

**BRAZILIAN DEFENSE INDUSTRY: BETWEEN THE PAST AND THE FUTURE (2003-2013)**

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## **BRAZILIAN DEFENSE INDUSTRY: BETWEEN THE PAST AND THE FUTURE (2003-2013)**

### **Abstract**

During Lula administration, Brazil went through renovations on its Defense structure. By the year of 2005, Brazil's government updated its National Defense Policy and published its first National Defense Industry Policy. On 2008, the first National Defense Strategy (NDS) was published, specifying the means to achieve the goals defined on the earlier documents. Through this period, there was an argument that the revitalization of Brazilian defense industry was a main concern of the government. In fact, the NDS stated that the government had to reformulate the organizational structure of the Ministry of Defense (MD), in order to foster a specific secretary of Defense Products. The document also stated that the government had to develop a specific tax regulation for these kinds of products, so that there could be more incentive to the national producers. Although there has been a discourse of renovation and increasing state incentive on the area, it's unclear which where the drives behind Brazil's recent concern with this issue and weather the new policies had the expected outcomes. Considering this scenario, this paper intends to tackle these two uncertainties by evaluating the measures taken by the government since 2002 and its impact on the Brazilian defense sector.

Neglected by the civilian governments that came after democratization (1985), Defense matters acquired a new emphasis under President Luis Inácio Lula da Silva. Since taking office, a series of measures strengthening of the Brazilian Defense Industrial Base (DIB) were taken. On 2008, the first National Defense Strategy (NDS) was published, specifying the means to achieve the goals defined on the earlier documents. Throughout Lula's administration, there was an argument that the revitalization of Brazilian defense industry was a main concern of the government. In fact, the NDS stated that the government had to reformulate the organizational structure of the Ministry of Defense (MD), in order to foster a specific Secretary of Defense Products. The document also stated that the government had to develop a specific tax regulation for these kinds of products, so that there could be more incentive to the national producers. Bearing in mind this context, our aim in this paper is to conduct a survey on the measures taken by the government regarding defense issues in order to understand the changes and continuities promoted during Lula's government. Our thesis is that the policies implemented by Lula promoted, on one hand, a process of bureaucratic reform, such as the creation of the Secretary of Defense Products, and on the other a process of deepening early proposals carried out separately by each Force. By following the thread of Brazilian defense restructuring, we might be able to identify the driving forces behind this revitalization

Thus, our paper is divided in four main parts. In the first section, we discuss Brazilian governmental measures towards defense industry in the post-Cold War era, highlighting the lack of political direction on defense industry issues until the creation of the Ministry of Defense (MD), in 1999, and contextualizing it on the national and international environment of the 1990s. In the second part, we discuss the evolution of defense industry issues under the Ministry of Defense. We stress some aspects of continuity on Brazilian conception of defense industry and how these ideas slowly materialized themselves into policies.

In the third part, we discuss the creation of the National Strategy of Defense, in 2008, pointing out its importance regarding a larger political direction on defense industry matters, and discuss aspects of its implementation from 2009 until early 2014. In the last part, we summarize our main argument, discussing the character of Brazil *deepening* its policies towards DIB. We aim to stress continuity and change while evidencing the development of MD as a locus of articulation on defense industry issues through actions targeting to strengthen contact with industries, other ministries and the Armed Forces.

### **Somewhere between conception and action: defense industry in the post-Cold War era**

After the Cold War, DIB in Brazil has sharply weakened. There are international and national arguments explaining this trend. In the international level, there was a widespread expectation that security issues would decrease its relative importance in the international agenda. The president of the United States at the time, Bill Clinton declared that “in a world where freedom, not tyranny, is on the march, the cynical calculus of pure power politics does not compute. It is ill-suited to a new era”<sup>1</sup>. Military issues were seen as secondary on a new age governed by institutions, economics and globalization.

A post-Cold war worldview did affect military spending worldwide. On Brazil’s national level, however, there was only a sudden drop on spending between 1990 and 1992. In fact, after reductions in 1992, spending grew to recover from the cuts, reaching a level of only 0,2% less in 1999 than it was in 1988<sup>2</sup>. In comparison with countries with larger military spending, Brazil’s drop was not very significant<sup>3</sup>. Although, there was a trend to reduce military spending worldwide, Brazil had also to deal both with its internal economic crisis – spiking inflation and high external debt – and international pressures to reduce protectionism and to rationalize its state. For instance, in 1990, the inflation index was of 1620,96%, reaching its higher levels of 2477,15% in 1993<sup>4</sup>. So it may be safe to say that its cuts from 1990 to 1992 followed a trend government spending to stabilize its economy.

Another key factor in explaining BDI’s demise is its performance in the international arms market. At the peak of national defense industry, Brazil’s exportations focused largely in the Middle East, having Iraq, as its main client. However, with the end of the conflict between Iraq and Iran, the demand for defense products dropped drastically. Many analysts claim that the end of the Iraq-Iran war was the main reason for the DIB crisis. In a more general perspective, Fernando de Souza Vilela asserts that

This dramatic demand reduction, combined with the resulting decrease of the custom tariffs due to neoliberal pressures and a lack of incentive from the governments, led

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<sup>1</sup> MEARSHEIMER, J. J. The false promise of international institutions. **International security**, 1994, p. 5.

<sup>2</sup> For more, view table on the annex.

<sup>3</sup> MORAES, R. F. de. A inserção externa da indústria brasileira de defesa: 1975-2010. **Texto para Discussão IPEA**, Brasília, 2012, p. 33.

<sup>4</sup> Série histórica IPCA/IBGE. In: <<http://www.portalbrasil.net/ipca.htm>>, access on April 5<sup>th</sup> 2014.

many South American defense industries to bankruptcy or to a diversification of their productions in order to minimize the dependence on military product sales<sup>5</sup>.

We also have to point out that large amounts destined to the military did not mean there were incentives to DIB or a clear defense policy. In fact, until 1996, Brazil did not have an organized defense policy, and until 1999, did not have a Ministry of Defense. Military affairs had to be dealt between four military ministers<sup>6</sup> and it was difficult to coordinate its demands, interests and autonomous actions<sup>7</sup>.

Also, defense issues did not attract politician's attention because of its low capacity of generating votes. Furthermore, Brazilian society has drifted away from these matters since democratization. In part, a political transition tutored by the military influenced the limited civilian interest on defense issues as well, once it had resulted in a tacit pact: politicians would leave the military to work on their matters and the military would respect constitutional law<sup>8</sup>. Since it was difficult to coordinate a defense policy on the national level, government incentives to prevent the falling of a DIB were harder to achieve and justify.

Regarding Brazil's military spending and arms purchases, since 1980s, the country bought a very small amount of its own DIBs production. Most defense material used by the Armed Forces was imported and its defense industries relied mainly on exports since its national production was technologically under the Force's ambition<sup>9</sup>. According to a study developed by Krause, on the 1980s, 70 to 80% of Brazilian defense industry production was exported<sup>10</sup>. This enhances a major pattern of Brazilian defense industry: dependency on exports<sup>11</sup>. Considering the 1990s as a period of major cuts on military spending worldwide, a greater part of Brazilian DIB was not able to sustain itself without greater aid from the state.

To sum up, Brazil's general picture on 1990s was framed by its search for economic stability, its adaptation to international demands for state reforms and its difficulty to provide

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<sup>5</sup> VILELA, Fernando de Sousa. Integração das indústrias de defesa na América do Sul. **Revista da Escola de Guerra Naval**, Rio de Janeiro, nº 14, 2009, p. 155-172. p. 157.

<sup>6</sup> Joint Staff of the Armed Forces, Ministry of the Army, Ministry of the Navy and Ministry of Air Force.

<sup>7</sup> ALSINA JR, João Paulo Soares. A síntese imperfeita: articulação entre política externa e política de defesa na era Cardoso. *Revista Brasileira de Política Internacional*, v. 46, n. 2, p. 53-86, 2003.

<sup>8</sup> ROCHA, A. J. R. da. Militares e Política no Brasil. **Texto para Discussão IPEA**. Brasília, 2010, p. 8-10.

<sup>9</sup> MORAES, R. F. de. A inserção externa da indústria brasileira de defesa: 1975-2010. **Texto para Discussão IPEA**, Brasília, 2012, p. 35.

<sup>10</sup> KRAUSE, K. **Arms and the State: patterns of military production and trade**. New York: Cambridge University Press, 2006, p. 138-164.

<sup>11</sup> Brazilian dependency on exports and on a small number of clients contributed for its defense industry demise on 1990s. Iraq was Brazil's greatest client, as a result of the end of Iraq-Iran war, Brazilian DIB lost a major importer.

even a small political direction on defense issues, an international context of cuts of military spending worldwide, and the demise of Brazilian DIB's greatest clients. These factors did influence political decisions towards DIB and made it more difficult to provide incentives to a falling industry.

Bearing that in mind, according to Moraes, there were three interconnected reasons that explain the demise of Brazilian defense industry: first, the excessive dependency on exports; second, reductions of arms imports after the Cold War; third, lack of government policies able to guarantee economic sustainability to the companies<sup>12</sup>. Since we have been focusing on the general picture, now we discuss with more detail the third reason pointed out by Moraes<sup>13</sup>.

Apart from the National Defense Policy, published in 1996, there were not many specific policies towards defense industry. However, there was an implicit concept that defense products were strategic to Brazil on governments' purchases laws. For instance, since 1993, it was understood that Defense material should not have to undergo the common government licitation process. Law 8.666<sup>14</sup>, of 1993, and its amendments, Law 8.883<sup>15</sup>, of 1994, and Decree 2.295, of 1997<sup>16</sup>, described the exceptional character of purchases regarding defense products. Although defense products acquired a special character on legislation, laws still focused on the process of obtaining services and goods and not on achieving broader public policy objectives<sup>17</sup>. They aimed exemption to bid on high technological material and defense products but did not highlight how and if it was connected to a broader policy or to revitalization of Brazilian DIB.

In a historical perspective, it relates to projects in development by the Armed Forces since 1950s. At the time, Brazilian forces had realized the importance of the scientific and technological factor for strategic purposes, and started numerous projects to achieve the

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<sup>12</sup> MORAES, R. F., op cit, p. 36.

<sup>13</sup> We may add a fourth reason regarding the low technological value of Brazilian arms production, limiting its capacity to seize new markets.

<sup>14</sup> Regulates art. 37, item XXI of the Federal Constitution, establishing rules for bidding and procurement of Public Administration and other measures.

<sup>15</sup> Amends provisions of Law No. 8666 of June 21, 1993, which regulates the art. 37, incise XXI of the Federal Constitution, establishing rules for bidding and other measures.

<sup>16</sup> Regulate Article 24, incise IX, from Law 8.666 of 1993, and pinpoint exemption to bid on cases regarding national security. Although it is not possible to empirically prove, it might be that Decree 2.295 of 1997 was an implementation of the 1996 National Defense Policy.

<sup>17</sup> SCHMIDT, F. de H.; ASSIS, L. R. S. de. Defense Industry in Brazil: character and involvement of supplier firms. **Discussion Paper IPEA**, Brasília, 2014, p. 18.

autonomy aspired<sup>18</sup>. During the 1970s and 1980s, every force had its own project related to research and development. The Army focused on armored cars and cybernetics, the Navy on nuclear energy, especially on the submarine area, and the Air Force on satellite launch vehicles and space research. These projects have been consolidated as values, interests and demands of the Armed Forces when it comes to defense industry<sup>19</sup>. Many of them were not finished because they lacked resources and industrialized countries would not provide technology transfer<sup>20</sup>. In that sense, technological autonomy through research and development was a historical demand of Brazilian Armed Forces. During the 1990s, these projects continued to exist and also suffered from budget constraints.

Although the actions were not oriented towards revitalization of the Defense industry, Brazil did manifest its interest on technological autonomy and on reducing external dependency on imported defense material at its first Defense document, the National Defense Policy (NDP), published on 1996. The historical interest to achieve strategic autonomy through Research and Development (R&D) within the Armed Forces and at the industrial sectors was present in the document. In its Strategic Orientation “4.5” Brazil stated that:

4.5. A balanced strengthening of national capacity building in the field of defense, with the involvement of industry, university and technical and scientific sectors is essential. The scientific and technological development is fundamental to attain greater strategic autonomy and better operational capabilities of the armed forces<sup>21</sup>.

As a result, its guideline “r” was:

r. Seek a level of scientific research, technological development and production capacity in order to minimize external dependency of the country to the resources of strategic nature of interest for its defense<sup>22</sup>

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<sup>18</sup> CAVAGNARI FILHO, G. L. *Estratégia e defesa (1960-1990). Sessenta anos de política externa brasileira (1930-1990): prioridade, atores e políticas*, 1994, p. 138-142.

<sup>19</sup> According to Garcia, from 1960 to 1990 military thought was oriented by the concept of “autonomy of development”. Difficulties imposed by the United States to transfer technology made Brazil denounce their bilateral military treaty. At the time, Brazilian military government searched to achieve a higher autonomy level on arms production. For Proença and Brigagão, Brazilian military regime was aiming a tripod of arms industry-computers/data-processing-nuclearization.

GARCIA, E. V. O pensamento dos militares em política internacional (1961-1989). *Revista Brasileira de Política Internacional*, v. 40, n. 1, 1997, p. 30-31.  
BRIGAGÃO, C.; PROENÇA JR., D. A projeção externa do Brasil: a questão da segurança. *Contexto Internacional*, n. 7, jan./jun. 1988, pp. 85-109, p. 8.

<sup>20</sup> CAVAGNARI FILHO, G. L., op cit, pp. 140-141.

<sup>21</sup> BRASIL. *Política de Defesa Nacional*. Brasília, 1996.

<sup>22</sup> Idem.

At the end of 1990s, there was another decision that would further influence Brazilian national defense industry: the creation of the Ministry of Defense (MD), in 1999. After its difficult process of creation, it manifested earlier concepts regarding DIB. Search for “technological autonomy” and “reducing external dependency” were both present on the Complementary Law 97<sup>23</sup>, as it was also on the history of Armed Forces. Also regarding preparation of the military, Brazil claimed that one of the three main guidelines was “to search for a growing national autonomy by continuous nationalization of its means, through research and development and strengthening national industry”<sup>24</sup>. In a way, the creation of the MD promoted a change of means but continuity of interests.

To sum up, we illustrated the context of Brazilian DIB in the 1990s and pointed out that main reasons for its demise were excessive dependency on exports and on a small number of clients, the end of Cold War and lack of governmental policies towards defense industry. Exploring the third reason, we could observe that though there was no specific policy towards DIB, there were concepts orienting the country’s view on the issue. Among them, we can point out “technological autonomy”, “reduction of external dependency”, “investments on R&D” and its consequent “cooperation among military, civil, and university levels”. Defense industry was somehow considered strategic, but apart from exemption to bid, there was no greater sense on revitalizing its industry. As a result, discourse and action were uncoordinated.

### **Discussing consistent political concepts: the early years of Ministry of Defense**

On the 2000s, new defense policies would also focus on the relationship among private defense industries, Research & Development (R&D) – at the Armed Forces, university and private levels –, and reducing dependency on external defense materials. As pointed out earlier, these have been the core concepts Brazil has sustained towards its national DIB. Relationship between conception and governmental action has set the tone of defense industry processes. At some periods, new ideas were not implemented, at others older ideas resulted in plans of action. However, Brazil seems to show a sense of continuity of interests in the area. After the creation of the Ministry of Defense, the difference from earlier moments was the interest of consolidating the institution as a locus of articulation regarding national defense industry.

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<sup>23</sup> Provides general rules for the organization, preparation and employment of the Armed Forces, creating the Ministry of Defense.

<sup>24</sup> Complementary Law 97, July, 9<sup>th</sup>, 1999.

Actions towards the revitalization of defense industry, especially in the R&D sector, were better articulated after the creation of MD. This does not mean they were simpler to implement. It is certainly easier for other ministries to negotiate with one centralized actor than it was with four military ministries. Also, having the military subordinated to policies created within the MD, gave an initial political direction to a historical process when each Armed Force was interested on its own demand instead of thinking the whole of Brazilian policy

On the year of 2000, Minister of Defense, Geraldo Quintão, openly stated the Brazilian interest to provide MD an articulator status. Quintão had decided that the Secretary of Logistic Secretary of Logistics and Mobilization (SELOM) would be the state's voice on Defense industry issues and determined it should approach companies on the sector<sup>25</sup>. As a result, at the policy level Brazil created the Defense Industries Forum and published Science and Technology Policy of the Armed Forces. As a means, MD also started to try inter-institutional efforts, like its approach to Ministry of Science and Technology (MST) through its first joint conference on 2000 and further actions.

At the time, MST was employing a renovation of the national science and technology system<sup>26</sup>. As a result MST created a new structure of financing Research and Innovation through 14 sectorial funds, incorporated Brazilian Space Agency (BSA) and National Commission of Nuclear Energy (NCNE) to MST's structure and created a new Center of Management and Strategic Studies. On goal number 6, The White Paper of Science and Technology aspired to "transform S, T & I in an strategic element of its national development policy"<sup>27</sup>. It had also emphasized an interest to expand its dialogue with other ministries in order to define priorities for sectorial funds and investments. Since interests were aligned, dialogue between MD and MST was easier to employ.

As a result of these dialogues, on 2003, MD and MST published its Strategic Conception: Science, Technology and Innovation of interest of National Defense, a new document aiming to "facilitate scientific-technological solutions and innovations for meeting the needs of parents

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<sup>25</sup> MINISTÉRIO DA CIÊNCIA E TECNOLOGIA; MINISTÉRIO DA DEFESA. **Ciência, Tecnologia e Inovação: Proposta para diretrizes estratégicas para a Defesa Nacional**, 2002, p. 7-11.

<sup>26</sup> Under the guidance of an experienced diplomat, Ronaldo Sardenberg, MCT debated and renewed its conception of Science and Technology on the 2000s. Debates resulted on the Green Paper – Society of Information in Brazil, on 2000, and on the White Paper on Science, Technology and Innovation, on 2001, highlighting the guidelines and main concepts of MCT on the area. One of the main differences has been the inclusion of the concept of innovation on a long-term policy of MCT.

<sup>27</sup> BRASIL. **Livro Branco: Ciência, Tecnologia e Inovação**. Brasília: Ministério da Ciência e Tecnologia, 2002, p. 36.

pertaining to defense and national development”<sup>28</sup>. At policy level, this strategic conception oriented further actions. Among the objectives<sup>29</sup>, four kinds of main concerns may be stressed. First, to continue projects. Historically, in Brazil, military projects do not have continuous funding. As described earlier, many of the military organizations research projects could not advance because they lacked resources or had resources that were cut off later on.

Second, to integrate different levels of research, at university, civil centers and military organization levels. Since the 1970s, national programs, like its nuclear project had suffered from splitting efforts, when there would be different centers working on similar projects. Third, aim towards building institutional development. It is interesting to point out a recurrent factor: the search to create a strong bureaucracy and institutionalize mechanisms that would provide better actions on defense industry and R&D and reverberate on society’s image of MD and the Armed Forces. Up to a point, this is connected to a search to distance Brazilian defense actions from those implemented on the 1960s and 1970s during the military regime, reprogram society’s view on defense issues and institutionalize Ministry of Defense.

Forth, provide incentives to defense industry in order to create a new environment for the companies and strengthen the technology levels of these products. In order to do that, a specific strategic action was “to include S, T & I of interest for defense in the national productive chain” and “stimulate substitution of imports on products of national defense for national similar”<sup>30</sup>.

To sum up, continuity of projects, integration of efforts, institutional development and governmental incentives were the main concerns of Brazil, manifested on the Strategic Conception and could summarize some concerns regarding Brazilian DIB on the early years of MD.

From 2003 to 2013, Brazil seemed to follow the trend of deepening the objective to make MD an articulator on defense industry issues.

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<sup>28</sup> BRASIL. **Concepção Estratégica: Ciência, Tecnologia e Inovação de Interesse da Defesa Nacional**/ Ministério da Defesa; Ministério da Ciência e Tecnologia. Brasília: MD; MCT, 2003, p. 12.

<sup>29</sup> There were ten objectives in this Strategic Conception that led to strategic actions described on it. These objectives are: 1. Amplify technological content of defense products; 2. Elevate capacities of human resources on defense issues; 3. Enhance Science and Technology infrastructure and programs of interest for national defense; 4. Create a favorable environment for innovation and industrial competition; 5. Implement mechanism of financing Science, Technology and Innovation (S, T & I) on Defense issues; 6. Amplify interest on several sectors of society on initiatives of Science, Technology and Innovation on Defense issues; 7. Enhance image of institutional Excellency; 8. Integrate initiatives of S, T & I on defense issues of military centers, universities and civil centers; 9. Establish a policy that valorizes human resources, based on results; 10. Implement a system that integrates strategic planning, development cycle of products and services on Defense and evaluation of results.

<sup>30</sup> BRASIL, op cit, p. 21.

To revitalize not only the defense industry, but also Brazilian defense was a main goal of Minister of Defense, José Viegas Filho, from 2003 to 2004. Under Viegas Filho, the Ministry of Defense hosted conferences regarding the renovation of Brazil's defense policy. These conferences resulted on the publication of four books oriented to serve as subsidy for decision-making and to motivate new researches on defense and security studies<sup>31</sup>. In a certain way, later policies did incorporate some demands punctuated by the debates. In that sense, it is not exaggeration to consider these conferences as an important part of governmental action on defense area and on the defense industry issues, since the fifth and sixth conferences had the defense industry and the role of science and technology on sovereignty defense as subjects of debate.

On both conferences regarding DIB issues there were points of consensus and policy recommendations that would influence decisions made on later years. Governmental authorities agreed it was necessary to develop a national defense industry since there could be external constraints regarding dependency on external defense products. They also agreed that in order to develop a national basis, the state should provide incentives to sustain it, either on the international or national level<sup>32</sup>. Regarding research and development, they have also highlighted that “there was no possibility to implement an effective protection and defense policy without a strong technological basis”<sup>33</sup>.

As a result of these two debates, there were policy suggestions and consensus among the debaters. About state incentives, it had been suggested the reduction of taxes and a governmental catalogue on defense products, new investments and credit lines towards defense industries through National Bank of Economic and Social Development (NBESD), and investments on science, technology and innovation by strengthening partnerships among universities, research centers (civil and military<sup>34</sup>), service companies and industries, and also consolidating intergovernmental cooperation, especially among MD, MST and NBESD<sup>35</sup>.

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<sup>31</sup> ALMEIDA PINTO, J. R. de; ROCHA, A. J. R. da; SILVA, A. D. P. da (org.). **As Forças Armadas e o desenvolvimento científico e tecnológico do país**. Brasília: Ministério da Defesa, Secretaria de Estudos e Cooperação, 2004, p. 6-7.

<sup>32</sup> DAGNINO, Renato. **A indústria de defesa no governo Lula**. Editora Expressão Popular, 2010, p. 39-66.

<sup>33</sup> Ibid, p. 313.

<sup>34</sup> Among the military organizations, the Military Engineering Institute (IME) and Aeronautic Technological Institute (ITA) were mentioned as important institutions on P&D.

<sup>35</sup> ALMEIDA PINTO, J. R. de; ROCHA, A. J. R. da; SILVA, A. D. P. da (org.), op cit, p. 157-163; 313-315.

Considering the Ministry of Defense, debaters recommended the creation of a new agency aiming to observe, study, regulate and catalogue defense industries issues. It would be a special organism, which would be composed of representatives of MD, and other organisms. As another action, MD should reinforce actions on the Defense Industry Forum as well.

Regarding the international level, recommendations were to strengthen cooperation with defense industries and governments from South America, Mercosul and other developing countries, like India and South Africa, for cooperation and co-production. It had been suggested that Brazil should aim offset deals with great international defense suppliers in order to develop national capacities.

After 2004, despite Viegas Filho renounce, policies at defense industry level continued to deepen, following trends set in motion during the debates and earlier years of MD. In 2005, MD created the aspired organism to articulate defense industry issues, the Mixed Committee on Defense Industry<sup>36</sup>. On the same year, published a National Defense Industry Policy (NDIP) aiming to raise society's awareness about defense industry issues, to progressively reduce external dependency on this area, to reduce taxes on strategic defense products, to raise national demand on Brazilian DIB's products, enlarge technological level of national defense products, to enhance Brazilian DIB's ability to export<sup>37</sup>.

Brazil also published its new defense policy and maintained its interests from the earlier versions and some recommendations from the debates of 2003-2004. An important addition was the definition of Brazil's strategic surrounding described as the Amazon region, South America and the South Atlantic. This time, integration in defense industry was conceived as a means to provide mutual development, increase markets and obtain strategic autonomy. Non-traditional partnerships were also encouraged in order to provide new opportunities for economic cooperation, which could include defense industry, and trust building<sup>38</sup>.

On 2006, MD published new strategic actions towards defense industry listing means to accomplish objectives from NDIP<sup>39</sup>. Some points to be highlighted were the proposal to increase participation of other governmental actors – like Ministry of Foreign Affairs, Ministry of Development, Industry and External Commerce, Ministry of Budget and Management –, non-

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<sup>36</sup> MINISTÉRIO DA DEFESA. **Portaria Normativa 611/ MD**, 2005.

<sup>37</sup> Article 4, National Defense Industry Policy, 2005.

<sup>38</sup> BRASIL. **Política de Defesa Nacional**. 2005. Strategic guidelines 6.09, 6.10, 6.11.

<sup>39</sup> MINISTÉRIO DA DEFESA. **Portaria normativa MD/ 586**, 2006.

governmental actors – National Confederation of Industry, regional industries federations, Brazilian Defense Industry Association and other institutions –; proposal of reduction of taxes on defense industries, creation of new mechanisms to induce armed forces to buy national products and to intensify MD's participation on defense industry issues and science, technology and innovation on defense material.

To sum up, we showed that the activity from 2000 to 2006 regarding defense industry issues could be summarized as a period of earlier action and discussion of coherent political concepts to orient its defense policy and defense industry policies. There were important actions, mainly on the policy level; we can mention the publication of National Defense Policy and National Defense Industry Policy. Regarding new concepts and actions, Brazil considered cooperation on defense industry on South America as an important means to consolidate the strategic autonomy, created a Defense Industry Forum and a Mixed Committee for Defense Industry. But, once again, it seems more like a period of discussion and conception, than necessarily of action. Progress towards consolidating proposals was very slow and the interest of Ministry of Defense to consolidate itself as an articulator of defense industry issues went further, but not quite enough.

### **Conceiving and institutionalizing: the National Strategy of Defense and its implementation**

From 2003 to 2006, ideas and proposals did go further, but the lack of a larger political direction in terms of Defense policy made it more difficult to articulate efforts at all levels of government. Inter-institutional efforts also were consolidated through dialogues between MD and other ministries. In special, relations between MD and MST were also deepened, creating a “partnership [...] aiming to provide scientific and technological solutions and innovations regarding Brazil's needs regarding defense and national development”<sup>40</sup>.

A larger direction would only be imposed in 2008, through the publication of National Strategy of Defense (NSD) as a means to implement NDP. A document divided in three axes – reorganization of Armed Forces, restructuring of Brazilian defense industry and troops requirements policy –, the NSD directed actions on defense industry issues on the following years.

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<sup>40</sup> Ordinance number 750 of 2007-MD/ MSTI

As disposed in earlier documents, NSD aimed “to qualify the national defense industry so that it conquers the necessary autonomy in indispensable technologies to defense purposes”<sup>41</sup>. In order to build that, Brazil would create a special regulatory and taxation regime for defense industry, encourage its companies to search for external markets and benefit from the consolidation of Union of South American Nations (UNASUL) which could possibly “lessen the tension between the requirement of independence in terms of defense production and the need to offset costs with scale of acquisitions, enabling the development of defense production together with other countries of the region”<sup>42</sup>. Also, following the trend from earlier years, Brazil expressed its interest to build strategic partnerships aiming to transcend the defense industry matters and provide benefits to its foreign policy interests towards a multipolar structure of international relations<sup>43</sup> and reforms on international organizations.

In a way, NSD systematized some interests and demands from each Armed Force as state policies. Some of the earlier projects, interests and demands from the military were consolidate as state interests. For instance, deepening the studies on development of satellite-launch vehicles<sup>44</sup>, armored vehicles and a nuclear submarine<sup>45</sup> were described as important projects to each force. Also, nuclear<sup>46</sup>, space and cybernetics sectors have been key interests of each force throughout the years. The Army has consistently been working on cybernetic defense, the Navy on nuclear energy issues and the Air Force on space issues. In that sense, it could be safe to say that NSD did not intend to reduce Armed Forces actions or projects, but rather absorb them giving a larger political direction and a political sense to it in terms of external action.

On one side, it might seem bureaucratic interests from Armed Forces were hard to leave behind. This would justify why they were part of the NSD. On the other side, it may also be

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<sup>41</sup> BRAZIL. National Strategy of Defense, 2008, p. 18.

<sup>42</sup> Ibid.

<sup>43</sup> BRAZIL, *op. cit.*, p. 19.

<sup>44</sup> “In the space sector, the following priorities apply: a) Design and manufacture satellite-launching vehicles and develop remote guiding technologies, especially inertial systems and liquid fuel propulsion technologies”. BRAZIL. National Strategy of Defense. 2008, p. 32.

<sup>45</sup> The search for autonomy in the field of nuclear energy in Brazilian diplomacy from Costa e Silva’s administration (1967-1969) during the international negotiations of the Treaty on the Non-Proliferation Treaty. However, the nuclear submarine project only started to be developed after the nuclear agreement with the Federal Republic of Germany (FRG) in 1975. The first record of investment in autonomous technology is 1978.

<sup>46</sup> On the nuclear sector: “[...] it should be developed, including the following initiatives: a) Regarding the nuclear-propelled submarine program, Brazil should complete the full nationalization and the development – at industrial scale – of the fuel cycle (including gasification and enrichment) and of the reactor construction technology for exclusive use of the country”. BRAZIL. National Strategy of Defense, 2008, p. 33.

argued that Brazil's international political interests could be achieved through some of these existing projects and it would seem reasonable not to abandon them. Either way, the NSD included their existing structure of research through military organizations and accommodated the Armed Forces interests under the larger political direction. That said, Brazilian strategy consolidated earlier demands as state interests, institutionalizing and inserting them into the political spectrum.

Regarding actions, NSD deepened interests developed in earlier policies. The document sent a clearer message that Brazilian state would deeply involve itself on defense industry matters. In that sense, Brazil was going to create the so long aspired special legal, regulatory and taxation regime for national defense industry and, as a counterpart, the state would gain some sort of special power over these industries; the state would help to develop what the private sectors were not able to do through its research organizations on the Armed Forces and universities levels; governments would aid industries to obtain foreign clientele and to qualify national human resources. At the MD level, NSD pointed out Brazil would establish a new Secretariat of Defense Products to “optimize expenditures”, “make sure purchases follow the guidelines of National Strategy of Defense” and “ensure, in the purchasing decisions, the primacy of the commitment to the development of national technological capacity building in terms of defense products”<sup>47</sup>.

NSD was the larger political direction Brazilian Ministry of Defense lacked as a means to better operationalize decisions on defense industry issues. With the NDS and the reform of Ministry of Defense, interests set on earlier policies, especially on the National Defense Industry Policy, found their way from conception to state action. Implementation of these propositions started still during Lula da Silva's administration through the process of reform on the Ministry of Defense, creating a Secretariat of Defense Products<sup>48</sup> and a general discussion of a Plan of Articulation and Equipment of Defense (PAED)<sup>49</sup>. But it was during Dilma Rousseff's government that we are able to observe a larger bureaucratic reform based on NSD. In that sense, defense industry decisions followed the earlier trend of deepening earlier interests and demands into more concrete state policies and more stable channels of communication among companies and government sectors.

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<sup>47</sup> BRAZIL. National Strategy of Defense, p. 36.

<sup>48</sup> Decree 7.364, 11 nov. 2010; Complementary Law 136, 2010.

<sup>49</sup> In 2010, under regulatory ordinance number 1065-MD, of June, 28<sup>th</sup>, 2010, MD gave guidelines for establishing PAED. However, the plan would only be discussed through the Working Group set through regulatory ordinance number 3.907/MO, of December, 19<sup>th</sup> 2011, and be published during 2012.

Four main aspects have framed decisions on the area during Rousseff's administration. Firstly, PAED oriented military organizations on the Armed Forces to focus on some of its R&D projects on the years to follow. Some of them are deeply connected with R&D on defense industry, like armored vehicle Guarani<sup>50</sup>, Nuclear Submarine Program (PROSUB), acquisition of 36 new fighter aircrafts (Project FX-2) and the development of the rocket launcher system Astros 2020. Secondly, the deepening of defense planning and bureaucracy involved. As an example, we can point out three major structural changes in MD since the NSD, in 2010, 2011 and 2013<sup>51</sup>, and the creation of clearer methods on each level of defense planning and military purchases<sup>52</sup>. Thirdly, new legislation focusing specifically on taxation of defense companies and cataloguing them were created. As examples, there is the Special Regime of Taxation of Defense Industry (SRTDI) and its regulation<sup>53</sup>. Fourthly, deepening of inter-institutional action and cooperation between policies emanating from MD and other ministries, like Ministry of Science, Technology and Innovation, Ministry of Commerce, Industry and Development and even Ministry of Foreign Affairs. In a larger sense, defense products have been included on Brazilian industrial development policies and have been affected by others structural problems in this area.

PAED and the Special Regime of Taxation of Defense Industry were a direct result of bureaucratic reforms of the MD. Since the NSD, MD acquired clearer attributions regarding defense policy and as a result it had been defined that the organization had to build sectorial policies on defense. Among them it had to regularly create and maintain a national exports policy on defense products and a policy of science, technology and innovation on the area<sup>54</sup>. Seprod was also created to develop norms regarding control of exports and imports of defense products as well as to represent the MD on international industrial forums and promote dialogue with the federal government and other ministries.

Consolidation of MD was able to create a larger inter-institutional dialogue following a trend set in motion since its creation. For instance, since 2007, Brazil had included defense, aeronautics and space products as a part of a national industrial policy to create incentives to its economy. On 2013, *Plano Brasil Maior* action plan demanded specific actions to develop defense

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<sup>50</sup> The armored vehicle Guarani was the first project from PAED to be finished. On August 2012, MD signed the purchase of 86 vehicles and on March 2014 the Army received its first units.

<sup>51</sup> Respectively, bureaucracy structure was changed through Decrees 7364, 7476 and 7974. We can also highlight Complementary Law 136, 2010, as an important part of this process.

<sup>52</sup> On that, we highlight the importance of System of Strategic Planning on Defense (SISPED).

<sup>53</sup> Decrees number 7970 (2012) and 8122 (2013) installed these policies.

<sup>54</sup> Law n° 12.375, December 2010.

industry in accordance with NDS axes. These courses of action required a greater level of proactivity from the MD<sup>55</sup>, like the regulation of its Special Taxation Regime of Defense Industry (STRD), and inter-institutional debate, like the cooperation with BNDES to create a special credit line for strategic defense companies and an inter-institutional working group to create a new holding company on defense products to incentive exports and imports.

On late 2013 and early 2014, Brazilian Ministry of Defense fulfilled some of its promises. Firstly, through Decree 7.974 it regulated the STRD and required from companies a special registration for strategic defense products and corporations in order to give the benefits. On November 2013, MD had registered the first group of these companies<sup>56</sup>. On early 2014, after calling an inter-institutional working group (IIWG) composed by Ministry of Defense, Ministry of Development, Industry and External Commerce, Ministries of Finance and Planning, the Brazilian Industrial Development Association (BIDA) and the National Bank of Economic and Social Development (NBESD), the organism gave up on the idea to build a new holding company. In order to still be able to articulate decisions on imports and exports, MD institutionalized the IIWG as a new permanent organism, the Special Advisory Group for Exports (SAG – Exports) hosted inside Mixed Commission on Defense Industry (MCDI)<sup>57</sup>.

Through the analysis of the evolution of the process of Brazilian actions towards defense industry, we can infer that, since the NDS, Brazil has started a new moment of state incentives. These new mechanisms were focused mainly on actions oriented by the MD in articulation with other ministries, government agencies and the private sector. Since its creation, it has been stated MD's interest to institutionalize itself as a locus of articulation of defense industry issues. This interest has been more and more materialized as the ministry complexifies and reforms itself. Also, it is important to point out that there was no significant course correction on Brazil's interest regarding defense industry. In fact, since NSD Brazil has been consolidating into actions its earlier interests on the area.

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<sup>55</sup> Among these courses of action, there were: to implement phase one of PAED, to publish a new version of National Defense Industry Policy, to regulate STRDI, to implement a national policy of exports on defense products and to develop a national system of categorization and accreditation of strategic defense companies (BRASIL, p. 22).

<sup>56</sup> MD's Regulatory ordinance number 3228 and MD's regulatory ordinance number 3229 from 2013.

<sup>57</sup> <http://www.defesanet.com.br/bid/noticia/14110/Trading-de-Defesa-e-descartada-pelo-Governo-Federal/>

## Conclusions

Considering the evolution of discussions on the revitalization of defense industry, we have seen that the concepts of “strategic autonomy”, “special state incentives”, “investments in research and development”, “greater integration among civil, military and industrial levels” and “deeper inter-institutional action” have been demands since 1990s.

However, these demands underwent a long process of conceptualizing, through debates, new documents and inter-institutional coordination until they finally started to be materialized more than two decades after their formulation. Conceptually, they were present at the 1996 National Defense Policy, 2003 Strategic Conception: Science, Technology and Innovation of interest of National Defense, 2003-2004 debates on Brazilian defense policy, 2005 National Defense and National Defense Industry Policies and 2008 National Strategy of Defense. In terms of practice, they were manifested on early dialogues between the Ministry of Defense, defense companies and Ministry of Science, Technology and Innovation, and later on during the implementation of National Strategy of Defense.

On one side, the long and slow process was a result of the absence of more explicit and greater political direction on Brazilian defense policy. New policies and clearer purposes made it easier to articulate efforts. On the other side, it accompanied MD’s reforming process through deepening long-term interests and demands from the Armed Forces and the early years of the organism. In order to better understand this process, we point out that one should look closer to either the reforms of Brazilian Ministry of Defense and the long-term demands from the Armed Forces and early years of MD. To sum up, we can say that demands and interests on defense industry area have not changed, but deepened.

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