Mechanical Plant (Uzina Mecanica Plopeni)**

[www.ump.ro](http://www.ump.ro)

Est. 1937. The product portfolio includes a diversified range of artillery ammunition (cal. 23 - 152 mm) for the National Defense System and for foreign beneficiaries. Apart from military products, the company produces parts used in the automotive, oil & gas and machine building industries. In 2016, the plant employed 260 people and had a turnover of RON 19 million (USD 4.7 million).

**Tohan S.A.**

[www.tohan.ro](http://www.tohan.ro)

Manufacture of military and civil products. The product portfolio includes: Artillery ammunition, caliber from 76 mm to 130 mm; Ground-to-ground missiles and air-ground ones, 122 mm caliber and 82 mm range from 3 to 20.4 km (exclusive provider in Romania); Warheads for missiles and artillery ammunition (the most important producer in Romania); Marine ammunition, exclusive manufacturer in Romania; Pyrotechnic elements to other partners: prime screws and tracers. In 2016, Tohan employed 436 people and had a turnover of RON 20.5 million (USD 5 million).

**Sadu Mechanical Plant (Uzina Mecanica Sadu)**

[www.umsadu.ro/acasa/](http://www.umsadu.ro/acasa/)

Producer of infantry ammunition. R&D projects, tools production and repair. In 2016, Sadu Mechanical Plant employed 882 people and had a turnover of RON 64.6 million (USD 16 million).

**UPS Dragomiresti (Special Products Plant Dragomiresti)**

[www.upsdragomiresti.ro/](http://www.upsdragomiresti.ro/)

Production of artillery ammunition, aviation bombs, explosives for civil use; artillery ammunition loading, assembling and packing operations; demilitarization. In 2016, the company employed 164 people and had a turnover of RON 9.7 million (USD 2.4 million).

**The Military Equipment and Technologies Research Agency (METRA)**

<https://www.acttm.ro/en/>

METRA is part of the Armaments Department within the MoD. It is a national organization similar to the US Defense Advanced Research Projects Agency (DARPA), to the Command, Consultancy and Control Agency (NC3A) or NATO Research and Technologies Organization (RTO). METRA is part of the National Research & Development System, with accredited or certified structures for scientific research and technological development or for test and evaluation, recognized at national or international level.

Further, the following companies subordinated to the Ministry of Economy and Commerce are major players in the defense industry:

**AVIOANESA Craiova**

[www.avioanecraiova.com/](http://www.avioanecraiova.com/)

Advanced trainer aircraft manufacturer; provider of maintenance, repair and overhaul of military aircraft; industrial products manufacturer. Capabilities cover a wide range of engineering, maintenance, testing and certification, design and manufacturing of tools and jigs, manufacturing of aircraft and product support. Its manufacturing covers almost all areas for classic metallic aero structures. In 2016, Avioane Craiova employed 255 people and had a turnover of RON 23.4 million (USD 5.8 million)

**IAR SA**

[www.iar.ro/en/](http://www.iar.ro/en/)

IAR S.A. Brasov is the leading Romanian aerospace company with a history of aircraft production stretching back to 1952, the early days of aviation. IAR acts as a specialized MRO unit for Puma and Alouette III helicopters. IAR signed an agreement for exclusive cooperation with Airbus on the H215M multirole helicopter. (IAR will become the prime contractor for the H215M for any future order by the Romanian Ministry of Defense to replace their ageing fleet). IAR has also announced future production of combat helicopters in partnership with Bell Helicopters (21 pcs of UH-1Y Venom and 24 pcs of AH-1Z Viper). In 2016, IAR SA employed 213 people and had a turnover of RON 152 million (USD 37.5 million)

**IOR SA**

[www.ior.ro](http://www.ior.ro)

Producer of sighting and aiming apparatus for infantry, artillery and armored vehicles. Also produces medical equipment, sport optics, eyewear lenses etc. In 2016, IOR SA employed 320 people and had a turnover of RON 17 million (USD 4.2 million)

**ROMAERO SA**

<https://www.romaero.com/?lang=en>

Romaero is an aerospace company that integrates two major activities: aero structure manufacturing and maintenance and repair of civil and military transport aircraft. It is the largest company in the Romanian Aerospace Industry with 90 years of tradition. As an approved organization for Part-21 (G) airframe manufacturing, ROMAERO has capabilities for tool design, production engineering, CNC machining, stretch forming, chemical milling, painting, laboratory testing and acts as a subcontractor of leading aircraft producers such as: BOEING, BOMBARDIER, SPIRIT AEROSYSTEMS, AERO VODOCHODY AEROSPACE, SABCA, SAAB and AEROLEAN. Its authorized workforce offers high quality services on the following types of aircraft: Airbus A320, Boeing B737, 727, 707, MD 80, BAC1-11, Antonov AN-26, BN-2 Islander, ATP and C130 Hercules. In 2016, Romaero employed 819 people and had a turnover of RON 46.5 million (USD 11.5 million)

---

## Largest private Romanian companies active in the defense industry

---

**AEROFINA SA**

[www.aerofina.ro](http://www.aerofina.ro)

Research, production and testing of military and industrial equipment. Manufacture of products for IAR-99 training plane / MiG 21 LanceR fighter / IAR 330 (PUMA) fight helicopters / IAR 330 PUMA-SOCAT fight helicopter. Romanian clients include: MoD (Air Forces, Ground Forces, Naval Forces), Avioane Craiova SA, IAR SA etc. Clients from abroad include: Meggitt Defense Systems Ltd, Odesa Viarem, Elbit Systems Ltd etc. In 2016, Aerofina employed 67 people and had a turnover of RON 10.5 million (USD 2.6 million).

**AEROSTAR SA Bacau**

[www.aerostar.ro/index-en.php](http://www.aerostar.ro/index-en.php)

A regional leader in aviation manufacture and civil aircraft maintenance. Integration, production, upgrade and maintenance for aviation, naval and ground defense systems. MRO and upgrades of military aircraft: L39 jet trainer, MiG 21 jet fighters, aero engines R-13-300, R-25-300, Sapphire 5 turbostarter. The company is likely future provider of maintenance and repair for F16 aircrafts and the PATRIOT systems. With 1,719 employees in 2016, the company reached sales of RON 356 million (USD 87.7 million)

**AEROTEH SA Bucharest**

[www.aeroteh-sa.ro](http://www.aeroteh-sa.ro)

Design, development, production / repair, assembly, service and marketing for: hydraulic and pneumatic equipment used in control and navigation systems of aircraft and aviation engines; complex equipment from natural gas distribution, transport, extraction, measuring and control systems; stands for testing and checking equipment in the field of aviation and natural gas distribution. In 2016, Aerosteh employed 111 people and had a turnover of RON 64 million (USD 15.8 million).

**CONDOR SA Bucharest**

[www.condor-sa.ro/index\\_en.html](http://www.condor-sa.ro/index_en.html)

Manufacturer of parachutes and military flight equipment. With 70 years of experience in the domain of aviation, the company produces flight parachutes and a wide range of special equipment and garments, both for the military and civil sectors. In 2016 Condor SA employed 256 people and had a turnover of RON 18 million (USD 4.4 million).

**TURBOMECNICA SA Bucharest**

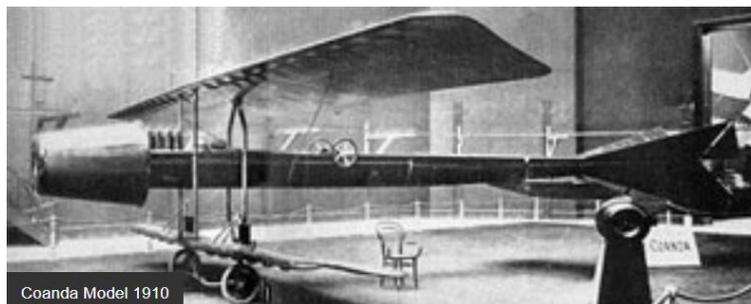
<http://turbomecanica.ro/en/>

Turbomecanica is involved in manufacture of jet engine components and assemblies. Manufacturing (of aeronautical components and high-tech parts), repair and overhaul, special processes. Major clients in defense aerospace include: Romanian MoD (Air Force Command, Naval Force Command), IAR SA, Aeroteh SA, Rolls Royce Plc (UK), General Electric Aviation (USA). In 2016, Turbomecanica employed 430 people and had a turnover of RON 83 million (USD 20.5 million).

Romanian aerospace industry

---

Romania is proud of its contribution to aviation history by giving the world aerodynamics pioneers including Traian Vuia (inventor of the first self-propelling heavier-than-air aircraft in 1906), Aurel Vlaicu (avant-garde airplane constructor, who also built the first Romanian military airplane) and Henri Coanda (designer and builder of experimental aircraft, discoverer of the Coanda effect in fluid dynamics and thus inventor of the first jet-plane).



There are currently 31 players in the Romanian aerospace industry and auxiliary sectors, including manufacturing, R&D and other related activities. The sector has a large pool of products and parts that are used and bought by a number of big global companies. The main products manufactured in Romania are: Aircrafts, helicopters; Gliders and motor gliders; Aircraft engines; Helicopter power plants, dynamic assemblies for helicopters, actuators and servo valves; Landing gears, brakes, hydro-pneumatic accessories and equipment; Electrical/electronic equipment; Parts, components and subassemblies.

Major companies in manufacturing and MRO are **AEROSTAR SA BACAU**, **ROMAERO SA BANEASA**, **AVIOANESA CRAIOVA** and **IAR SA BRASOV**.



## DEFENSE PRODUCT IMPORTS AND EXPORTS

Imports to Romania come mainly from the EU and the USA. Romania is also looking to modernize its own defense industry through international partnerships and US firms may be asked to contribute to this goal.

Romanian arms and military technology exports have increased in the past years and reached the highest level in the last 10 years (in 2016) - over EUR 180 million 15% growth y-o-y). The main client of Romanian armaments remained **the United States**, with US acquisitions accounting for almost 40% of all Romanian military exports (namely EUR 67.34 million). In 2016, the second main destination of Romania's military exports was **Bulgaria** that doubled its purchases from Romania compared to 2015 (exports to Bulgaria reached EUR 19.74 million in 2016). The third biggest client was **Saudi Arabia** (EUR 19.4 million), followed by the **United Arab Emirates** (EUR 15.26 million) and **Israel** (EUR 14.9 million).

Provided below is a short profile of a key player in military product import and export in Romania:

### NATIONAL COMPANY ROMTEHNICA SA

[www.romtehnica.com.ro/site/en/](http://www.romtehnica.com.ro/site/en/)

ROMTEHNICA is the import-export company of the MoD, one of the leading trade companies in the field, having a career spanning over 35 years of experience on the international defense market. Its main activities are in negotiation, conclusion and carrying out of import contracts for products, equipment, outfits, spare parts and military technologies, technical assistance, as well as other foreign and domestic trade operations. Romtehnica negotiates and signs contracts on behalf of the Romanian Ministry of National Defense and other entities related to transfer of technology, logistic support, technical assistance and personnel training. It also acts as intermediary agent, distributor, commissioner, representative, associate in relations with legal and natural Romanian and foreign persons. Romtehnica is also the exclusive exporter for the Romanian Ministry of National Defense' surplus equipment and the most important trader of goods and services produced by the Romanian defense industry. In 2016, Romtehnica employed 81 people and had a turnover of RON 17 million (USD 4.2 million)

## 1.6 MODERNIZATION AND ARMAMENT STRATEGY

In a time where aggressions of all kind (between states, against civilians and even in the cyber space etc.) occur more often and with higher intensity, Romania is aiming to strengthen its protection against such threats as well. The government has put up a strategy for modernizing and upgrading its military equipment and massive purchases are planned for the near future. Also in the non-military sector, for soft targets protection and especially in the field of surveillance and security, modern equipment and newest technologies are being sought after.

Mostly EU and US companies compete for opportunities in the Romanian defense market. Given the strategic partnership between Romania and the USA, as well as Romania's need to rely on NATO support in case of a military attack (especially from Russia), there are situations where US defense/security products are preferred.

In 2017, Romania made a commitment to increase its military defense budget to 2% of the GDP and to keep it up for the next 10 years. Over 40% of the budget is assigned for purchase of military technologies, the highest share among NATO members. Approximately EUR 10 billion has been planned for investment for the period 2017-2026, as stated in the Army Endowment Plan. Expected purchases are outlined below:

1. **Multifunctional corvette – est. EUR 1.6 million (USD 1.86 million)** - purchase of 4 new corvettes with related equipment, ship-to-ship missiles, ship-to-air missiles, ammunition, encryptors.
2. **Mobile missile launch systems – estimated budget of EUR 0.2 billion (USD 0.23 million)** - Complex battle platform capable of discovering, identifying and destroying surface naval targets through anti-ship missiles - a formation of 3 installations.
3. **Modernization of MLI-84M - estimated EUR 0.138 billion (USD 0.160 billion)** - 48 fighting vehicles



4. **Armored vehicles for troops - 8X8 and 4X4:** initial estimation of total needed was 657 vehicles.

- A joint venture was created in November 2017 between the Romanian Government (through Uzina Automecanica Moreni, branch of state-owned company Romarm) and the German company **Rheinmetall Landsysteme** for manufacture of 8x8 wheeled amphibious armored vehicles. The 50/50 joint venture's name is **Romanian Military Vehicle Systems**. They will build 400 armored vehicle personnel carriers for Romania's Defense Ministry, having delivery deadline for the first batch in 2020. Rheinmetall will also offer maintenance services until 2055.

The German company also wants to build military trucks and other products for its international customers at the Moreni factory, as well as the 30-mm cannons that will be fitted on the Agilis armored vehicles). Around 90% of the components for the new Agilis armored vehicle will be manufactured in Romania including the engine and driveline. The new Agilis APCs will replace many of Romania's TAB vehicles including TAB-71 and TAB-77 APCs, which are a locally built variant of the Soviet-made BTR-70. The Romanian Armed Forces are planning to replace about 1,500 such vehicles in the coming years.





- A contract (in the value of EUR 895 million = USD 1 billion) has been signed with General Dynamics European Land Systems - Mowag GmbH (subsidiary of the General Dynamics Corporation) for the purchase of 227 Piranha V (non-amphibious) vehicles, the first 30 of which to be produced in Switzerland and other 197 are to be assembled at **Bucharest Mechanical Factory (Uzina Mecanica Bucuresti, UMB)** - a branch of the state-owned company Romarm. By the end of 2018, Romania will already have 36 Piranha V vehicles.
5. **C4I systems with ISTAR integration capabilities – estimated budget of EUR 0.180 billion (USD 0.2 billion)** - Integrated Communications Systems and Battalion Informatics - B / SICIB, PCBg Command Post (Brigade-type) and PCDiv Command Post (Division –type) / Stage 1: Framework Agreement for 7XPCBg , 14xB / SICIB and a subsequent contract for 3xPCBg and 6xB / SICIB. Note: on February 1, 2018 a contract was signed between Romarm and the US company Circinus Defense for implementation of C4ISR (Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance) system meant to strengthen Romania's military capabilities and enhance interoperability with NATO and US allies. (The contract was signed under confidentiality clause).
  6. **PATRIOT high-range surface-to-air missile (HSAM) systems – budget EUR 4 billion (USD 4.62 billion)**. Purchase of 7 Patriot ground-to-air missile systems (4 for Air Forces, 3 for Ground Forces) plus related equipment, totaling about USD 4.62 billion including VAT. The system will be operational in 2020, with the first of seven systems delivered in 2017. A memorandum of cooperation was signed between the Raytheon (U.S.) and Romanian **“Aerostar Bacau”**, on the basis of which Aerostar might in the future produce components for 220 Patriot missile systems belonging to 14 countries. Moreover, Aerostar might carry out production, repair and upgrading of electrical and control assemblies / offer maintenance services for the Patriot systems in Romania. (Aerostar is an aerospace and defense company in Romania which specializes in the production, assembly, integration and integrated logistic support for a wide range of defense and aviation systems).
  7. **Integrated Weapon Systems - short-range and very short-range air defense SHORAD / VSHORAD**: EUR budget 2.1 billion (USD 2.44 billion). (Stage 1: buying only SHORAD components for EUR 1.37 billion (USD 1.59 billion). Stage 2 - purchase of 21 Integrated Weapons Systems SHORAD-VSHORAD). Offers were received from MBDA France (1,500 Mistral missiles) and from Diehl Defense Germany ( IRIS T SL : IRIS T SLS missile, IRIS T SLM missile)
  8. **Multiple Rocket Launcher – budget of EUR 0.69 billion (USD 0.8 billion)** - 3 systems of 18 launching facilities (54 launching facilities)

Romania has also signed an agreement with the US Government for the purchase of High Mobility Artillery Rocket System (HIMARS) and Guided Multiple Launch Rocket Systems (GMLRS) – Romania thus became the first European HIMARS customer. The budget for this contract was USD 1.25-1.5 billion. Romania requested 54 Lockheed Martin-made HIMARS launchers for a total of three systems and 81 unitary GMLRS. Also included in the request were 54 Army Tactical Missile Systems and 24 Advanced Field Artillery Tactical Data Systems, which is the fire-control system for HIMARS, according to the Defense Security Cooperation Agency. The deal would also include 15 M1151A1 armored utility Humvees and 15 M1151A1 armor-ready, two-man Humvees along with spares and a range of other supporting equipment.



## 2 HOMELAND SECURITY

### 2.1 INTERNAL SECURITY SYSTEM

#### 2.1.1 MINISTRY OF INTERIOR

The Ministry of Interior (MoI) - through the institutions it coordinates - carries activities meant to prevent and combat terrorism, organized crime, trafficking and illicit drug use, human trafficking, illegal migration, cybercrime, and other criminal phenomena and antisocial deeds.

Main institutions subordinated to and coordinated by the MoI include:

- Romanian Police
- Romanian Gendarmerie (in charge of public safety and security; riot prevention; security of targets / transportation; etc.)
- Romanian Border Police
- General Inspectorate for Emergency Situations (prevention and management of emergency situations; first responder in case of emergencies: fire, flood, earthquake, CBRN accidents etc.)
- Immigration Inspectorate
- MoI Aviation Inspectorate (aircraft in possession: Eurocopter EC 135, IAR 316B, MI-8, MI-17, PIPER PA 42-720 CHEYENNE III)
- General Directorate for Domestic Protection
- General Directorate for Anti-Corruption Fight
- National Anti-Drug Agency
- National Agency for Fighting Human Trafficking

**Governing body:** Romanian Government  
**Minister:** Ms. Carmen Daniela Dan  
**State Secretary:** Colonel Gheorghe Nucu Marin

**Website:** [www.mai.gov.ro](http://www.mai.gov.ro)  
**Headquarters address:** Piața Revoluției nr.1 A, sector 1, București, Romania

#### 2.1.2 ROMANIAN INTELLIGENCE SERVICE (SRI)

SRI's responsibility is to prevent and counter espionage, terrorist and cross-border organized crime activities that, by nature and extent, affect national security. SRI is also one of the bodies involved in cyber security and critical infrastructure protection.

SRI's budget for 2018 is RON 2.3 million (USD 0.6 million), half of which is allocated to salaries.

**Governing body:** The Supreme Council of National Defense (CSAT)  
**Director:** Mr. Eduard Raul Hellwig  
**Website:** [www.sri.ro](http://www.sri.ro)  
**Headquarters address:** Bd. Libertatii 14, 030167 Bucharest, Romania




---

## 2.1.3 POLICE FORCES

### Romanian Police

---

The Romanian Police is a law enforcing agency with competences for the entire Romanian territory. It has 42 inspectorates, 33 penitentiaries, 6 hospital-penitentiaries, 3 detention centers and 2 training centers.

Directorates of the Romanian Police:

- Public Order Directorate,
- Criminal Investigations Directorate,
- Organized Crime Countering,
- Economic Crime Investigation,
- Road & Traffic Directorate,
- Arms, Explosives and Dangerous Substances Directorate
- Traffic Police
- Police International Cooperation Center
- Forensics Institute
- SWAT Service

<b>Governing body:</b>	Ministry of Interior
<b>General Inspector (state secretary)</b>	Mr. Ioan Buda
<b>Website:</b>	<a href="http://www.politiaromana.ro">www.politiaromana.ro</a>
<b>Headquarters address:</b>	Police General Inspectorate 6, Mihai Voda Str., Bucharest sector 5, Romania

### Municipal police

---

Municipal police units are administered by cities and municipalities. Bucharest is by far the largest city in Romania, covering 228 km<sup>2</sup> and hosting a population of 3.5 million people. Bucharest City Police supervise and protect the safety of citizens and properties, assure public order, road safety, discipline related to street display, construction and demolition, environmental protection, commercial activity, population record etc.

<b>Governing body:</b>	Bucharest City Council
<b>Director:</b>	Mr. Stefan Vasii
<b>Website:</b>	<a href="http://www.plmb.ro">www.plmb.ro</a>
<b>Headquarters address:</b>	Bucharest City Police Directorate 18 Libertatii str, bloc 104, Bucharest sector 5, Romania

### Romanian Border Police

---

Romania (a non-Schengen country – not part of the area with free movement of persons without border controls within the EU) is a guardian to one of the EU's main external borders (with Ukraine, Moldova, Serbia and the Black Sea), fighting drug smuggling, human trafficking, counterfeiting. The Romanian Border Police is part of the Ministry of Interior and is responsible for approx. 3,150 km of borders: 2,050 kilometers of external border and 1,090 kilometers of internal border of the European Union:



Source: Nations Online

## 2.2 DOMESTIC, REGIONAL AND INTERNATIONAL THREATS

The risk of a conventional, low-intensity, but persistent military aggression has a low degree of probability, but could have a major impact on Romania or its allies, and is an element of interest for national defense.

Factors of risk against regional security come from creation and deployment of military structures in the proximity of Romania by some non-NATO countries, as well as from reorganization, modernization and procurement of modern weapon systems and equipment, development of high-mobility special forces capabilities, military infrastructure and of intensified large-scale un-notified military exercises.

The existence of frozen conflicts in the extended Black Sea region and the possibility of new such conflicts in the proximity of Romania have the potential to project negative effects at the regional level. At the same



time, existence and perpetuation of inter-ethnic tensions and regional or local unrest in Romania's proximity and area of interest can also lead to conflicts.

At present, Romania does not face direct, imminent and explicit terrorist threat. However, the geographic proximity to areas in which terrorism is rampant and Romania's participation in missions to stabilize/rebuild areas of crisis and conflicts are factors that may lead to hostile actions against it.

National contingents who take part in missions overseas will continue to face conventional and unconventional risks and threats generated by actions of extremist and terrorist forces and organizations.

Radicalism with origins in the Middle East and Northern Africa and connections with organized crime activities in Europe will intensify with the return of "European fighters" to their countries of origin/residence.

In close connection with terrorism, trans-border crime generates a risk of arms and ammunition trafficking.

Development of capability to use chemical, biological, radiological, and nuclear (CBRN) weapons as an instrument of dissuasion and promotion of political or ideological interests remains another important preoccupation of the Romanian state. The combination of weapons of mass destruction and vectors of classical ammunition is estimated as one of the most significant risks to Euro-Atlantic security.

Cyber-attacks are at an all-time high and represent an important category of threats with a global reach which are difficult to identify and fight. The increase in the frequency and complexity of such attacks can generate serious damage to information systems with a direct impact on critical infrastructure, to include security and defense. It is very likely that, in order to amplify results, cyber-attacks would be combined with specific actions, especially with subversive campaigns, acts of espionage or sabotage.

The evolution of organized crime in Romania in recent years is closely linked to the evolution of cybercrime and increased use of information technology and communications in committing crimes. At national level, cybercrime manifests itself in the following aspects: cyber-attacks (malware, ransomware, DDoS attacks), computer fraud (fake goods auctions, compromising user accounts of e-commerce sites or creating phishing sites for banking data collection) and bank cards frauds compromising ATMs and extracting confidential information from customer cards). The Romanian Police has set up a specialized unit - the Service for Countering Cybercrime, with competence in prevention, investigation, and prosecution of cyber-crime. It operates within the Directorate for Combating Organized Crime. The service functions as a central structure, coordinating and controlling activities in the field nationwide.

## 2.3 CRITICAL INFRASTRUCTURE

### Airports

Romanian airports are subordinated to the Ministry of Transportation. There are 14 airports for international flights in Romania.

Out of all airports, the biggest is by far the Henri Coanda (Bucharest-Otopeni) airport ([www.bucharestairports.ro/en](http://www.bucharestairports.ro/en)), accounting for 11 million passengers annually, or 67% of the total number of passengers registered in all Romanian airports.

Next after Otopeni airport come Cluj-Napoca airport (<http://airportcluj.ro/>) with 1.9 million passengers and Timisoara airport (<https://aerotim.ro/>) with 1.16 million passengers handled annually.



## Nuclear plants and nuclear security

Romania has only one nuclear power plant - located in Cernavoda on the Danube River. It was planned in the late 1970s as a five-unit plant and was based on technology transfer from Canada (Atomic Energy Canada Limited, AECL), Italy and the USA. Currently two nuclear units are in operation and there are plans to build two more (possibly in partnership with China General Nuclear Power Corporation). The plans foresee putting Units 3 and 4 into function in 2025-2030. Cernavoda units use CANDU-6 technology and each unit has an installed capacity of 700 MWh. The plant currently covers about 18-19 % of Romania's energy demand.

The 2017 annual production was of 5,985,828 MWh for Unit 1 and 5,523,037 MWh for Unit 2. The Cernavoda plant is operated by SN Nuclearelectrica SA (SNN), a state-owned company



In September 2017, SNN decided to refurbish Unit 1 starting in 2026, with detailed plans to be approved in 2021. Phase I of the refurbishment project will include "activities necessary to ensure operation of unit 1 for a period of 30 years, meaning extension of operating hours at nominal power in addition to the 210,000 hours initially estimated by the design." Refurbishing CANDU-6 units in Canada and Korea involves replacement of all calandria tubes, steam generators and instrumentation, and control systems.



As for nuclear waste, all used fuel is stored at the reactors for six to ten years. It is then transferred to a dry storage facility (DICA) at Cernavoda based on the Macstor system designed by AECL, where it will remain for about 50 years under responsibility of SNN. The first module was commissioned in 2003.

The national repository for industrial low-level radioactive waste (DNDR) has operated since 1985 at Baita Bihor in two galleries of the former Baita uranium mine. Its capacity is 21,000 standard 220-litre drums. Under Romanian law, waste rock and mine tailings are considered to be radioactive waste.

The Energy Strategy of Romania will be adopted by the end of 2018. According to this strategy, Romania should put into function 3 repositories for radioactive waste by 2055:

- a surface repository for low- and intermediate-level waste, consisting of concrete cells, with containers of cement-conditioned waste, covered by a concrete cap and finally by a multilayer impervious cover - this repository should be completed in 2024.
- a deep geological repository for burned nuclear fuel and one for low- and intermediate-level waste will be completed in 2055.

Romania repatriated to the country of origin (the Russian Federation) the entire quantities of highly enriched uranium (HEU) and low enriched uranium (LEU).

The National Strategy for Nuclear Safety and Security was approved by a government decision in July 2014, with the objective of strengthening national legislation framework on nuclear security. The Inspectorate for Emergency Situations (IGSU) has prepared a webpage informing the population on measures to be carried out in case of a nuclear accident or radiological emergency. These measures include sheltering / evacuation / administration of potassium iodide (KI).

## ROMANIA AS PART OF INTERNATIONAL NUCLEAR SAFETY INITIATIVES

---

Romania is party to the following multilateral instruments which promote nuclear security: Treaty on Non-proliferation of Nuclear Weapons (NPT); Convention on Physical Protection of Nuclear Material (CPPNM) and its Amendment; International Convention on Suppression of Acts of Nuclear Terrorism (ICSTANT); Comprehensive Test-Ban Treaty (CTBT).

Romania is actively involved in the Global Initiative to Combat Nuclear Terrorism (GICNT), subscribing to the commitment to detect, prevent and respond effectively to acts of nuclear terrorism by carrying out multilateral activities aimed at improving interoperability among participating States. Romanian experts regularly take part in the activities of two specific GICNT working groups, namely, Nuclear Detection Working Group – NDWG and Nuclear Forensics Working Group – NFWG.

Romania is one of the countries which voluntarily report to the IAEA database on illicit trafficking of radioactive substances in the event that such developments ever occur. No high-risk events regarding illicit trafficking in dual use (civilian and military) nuclear items have occurred in Romania so far. Since the launch of the IAEA database, Romania only reported some minor incidents. During the period 2014-2016, the frequency of such recorded events was about 3 or 4 per year. They are, nevertheless, insignificant in what concerns their impact on the environment and the population.

Since 2009, Romania has in place an agreement with the U.S. Department of Energy (DOE) on cooperation for enhancing the physical security of special nuclear materials and radioactive sources in Romania. Under this agreement, during the period 2014-2016, Romania carried out several activities, such as improving the physical protection systems at several hospitals and oncological institutes, and placing into safe storage all existing highly radioactive sources in hospitals and research institutes.



In the framework of the "Second Line of Defense" initiative, Romania continued to commission equipment, thus securing the Romanian north-eastern border by installing radiological detection portals at the access points for road, rail and pedestrian traffic. In 2015 detection portals for luggage and passengers were installed at Romania's national airport in Bucharest.

## Dams

Hydroelectricity generates about 35% of total production of electricity in Romania. There are approx. 2,000 dams which together with over 10,000 km dykes defend the population against floods. At the end of 2016, the National Administration "Romanian Waters" (ANAR) published a report according to which 35% of dams (namely almost 700 dams) would not meet requirements to receive authorization. 70 dams have been identified as not having a known owner.

In 2017, ANAR allocated RON 380.9 million (USD 95.9 million) for key protection works against floods.

The Siriu, Maneciu, Paltinu and Poiana Uzului dams are the most exposed to accident risks because they are located less than 100 km from the epicenter of Vrancea, the main seismic outbreak in Romania. Moreover, construction works at Siriu dam began in the communist era and were finalized after the fall of communism - finishing works were done under pressure to minimize costs or were even been done at all: the injection of cement milk into the left and right mountains of the dam, in order to make it unbreakable, have been interrupted / the correction of torrents to the left and right of the accumulation lake to prevent landslides have not been finalized. The Siriu dam is already showing signs of weakening and experts consider that if this dam broke, it would be the biggest disaster in the history of Romania (the 122 m high dam holds 155 million m<sup>3</sup> of water).

## Crude Oil Pipelines and Depots

### Pipelines

The Crude Oil National Transport System (N.T.S.) is a set of interconnected major pipelines, providing collection of crude oil from the extraction sites or importing crude oil and routing from the sites they have been delivered by the producers/importers towards the processing units. The N.T.S. is currently 3.800 km in length and is divided into four major sub-systems. The system's transport throughput is approximately 27.5 million tons/year.

Domestic Crude Oil	Imported Crude Oil	Rich Gas and Ethane	Crude Oil and Rich Gas
1,540 km of pipelines	1,348 km of pipelines	921 km of pipelines	13 loading ramps
6,9 million tons per year throughput	20,2 million tons per year throughput	0,33 million tons per year throughput	2 unloading ramps
126,000 mc storage capacity	45,000 mc storage capacity	663 mc storage capacity	13 locomotives and 69 railway tanks



There are currently 4 refineries in operation but only 3 refine crude oil:

1. **Petromidia refinery** (located in Navodari, by the seaside) is the biggest and belongs to Rompetrol Rafinare Constanta (owned by KazMunaiGas International) and refined 5.66 million tons of crude oil in 2017.
2. **Vega refinery** (located in Ploiesti, 70 km from Bucharest) is the oldest in the country and belongs to Rompetrol Rafinare Constanta (owned by KazMunaiGas International) - processes 350,000 t of raw material per year.
3. **Petrobrazi refinery** (located in Ploiesti, 70 km from Bucharest) belongs to OMV Petrom. It is connected to a complex pipeline infrastructure allowing for transportation of domestic crude oil from OMV Petrom's oil fields and of imported crude oil from the Constanta Oil Terminal. The refinery processes about 4 million t of crude oil per year.
4. **Petrotel refinery** (located in Ploiesti, 70 km from Bucharest) belongs to Lukoil and processes about 2 million t of crude oil per year.

### Storage depots

Starting in 2014, due to storage costs too high to be supported by the state budget, storage of crude oil and fuels has become exclusively the responsibility of private companies. The biggest depots are:

**OMV Petrom** - four tank farms with a total storage capacity of 65,000 m<sup>3</sup> (Jilava: 27,000 m<sup>3</sup>, Brazi: 8,000 m<sup>3</sup>, Işalnița: 11,000 m<sup>3</sup>, Bacău: 19,000 m<sup>3</sup>). These are some of the most modern and safe oil distribution storages in Europe.

**Rompetrol (KMG International)** - eight tank farms: Arad, Craiova, Mogoşoaia, Simleul Silvaniei, Vatra Dornei, Zărneşti. Onesti and one located by Petromidia refinery in Navodari.



## 2.4 PHYSICAL SECURITY MARKET

The alarm and video surveillance market in Romania has been constantly growing over the years, with sales increase being driven for example by the increase in real estate projects which required video surveillance (residential/office buildings/retail centers) and investors opening new production facilities (major investors were car parts producers).

The legal framework in Romania states the need for companies to provide a certain minimum level of security to their employees, based on a physical security assessment made by a certified evaluator (who decides for example which are the places where surveillance cameras should be installed).

Sales increase in surveillance systems was also driven by a price drop which made them more accessible for individuals, businesses and companies. There have been cases where companies have reported even an increase in staff productivity by up to 30% after installation of a surveillance system.

Interest of Romanian authorities in video surveillance has also been growing: city halls place video cameras in parks, at cross-roads, in city buses etc. The law requires even examination rooms in schools to be equipped with video cameras for AV surveillance of major school exams (e.g. high-school graduation) etc.

All institutions, including police stations must have camera surveillance and fines are applied if surveillance equipment is not functioning properly.

In 2018, numerous city halls announced their intention to invest in modernizing/extending video surveillance systems. These include:

- Bucharest (2 million inhabitants; previously existing approx. 2,000 video cameras) - purchase of 373 video cameras in the value of RON 12.15 million (USD 3 million)
- Iasi (372,000 inhabitants; the second most populated city in Romania after Bucharest; previously operating 120 video cameras) – purchase of a surveillance system which includes 866 video cameras - digital integrated surveillance system, using video cameras and IP communications network. The system will also provide real-time traffic surveillance and license-plate recognition.
- Oradea (who already had 144 video cameras installed) is purchasing additional 216 IP cameras providing high-definition (HD) images; "zoom in" on the areas of potential danger (including at night); real-time traffic surveillance and license-plate recognition.

Increasing interest in surveillance equipment has also lead to an increase in the number of companies licensed to install alarms and surveillance equipment: 2,000+ companies in 2017 / 810 companies in 2009. There were 1,250 security agencies registered with the Romanian Police in 2017.

In 2017, the private security market registered a 7.9% year-on-year increase in the number of facilities where electronic security systems have been installed, an increase of 8.7% in the number of specialized companies licensed for installment of such equipment, an increase of 6.1% in the number of technical staff authorized by the police for the design, installation and maintenance of alarm systems, and an increase of 13.5% in the number of objects connected to the monitoring.



Main monitored targets in 2017 were: 8,090 banks, 4,832 exchange offices and pawn shops, 5,343 sports betting agencies, 266 post offices, 7,275 stores and 2,874 gas stations.

Romania imports security and surveillance products come from all over the world, including from the USA.

## 2.5 CYBER DEFENSE & SECURITY

Romania is a cyber-security incident generator, with a transit (proxy) role for attackers, according to CERT-RO reports, but it has also lately become a target of APT, DDoS or ransomware cyber-attacks.

In 2016, the Romanian National Computer Security Incident Response Team collected and processed 110,194,890 cyber security alerts, 61.56% more than in 2015 and 154.89% more than 2013. In addition to the growing number of cyber security alerts, the most common forms of malware on the Romanian computer systems were detected many years ago and, although they should have been eradicated, they continue to infect old and outdated operating systems in Romania.

In response to increasing cyber security threats, the Romanian government adopted a national action plan to implement the National Cyber Security System (SNSC). The IT industry in Romania has expressed a desire for enhanced cyber security in sectors such as business analytics, mobile computing, cloud computing, and social business, as companies and government alike are increasingly dependent on cyberspace. The number of attacks on companies and government departments in Romania rose.

A Forbes Romania interview with Florin Talpes (the man who founded Bitdefender) – dated June 2018 – reveals Mr. Talpes' intention to launch a business incubator for cyber security start-ups.

Some of the key Romanian players in the cyber-security sector are:

### **BITDEFENDER**

[www.bitdefender.ro](http://www.bitdefender.ro)

Romanian cyber-security producer with a worldwide network of 500 million users. The company has the world's largest infrastructure for delivering security. By performing 11 billion security queries per day, Bitdefender detects, anticipates and takes action to neutralize even the latest threat anywhere in the world in just 3 seconds.

### **SIVECO ROMANIA**

[www.siveco.ro](http://www.siveco.ro)

One of the biggest software and IT services providers on the Romanian market. Although young as for cyber-security experience, the company coordinates the RED-Alert research and innovation project, funded by the European Commission with EUR 5 million, to fight online terrorist propaganda. (The project timeframe is June 1, 2017 – May 31, 2020. Siveco partners for this project with institutions from the UK, Spain, Malta, Israel, Hungary, France, Romania and the Republic of Moldova).

### **UTI GRUP**

[www.uti.eu.com](http://www.uti.eu.com)

A leading military-related system developer and integrator, presenting multiple solutions: cyber security, command and control, software applications, Tempest equipment, video analysis and integrated security systems for military purposes. The solutions developed by **certSIGN**, a UTI member company and the most important player on the national cyber security market, are internationally recognized: certSAFE and shellSAFE's have been included in the NATO Information Assurance Product Catalogue (NATO NIAPC). These can be used to process NATO classified information up to NATO RESTRICTED level. UTI is the third largest PKI (Public Key Infrastructure) solution manufacturer in the world and the only one in Romania whose products have been included in this catalogue.



## CYBER SECURITY ON NATIONAL LEVEL

---

Romania undergoes a continuous process of strengthening cyber security nationwide, both from a legal, institutional, and procedural point of view, and efforts are being made by all authorities with responsibilities in this field. Current legal regulations, as well as the degree of their implementation in Romanian public institutions, are not sufficient for the prevention and countering of medium- and high-level cyber threats with the needed efficiency.

Strengthening the legislative framework in the field of cyber security is a national priority in order to insure optimal conditions for rapid response to cyber incidents. The EU Directive 2016/1148 (NIS Directive), needed to be transposed into national law by all member states by May 9, 2018. As such, the Romanian Ministry of Communications and Information Society launched into public debate (on 3 October 2017) the *Draft Law on ensuring a high common level of security of networks and information systems*. This draft act proposes the adoption of a set of rules aimed at establishing a unified national framework for cyber security and the response to security incidents occurring at the level of the networks and computer systems of key service providers and digital service providers, in line with the NIS Directive requirements (the law has not been approved yet).

Romania adopted its Cyber Security Strategy in 2013, having a common approach at the level of the European Union, in order to provide a prompt response to attacks in the cyberspace. The Strategy establishes a conceptual, organizational and action framework necessary to ensure cyber security and aims to protect cyber infrastructures in line with new concepts and policies in the field of cyber defense elaborated and adapted at NATO/ EU level.

The main objective of the Romanian Cyber Security Strategy is the creation of an integrated national system - **the National Cyber Security System (SNSC)**, responsible for supervising implementation of all prevention and response measures against cyber-attacks towards public institutions or private companies. SNSC brings together public authorities and institutions with responsibilities and capabilities in the field.

The **Supreme Defense Council (CSAT)** is the authority that coordinates the SNSC's activity at strategic level. The **Ministry of Communications and Information Society (MCSI)** ensures coordination of other public authorities for a coherent implementation of the government strategies in the field.

SNSC includes public authorities with competence in the field (Romanian Intelligence Service - SRI, Ministry of National Defense, Ministry of Interior, Ministry of Foreign Affairs, Ministry of Information Society, Special Telecommunications Service, Foreign Intelligence Service - SIE, Protection and Guard Service - SPP, Office of the National Registry for State Secret Information and the Secretary of CSAT), but also players from the non-government, professional and business associative environment.

Within the Romanian Intelligence Service (SRI) is the **National Cyber Security Center (CNCS)**, which maintains relations with similar bodies abroad in case an attack on the Romanian cyber security occurs.

Cyber security alerts are processed at national level by CERT-RO (Romanian National Computer Security Incident Response Team).

**CERT-RO** is an independent structure of expertise and R&D in the field of cyber infrastructure protection, which has the capability to prevent, analyze, identify and respond to cyber security incidents of computer systems that provide public utility functions or provide services of information society. CERT-RO is coordinated by the Ministry of Information Society and is entirely financed from the state budget.

The data reported for 2016 on the [www.cert.ro](http://www.cert.ro) website shows that:

- 38.72% of total unique IP addresses allocated to Romania have been affected;



- 81.39% of alerts collected and processed are related to vulnerable information systems;
- 12.81% of alerts collected and processed are related to systems infected with different types of malicious software (malware), such as botnets;
- 58.98% of the total number of incidents resulting from processing of alerts are related to vulnerable systems;
- 40.96% of the total number of incidents resulting from processing of alerts are related to systems that are part of botnet networks;
- 10,639 “.ro” domains were reported to CERT-RO as being compromised in 2016, about 40% less compared to 2015 (17,088 domains).

**Investments in cyber security:** the Romanian Intelligence Service (SRI) and the National Cyber Security Incident Response Center (CERT-RO) will each receive EUR 30 million from European funds and from the state budget for two cyber security projects. The SRI (through the Cyberint National Center) in partnership with the Special Telecommunications Service (STS) will carry out a project "Updating and developing the national system of protection of ICT infrastructure with critical valences for national security against cybernetic threats" and CERT- RO will carry out a project called "Early Alert System and Real-Time Information - RO-SAT".

**CERTMIL** is the Main Technical Center for cyber security incidents response within the MoD.



## 3 PUBLIC PROCUREMENT SYSTEM

---

Romanian legislation on public procurement has partially transposed the EU Directive 2014/24/EU and includes the following:

- **Act No. 98/2016** on public procurement
- **Government Decision No. 395/2016** on approval of application rules for legal provisions regarding awards of public procurement contract/framework agreement
- **Act No 101/2016** on remedies and appeals regarding public procurement contracts award
- **Government Ordinance No. 114/2011 on award of certain public procurement contracts in the field of defense and security** - applies to supply of military products and/or sensitive products, to works, products and services directly related to the aforementioned products, to works and services for specific military purposes or sensitive works and services / to products related to non-military security such as border protection, police activity and crisis management missions, critical infrastructure protection in public utility sectors such as transportation and energy.

### Main stipulations of Act No. 98/2016

The law provides for equal treatment of both domestic and foreign bidders. Foreign bidders must submit certified Romanian translation of their bidding documents.

Awarding procedures regulated by Act No 98/2016 are applicable when the value of the contracts to be awarded is higher than the following thresholds:

- RON 23,227,215 (approx. **USD 5,850,000**) - for construction works
- RON 600,129 (approx. **USD 152,000**) - for services or supply contracts
- RON 3,334,050 (approx. **USD 840,000**) - for contracts concerning social services or other services presented in Annex 2 to the Act (i.e. health, legal, social security services).

Under these thresholds, the contracting authority shall implement a simplified awarding procedure regulated by GD No. 395/2016, observing general principles for granting public procurement contracts.

Contracting authorities **may directly award** contracts with estimated value lower than:

- RON 132,519 (approx. **USD 33,380**) for product and services contracts
- RON 441,730 (approx. **USD 111,300**) for construction works contracts

There are 9 possible procurement procedures stipulated by Act No. 98/2016 and for cases where the estimated contract value is higher than the thresholds mentioned above, the most frequently used are the following two (for both of them the most economically advantageous bid will win the tender):

- **Open procedure** – it is a one-stage procedure; any interested company can submit their offer in response to a tender notice.
- **Restricted procedure** – consists of two stages, and only bidders selected by the contracting authority at the first stage will be invited to submit bids in the second stage



## Procurement procedures according to Government Ordinance No. 114/2011

Procedures for awarding public procurement contract in the field of defense and security:

- **Restricted procedure** - any bidder can submit a request to participate in the tender but only selected bidders have the right to actually submit their bid. There are usually two stages (1 - candidate selection / 2 - evaluating bids submitted by selected candidates) but the contracting authority does have the right to decide on the organization of an additional stage.
- **Competitive dialogue** – any party can submit a request to participate in response to a tender notice. The contracting authority then conducts a dialogue with selected participants in order to identify one or several solutions suitable to its needs. After finding the most convenient solution, the contracting authority calls for the submission of bids. This type of procedure is used for contracts of great complexity, when the contracting authority is not able to define technical specifications or establish financial / legal implementation of the project.
- **Negotiated procedure with publishing** – usually two stages: 1 - selecting candidates who have submitted request to participate in the tender / 2 - negotiating the contract with selected candidates, including price.
- **Negotiated procedure without publishing** applies only if the restricted procedure, negotiation with publishing, competitive dialogue or call for tenders resulted in a situation where no bid was submitted or all bids were inappropriate / irrelevant to the subject of the contract. The application of a negotiated procedure in this case is only possible after the initial procedure has been canceled and only if initial requirements set out in the tender documentation are not substantially altered; the contracting authority also has the obligation to send information to the European Commission if this information is requested;
- **Call for tenders - simplified procedure** – the contracting authority requests bids from several parties. This is a one-stage procedure.

**The most commonly used procedures are restricted procedure and negotiation with publishing.** Publication of tender notices is done in the Romanian Electronic System for Public Procurement (SEAP) and, where applicable, in the Official Journal of the European Union – this is mandatory where the estimated value of the supply/services contract is equal to (or higher than) EUR 400,000 (without VAT) or EUR 5,000,000 (without VAT) for a construction works contract.

The contracting authority has the right to also **directly purchase** products, services or works, if their **value does not exceed EUR 75,000**. Purchase in this case is based on a justifying document.

### MoD - Section of Armaments and Acquisitions

Within the **MoD**, the **Armament Department** is in charge of developing procurement policies and coordinating their implementation within the Ministry. The Armament Department has several Directorates, among which the Directorate for Managing Resources for Dotation is the most relevant.



### **Directorate for Managing Resources for Dotation**

The head of this Directorate is col. ing. Romeo Nechita.

This Directorate is in charge of managing resources for the purchase of goods and services used by the Army, evaluating and certifying MoD suppliers of systems and equipment for defense, coordinating activities of the **National Company ROMTEHNICA SA (the import-export company of the MoD)**, acting as a secretariat to the Procurement Council.

Address:

9-11 Drumul Taberei,  
061418 Bucharest, Romania  
Telephone: +40 213 195 826  
Email: [secretariat@dpa.ro](mailto:secretariat@dpa.ro)

### **ROMTEHNICA SA (STATE ENTERPRISE)**

Address:

5C Timisoara Blvd, 6th district, P.O.Box 061301, Bucharest  
Telephone: +40 213 185 004  
Email: [marketing@romtehnica.com.ro](mailto:marketing@romtehnica.com.ro)  
General Director: Mr. Daniel Grigoriu-Norocel (email [dan.grigoriu@romtehnica.com.ro](mailto:dan.grigoriu@romtehnica.com.ro))

### **Mol – General Logistics Directorate**

---

The General Logistics Directorate coordinates, guides and controls activities in logistic and investment planning, elaborates policy documents regarding endowment of the Mol units with modern technical means and equipment to ensure compatibility with similar structures in other NATO/ EU states.

Address:

Revolutiei Square 1A, Bucharest, Romania  
Telephone (central operator): + 40 213 037 080  
Email: [petitii@mai.gov.ro](mailto:petitii@mai.gov.ro)

### **Romanian Police – Logistics Directorate**

---

The Logistics Directorate is responsible for:

- management of logistics of the General Police Inspectorate and subordinated structures;
- elaborating and updating investment programs of Romanian Police's General Inspectorate;
- organizing and carrying out, in accordance with legal provisions in force, procedures for public procurement of products, works and services provided in approved annual programs for police units, according to their competencies

The head of this Directorate is the Police Chief Commissioner Mr. Marius Dragnea

Address:

6 Mihai Voda, Bucharest sector 5, Romania  
Telephone (secretariat): + 40 213 166 686  
Email: [petitii@politiaromana.ro](mailto:petitii@politiaromana.ro)



## 4 ROUTE TO MARKET AND MARKET OPPORTUNITIES

---

### 4.1 ENTERING THE ROMANIAN MARKET

Good opportunities exist for U.S. companies supplying high-end, advanced products, which can surely attract local authorities and fit the needs of the Army, Police, or the private market.

Opportunities exist especially in the military field, as Romania has begun a process of modernizing and upgrading its equipment and technologies. Examples of products and services of interest to the defense sector are:

- Tracked and wheeled armored Vehicles
- Infantry weapons and ammunition
- Artillery systems and ammunition
- Missiles systems and rockets
- Powders, explosives
- Equipment and subsystems
- Low and medium altitude radar systems
- Used US fighter aircraft upgrades
- Replacement parts and service
- Defense training and consultation

Romania is a member of the European Union and the World Trade Organization (WTO), and also a strategic partner of the USA starting in 2011. Companies from the USA can apply the same business principles when entering any other EU market. Most provisions governing Romanian imports have been EU-harmonized, while others are national. Contacting the Customs Authority is recommended when checking import duties on individual products.

U.S. firms can gain access to the Romanian defense and security markets via the following channels:

- Direct exports (esp. in case of defense equipment or spare-parts/components for aircraft, ships etc.)
- Establishing a branch in Romania
- Contracting a local importer/distributor (e.g. in the case of security products or equipment meant for the police/ penitentiary / forensics etc.)
- Acquisition of a local company (this would provide an immediate access to local production know-how as well as existing distribution channels and certifications)

Romania does not have a tradition of commission-only agents: sales agents usually work as employees of a company and are paid a salary to which a commission on performed sales can be added.

Having a local partner who has the right connections with various authorities can be a great advantage for obtaining information on what products are needed on the market, what certificates are needed, what can be done to improve an offer and have better chances to win a tender.



**4.2 ASSOCIATIONS, PUBLICATIONS AND FAIRS**

**TRADE SHOWS**

Name: **ROMANIAN SECURITY FAIR**  
 Website: [www.romaniansecurityfair.eu](http://www.romaniansecurityfair.eu)  
 Date: October 18-20, 2018  
 Venue: Bucharest  
 Profile: Biannual event, organized by the Romanian Association For Security Technology together with Romexpo (exhibition organizer).



Name: **BLACK SEA DEFENSE AND AEROSPACE**  
 Website: <http://bsda.ro/en/>  
 Date: 16-18 May, 2018  
 Venue: Bucharest  
 Profile: International tri-service defense Exhibition and Conference dedicated to Defense, Aerospace, Homeland Security, Cyber Security and Safety & Security, officially supported by the Romanian Government. The only exhibition in Romania officially certified by the US Department of Commerce. Held every 2 years. Organized by TNT Productions Romania and TNT Productions, LLC.



**ASSOCIATIONS & ORGANIZATIONS**

Name: **Romanian Business Association of Military Technology Manufacturers (PATROMIL)**  
 Website: [www.patromil.ro](http://www.patromil.ro)  
 Description: Association of over 200 Romanian companies engaged in research, development, production, trade and marketing of the military and security equipment, material and services.



Name: **Romanian Association for Security Technology (ARTS)**  
 Website: [www.arts.org.ro](http://www.arts.org.ro)  
 Description: The association gathers producers, integrators and distributors of security products.



## PUBLICATIONS

---

Name: **ALARMA**  
 Circulation: n/a  
 Frequency: Monthly  
 Website: <http://revista-alarma.ro/>  
 Publisher: ROMANIAN ASSOCIATION FOR SECURITY TECHNOLOGY (ARTS)  
 Description: The magazine addresses security professionals as well as general public interested in trends of the security market in Romania and in the world.



Name: **CER SENIN**  
 Circulation: n/a  
 Frequency: 3-months period  
 Website: [www.roaf.ro/ro/cer\\_senin/cersenin\\_arhiva.php](http://www.roaf.ro/ro/cer_senin/cersenin_arhiva.php)  
 Publisher: Romanian Air Forces  
 Description: Air Forces' publication.



Name: **REVISTA FORTELOR TERESTRE**  
 (Land Forces Magazine)  
 Circulation: n/a  
 Frequency: 3 times per year  
 Website: <http://rft.forter.ro/>  
 Publisher: Romanian Land Forces





## SOURCES

---

Web portals of all institutions profiled in the report

Romania's permanent delegation to NATO

Media articles

Unofficial interviews with former military officers

- [www.dsca.mil/](http://www.dsca.mil/)
- <https://www.hotnews.ro/stiri-esential-21339322-video-avioanele-16-intrat-oficial-serviciul-fortelor-aeriene-prima-reprezentatie-cerul-romaniei.htm>
- <https://www.hotnews.ro/stiri-esential-21723547-seful-armatei-anunta-romania-cumpara-rachete-aparare-anti-aeriana-patriot-cel-mai-mare-contract-din-istoria-armatei-acordat-fara-competitie.htm>
- <https://lege5.ro/Gratuit/ge2dqmbqg4za/ordinul-nr-5-2017-privind-paza-obiectivelor-bunurilor-valorilor-si-a-transporturilor-speciale-apartinand-ministerului-afacerilor-interne>
- [https://www.sri.ro/fisiere/legislation/Law\\_SRI.pdf](https://www.sri.ro/fisiere/legislation/Law_SRI.pdf)
- <https://newstrategycenter.ro/wp-content/uploads/2017/03/2017-Event-Description-1-March.pdf>
- <http://armedforces.eu/Romania>
- [www.globalfirepower.com](http://www.globalfirepower.com)
- <http://cursdeguvernare.ro/defence-industry-in-a-sensitive-situation-romania-before-a-strategic-choice-us-or-europe.html>
- <http://govnet.ro/International/Politics/The-Romanian-Patriot-Missile-System-will-be-operational-in-2020-says-Defense-Minister>
- <https://newstrategycenter.ro/wp-content/uploads/2017/05/2017-Event-Description-10-mai.pdf>
- <https://www.digi24.ro/stiri/actualitate/moscova-cu-ochii-pe-achizitiile-militare-ale-romaniei-773868>
- [www.mapn.ro/structuri/index.php](http://www.mapn.ro/structuri/index.php)
- <https://www.rumaniamilitary.ro/program-de-93-miliarde-de-euro-pentru-inzestrarea-armatei>
- [www.capital.ro/arme-le-din-dotarea-armatei-romane.html](http://www.capital.ro/arme-le-din-dotarea-armatei-romane.html) ,
- [http://stiri.tvr.ro/doua-contracte-de-inzestrare-a-armatei-romane-vor-fi-semnate-pana-la-sfar--itul-anului\\_823107.html#view](http://stiri.tvr.ro/doua-contracte-de-inzestrare-a-armatei-romane-vor-fi-semnate-pana-la-sfar--itul-anului_823107.html#view)
- [www.industriadeaparare.ro/opia](http://www.industriadeaparare.ro/opia)
- <http://raytheon.mediaroom.com/2017-11-29-Romania-signs-agreement-with-U-S-government-for-Patriot-Integrated-Air-and-Missile-Defense-system>
- <https://www.defensenews.com/land/2018/01/12/romania-inks-1b-deal-for-hundreds-of-infantry-fighting-vehicles/>
- <https://www.gd.com/news/press-releases/2018/01/general-dynamics-awarded-1-billion-contract-deliver-piranha-5-wheeled>
- [www.presidency.ro/files/userfiles/Strategia\\_Nationala\\_de\\_Aparare\\_a\\_Tarii\\_1.pdf](http://www.presidency.ro/files/userfiles/Strategia_Nationala_de_Aparare_a_Tarii_1.pdf)
- <https://actmedia.eu/daily/romania-is-hosting-nato-headquarters-multinational-brigade-south-east-located-in-craiova/71895>