TOWARDS BALANCED DEFENCE INDUSTRY IN EUROPE: MAIN SPECIFICITIES OF CENTRAL AND EASTERN EUROPEAN DEFENCE INDUSTRIES

BY VILÉM KOLÍN

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INTRODUCTION

On 19 and 20 December 2013, for the first time since the Lisbon Treaty came into force, the Heads of States and Governments of the European Union (EU) held a thematic debate on defence, in the European Council. They identified a number of actions for stronger cooperation within the Common Security and Defence Policy (CSDP), to address critical shortfalls in capability development. In addition to concrete programmes on Remotely Piloted Aircraft Systems (RPAS), Air-to-Air refuelling, Satellite Communication, and Cyber, the European Council highlighted the need for “a more integrated, sustainable, innovative and competitive defence and technological and industrial base (EDTIB) to develop and sustain defence capabilities.”\(^1\) It also stressed the need to have a balanced defence industry in Europe.\(^2\)

The “balanced defence industry” sounds like a new buzzword in the EU language. But what does it mean exactly? It is about ensuring coherent development of the EDTIB across Europe. The aim is to promote equal opportunities and to offer a “fair chance” of access to the EDTIB for all EU/European Defence Agency (EDA) Member States’ defence industries. It is particularly pertinent for those who feel detached from the mainstream European defence cooperation, at both government and industry level, and vital for those Member States seeking more engagement with major arms producing countries. In other words, it is about one more crossing of the old historical division of Europe between the East and the West; this time in the area of defence cooperation in arms production. Before taking concrete actions to build a balanced defence industry in Europe, and to promote equal opportunities and to offer a “fair chance” of access to the EDTIB, it is important to understand the specificities of the defence industry, including its geographical location. Since it is predominantly about the Central and Eastern European (CEE) defence industries trying to make a full use of existing opportunities and to be able to compete with their western counterparts, the specificities of the CEE defence industries are addressed first.

This article aims to identify specificities of the CEE defence industries and to enhance understanding of this particular issue. In doing so, it lays the ground for the formulation of a more common “balanced” policy to strengthen the EDTIB, to promote equal opportunities and to offer a “fair chance” for all EU/EDA Member States’ defence industries, in line with the European Council conclusions.

There are substantial differences between CEE defence industries. In geographical terms from the EU/EDA perspective, these countries can be organised into four regional groups: the Baltic tier (Estonia, Latvia and Lithuania) which is now seeking increasing integration with the Nordic defence group cooperation called NORDEFCO, the Balkan tier (Bulgaria and Romania), the Adriatic tier (Croatia and Slovenia) and the Visegrád tier centred around


\(^2\) Ibid.
Visegrád Group – V4 countries (Czech Republic, Hungary, Poland and Slovakia). In defence industrial terms, the division is much more blurred. On the one hand, there are the Baltic states with mostly maintenance, repair and overhaul (MRO) facilities and components suppliers. On the other, there are the Visegrád countries with a relatively well-developed defence technological and industrial base. All of the remaining countries—Bulgaria, Croatia, Romania, and Slovenia—are standing somewhere in the middle. In geopolitical terms, it would appear that only Poland has the ambition to play a leading role in European defence matters, as well as having the underlying industrial and political capacity to do so. In other words, the CEE defence industries are very diverse and their power relatively low. Given the diverse macroeconomic conditions, the dissimilar policy outlook, and the differences in the level of ambition set for the armed forces, the disparity between the CEE defence industries is likely to be amplified further in the years to come.3

3 For a cumulative statistical overview of CEE EU/EDA Member States’ defence expenditures, number of military personnel and defence exports and imports, see the tables at the end of the text.
KEY FACTORS

Before outlining the character and corresponding specificities of the CEE defence industries, it is important to describe the main contributing factors. Chief among them is the integration with the Soviet Union’s military and industrial complex and the transformation process, following its collapse in 1989. These factors later became the principal elements of the specificities of the CEE defence industries.

Political and Historical Context

The CEE countries are not a homogenous group. Despite the fact that 25 years ago all of them were part of the Eastern Bloc, their level of defence production and the corresponding levels of integration with the Soviet Union’s military and industrial complex, vary substantially. While some of them were linked directly, being part of the former Soviet Union (Estonia, Latvia and Lithuania), others enjoyed a different degree of autonomy depending on the amount of indigenous defence industry capabilities and their political outlook. Moreover, there was a certain degree of specialisation among the CEE EU/EDA Member States. While Czechoslovakia focused on aerospace and biological and chemical threats, for instance, Poland specialized in radars.

At one end of the spectrum was Yugoslavia (the Adriatic tier - Croatia and Slovenia). Since the 1950s, it has enjoyed a high degree of independence from the Soviet Union, pursuing a policy of self-sufficiency and having a thriving independent defence industry, with products targeting customers within the Non-Aligned Movement (NAM), (Yugoslavia was the 25th world biggest arms exporter in the 1980s). In the late 1960s and early 1970s, Romania followed the Yugoslav example by informally breaking away from the Eastern Bloc, and progressing significantly towards developing an independent defence industry, with a wide access to export markets (Romania was the 18th world biggest arms exporter in the 1980s). Similar developments happened in the 1980s in Poland, where the defence industry was dominated by a few large companies, which, to a greater extent, were subordinate to the needs of the Warsaw Treaty Organisation (WTO) and, to a lesser extent, to those of friendly less developed countries mostly in Africa, Asia and Latin America, as a part of the Soviet Union’s sphere of influence (Poland was the 13th world biggest arms exporter in the 1990s). Despite a rather liberal stance on the central planning economy taken by Hungary in the 1980s, the country traditionally had a small defence industry among the WTO countries (Hungary was the 45th biggest world arms exporter in the 1980s), not playing a major role in a wider economy (only 3% of total industrial production was military related).

At the other end of the spectrum, were Czechoslovakia (Czech Republic and Slovakia)

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4 All CEE EDA Member States’ export ranking mentioned below is based on data from the SIPRI Arms Transfer Database [cit. 2014-5-10]. Available at http://www.sipri.org/databases/armstransfers

and Bulgaria (and the former East Germany). Until the fall of communism in the Eastern Europe they remained strongly attached to the Soviet Union’s leadership, military and industrial complex. Bulgaria was the backbone of the WTO’s Balkan flank, and its defence industry was the driving force of the national economy (20% of the country’s GDP⁶) with steady supplies of weapons to the WTO countries, as well as to other communist regimes all around the world (Bulgaria was the 36th world biggest arms exporter in the late 1980s). Certainly until the collapse of communism in 1989, and almost until its split in 1993, Czechoslovakia remained the second largest arms producer among the WTO countries (11% of total industrial production was military related⁷), being surpassed only by the Soviet Union on the global export markets (Czechoslovakia was the 7th world biggest arms exporter in the 1980s).

Transformation

The military and industrial complex in the CEE EU/EDA Member States remained largely unaffected by the economic policy (including various reform movements especially in the 1980s, such as Perestroika and Glasnost). However, the fall of communism and the planned economy model in late 1980s, brought about profound changes to the defence sector of the CEE EU/EDA Member States, its structure, size, and production pattern. With the end of the Cold War (including the break-up of the WTO, and eventually the Soviet Union, and its sphere of influence around the world), the defence industries in the CEE EU/EDA Member States experienced a major crisis, caused in particular by a massive decline in exports to other WTO countries, as well to other communist regimes formerly within the Soviet sphere of influence. Defence procurement budgets were cut radically, WTO development programmes were cancelled and the armed forces were equally radically downsized. The already critical conditions for the survival of the defence sector, were further exacerbated by ambitious projects for conversion of the defence industry to civilian production, which were often driven by a strong moral commitment of newly elected democratic elites.

The reduction in the volume of arms production led to a fall in the rate of profits in the defence sector. Privileges (low prices of natural resources and labour) were removed from military-related enterprises, which were expected to function under the same conditions as their civilian counterparts. Unfinished products, surplus materials and stocks worth billions became a heavy burden for these enterprises, and hundreds of them quickly became unprofitable. In the end, little conversion actually took place. Only a small part of plant capacity and equipment could be used for civil production, some of which were transferred to the civilian branches or prematurely written off. Most of the remaining companies were demonopolised; acquiring new organisation and ownership structures, often becoming shareholder companies with the majority of shares owned by a state organisation, such as the Ministry of Defence or the Ministry of Trade and Industry. The rest of companies were mostly privatised.

⁶ Ibid., Arms Production, Exports and Decision-making in Central and Eastern Europe, ref. 4, Bulgaria, p. 1
⁷ Ibid., Arms Production, Exports and Decision-making in Central and Eastern Europe, ref. 4, Hungary, p. 1
(today’s SMEs), often ending up in foreign hands (Western Europe, the US, and also Russia). The specificities of the defence industry and market as such, were largely ignored in the process. It is estimated that as a consequence of this transformation process, which lasted for more than a decade, CEE EU/EDA Member States’ defence industries experienced a 75-90% cut in military production (from the 1987 peak level), with the defence industry workforce shrinking accordingly.\(^8\) Measured through the export performance, only Poland and the Czech Republic (16th and 23rd place respectively in the 2000s), remain among the 25th world biggest arms exports today, but with much lower volumes. Others follow at a much greater distance (Bulgaria - 31st place, Slovakia - 33rd place, Hungary - 43rd place, Romania - 48th place, Lithuania - 71st place, and Croatia - 73rd place).\(^9\)

In the late 1990s, new procurement programmes came with the prospect of NATO membership. The need to make their armed forces more deployable and NATO-compatible, led to the rise of overall spending on defence equipment by hundreds of per cent. Newly established offset policies helped to justify increasing defence spending, which in a time of overall democratisation and transformation, did not enjoy wider public support. Until the transposition of the Defence and Security Procurement Directive 2009/81/EC\(^10\), the use of offsets was widespread, targeting especially the modernisation and expansion of the manufacturing and test and evaluation facilities. Indirect offsets have been also widely requested to stimulate growth, innovation and jobs in the wider economy, but their impact is assumed to be rather sparse.

\(^8\) An estimate based on various figures for Czechoslovakia (85-89% cut), Poland and other CEE EU/EDA Member States

\(^9\) CEE EDA Member States’ export ranking is based on data from the SIPRI Arms Transfer Database, ref. 4

SPECIFICITIES

In the interest of brevity, this text is focused on high-level characteristics/specificities, based on the least common denominator. To capture comprehensively the specificities of each regional group mentioned above or even of each CEE EU/EDA Member State would be well beyond the scope of this text. The specificities outlined below are part of the results of an internal analysis conducted within the EDA, combining desk research, interviews, focus groups and peer review, looked at the Agency. To increase the clarity of the text and to protect some information sources, the footnotes are omitted from most of the following text.

The main characteristics/specificities of the CEE EU/EDA Member State are divided in four topical groups: defence industry, economy, policy, and culture. It is important to underline that due to limited information/data about CEE EU/EDA Member States’ defence industries, the characteristics/specificities described below are more indicative and subjective rather than being fully objective and unbiased. They represent a starting point, which is deserving of further scrutiny.

Defence Industry

Today, CEE EU/EDA Member States’ defence industries are split (relatively equally) between trade; MRO; manufacturing; and research and development (R&D) institutes. Trade companies are involved in selling new products, as well as legacy equipment from the Soviet era. They are mostly in private hands and often act, subject to the national legislation, as exclusive intermediaries for the Ministries of Defence (MoDs), and through them buy (or sell) equipment needed for the armed forces. MRO companies are often centralised and, despite wide-ranging privatisation, still mostly state-owned. They are also often in possession of exclusive licences from Russian companies for MRO related work on legacy equipment. The manufacturing part of the defence industry is, with small exceptions, private and mainly focused on civilian (security/dual-use) products with defence, being usually just one segment within much wider business portfolio. Many manufacturing companies are owned by Western European primes or US companies. In some countries, Russian-owned companies are also present. R&D structures (defence research institutes, universities) continue to be state-owned, often featuring in co-operative research and technology (R&T) projects (EDA included), and sometimes serving as project integrators for R&D programmes at the national level. In general, except for the largest companies, the industry does not have a significant R&D component (units/departments). Most of the investment goes to the improvement of manufacturing performance.

The main characteristics/specificities in the defence industry area are:

- Low cost, high quality, skilled and qualified labour, which together with a high quality science and engineering base, gives CEE EU/EDA Member States’ defence industries a comparative advantage over their Western counterparts;
New products of CEE EU/EDA Member States’ defence industries are mainly components, a number of which are also exported successfully to Western countries. The platform- and system-level products are centred largely around the (upgraded) legacy equipment from the Soviet era. The customer base for these is mainly Africa and Asia. Although some match or exceed the quality of what is already available on the market, despite being cheaper, they find it difficult to penetrate Western European markets;

- Limited ability to access the Western European supply chains under normal conditions (without offsets, juste retour through co-operative programmes or without buyouts of Western companies’ stakes). For most of CEE EU/EDA Member States’ defence industries, the Western European supply chain is perceived as closed, protected, regulated and far too complex, to be worth the huge effort of trying to penetrate it. In some cases, CEE EU/EDA Member States’ defence industries operate better on the US market than on the European one (e.g. MV-4 Mine Clearance System made by DOK-ING, Croatia, widely used by the U.S. Army), especially when companies are owned or R&D projects at the institute/university’s level, are funded by the US.

**Economy**

At present, CEE EU/EDA Member States’ defence industries are well integrated into the rest of the economy. Arms production is now considered as another mainstream economic activity. Although restructured substantially, downsized and refocused, the defence industry still plays an important role in the national economy of some of the CEE EU/EDA Member States. However, it can no longer be regarded as its driving force.

The use of Article 346 TFEU has been common but often more as an instrument to access wide-ranging offset packages from international companies than to support national “champions”, which for the procurement of new complex equipment (subsystems, systems of systems, platforms) mostly does not exist. With the help of direct offset packages, CEE EU/EDA Member States’ defence companies managed to get into the supply chain of the Western European/US primes, but most of them did not always find this inclusion sustainable nor profitable, beyond the duration of the original offset programme.

In the economic area, the main characteristics/specificities are:

- No or very limited states subsidies (e.g. Article 346 TFEU) pursued, except for the offsets programmes aimed at US/Western companies to enhance CEE EU/EDA Member States’ defence technological and industrial base. In general, with the exception of Bulgaria, Poland, and Romania, CEE EU/EDA Member States’ defence industries are in private hands;

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11 Article 346 TFEU refers to measures which a Member State “considers necessary for the protection of the essential interests of its security” or to “information the disclosure of which it considers contrary” to those interests. In the context of defence, Article 346 TFEU is the most relevant Treaty-based derogation of public procurement (including Defence and Security Procurement Directive 2009/81/EC). It means that contracts may be awarded without competition in cases where this is necessary for the protection of essential security interests of a EU Member State. See Treaty of Lisbon Amending the Treaty of the European Union and the Treaty Establishing the European Community. Official Journal of the European Union, C 306, 17. prosince 2007
The core of CEE EU/EDA Member States’ defence industries, especially if state-owned, is very much offset-developed and to date, has been mostly offset-maintained. Despite the formal abolishment of offsets within the regime of the Defence and Security Procurement Directive 2009/81/EC, industrial returns in various forms (e.g. Poland’s emphasis on indigenous production lines), are likely to persist in the future large procurements of the CEE EU/EDA Member States, especially those with indigenous defence industries. However, exceptions will still exist (e.g. the recent Czech Republic’s renew of the lease of 14 Saab JAS 39C/D Gripen multirole fighter aircraft) and different strategies will be pursued as well (e.g. buying Western companies’ stakes and with it a place in the Western European supply chain);

- Good knowledge of the former Soviet markets, which for the moment are not looking for expensive, highly sophisticated, and/or complex weapons systems (e.g.: Latin America, including Mexico, Peru, Uruguay, and Venezuela; Cambodia, India, Indonesia, Malaysia, and Vietnam in Asia; and, Africa, encompassing Angola, Egypt, Ethiopia, Eritrea, and Ivory Coast).

Policy

Despite its role in the national economy, the defence industry does not enjoy a broad public support among the CEE EU/EDA Member States. Although the Ukrainian/Crimea crisis may change this attitude, with a few exceptions (Poland, and to a lesser degree the Czech Republic), the defence sector does not dominate political agendas. This translates to the common lack of explicit national defence industrial policies, as well as to the absence of supporting documents that would operationalise a wider strategic framework (e.g. procurement options, streamlined R&D funding, structures to support co-operative programmes, mapping defence industry capabilities). Although some defence industrial policies/strategies exist (e.g. Czech Republic, and Romania) or are under development (e.g. Poland), defence strategic culture is not largely disseminated among the CEE EU/EDA Member States. This is probably the result of the experience with the former Soviet dominance and the central planning (centralisation, concentration, and planning have been seen at odds with democracy and free market economy). As a result, many companies changed their focus from defence to civilian/security products, often irreversibly losing defence-specific skills and competencies.

The main characteristics/specificities in the policy area are:

- No firm grasp of the specificities of the defence industry/market;
- Little systematic and continuous application of defence industry policies/support, including industry involvement in international cooperation and export support;
- Limited contribution to the debate about the future of the EDTIB. In spite of going through most of the current problems after the collapse of the Eastern Block (e.g. serious budget, R&D and employment cuts, skills and competences lost, force projection severely curtailed) the CEE EU/EDA Member States lack the critical mass to substantially shape this debate.
Culture

Despite high technical expertise in many areas, the culture of co-operation among the CEE EU/EDA Member States, is not yet well established. It suffers from the lack of mutual understanding among different stakeholders both at the national and international level. In addition, the overarching governmental vision/ambition, encompassing capabilities building, R&D and procurement, is not comprehensive enough to serve as guidance for a structural dialogue with industry. Industry does not often actively seek business opportunities with the Government. National R&D and procurement rules are regularly perceived as too complex and rigid to allow meaningful engagement with defence industry, which is still to some extent viewed as “murky” by the public and many politicians, as well.

The knowledge of international procurement processes, tools and opportunities, especially related to EU/EDA and NATO, is not broadly disseminated, both at Government and industry level. As a consequence, the MoDs, which are not always in charge of these and other industry and market related issues, are often not keen in promoting them, causing the industries to explore business opportunities elsewhere on their own. The programme management culture and the limited knowledge of western foreign languages, especially at the MoD level (with the exception to the Baltic tier, where the MoDs were created from the scratch), also constitute a hurdle to successful collaboration, especially when foreign partners are involved.

In the culture area, the main characteristics/specificities are:

- Limited understanding of the frameworks, stakeholders, tools and processes of international co-operation prevailing among the Western European EU/EDA Member States, international organisations and institutions, EDA and NATO included;
- Except for the Baltic tier, limited knowledge of Western foreign languages among the project/programme managers and decision-makers;
- Limited professional experience both at project management and decision-making levels.
CONCLUSION

As the main specificities of CEE EU/EDA Member States’ defence industries outlined above demonstrate, there are many structural problems faced by the CEE EU/EDA Member States’ defence industries. Some of these problems, especially from the policy and culture part, remain deeply embedded in the Government’s and industry’s organizations, often preventing them from pursuing effective cooperation, through concrete projects and programmes. To take advantage of existing opportunities, and to be able to compete with their western counterparts, the CEE EU/EDA Member States’ defence industries, have to become more competitive, active and visible in European defence cooperation, and to embrace the European Council Conclusions, under the heading of a “balanced” defence industry in Europe.

Every contribution to the EDTIB counts. Without a strong EDTIB, Europe will not have the capacities and skills needed to develop, sustain and deploy defence capabilities. This would lead to increased EU dependencies, and a resulting loss of freedom of action. It would also have an adverse impact on European endeavours towards better integration, and interoperability. Clearly, the CEE EU/EDA Member States and their defence industries have to play their part. And, here are some proposals, which may help them to play better:

- To map CEE EU/EDA Member States’ defence industry capabilities, especially niche capabilities/capacities by country, sector and entity (public or private, such as research institutes, centres of excellence), as well as government and industry investment and development priorities, and to investigate ways to make both defence industrial capabilities and investment and development priorities more visible in the EU/EDA context. The use and the expansion of existing tools such as the EDA Cooperative Database CoDaBa for identifying cooperative opportunities, and the EDA Defence Procurement Gateway for advertising companies’ capabilities may be investigated in this respect;

- To analyse CEE EDA Member States’ internal barriers and obstacles to cooperation by country in order to determine the main hurdles (e.g. political, administrative, legal, budgetary), preventing the CEE EDA Member States from engaging more effectively in defence cooperation in general, and cooperative programmes in particular. An important outcome of this exercise would be a set of proposals for actions to overcome these barriers, be they at the national, bilateral, regional, and/or at the European level. The EDA internal analytical capability could be utilised for this;

- Taking into account government and industry investment/development priorities, to identify projects, which would match CEE EDA Member States defence industry capabilities/niches and would have potential to be linked/developed with other countries and/or major European/international players. These projects can also encompass opportunities in R&D, training and exercise, and MRO;
To boost CEE EDA Member States’ capacity to engage in concrete projects and programmes by educating and training people working and/or earmarked for working in national and international armament cooperation, who need to gain knowledge and experience in European acquisition and project management, so that they could attain a better understanding of mechanisms of European armaments cooperation (frameworks, stakeholders, tools and processes), as well as its benefits and challenges. The annual European Armaments Cooperation (EAC) Course, organised by the EDA and the European Security and Defence College (ESDC) may be instrumental in this process. It could possibly be expanded to include new sessions, tailored to the needs of countries with limited cooperation experience, and boost CEE EU/EDA Member States’ capacity to engage in concrete projects and programmes;

To organise workshops, conferences and seminars to share best practices on the one hand, and cooperative opportunities on the other, in order to encourage cross-European ties and the build-up of regional sectional networks and clusters. The 2015 IDET Exhibition in the Czech Republic could provide a forum to launch relevant initiatives; and,

To increase mutual interaction among CEE National Defence Industry Associations (NDIAs) at bilateral/regional/European level, and to establish a CEE EU/EDA Member States’ NDIA office in Brussels, in order to see and be seen more across the European defence landscape.
APPENDICES

Table 1: Total defence expenditure of CEE EU/EDA Member States, 2006-2012 (in absolute values and as a % of GDP)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Defence Expenditure (in millions of Euros)</th>
<th>Defence Expenditure as % of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>12,202</td>
<td>1.69%</td>
</tr>
<tr>
<td>2007</td>
<td>13,965</td>
<td>1.66%</td>
</tr>
<tr>
<td>2008</td>
<td>14,833</td>
<td>1.55%</td>
</tr>
<tr>
<td>2009</td>
<td>13,334</td>
<td>1.57%</td>
</tr>
<tr>
<td>2010</td>
<td>13,759</td>
<td>1.50%</td>
</tr>
<tr>
<td>2011</td>
<td>13,619</td>
<td>1.40%</td>
</tr>
<tr>
<td>2012</td>
<td>13,641</td>
<td>1.39%</td>
</tr>
</tbody>
</table>

Source: EDA

Table 2: Share of demand side (Equip. procurement + R&D + O&M + Infrastructure/Construction) in total defence expenditure of CEE EU/EDA Member States, 2006-2012 (in millions of Euros and as a % of total defence expenditure)

<table>
<thead>
<tr>
<th>Year</th>
<th>Demand side (in millions of Euros)</th>
<th>Other defence expenditure (in %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>M€ 5,354</td>
<td>M€ 6,848</td>
</tr>
<tr>
<td>2007</td>
<td>M€ 6,658</td>
<td>M€ 7,305</td>
</tr>
<tr>
<td>2008</td>
<td>M€ 5,820</td>
<td>M€ 9,013</td>
</tr>
<tr>
<td>2009</td>
<td>M€ 5,423</td>
<td>M€ 7,912</td>
</tr>
<tr>
<td>2010</td>
<td>M€ 5,233</td>
<td>M€ 8,526</td>
</tr>
<tr>
<td>2011</td>
<td>M€ 5,656</td>
<td>M€ 7,962</td>
</tr>
<tr>
<td>2012</td>
<td>M€ 5,745</td>
<td>M€ 7,896</td>
</tr>
</tbody>
</table>

Source: EDA
Table 3: Number of military and civilian personnel of CEE EU/EDA Member States, 2006-2012 (in absolute numbers)

<table>
<thead>
<tr>
<th>Year</th>
<th>Military Personnel</th>
<th>Civilian Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>351,623</td>
<td>468,870</td>
</tr>
<tr>
<td>2007</td>
<td>344,456</td>
<td>453,469</td>
</tr>
<tr>
<td>2008</td>
<td>323,514</td>
<td>426,712</td>
</tr>
<tr>
<td>2009</td>
<td>288,977</td>
<td>390,508</td>
</tr>
<tr>
<td>2010</td>
<td>276,846</td>
<td>369,696</td>
</tr>
<tr>
<td>2011</td>
<td>269,996</td>
<td>366,092</td>
</tr>
<tr>
<td>2012</td>
<td>270,472</td>
<td>363,711</td>
</tr>
</tbody>
</table>

Source: EDA

Table 4: Volume of arms exports and imports from and to CEE EU/EDA Member States, 2006-2012 (in millions of SIPRI trend indicator values (TIVs))

Source: SIPRI Arms Transfer Database. Figures are millions of SIPRI trend indicator values (TIVs) and cover deliveries of major conventional weapons, as defined by SIPRI. Figures may not add up to totals due to the conventions of rounding. A ‘0’ indicates that the value of deliveries is less than 0.5 million TIV. An empty field indicates that no deliveries took place during the calendar year.
TOWARDS BALANCED DEFENCE INDUSTRY IN EUROPE: MAIN SPECIFICITIES OF CENTRAL AND EASTERN EUROPEAN DEFENCE INDUSTRIES

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NOTE
Opinions and recommendations contained in the text are the author’s and do not represent the position of the European Defence Agency (EDA), where the author works currently.