

# REPORT

## no. 5

### SPANISH MILITARY EXPENDITURE AND R&D 2010

JUSTÍCIA I PAU

CENTRE D'ESTUDIS  
PER A LA PAU  
JMDLÀS



1 Tiger helicopter, 56.4 € millions = 5 schools

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Centre d'Estudis per la Pau J.M. Delàs · Justícia i Pau  
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### The military spending is almost double the Ministry of Defence budget

The Spanish Congress of Deputies has passed the 2010 budget. The analysis we at the Delas Centre do every year of the real military spending, which includes not only the Ministry of Defence's budget but all appropriations spread over other ministries if they are clearly military<sup>1</sup> as is the case with military who have gone to the reserves or are pensioners on Social Security; insurance for military paid by other

ministries; credits for military R&D from the Ministry of Industry; the Civil Guard, a paramilitary corps subject to military discipline under the Ministry of the Interior: contributions to disarmament agreements and military bodies such as NATO which come under the Ministry of Foreign Affairs.

In addition, the proportional share of government debt attributable to Defence. If the state has to go into debt in order to maintain the armed forces and to acquire new weaponry, it only makes sense to assign the interest on that debt to total military spending. This is justified precisely on account of the particular importance of military investments in weapons and military infrastructure as well as military R&D for new weapons.

Taking all these military categories in the 2010 budget (Table 1) into account, we see that the military spending is almost double the Ministry of Defence budget. (In Table 9 of the Appendix one can consult the trends in military spending over the last ten years.)

### Military spending indicators for 2010

In these times of economic crisis Spain is going through, the Government has proposed budgets that are austere in some aspects. It has pointed out that the Ministry of Defence's budget is 6.2% lower than that of the previous year. But

**Table 1. Spanish initial military budget (2009-2010)** (current € billion)

Concepts	2009	2010
Department of Defence	8.24	7.69
Autonomous Organisms of Department of Defence	1.23	1.22
National Intelligence Centre	0.26	0.24
<b>Total Defence</b>	<b>9.73</b>	<b>9.15</b>
Retired soldiers	3.3	3.33
ISFAS (Others Departments)	0.60	0.62
Guardia Civil (Paramilitary/Home Office Department)	2.94	2.97
Military R&D loans(Ministry of Industry)	1.15	0.95
International military organizations (Department of Foreign Affairs)	0.06	0.01
<b>Total Military (NATO/SIPRI criteria)</b>	<b>17.78</b>	<b>17.04</b>
Public debt interests	0.83	1.13
<b>Total military expenditure</b>	<b>18.61</b>	<b>18.16</b>

1. This analysis of military spending adopts the criteria proposed by the Stockholm International Peace Research Institute (SIPRI), which analyses military issues around the world. The criteria are: spending by the armed forces; spending on civilian or military staff under the Ministry of Defence; spending for the running of military, including space, programmes; pensions and social security for civilian and military staff of the Ministry of Defence; military aid and participation in military bodies or missions abroad.

this relates only to that ministry itself. However, if one looks at all military spending, the reduction is much less, only 2.4%. The difference can be explained as follows: the crisis has significantly reduced government revenue and generated a huge public deficit, which has caused the government to go into debt. As indebtedness will be greater next year, the interest the government pays will be too. This means that in 2010 interest on the debt generated by the Ministry of Defence will be far higher than in 2009 and will result in greater total military spending.

In Table 2, we show the principal indicators of military spending for

2009 and 2010. As the government itself indicates, all show reductions in real military spending in 2010 in comparison with the preceding year.

### Settlement of the annual budget

The great political debate surrounding the budget occurs when it is presented to the Congress of Deputies for passage. However, this was not the case with the settlement at the end of the fiscal year. It is in fact quite important as it is the settlement which shows that many of the original terms were not met and that funds were diverted for other expenditures. This happens on a regular basis with the

### Reductions in real military spending in 2010 in comparison with the preceding year

**Table 2. 2009/2010 main military expenditure indicators**

Concepts	2009	2010
Military expenditure per day	€ 50.98 millions	€ 49.75 millions
Military expenditure per inhabitant	€ 408	€ 395
Military expenditure/GDP	1.77%	1.73%
Military expenditure/total budget	5.11%	4.70%
<b>Variation on military expenditure<sup>1</sup></b>	<b>-1.61%</b>	<b>-2.41%</b>
Military investments	€ 3.16 billions	€ 2.41 billions
Military investments/total investments	12.73%	10.06%
<b>Variation on military investments</b>	<b>-16.36%</b>	<b>-23.51%</b>
Military R&D	€ 1.46 billions	€ 1.18 billions
Military R&D/Total R&D	15.15%	12.96%
<b>Variation on military R&amp;D</b>	<b>-12.13%</b>	<b>-19.11%</b>

1. Fluctuations are calculated taking the previous year.

**In the case of the Ministry of Defence this may represent a strategy aimed at reducing the increase in initial military spending**

Ministry of Defence which often receives new injections of resources. In the settlement for 2008, we find an increase of € 1.6 billion (15.8%) over the initial Ministry of Defence budget (see Table 3).

In 2009, the same thing occurred. When the initial budget was passed, there was an announcement that Defense spending had decreased by 3%. As of September 30 of this year, the forecast was not being realised: rather than decreasing, the Defence budget had increased by € 1.15 billion (11.9%), a figure which will continue to increase through December 31. (Table 10 and Graphs 2 and 3 in the Appendix show the settlement of the Defence budgets for the last 10 years.)

In the case of the Ministry of Defence this may represent a strategy aimed at reducing the increase in initial military spending, not too well thought of by a public which rejects military spending as inefficient, and in the process avoiding a debate on the excessive increase in defense funding. For example, spending abroad by the armed forces budgeted at € 14.36 million for 2009 had in fact exceeded € 660 million as of September 30 (Table 12 of the Appendix shows spending abroad by Spain's military forces).

To cover these budget increases, the government has a so-called contingency fund of € 3.7 billion for expenditures by various ministries in 2010.

Claiming a reduction in military spending for 2010 is completely perverse as the underfunded items will in fact later be topped up.

And which items were assigned most funding in 2008 and 2009? Personnel costs, current expenditures for service maintenance and investment (Table 4), items which should be perfectly foreseeable. They were instead raised after the fact, which makes one suspect that the items were intentionally underfunded so there appeared to be a reduction in expenditures by the Ministry of Defence and a debate could be avoided.

**Table 3. Ministry of Defence settled budget** (Current € billion)

Concepts	2008	2009 <sup>1</sup>
Department of Defence	9.81	9.35
Department of Defence-Autonomous departments	1.61	1.28
National Intelligence Centre <sup>2</sup>	0.26	0.26
Total Department of Defence (expenditure)	11.69	10.89
Total Department of Defence (budget)	10.09	9.73
Difference	1.6	1.16
<b>Variation</b>	<b>15.8%</b>	<b>11.9%</b>

1. Provisional settlement (30th of September 2009).

2. The NIC does not give the final expenditure claiming that it is under the Official Secrets law.

**Table 4. Initial budget versus settled budget (2008/2009)**  
(Current € billion)

Concepts	2008	2009 <sup>1</sup>
Current expenditure (Initial budget)	1.58	1.58
Current expenditure (Settled budget)	2.40	2.37
Difference	0.82	0.8
<b>Variation on current expenditure</b>	<b>52.3%</b>	<b>50.4%</b>
Military investments (Initial budget)	2.46	2.01
Military investments (Settled budget)	2.71	2.18
Difference	0.25	0.17
<b>Variation on military investments</b>	<b>10.3%</b>	<b>8.6%</b>
Military personnel (Initial budget)	5.21	5.33
Military personnel (Settled budget)	5.51	5.77
Difference	0.31	0.44
<b>Variation on military personnel</b>	<b>5.9%</b>	<b>8.2%</b>

1. Provisional settlement (30th of September 2009).

## Military Investments

Military investment in the next budget, as in every year's, is a substantial part of military spending. In 2010 it represents 10.06% of the central government's total investments including all transfer payments for investments by the regions. Military investment include resources set aside for the purchase of arms, construction of the infrastructure and installations. To this we add R&D credits provided by the Ministry of Defence to help military industries develop new military weaponry. The total of military investments is €2.41 billion, which is 23.5% below investments in 2009 (Table 5).

However if we take into account what we said about the settlement of the budget at the end of the year, investments too increased significantly compared to the initial budget. For example this year as of September 30, 2009, there have already been an increase of €172.5 million in investments (Table 4).

And what investments are scheduled for 2010? More or less the same ones as in preceding years but with reduced appropriations, which shows that there is no interest in cancelling any of the major military-industrial projects underway, such as the EF-2000 fighter plane, the Leopard tank, the S-80 submarine, etc. But the reductions in appropriations for investment conceal another perversity: putting off payments to military

industries merely generates interest due and results in raising the ultimate cost of the weapon.

The only programs that are disappearing from the list (Table 6) are those which were completed this year such as the F-100 frigate, the Lamp helicopter, and the Juan Carlos I LLX strategic projection vessel.

On the other hand, new arms purchases have appeared. In 2009 the bidding was opened for the acquisition of radar and avionics communications (€61.7 million); Lanza radar system with Indra (€25 million). MID systems for satellite communications (€17 million), and the bidding for the acquisition of 40 BVR 8 by 8 armed cars of the 300 units foreseen for 2016, which may cost some €1.3 billion. Table 11 in the Appendix shows current arms contracts, which in late 2009 come to €30 billion. And this does not include projects already completed and delivered, which come to some €10 billion.

The only decision not to proceed with the acquisition of materiel was the announcement that the Ministry of Defence would not buy 24 Tomahawk missiles (of the 60 scheduled) from Raytheon in the United States for €60 million.

NATO would like its member countries to dedicate more resources to investment in new weaponry and recommends that the expenditures be balanced with the equal recourses going to investment as

**The total of military investments is € 2.41 billion, which is 23.5% below investments in 2009**

**Current arms contracts, which in late 2009 come to € 30 billion**

**Table 5. Military/Central State + Autonomous Communities Investment** (Current € billion)

Concepts	2009	2010
Defence investments	2.01	1.46
Military R&D of Department of Industry	1.15	0.95
Total military investment	3.16	2.41
Public and A.C. investments	24.8	24.01
Military investments /Public investments	12.73 %	10.06 %

**The only decision not to proceed with the acquisition of materiel was the announcement that the Ministry of Defence would not buy 24 Tomahawk missiles**



**Table 6. Main military investment 2009/2010**  
(Current € million)

Arms	2009	2010
EF-2000 fighter	266.23	176.19
A400M transport plane	1.00	1.00
Tiger combat helicopters	110.45	36.27
F-100 frigates	17.23	–
Leopard armoured vehicles	154.76	36.00
Pizarro armoured vehicles	70.36	2.00
155/52 mm towed howitzer	13.57	15.14
Taurus missiles	6.00	6.78
Iris-T missiles	30.27	11.06
Llx strategic ship	2.74	0.00
Antitank missile	6.60	14.97
Centauro armoured vehicle	3.89	11.17
Nh-90 transport helicopters	32.01	14.49
Lamps helicopters and aV-8V modernization (navy)	9.69	–
Helicopters with multiple uses	–	3.00
BaC, Bam, ICm military transport and disembark ships	59.34	35.75
F-18, C-15, Cn-235 aeroplanes modernization	33.84	21.06
Communications, command systems and electronic war	117.82	168.78
Artillery material and battleships	39.38	30.80
Ammunition and explosives	10.24	31.70
Mistral, Essm, Standard missiles and torpedoes mK- 6 (army)	24.43	19.84
Light weapon	1.40	–
Strategic coproduction (NATO)	16.25	19.09
Infrastructures and facilities	132.04	103.95
Other not specified investment	289.12	329.63
Defence autonomous organizations Investment	244.79	239.21
<b>Total investments</b>	<b>1,693.45</b>	<b>1,327.88</b>
Military R&D of Department of Defence	312.41	231.89
Military R&D of Ministry of Industry	1,149.92	950.91
<b>Total military investments</b>	<b>3,155.78</b>	<b>2,510.68</b>

goes to expenditures for personnel and the provision of military services. The Ministry of Defence stresses this issue in its reports and sets it out as a goal to be reached. However, despite efforts in this direction, year after year personnel costs far exceed investment. The reduction in investments in weaponry in the 2010 budget in fact widens the existing gap. (See Table 14 and Graph 4 in the Appendix.)

## Conclusion

The crisis the world economy is going through has hit Europe particularly hard, which in turn has affected the various countries. They have had to revise their budgets by reducing public spending including military spending. 2010 budgets provide for cuts in military spending of between 10% and 15% in the United Kingdom. France has been talking about cancelling some military projects on account of a lack of credit. Italy is reducing its military budget by a €1 billion, and Poland by 20%.<sup>2</sup> Thus the Europe of Defence so sought after by EU leaders has been shaken by

the economic crisis and and it will take years before it regains a place on the EU's political agenda. Spain has been no exception and according to forecasts for 2010 most of its military items will decline though we shall have to wait to the settlement at the end of the year to see.

One final thought is in order. Military spending in the Spanish budget is seen by the government as a public service. This point of view implies that the armed forces fulfill a necessary role for the Spanish society. As the army's principal role is the armed defence of Spain, we have to wonder just what the dangers and threats the society faces or are directed at Spanish territory to justify such huge spending. If we can find no response that justifies such an effort, one ought to demand of our government a reduction in military spending, particularly given the grave economic situation that country finds itself in, and turn the resources toward social spending that would promote a recovery in consumption by the neediest segments of the population.

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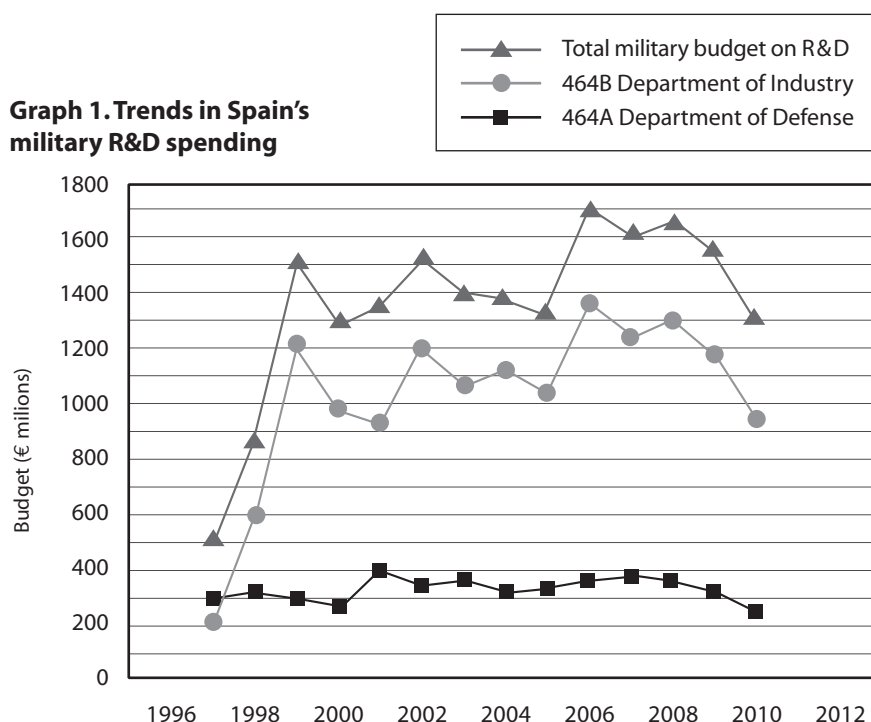
2. Guibert, Nathalie, *Le Monde*, 20 October 2009.



# MILITARY R&D IN SPAIN'S 2010 BUDGET

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**Graph 1. Trends in Spain's military R&D spending**



**The Spanish government's spending on military research totals € 1.18 billion**

Spain's 2010 budget totals €386.36 billion which represents a less than 1% increase over the 2009 budget of €384.52 billion. The Government in its presentation of the budget stressed that public expenditures had been aimed at social policies and that its main feature was austerity. Scientific research for civilian purposes has in fact been greatly reduced. Military research shows a slight reduction, while still greatly exceeding many areas of civilian research such as health care or the environment. Spanish government spending on military research is far greater than the average amount spent on by other countries of similar socioeconomic characteristics.

## 1. Military R&D

For research and development by the Armed Forces (Programme 464A) in 2010, the Ministry of Defence has budgeted €231.9 million.

But an item in the budget of the Ministry of Industry, Tourism and Commerce also goes to military research (Programme 464B) *Support for technological innovation in the defence sector*, and comes to €950.91 million. Thus the Spanish government's spending on military research totals €1.18 billion.

Indeed the total the government is spending on military research may be even higher. The Ministry of Industry, Tourism and Commerce is spending €364 million on Programme 467C (*Technological industrial research and development*) and a large part of this goes to the aerospace sector, which has close links with the military industry.<sup>1</sup> This item, which belonged to the 467C program, reached €350 millions after the parliamentary process.

Table 1 provides a breakdown of the Ministry of Defence's research budget. Spending is essentially shared out

1. For example, the HISPASAT and HISDESAT industries receive R&D support and carry out aerospace projects of a military nature.

between two large military research centers, the El Pardo Channel for Hydrodynamic Experiments (CEHIPAR) and the Esteban Terradas National Institute for Aerospace Technology (INTA).

The purpose of Ministry of Defence's R&D activities is supplying the Armed Forces with arms systems and equipment of a technological level suitable for its future missions and promoting Spain's industrial and technological defence base.<sup>2</sup>

CEHIPAR is a public research, technological development and technical assistance center whose activities focus on naval technology. The research programs planned for 2010 include a study of the low-speed operability and maneuverability of the Navy's Juan Carlos I strategic projection vessel, structural measures in vessels with breakdowns among others.

The INTA specializes in R&D on aerospace technology. It is beginning the HADA program, which involves a new type of aircraft that takes off and lands vertically like a helicopter, but flies like a conventional aircraft. It is continuing its development of microsatellites, the picosatellite PICOS and strategic observation satellites for the Ministry of Defence. It is also proceeding with the development of an unmanned aerial vehicle, MILANO, for missions of great strategic interest, besides the development of aerial weaponry such as the simulation and control of aerial vehicles (missiles and launchers).

In Graph 1 we show the trend in spending on military R&D over recent years. After a huge increase over the years 1997-99, a leveling was reached. Then in 2008 a slight reduction began. We would point out that the spending that can be strictly assigned to research and development (the Ministry of Defence's 464A program) is much less than spending in the form of credits that the Ministry of Industry transfers to the Ministry of Defense.

Support for R&D under the Ministry of Defence's 464 B program consists of reimbursable payments to companies for the development of qualifying technological industrial projects related to defense programs. It comes under Chapter 8 of the budget and is administered by the Office of the Director General for Industry. The projects to receive support in 2010 for this purpose are described in Table 2.

**After a huge increase over the years 1997-99, a leveling was reached. Then in 2008 a slight reduction began**

**Support for R&D under the Ministry of Defence's 464B program consists of reimbursable payments to companies**

**Table 1. Military R&D spending by the Ministry of Defense**

<b>464A RESEARCH AND STUDIES BY THE ARMED FORCES</b>	<b>Total (thousands of €)</b>
Total Ministry and Subsecretariat (personnel)	25,655.09
Total Office of the Secretary of State for Defense (investments)	79,405.43
<b>EL PARDO CHANNEL FOR HYDRODYNAMIC EXPERIMENTS</b>	
Personnel costs	
Total personnel costs	3,887.02
Total, running costs for goods and services	963.23
Total running transfers	69.00
Real investments	1,495.19
Total financial assets	60.10
<b>Total El Pardo Channel for Hydrodynamic Experiments</b>	<b>6,474.54</b>
<b>ESTEBAN TERRADAS NATIONAL INSTITUTE FOR AEROSPACE TECHNOLOGY</b>	
Total personnel costs	52,262.02
Total, current costs for goods and services	12,402.82
Total financial costs	39.42
Total current transfers	902.17
Real investments	54,477.76
Total financial assets	270.64
<b>Total Esteban Terradas National Institute for Aerospace Technology (INTA)</b>	<b>120,354.83</b>
<b>Total Research and studies by the Ministry of Defense</b>	<b>231,889.89</b>

2. According to the entry justifying Programme 464A. *Red Book, 2010 Budget*.

**Less than 1% has been repaid by the companies that received them**

**The items in the budget for civilian research, which the government presented in the Parliament, total € 7.95 billion**

Chapter 8 is worthy of special note. During the early years of the People's Party government, there was a large increase in the military budget. So that the budgets would not show an outrageous increase in military spending, an accounting scheme was worked out using an agreement between the Ministry of Industry, Tourism and Commerce and the Ministry of Defense, whereby Industry would give zero-interest loans repayable in twenty years to military industries for research programs. This way one could present the public with seemingly less militaristic budgets, which would otherwise be difficult to justify. The political price would be reduced as the resources seemingly aimed at R&D would increase. In reality, this money was a way of hiding increases in resources for military spending. Since 1997, € 14.20 million have been lent (see Table 7 of

Appendix.) of which less than 1% has been repaid by the companies that received them.<sup>3</sup>

To include this type of expenditure under research and development has been criticized on an international level. When it was in the opposition, the Socialist Party also severely criticized this practice while denouncing the excessive weight of credits in spending on military R&D by People's Party governments.<sup>4</sup> However after the Socialists came to power, nothing changed even though one of its campaign promises in 2004 was the cessation of this practice.

## 2. Civilian R&D

The items in the budget for civilian research, which the government presented in the Parliament, total € 7.95 billion according to the government,<sup>5</sup> and essentially come under the Ministry of Science and Innovation. Table 3 shows a breakdown of the Ministry's programs and budget items.

Total spending on civilian R&D increased between 2004 and 2007, but in 2009 it decreased over 2008 and the 2010 budget shows reductions of 3.1% over 2009. The government has presented this reduction as a consequence of an austerity plan, which it says characterizes the 2010 budget. This reading is deceptive in that the budget for civilian R&D also includes reimbursable loans (under Chapter 8) which are credits to industry as well as chapters dedicated to personnel, normal expenses, transfers, and investments. An important part of the budget for program 467C (see Table 2) is covered under Chapter 8, i.e. reimbursable loans. Thus, if this item is not counted as support for research, the budget for civilian R&D is far below what the Spanish government claims. The reduction in the budget for R&D is enormous if we compare it with the 2009 budget in which the appropriations for credits was less.

**Table 2. Programs 464B program. Receiving aid under the Ministry of Industry, Commerce and Tourism's**

Program	Type of weaponry	Companies to receive assistance
EF-2000	Supersonic combat plane	Consortium of EADS-CASA and ITP, each of which participates in the Eurofighter and Eurojet programs
A400M	Military transport plane	Airbus Military (subsidiary of Airbus SAS). The Spanish companies EADS-CASA and ITP channel assistance
S-80 Submarine	Submarine	Developed by Navantia as main contractor
Pizarro (Phase 2)	Tank	Led by Asociación Pizarro made up of General Dynamics S.A. Navantia, INDRA and SAPA Placencia
SPIKE	Short-range missile	GD Santa Barbara Sistemas
F105 frigate	Frigate	Navantia
NH90 Helicopters	Helicopter	Eurocopter España
Leopard	Tank	General Dynamics (Santa Bárbara Sistemas, S.A.)

3. Parliamentary response No. 174/001164 Congress of Deputies 23 June 2008.

4. *El País*, 10 October 2002, p. 30.

5. *White Paper, 2010 Budget*, p.14; *Yellow Paper, 2010*, p.23.

Practically all items have been reduced. Health research has gone down from €369.7 million in the 2009 budget to €332.4 million (a reduction of 10%). The item for scientific research, which includes funding for most research projects done by Spanish universities; the CSIC (Spanish National Research Council) and other research centers has gone from €964.5 million to €721.9 million (a reduction of 25%), and energy, environmental and technological research has seen a reduction from €116.4 million to €86.2 million (26%). Given these drastic reductions it is worth noting that in the section related to industrial research and development €2.52 billion (€2.12 billion of this under Chapter 8), which represents 32% of the total dedicated to civilian R&D in the 2010 budget. This program has increased substantially compared with the 2009 budget where it amounted to €2.04 billion, a 23.8% increase. In

addition, some 50% of the money assigned to the 463B program (*Promotion and coordination of scientific and technical research*) comes under Chapter 8, i.e. credits. Thus, a very large percentage of the research and development budget consists of reimbursable credits.

This practice on the part of the Ministry of Science has been criticized by a number of scientific societies and research centers. We should keep in mind that scientific research, except in some very special cases, is not funded with credits for the simple reason that research centers do not have productive capacity. Total spending on research and development should also include the items under the Ministry of Industry basically dedicated to innovation and not to research. This practice has been widely criticized because it inflates aid to research.

**This practice on the part of the Ministry of Science has been criticized by a number of scientific societies and research centers**

**Table 3. Programs and budget items for research under the Ministry of Science and Innovation.** Column [1] shows the presented budget by the government and Column [2] shows the approved budget by the Parliament.

Ministry of SCIENCE and INNOVATION		[1] Presented budget	[2] Approved budget by the Parliament
Program	Explanation	Total (thousands of €)	Total (thousands of €)
143A	Cooperation for Development	4,729.32	4,729.32
463A	Scientific research	721,878.23	721,878.23
463B	Promotion and coordination of scientific and technical research	1,976,562.98	2,097,057.76
465A	Health research	332,412.38	332,412.38
467A	Astronomy and astrophysics	19,063.32	22,063.32
467C	Technological-industrial research and development	2,524,821.83	2,548,671.83
467D	Agricultural research and experimentation	82,835.28	82,835.28
467E	Oceanographic and fisheries research	61,284.56	61,284.56
467F	Geological mining and environmental research	31,140.32	31,140.32
467H	Energy, environmental and technological research	86,226.57	91,726.57
000X	Internal transfers	791,565.32	800,065.32
Total		6,632,520.11	6,793,864.89

**The budget cut in research by the government was worth an editorial in the prestigious Nature magazine**

Given this situation, it is easy to understand the displeasure of the Spanish scientific community as exemplified by the statement by the Confederation of Scientific Societies in Spain<sup>6</sup> or the open letter to the government from a group of researchers at the Center for Network Biomedical Research on Neurodegenerative Diseases)<sup>7</sup> which contains explicit criticism of the Spanish government's science policy and specifically the reduction in support for research in the 2010 budget.

The budget cut in research by the government was worth an editorial in the prestigious Nature magazine, where this reduction was criticized and pointed as an obstacle for the Spanish industry in the long term. Furthermore, the magazine recommended that the Spanish government copied the decisions taken by Germany or Greece consisting of research increase, despite the economic situation.

This budgeting policy reflects the government's priorities regarding investments and spending. The Spanish government is clearly not stressing research but aid to business and betrays the promise of a change in the model of growth. One might justify this with the argument that during a period of economic crisis there is no way not to reduce spending. But anyone who adopts this argument is simply saying he does not believe in knowledge as a path to progress. It is shocking that the Spanish government on the one hand argues for a change in the model of production, a sustainable economy and on the other, reduces its support for R&D. The situation is quite different in other countries such as the United States, France and

Germany which have increased their spending on research in their 2010 budgets. These countries are clearly also experiencing severe economic crises but nevertheless have stressed research and not in the form of loans.

Spain has never stood out for the proportion of its budget that it dedicates to research and development. Spending on R&D by Spain represents 1.27% of GDP according to 2007,<sup>8</sup> amounts well below those dedicated to the same purpose by countries such as Germany (2.54%), the USA (2.68%), France (2.08%), Japan (3.44%), Iceland (2.75%), Sweden (3.60%), or South Korea (3.47%). The level is clearly below the OECD average<sup>9</sup> (2.29% of GDP), the G7 (2.53%) the EU15 (1.90%) and even the EU 27 (1.77%) (see Table 8 and Graph 1 in the Appendix). Thus, even though the reduction in R&D in the 2010 budget was small, the situation is still dramatic. One should then not be surprising at the protests by various groups of scientists about the reduction that have appeared in the press. Despite the efforts of the Spanish government to gain a role in the leading groups of the world economy, we can safely say that in terms of the research and development Spain brings up the rear among industrialized countries.

Finally, after discussions in the Congress, the budget allocated for civil research was increased to the level of previous years (see column [2] in Table 2). The most significant increase corresponds to the 463B programme, which supports the research on universities and research centres. It was precisely this programme the one that raised many protests among scientists and it is very likely this was the

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6. The statement can be found at <http://www.cosce.org>.

7. The letter was printed in *El País*, 1 October 2009, p. 31.

8. *L'OCDE en chiffres 2009*. Éditions OCDE, 2009, p. 78-79.

9. The OECD is the Organization for Economic Cooperation and Development. The members are: Australia, Austria, Belgium, Canada, Korea, Denmark, Slovakia, Spain, the United States, Finland, France, Germany, Greece, Hungary, Ireland, Iceland, Italy, Japan, Luxembourg, Mexico, Norway, New-Zealand, the Netherlands, Poland, Portugal, the United Kingdom, Sweden, Switzerland, the Czech Republic and Turkey.



reason. Discussions in the Congress did not lead to any changes in military research.

### 3. Comparison between military R&D and civilian R&D

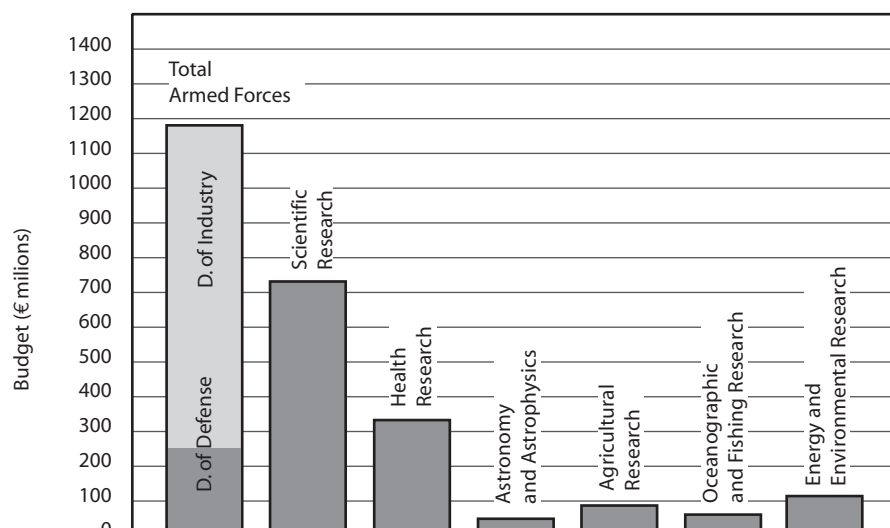
The amount the Ministry of Defense dedicates to military research is € 231.9 million and as mentioned the Ministry of Industry contributes 950.91 million €. If we follow the Spanish government's logic of including budget items for credits to businesses, as does the Ministry of Science and Innovation, we also have to do so in the case of military research and industry. Then, the total spending on military investment in the 2010 budget would be € 1.18 billion. As spending on civilian research totals € 7.95 billion, the sum of civilian and military research is € 9.13 billion of which 13% goes to military research and 87% to civilian research.

It is hard to say whether a billion € is a lot of money or not, but we can get a better idea if we compare this amount with the money dedicated to other areas. As an aid, the graph in Figure 2 shows the budgeting for other areas of research. Let us do a comparative calculation: the budget for the armed forces is three and a half times that dedicated to health research, almost forty times greater than that dedicated to geological-mining and environmental research, fourteen times that of agricultural research, and 1.6 times what is to be spent on funding all the research projects of all Spain's universities and all the research centers under the CSIC.

### 4. Some final thoughts

We do need to point out that in the past the situation was far worse. For example, the People's Party government in 2003 dedicated 34% of the total research to military research, which ranked Spain in a dishonorable second place among countries

**Graph 2. Graph comparing spending on research in various areas**



worldwide in terms of military research as a proportion of GDP. Spain ranked only behind the US and ahead of countries such as Russia, Great Britain, and China. One must recognize that in recent years the government has reduced the budget for military research and increased that for civilian research, though we are still far from the situation prevailing in similar countries. Spain still brings up the rear in terms of civilian research. In order to be comparable to the G7, Spain would have to double R&D without counting aid in the form of credits (the G7 countries dedicate 2.53% of GDP to research).

The Socialist government is not living up to the commitments it made in its 2004 electoral platform, in which it said it would not include Chapter 8 spending (reimbursable credits) in the category of research, and its 2008 campaign promises in which they stated the intention to continue support for research and increase research on health (it declined in both the 2009 and 2010 budgets.) The government's policy ignores the resolutions of the 37th Socialist Party convention which stated that an advanced society depends in large measure on science and innovation.<sup>10</sup> The government does not seem convinced

**13% goes to military research**

**The budget for the armed forces is three and a half times that dedicated to health research**

**In order to be comparable to the G7, Spain would have to double R&D**

**The Socialist government is not living up to the commitments it made in its 2004 electoral platform, in which it said it would not include Chapter 8 spending (reimbursable credits) in the category of research**

10. The resolutions of the 137th party convention, p. 32. This document can be consulted at [www.psoe.es](http://www.psoe.es).



**What is needed is an increase in civilian research until we are at the level of similar countries**

as it has presented a 2010 budget with a huge reduction in research and development.

The Spanish government still counts credits to industry as part of research, which inflates the research budget. Thus, the real research budget is much smaller than what the government shows in its budget.

One cannot argue that the reduction in civilian research is an aspect of the worldwide crisis as other countries have increased not only the resources they dedicate to applied research but that going to basic research. It is precisely in times of crisis that one must invest in activities that help change the model of production and make it more efficient, something that is particularly urgently needed in Spain.

The Spanish government's priorities ignore the real needs of the population. The issues that concern the population like health, energy, environment and education are not reflected in the aid the government gives to research. The resources the government dedicates to research in these areas are less than those it dedicates to military investigation, which, make no mistake, involves improving weaponry that serves to kill more efficiently.

The road that needs to be taken is clear: what is needed is an increase in civilian research until we are at the level of similar countries and a drastic reduction in military research if we want to contribute to a juster, more peaceful world.

# ANNEX

In this annex different tables and graphics are attached, which complement this data report.  
For more information about this issues see <http://www.centredelas.org/>

**Table 7. 1997-2009 military R&D** (current € million)

Year	R&D Ministry of Defence	Military R&D Ministry of Industry	Total military R&D	Total R&D	Military/total (%)
1997	290.11	210.36	500.47	1,352.68	37.00
1998	300.14	581.00	881.14	1,867.95	47.20
1999	294.75	1,198.58	1,493.33	2,767.84	54.00
2000	293.48	964.11	1,257.59	3,053.86	41.20
2001	382.11	947.80	1,329.91	3,435.30	38.70
2002	314.04	1,176.85	1,490.89	3,465.40	38.30
2003	322.97	1,049.90	1,372.87	4,000.12	34.30
2004	303.42	1,070.00	1,373.42	4,402.00	31.20
2005	315.69	1,014.60	1,330.29	4,972.23	26.70
2006	325.88	1,358.01	1,683.89	6,510.81	26.00
2007	361.04	1,225.06	1,586.10	8,060.42	19.70
2008	355.67	1,308.57	2,363.67	9,342.55	17.82
2009	312.41	1,149.92	1,462.33	9,654.29	15.15
2010	231.89	950.91	1,182.80	9,128.80	12.96
<b>Total</b>	<b>4,403.60</b>	<b>14,205.67</b>	<b>19,308.70</b>	<b>72,014.25</b>	

**Table 8. R&D in OECD countries in 2007**

Countries	% of GDP	Per inhabitant (\$ US current)
Sweden	3.60	1,320
Korea	3.47	861
Finland	3.47	1,206
Japan	3.44	1,157
Switzerland	2.90	1,003
Iceland	2.75	980
United States	2.68	1,221
Austria	2.56	952
Denmark	2.55	917
Germany	2.54	874
France	2.08	680
Australia	2.01	716
Canada	1.88	724
Belgium	1.87	662
United Kingdom	1.79	640
Netherlands	1.70	669
Norway	1.64	878

Countries	% of GDP	Per inhabitant (\$ US current)
Luxemburg	1.63	1,300
Czech Republic	1.54	369
Ireland	1.31	591
<b>Spain</b>	<b>1.27</b>	<b>401</b>
New Zealand	1.21	325
Portugal	1.18	269
Italy	1.13	334
Hungary	0.97	181
Turkey	0.71	92
Greece	0.57	163
Poland	0.57	91
Mexico	0.46	57
Slovakia	0.46	92
G7	2.53	981
EU-15	1.90	635
EU-27	1.77	530
OECD	2.29	748

Source: L'OCDE en chiffres 2009

**Table 9. Initial budgeted** (current € million)

Concepts	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Ministry of Defence	6,060.76	6,322.65	6,479.65	6,746.77	7,024.79	7,416.53	8,052.76	8,492.61	8,240.77	7,694.86
Autonomous Organisms of Ministry of Defence	1,040.92	1,067.16	1,137.32	1,184.64	1,242.02	1,232.15	1,282.19	1,334.63	1,230.53	1,218.19
National Intelligence Centre	–	–	138.00	161.95	189.74	208.57	241.57	264.71	255.06	241.37
<b>Total Ministry of Defence</b>	<b>7,101.68</b>	<b>7,389.81</b>	<b>7,754.97</b>	<b>8,093.36</b>	<b>8,456.55</b>	<b>8,857.25</b>	<b>9,576.52</b>	<b>10,091.95</b>	<b>9,726.36</b>	<b>9,154.42</b>
Military passive budget	2,390.36	2,438.17	2,617.28	2,685.14	2,855.16	2,993.18	3,102.21	3,184.35	3,298.14	3,328.59
ISFAS (Other Ministries)		441.40	462.96	551.75	571.98	587.80	563.62	565.60	602.53	617.53
Guardia Civil (Civil Police/Home Office)	1,774.41	1,842.14	1,985.35	2,080.56	2,143.72	2,364.38	2,657.51	2,893.37	2,941.51	2,973.17
Military R&D (Ministry of Industry)	947.80	1,176.85	1,049.90	1,110.80	1,014.60	1,358.01	1,225.06	1,308.57	1,149.92	950.91
International military Organizations (Foreign Affairs)	7.46	–	7.33	11.21	18.03	8.83	7.79	7.80	56.57	11.07
<b>Total Defence SIPRI and NATO criteria</b>	<b>12,221.71</b>	<b>13,288.37</b>	<b>13,877.79</b>	<b>14,532.82</b>	<b>15,060.04</b>	<b>16,169.45</b>	<b>17,132.71</b>	<b>18,051.64</b>	<b>17,775.03</b>	<b>17,035.69</b>
Conscience Objection (Ministry of Justice) <sup>1</sup>	21.14	–	–	–	–	–	–	–	–	–
Public debt interests	1,068.79	1,080.55	1,201.48	1,204.80	1,117.77	919.91	844.61	858.68	834.57	1,125.20
<b>Total Military Expenditure</b>	<b>13,311.64</b>	<b>14,368.92</b>	<b>15,079.27</b>	<b>15,737.62</b>	<b>16,177.81</b>	<b>17,089.36</b>	<b>17,977.32</b>	<b>18,910.32</b>	<b>18,609.60</b>	<b>18,160.89</b>
% GDP	1.95%	1.97%	1.93%	1.87%	1.78%	1.74%	1.71%	1.73%	1.77%	1.73%
% Budget	6.36%	6.87%	6.91%	6.88%	6.67%	6.11%	5.53%	5.42%	5.11%	4.70%

1. Due to the army profesionalization this item desapareared.

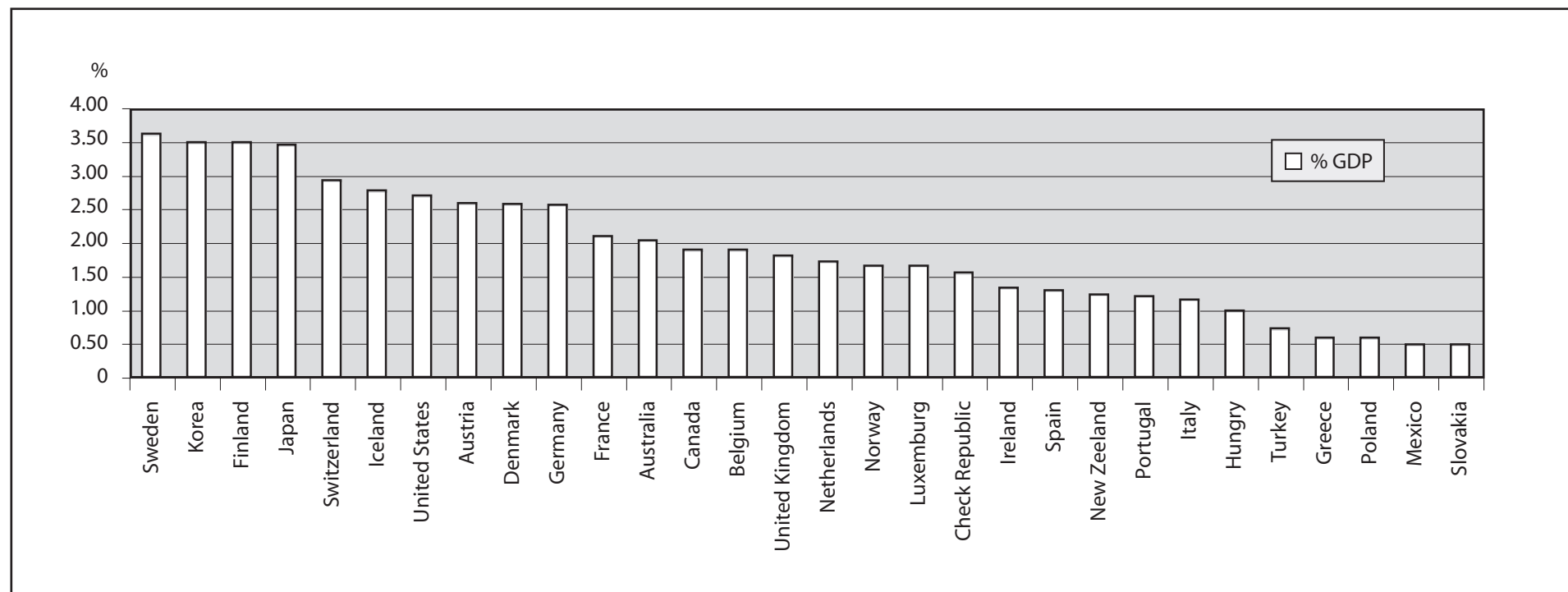
**Table 10. Settled budgeted** (current € million)

Concepts	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009 <sup>1</sup>
Ministry of Defence	6,257.84	6,569.92	6,919.65	7,110.73	7,529.72	7,892.32	8,571.34	9,340.08	9,810.79	9,346.30
Autonomous Organisms of Ministry of Defence	799.85	1,100.27	1,114.06	1,220.73	1,557.14	1,554.37	1,600.13	1,654.83	1,613.57	1,280.31
National Intelligence Centre <sup>2</sup>	–	–	–	138.89	130.05	180.00	208.57	241.57	264.71	255.06
<b>Total Ministry of Defence</b>	<b>7,057.69</b>	<b>7,670.19</b>	<b>8,033.71</b>	<b>8,470.35</b>	<b>9,216.91</b>	<b>9,626.69</b>	<b>10,380.04</b>	<b>11,236.48</b>	<b>11,689.07</b>	<b>10,881.67</b>
Initial Total Defence	6,279.93	7,101.68	7,389.81	7,754.97	8,093.36	8,456.55	8,857.25	9,576.52	10,091.95	9,726.36
Settled Total Defence	7,057.69	7,670.19	8,033.71	8,470.35	9,216.91	9,626.69	10,380.04	11,236.48	11,689.07	10,881.67
<b>% Variation</b>	<b>12.4</b>	<b>8.4</b>	<b>8.6</b>	<b>9.4</b>	<b>13.8</b>	<b>13.8</b>	<b>17.2</b>	<b>17.3</b>	<b>15.8</b>	<b>11.9</b>

1. Provisional settlement on 30/9/2009.

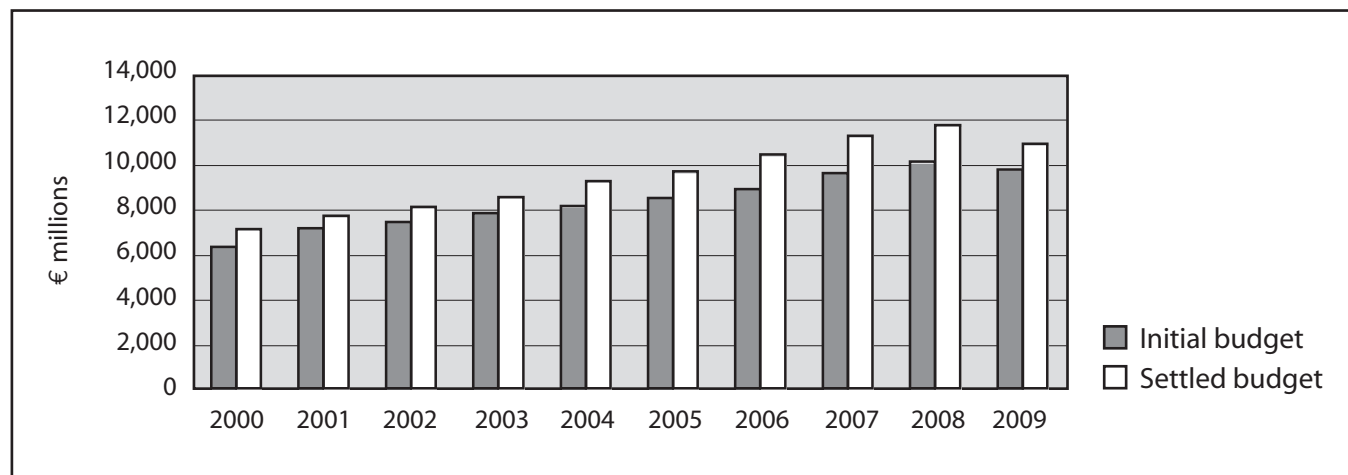
2. Initial budgeted has been consigned since CNI does not provide the settled budget arguing it is under the Official Secrets Law.

Graph 1. R&D (% GDP)

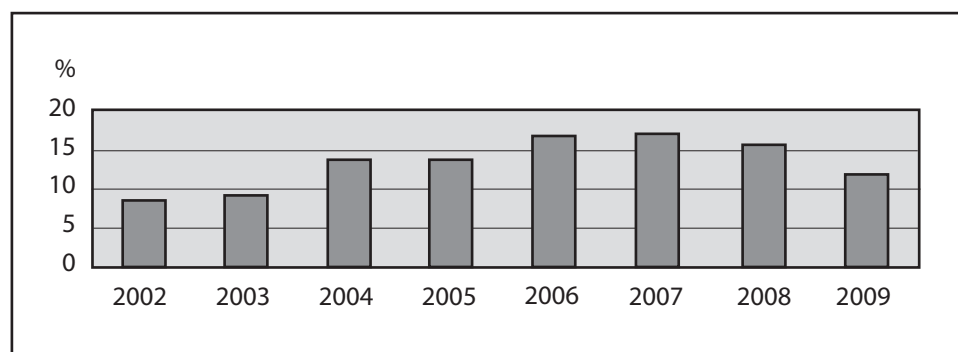




**Graph 2. Evolution of the Ministry of Defence Budget**



**Graph 3. % Initial/settled variation budget**



**Table 11. 2009 current main arms contracts** (current € million)

Concepts	Provider	Period	Initial cost	Current cost	Notes and source
87 EF-2000 fighters (Eurofighter)	EADS-CASA, Santa Bárbara, ITP, Indra, Gamesa, Tecnobite	1997/2024	6,363.10	10,795.40	1,598.7 R&D, 9,196.7 production <i>Infodefensa</i> 1/7/09
24 Tiger combat helicopter	Eurocopter, Sener, Amper, ECESA, Indra	1997/2014	1,081.82	1,353.50	
27 A400M transport plane	Eads-Casa, Flabel, ITP, Sener, Tecnobit, Alcor	2001/2020	3,449.81	4,442.52	
5 F-100 Frigates	Navantia, Indra, Maxam	1997/2009	2,145.84	2,388.00	<i>Fuerzas</i> 5/2007
F-100 frigates Aegis systems	Lockheed Martin, Amper	2006/2009	200.00	200.00	
239 2E Leopard armoured vehicles	Santa Bárbara, Indra, Navantia, Electroop, Sapa Placencia, Amper, CAF	1996/2017	1,941.77	2,139.70	<i>Infodefensa</i> 4/4/08
108 Leopard armoured vehicles (used units)	Germany gouvernement	2005/2016	16.92	16.92	
212 Pizarro armoured	Santa Bárbara, Steyr, Puch, Indra	2005/2024	707.47	781.00	<i>Fuerzas</i> 5/2007
4 S-80 submarines	Navantia, Tecnobit, Abengoa	2011/2014	1,502.53	1,755.90	
1 LLX strategic ship	Navantia	2004-2010	360.00	374.22	
4 BAM ships	Navantia	2006/2010	215.00	340.00	
1 supplier ship BAC	Navantia	2003/2022	228.76	228.76	
12 LCM disembark boats	Navantia	1997/2009	33.69	33.69	

Concepts	Provider	Period	Initial cost	Current cost	Notes and source
45 NH-90 helicopters	Eurocopter, Sener, ECESA General Electric, ITP, Indra	2006/2012	1,260.00	1,300.00	5 Días 22/6/07
67 C-15 planes (EF-18 Hornet) (modernization)	EADS-CASA	1998/2009	186.00	212.00	Fuerzas 2/09
5 P3 Orión P3-Orion (modernization)	EADS-CASA	2005/2011	108.90	108.90	Fuerzas 82
13 C-295 planes	EADS-CASA	2005/2009	174.82	205.00	Fuerzas 10/07
84 Centauro vehicles	Iveco, Amper, Oto Melara	1999/2009	134.65	134.65	
43 Mísils Kepd-350 Taurus (F-18 and Eurofigther)	Taurus Systems, EADS, Sener	2004/2010	59.21	59.21	
232 Meteor missiles (F-18 and Eurofigther)	MBDA, Inmize, INTA	1999/2009	62.13	62.13	
768 Iris-T missiles (EF-18 and Eurofigther)	Sener, Expal, ICSA	2005/2011	247.32	247.32	Infodefensa 23/5/09
64 Standard missiles (Frigates F-100)	Raytheon (USA)	1996/2008	160.50	106.50	
120 Sparrow missiles (F-18 and F-100)	Indra	1997/2015	50.86	50.86	
40 S-80 submarine torpedoes	Germany gouvernement, Amper, Iveco	2005/2014	76.31	76.31	
70 155/52 mm howitzer	Santa Bárbara, Amper, Iveco	2006/2023	190.97	190.97	
5 AV-8B planes	EADS-CASA, Indra, ITP, Iberia	1997/2018	148.06	148.06	

Concepts	Provider	Period	Initial cost	Current cost	Notes and source
Communication and satellites	Indra, INTA, Hispasat	1995/2009	81.87	81.87	
37 "Soldier of Future" programs	EADS-CASA, GMV, TecnoBit, Indra	2006/2009	24.50	24.50	<i>Europa Press</i> 18/9/06, <i>Fuerzas</i> 2/08
4 EC-135 helicopters	Eurocopter (EADS)	2006/2009	25.00	25.00	22/12/2006
UAV unmanned combat plane (Neurón)	EADS-CASA, Thales, Indra	2007/2012	35.50	35.50	Total cost € 1.000 millions Confidential 9/5/08
4 Arthur radar systems	Ericsson	2006/2012	69.09	69.09	<i>Europa Press</i> 28/11/06
4 unmanned plane UAV Searcher MKII-J	Aircraft Industries Israel (IAI), Indra, Eads-Casa	2007/2009	14.37	23.14	25/4/07, <i>El País</i> , <i>Fuerzas</i> 82
24 Tomahawk missiles (of forecast of 60) (F-100 and S-80)	Raytheon (USA)	2008/2012	–	–	SUSPENDED <i>Infodefensa</i> 12/10/09
19 Chinook transport helicopters (modernization)	EADS-CASA	2007/2009	53.00	53.00	
Secure systems for Chinook Helicopters	NATO	2009/2010	16.00	16.00	<i>Infodefensa</i> 8/8/09
2,600 Spike MR and ER missiles (260 batteries)	Rafael (Israel), Santa Bárbara, TecnoBit	2008/2022	260.00	371.00	<i>Comerciodigital</i> 29/1/08
Mistral-2 missiles (Tiger helicopters)	MBDA	2007/2011	27.73	27.73	<i>Fuerzas</i> 11/2007
Military emergency units equipment	Trucks to Iveco, 4x4 to Santana	2007/2010	40.00	230.00	<i>Fuerzas</i> 6/07, <i>El País</i> 19/10/07, <i>Infodefensa</i> 26/3/08
Fire extinguishing aircrafts	Bombardier	2008/2010	40.50	40.50	<i>Infodefensa</i> 26/3/08

Concepts	Provider	Period	Initial cost	Current cost	Notes and source
6 CN-235 MP planes (modernization)	EADS-CASA	2007/2010	49.80	49.80	<i>Fuerzas</i> 3/08
4 AV-8V Harrier planes (modernization)	EADS-CASA	2007/2011	11.50	11.50	<i>Fuerzas</i> 8/08
P34G tactical radiotelephones	Amper	2007/2010	180.00	180.00	<i>Fuerzas</i> 10/07
220 MRAP armoured vehicles model LMV (1st phase)	Iveco Spain	2007/2010	143.00	143.00	<i>El País</i> 14/1/08, <i>Fuerzas</i> 3/08
15 MRAP armoured vehicles model LMV (2nd phase)	Iveco Spain	2009/2010	4.50	4.50	<i>El País</i> 14/1/08, <i>Infodefensa</i> 20/11/09
100 RG-31 Mkse vehicles armoured	General Dynamics Rafael	2009/2010	64.60	64.60	3/9/2008 web GD
27 UAV Raven microplanes	Aerlyper	2008/2009	3.09	3.09	<i>El País</i> 14/1/08
Satellite observation systems (SAR)	Hisdesat	2012/2016	376.52	376.52	IDS 12/1/08
4 AL Cougar helicopters	Eurocopter España	2008/2009	76.00	76.00	<i>Fuerzas</i> 1/08
Pleiades space military observation system	Indra	2008/2011	13.70	13.70	web Indra 2/4/08
IFF F-105 frigate defence system	Indra	2008/2012	40.00	40.00	<i>Fuerzas</i> 8/08
2 Puma helicopters	Inaer Helicópteros	2009	7.00	7.00	<i>Infodefensa</i> 15/11/08
Fixing of aircrafts	EADS-CASA	2009	9.00	9.00	<i>Infodefensa</i> 16/11/08
Fixing of helicopters	Indra	2009	7.90	7.90	<i>Infodefensa</i> 17/11/08
90 remote control stations for armoured vehicles	Tecnobit	2009	15.00	15.00	<i>5 Días</i> 1/12/08

Concepts	Provider	Period	Initial cost	Current cost	Notes and source
21 Piraña III armoured	Rheimentall, Santa Bárbara	2008/2015	68.30	68.30	<i>Infodefensa</i> 16/9/08
12 Anibal vehicles	Santana Motor	2009/2010	3.60	3.60	<i>Infodefensa</i> 3/2/09
MG-4/E Machine guns and G-36 rifles	Heckler & Koch (Germany)	2009/2010	4.17	4.17	<i>Infodefensa</i> 22/10/09
Lanza 3D radar	Indra	2009/2012	25.00	25.00	<i>Infodefensa</i> 6/4/09
M-31 Anti-landmines Systems	Indra	2009/2010	7.08	7.08	<i>Infodefensa</i> 28/7/09
Surveillance systems for Citación V aircraft	EADS-CASA	2008/2009	8.00	8.00	BOE 2/1/08
Aircraft SAM Systems	Indra	2009/2010	24.30	24.30	<i>Infodefensa</i> 16/9/09
Alcotán grenade machine guns (upgrading)	Instalaza	2010	1.50	1.50	<i>Infodefensa</i> 11/9/09
Radars, communication and aircraft systems for the "Ejército del Aire"		2009/2010	61.70	61.70	<i>Infodefensa</i> 9/8/09
MIDS Satellite Information Systems	EADS-CASA	2009/2022	17.00	17.00	Info 28/9/09
Ammunitions and grenades	Santa Bárbara, Expal	2009/2010	2.30	2.30	<i>Infodefensa</i> 3/11/09
UAV Mini plain	Alfa Bravo	2009/2010	1.90	1.90	<i>Infodefensa</i> 25/11/09
<b>Total euros</b>			<b>23,020.46</b>	<b>29,985.71</b>	



**Table 12. Settled expenditure of Spanish army in foreign missions**  
(current € million)

Year	Pres. inicial	Pres. Liquidat	Afganistán <sup>2</sup>
1991	0.00	18.70	–
1992	0.00	45.80	–
1993	0.00	17.70	–
1994	0.00	58.20	–
1995	0.00	103.10	–
1996	0.00	133.90	–
1997	0.00	128.12	–
1998	0.00	146.38	–
1999	0.00	249.23	–
2000	0.00	239.63	–
2001	0.00	241.34	–
2002	60.10	330.55	90.75
2003	60.10	416.05	92.53
2004	60.10	380.62	137.81
2005	18.36	416.50	223.63
2006	18.36	563.00	272.35
2007	17.36	642.00	266.75
2008	17.36	668.00	312.00
2009 <sup>1</sup>	14.36	669.00	364.00
2010	14.36	–	–
<b>Total</b>	<b>280.46</b>	<b>5,648.02</b>	<b>1,759.82</b>

1. Provisional in 30/9/2009

2. Alejandro Pozo in *Alliance of barbaties*.

**Table 13. Main Military Investments** (current € million)

Arms	2006	2007	2008	2009	2010
EF-2000 fighters (Eurofighter)	472.22	36.02	265.41	266.23	176.19
A400M transport plane	1.00	1.00	1.00	1.00	1.00
Tiger combat helicopter	9.65	60.64	141.36	110.45	36.27
F-100 Frigates	27.10	5.56	19.26	17.23	–
2E Leopard armoured vehicles	132.49	101.48	84.56	154.76	36.00
Pizarro armoured vehicles	5.36	59.52	13.54	70.36	2.00
155/52 mm howitzer	3.06	3.12	10.98	13.57	15.14
Taurus missiles	2.20	25.44	11.88	6.00	6.78
Iris-T missiles	25.68	50.44	29.56	30.27	11.06
LLX strategic ship	3.25	0.00	23.29	2.74	0.00
Spike MR and ER missiles	–	64.10	5.26	6.60	14.97
Centauro armoured vehicles	39.37	25.04	5.54	3.89	11.17
S-80 submarines	51.38	–	0.00	–	0.00
S-70 submarines ( modernization)	–	–	20.00	0.00	–
NH-90 helicopters	0.20	14.00	14.90	32.01	14.49
Lamps helicopter and AV-8B planes (modernitzation) (Navy)	27.49	0.50	11.79	9.69	–
Chinook helicopter (modernitzacion)	–	–	–	–	3.00
BAC, BAM, LCM ships	0.10	50.35	62.67	59.34	35.75
F-18, C-15, CN-235 planes (modernization)	8.11	34.94	49.67	33.84	21.06
Communication and satellites, observation systems and war electronic	116.00	84.07	229.92	117.82	168.78
Armoured vehicles and Artillery Material (Army)	7.24	34.71	75.20	39.38	30.80
Ammunition and explosives	21.22	13.94	25.29	10.24	31.70
Mistral, ESSM, Standard mísiles and MK-46 torpedoes (Navy)	5.18	0.00	27.66	24.43	19.84

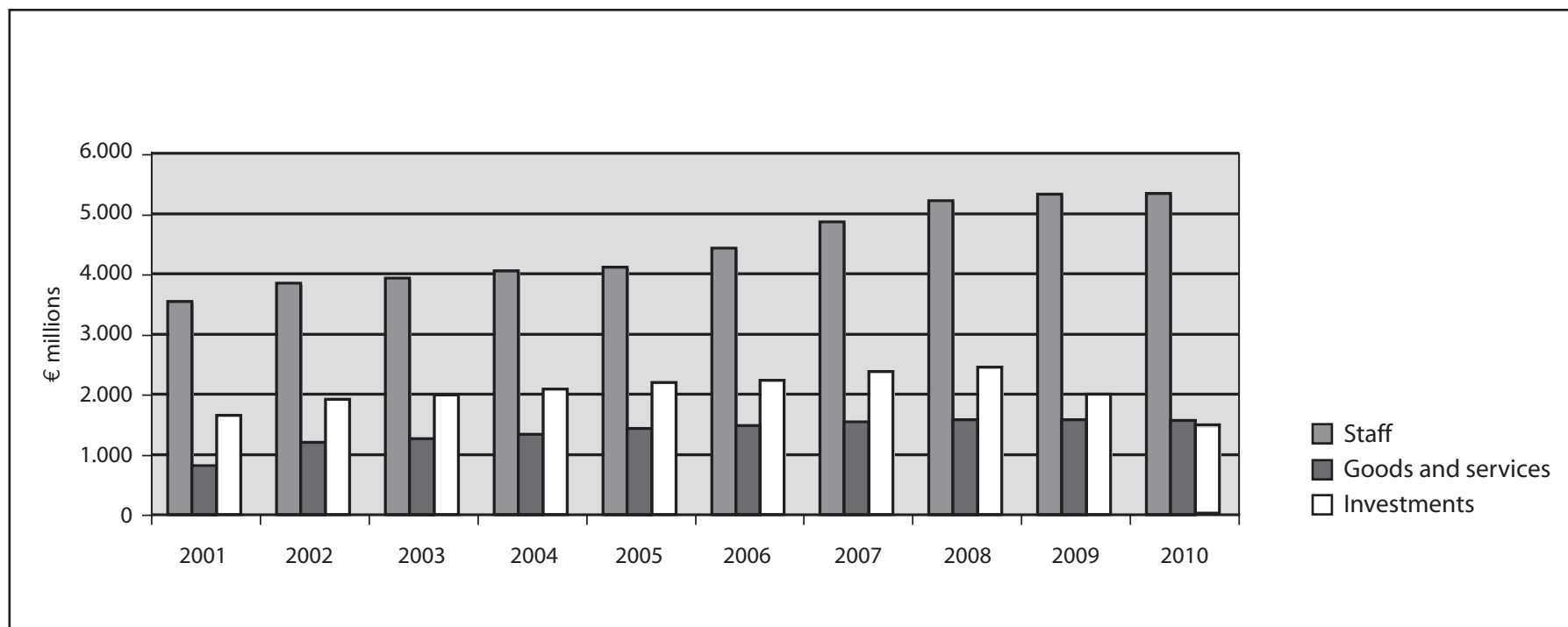
Arms	2006	2007	2008	2009	2010
Patriot missiles	14.20	–	0.00	0.00	–
Lights weapons	–	–	3.60	1.40	–
Estrategical collaboration (NATO)		8.50	12.16	16.25	19.09
Infrastructures and facilities	120.10	110.46	195.38	132.04	103.95
Other investments not especified	467.24	869.78	385.32	289.12	329.63
Invesment Autonomous Organisms Defence	344.12	364.76	378.08	244.79	239.21
<b>Total investment</b>	<b>1,903.96</b>	<b>2,018.37</b>	<b>2,103.28</b>	<b>1,693.45</b>	<b>1,327.88</b>
R&D military Ministry Defence	325.88	361.04	355.67	312.41	231.89
R&D military Ministry Industry	1,358.01	1,225.06	1,308.57	1,149.92	950.91
<b>Total military investment</b>	<b>3,587.85</b>	<b>3,604.47</b>	<b>3,767.52</b>	<b>3,155.78</b>	<b>2,510.68</b>

**Table 14. Initial distribution consolidated Defence Budget<sup>1</sup>** (current € million)

Concepts	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Staff	3,537.75	3,841.60	3,926.16	4,048.37	4,111.09	4,428.42	4,861.31	5,206.30	5,326.95	5,335.47
Goods and services	815.56	1,200.85	1,257.04	1,330.60	1,430.48	1,475.71	1,536.55	1,577.45	1,577.32	1,563.02
Investment	1,648.55	1,913.43	1,985.80	2,088.93	2,199.70	2,229.83	2,379.41	2,454.37	2,005.86	1,463.26

1. The term “consolidated” includes all military concepts

**Graph 4. Distribution initial consolidated military budget**



Source: Spanish General State Budgets  
By: Pere Ortega

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