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SPAIN'S REAL MILITARY EXPENDITURE FOR 2022

Investments in weapons shoot up the Defence Budget in the middle of the pandemic

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EXECUTIVE SUMMARY

The real military expenditure in the State General Budget for 2022 approved by the coalition government between *PSOE* (center-left) and *Unidas Podemos* (left) amounts to 22,796 million of euros, a plus 124% from what is allocated directly to the Ministry of Defence (10,155 million), which means a new historical record and a 5.75% increase with respect to the previous year. This growth responds partly to the 16.2% increase on armament investments, which reach 4,581.5 million, that is the 21.38% of the overall state investment or, what is the same, that 1 out of each 5 euros invested by the state administration has a military goal. Daily military expenditure amounts to 62 million euros, which means 479 euro per inhabitant.

Furthermore, military R&D increases by 8.76%, with 938.5 million euros allocated to it, 708.2 of which are dedicated to developing new weapons. The military R&D recovery since the end of the crisis compared to civilian R&D would be even more striking if it was not for the European funds received for civilian R&D in this budget. Considering that the budget execution rate of civilian R&D (51% in 2020) is usually much lower than military R&D (97% in 2020), and that the percentage of reimbursement of granted credits is insignificant, the unfair disadvantage between what Spain allocates to research in the civilian and the military spheres is apparent.

This new increase in military expenditure is highly linked to the Special Armament Programmes (PEA -*Programas Especiales de Armamento*), 34 of which have been approved to date, with an annual cost of 51.644 million of euros. 17,390 million have been approved by the two governments led by Pedro Sánchez since 2018 and include a recent allocation of 2,500 million for the second development phase of the Future Combat Air System programme (FCAS), with a final cost that can exceed 50,000 million of euros, and including companies such as Airbus, Tecnobit, Indra, Sener, ITP Aero or GMV.

A historical analysis of the last quarter of the century (from 1996 to date) allows us to, precisely, identify in the PEA a key element for boosting and articulating of the Spanish military economy, and helps us explain spectacular increases in this period: 129% in military expenditure; 199% in military investments; 821% in military material produced by the industry; and 3,012% in arms exports. The political sign of the different governments that have followed one another in these 25 years has not altered in any way the preferential treatment that the Spanish military-industrial complex has received, favoured in the making of budgets and public policies and strongly interweaved in the State's spheres of power. Such high levels of connivance between military industry, armed forces and Government explain the recent arms race tendency by Spain and often lead to ethically doubtful or outright illegal practices, as shown by several cases of corruption, influence trafficking or arm sells to countries involved in armed conflicts.

In a moment of health, social and climate crises as the one we are living, the inclusion of such a significant military expenditure in the Budget prepared by Pedro Sánchez's government reveals a seriously doubtful order of preferences, as well as the privileges granted to the Spanish military-industrial complex. Seemingly, it makes evident the need for and urgency of reconsidering the concept of security in order to bring it closer to the real needs of people and thus better confront the true threats people live in their daily life, which have more to do with health, housing, jobs and environment than with deterrence or with projecting military power at the international level.

INTRODUCTION

The budget presented by the Spanish government for 2022 is expansive thanks to the arrival of an EU aid of 27,633 million, most of which will be destined to investment, aid for R&D and innovation and digitalisation. Although the resources coming from the EU are earmarked for specific purposes and most of them[1] will not be used for military spending or investments in arms, they will allow the State to continue to invest its resources in new weapons, since they have enabled the Government to allocate most of the current budget (60%) to social spending and thus increase benefits for pensions, civil servants, unemployment, dependency aid, access to housing, culture or the payment of a minimum living wage. Despite this, the State General Budget for 2022 leaves much room for improvement, mainly because military spending continues to be a black hole of great proportions through which many resources are being wasted when they could be producing more benefits for society if they were allocated to other areas. Thus, it seems impossible to impose cutbacks to the Ministry of Defence on the huge resources allocated to it (directly or indirectly), such as investments in new armament and R&D aids to military companies to produce such weapons. This enormous drain has been gobbling down significant resources for 25 years, since 1996, for the production of special arms programmes, which do not provide any social benefit but quite the opposite: they subtract resources that, if destined to the development of eco-social economy, would contribute to improve Spanish population lives, in particular those of the most vulnerable.

This is the reason why this report expresses a strong criticism of this budget, whose dedication to the military, with such large sums for payment and development of arms programmes, seems far away from the needs of our society. The publication is divided into three chapters, the first of which is devoted to analysing military expenditure for the year 2022, explaining the investments in armaments in the coming year, the deviations between the initial and final budgets, as well as an explanation of the calculation used to estimate the real cost of the Defence

1. Programmes 12KB and 12SC which amount to 28 million of euros for "Tractor projects for digitalisation of the State Central Administration" and "Digital competencias for employment" respectively, are the exception.

Budget. It also offers a brief analysis of the ecological footprint of the armed forces, which shows the close interrelationship between military expenditures and climate crisis.

The second chapter explains the R&D in the State General Budget for 2022, telling in detail the items assigned to the 454A programme, devoted to PEAs, and to the 464B. This chapter also includes an analysis of the evolution of the civilian and military R&D over the last years.

The third and last chapter offers a historical perspective of the last 25 years, which coincides with the first Special Weapons Programmes, arguing that such programmes explain Spain's present arms racing trend and analysing the boost military economy has received in this period through a vast range of aids, policies and public funds.

1. THE MILITARY BUDGET IN 2022. MILITARY INVESTMENTS OR SOCIAL EXPENDITURE?

Pere Ortega

1.1 INVESTMENTS IN ARMAMENTS IN THE YEAR 2022

This coming year resources destined to investments in armaments will be of 4,581.5 million, 16.2% more than the previous year, which amounted to 3,942 M€ and meaning this an increase of 21.3% with respect to the overall State investments (the real investments plus R&D credits). A considerable increase that induces to think that the *PSOE* government, with its partner *Unidas Podemos* acquiescence (or silence), continues to support investment in the arms industry as if this was a key sector for the development of the country's economy. This statement is held by the fact that, of the overall investments in all areas of the central state, except for capital transfers and investments by the autonomous communities, the military sector accounts for 21.4% of the total (see Table 1).

Of this considerable number of 4,581.5 M€, a big part of it, 2,848 M€, will be destined to pay debts owed to companies for the same weapons of the current programmes under construction, with a development ranging from three to twenty-five years, which are integrated in the Ministry of Defence Programme 122B, now renamed Special Programmes of Modernisation (PEM), the former Special Weapons Programmes (PEA). These programmes have added four new ones this year 2021. On the 29/06/2021, the Council of Ministers approved the start of three new programmes at a cost of 3,488 M€, all of them assigned to the Airbus España company.

1. The second phase of development of the future combat aircraft programme (*Sistema de Combate Aéreo -FCAS)*, in which together with Spain, France and Germany take part for an amount of 2,500 M€.

2. The acquisition of three aircrafts A330 multirole tanker in the air (MRTT) at an initial cost of 810 M€.

3. The acquisition of H135 helicopters, a joint programme with the Ministry of the Interior for the *Guardia Civil* with a cost of 178 M€.

And a later one that was approved by the Council of Ministers of 14/10&2021M

4. A ship of maritime action BAM-IS ordered to the shipping company Navantia at a cost of 166,46 M€.

Table 1. Military investments / Investments of the central State

Millions of current euros

Year	Ministry Defence Investments	Ministry Industry Military R&D	Total Military Investment	Central State Public Investment	% Investment Defence/ Central State
2020	3,059.40	467.61	3,527.01	14,823.03	23.79
2021	3,266.02	676.55	3,942.57	19,299.99	20.43
2022	3,875.36	706.20	4,581.56	21,434.14	21.38

Compiled by the authors. Source: State General Budget

The investments in Airbus raise concerns that this commitment might be connected the important crisis of work burden caused by the Covid19 pandemic, which affects the civilian aviation worldwide, an investment destined to aid *Airbus España*, a company that in November 2020 approved an ERTE (Temporary Job Adjustment File) affecting 3,266 workers and the dismissal of 899. Moreover, Spain holds, through the *Sociedad Española de Participaciones Industriales (Spanish Society of Industrial Shares*, *SEPI)*, a 4% of shares of this European aeronautical giant and, therefore, the Government has a particular interest in helping Airbus to overcome the crisis it is facing. On the other hand, such aids are destined to a sector, aeronautics, which is one of the most important emitters of CO_2 to the atmosphere, which cause global warming and environmental catastrophes deriving from the climate crisis.

Something similar happens with the Maritime Action Ship BAM-IS, ordered by Defence to Navantia (public company controlled 100% by SEPI). The shipping company is entirely dedicated to military production and year after year makes heavy looses (137.7 million in 2020), so it needs continuous state aids, both economic and of work burden. This explains why new orders to produce warships always come up, as is the case with this new BAM.

In addition to the new PEAs, there are investments in all sorts of arms, facilities, and infrastructures of the armed forces in the 122A Programme, named Armed Forces Modernisation. This includes all regular investments for the functioning of the operational material equipment of the three armies, that is, all the military material (missiles, torpedoes, armoured vehicles, warships, planes, helicopters, projectiles and other weapons as well as transportation and communication). It also includes the military equipment of the Defence General Staff and infrastructures of the Military Housing Institute (*Instituto de la Vivienda Militar*), which represent altogether a further investment of 398.26 M€.

On the other hand, we need to add up to these investments the R&D credits destined to develop those PEA contracts, which come from the Ministry of Industry and will be of 706.2 M€ in 2022 thus increasing 8.7% over 2021. Apart from it there is the 464 Programme R&D, which develops, on the one hand, the autonomous body National Institute of Aerospace Technology (*Instituto Nacional de Técnica Aeroespacial "Esteban Terradas" -INTA-*) subordinated to the Ministry of Defence itself, which carries out research on electronic war and other kinds of combat technology, and counts on a credit of 35.7 M€.

1.2 DEVIATIONS BETWEEN THE INITIAL AND THE ACTUAL BUDGETS

Every year, in every public body, there are changes between the initially approved budget and the one finally settled. But it is particularly onerous and relevant in the case of the Ministry of Defence, which each year shows in its settlement an increase of around 1 billion, representing around 10% of the Ministry of Defence's expenditure. Thus, in the 2020 settlement of the Ministry of Defence's budget, the deviation was 949.6 M€ and for this year 2021, according to data of the provisional settlement, it is expected to be of 1,081 M€.

Such an increase in the budget comes from several sources. The main one comes from credit extensions, a mechanism established to transfer resources from an item called Contingency Funds to face possible unexpected events which, in the case of Defence, serves to defray the twenty or so military missions abroad and in 2021 is expected to amount to 1,176 M€,[2] whereas the budget had only made available a 314.3 M€ credit. This is a gimmick used every year by which a part of the real costs of Defence are hidden from the *Congreso de Diputados* and the public opinion. Another of the items that allows to transfer resources to Defence are the credit transfers that the Government decides to make in order to meet certain payments that are in general to meet commitments generated by the PEA which, this year 2021, have amounted to 303.8 M€. And lastly, the most ignominious, the extraordinary income generated by the sale of public assets in the hands of the Ministry of Defence (housing, barracks and military premises) which this year

2. Information issued at the Council of Ministers of 22/12/2020

amounts to 215.5 M€. Treasury allows this sales and the income generated reverts to the Defence budget, which is highly reprehensible when public social housing in Spain is scarce and, furthermore, there is an enormous social sensitivity regarding this issue. Despite this, the Government allows each year the sale of land and assets belonging to the Spanish public park (see Table 2).

1.3 THE DEFENCE BUDGET REAL COST

Since 1996, the *Centre Delàs* carries out the analysis of the Spanish military expenditure real costs, an analysis that gives continuity and is, therefore, in debt with the ones made by Arcadi Oliveres and Vicenç Fisas in the early 1990s. Spain's military expenditure, as in many other countries (United States, Russia, China...), is much higher than that circumscribed to de Defence Departments or Ministries since there are other military expenditures shared out among other ministries. In our case, the Ministry of Defence has three important sections: the one of the Ministry itself which is the highest since it covers the three armies (10,155.2 M€), that of the Autonomous Bodies (1,231.7 M€) where we can find the INTA and the Housing Institute; and that of the National Centre of Intelligence (322.2 M€) which is subordinated to Defence. These three bodies make up the Ministry of Defence's military expenditure which, with respect to 2021, increases a 7.8%. A considerable increase if we look at it from a perspective of a pandemic crisis, where so many resources are needed in the social spheres and to create employment in order to overcome the crisis.

And then, there are also all those credits that have a military goal and are spread out among other ministries and must be added as they are strictly military: military personnel's social security and pensions (3,720 M€); military personnel and their families' war pensions for those who took part in the 1936 Spanish Civil War (95,3 M€); the military insurance company ISFAS (699 M€), the *Guardia Civil* costs (3,521.2 M€) which, being a body ruled by the Military Code must be included; military R&D credits that arise from the Ministry of Industry as an aid to the industries that produce weapons for Defence (706.2 M€); participation in military bodies abroad (29.3 M€) such as the NATO; the difference between the initial budget and the settled one, the average of last five years (1,084.2 M€); and, finally, the debts interests that correspond to the total military expenditure (1,231.1 M€), since if the Government drives the State into debt to acquire armaments, it is logical to include the corresponding proportional part (see Table 3).

Thus, we can see that the sum of all these items doubles the military expenditure on Defence and reaches the colossal figure of 22,795.8 M€, which is as much as 1.78 GDP in Spain, and this means that every day in Spain 62 million are spent on the military, corresponding to 479 Euro per year per citizen (see Table 4).

Table 2. Changes in the Defence Budget

Millions of current euros

Years	2017	2018	2019	2020	2021*
Extraordinary credits	30.72		7.10	59.46	
Credit extensions	1,057.48	786.39	728.24	740.78	861.82
Credit transfers	0	29.54	33.96	46.92	303.81
Generated by own income	261.95	188.20	224.51	221.66	215.48
Autonomous Bodies	31.91	10.71	0.71	100.44	
Remaining Credit	0.2				
Cancellations		-0.75	-0.54	-220.01	-0.18
Total	**1,382.26**	**1,014.09**	**993.98**	**949.25**	**1,380.93**

* The 2021 changes are provisional to 30/09/2021
Compiled by the authors. Source: State General Budget

Table 3. Spain's initial military expenditure (years 2021-2022)

Consolidated initial budget in millions of current euros

Concepts	2021	2022	2021/2022
Ministry of Defence	9,411.93	10,155.27	7.90%
Autonomous Bodies of the Ministry of Defence	1,151.36	1,231.76	6.98%
National Centre of Intelligence	299.87	322.27	7.47%
Total Ministry of Defence	**10,863.16**	**11,709.30**	**7.79%**
Military passive classes	3,545.52	3,720.08	4.92%
War pensions (Passive classes)	104.10	95.35	-8.41%
ISFAS (contributions to insurances)	660.41	699.05	5.85%
Guardia Civil (Ministry of the Interior)	3,421.20	3,521.23	2.92%
R&D Credits (Ministry of Industry)	676.55	706.20	4.38%
International military bodies (Ministry of Foreign Affairs)	26.39	29.30	11.03%
Difference Initial/settled budget*	1,081.06	1,084.20	0.29%
Total Defense NATO criteria	**20,378.39**	**21,564.71**	**5.82%**
Public Debt Interest **	1,178.40	1,231.14	4.48%
TOTAL MILITARY EXPENDITURE FINAL	**21,556.79**	**22,795.85**	**5.75%**
Settled military expenditure/GDP	1.80%	1.78%	

* Provisional estimate of the difference between initial and settled military budget according to last five years average
** Estimate calculated on the basis of the total Defence weight (NATO criteria) on public debt interest

Table 4. Main indicators of military expenditure in Spain

Initial budget in current euros

Indicators	2021	2022
Daily military expenditure	59 millions	62 millions
Yearly military expenditure per inhabitant	456 euros	479 euros
Military expenditure / GDP	1.80%	1.78%
Military expenditure / total budget	3.93%	4.32%
Military investments	3,942 millions	4,582 millions
Military investments / total investments	20.43%	21.38%
Investment military variation previous year	11.78%	16.23%
Total military R&D	861 millions	939 millions
Military R&D / total R&D	6.98%	7.04%
Variation military R&D previous year	26.79%	8.76%

Compiled by the authors, based on the General Budget

1.4 CO_2 EMISSIONS BY THE ARMED FORCES

The ecological crisis and its most visible component, the climate change, have become a real existential threat for human survival in the planet. Should what a panel of experts[3] advice not be complied, climate collapse can reduce the planet's population by the billions in the next decades. Therefore, states have the obligation, as they signed in the Paris agreements of 2015, including Spain, to limit the Greenhouse Gases (GG from here on) emissions to the atmosphere.

This is the reason why we are including here the emissions of the Spanish armed forces (FAS from here on) appeared in the recent study carried out at the Centre Delàs,[4] among others by this author, where we detail the GG emissions by Spanish armies. We do this because we deem the interrelationship between military expenditure and ecological footprint is inseparable, since in the current system of states' national security, armies play a key role protecting their so-called

3. Steffen, W., (2018), "Trajectories of the Earth System in the Anthropocene", PNAS Journal. Disponible en: https://www.pnas.org/content/115/33/8252. It pointed out that if temperature increases in 4 or 6 degrees, the biosphere would be submitted to variables of such a magnitude that would cause natural catastrophes, draughts, the poles and glaciers melting, increase of the sea level, reduction of drinking water, biodiversity setback which could make human life in the planet move back to several billion people.

4. Brunet, P., Meulewaeter; C., Ortega, P. (2021), *Crisis climática, Fuerzas armadas y Paz medioambiental*, Informe 49, Centre Delàs d'Estudis per la Pau

"national interests", among which it's a security objective to continue to extract non-renewable energy and other raw materials from the planet, as well as to protect the routes along which they flow. This militarised system therefore plays a determining role in favour of private interest of big corporations and elites controlling them. This system is the main cause for the present chaos provoked by the ecological crisis and the possible collapse of the biosphere.

It is, thus, important to know the states' military expenditure in detail and, in our case, that of Spain, as well as how does it affect the ecological footprint of the FAS, since they, with their activities, are also contributing in a very significant manner to global warming, as the military capabilities which the armies develop with their manoeuvres, missions abroad, or taking part in armed conflicts and wars, make them in proportion highly responsible for GG emissions compared to those of an average citizen. For example, the US Department of Defence's daily consumption of fossil fuels exceeds that of an average state such as Sweden of Chile and would rank 47th in the world in GG emissions.[5]

The standard methodology to measure GG emissions of the carbon footprint is accounted for by following three spheres or scopes, as called in environmental jargon (Parkinson): direct emissions, indirect from own sources and indirect not coming from own sources. A methodology often not facilitated by CO_2 emitters, since whereas direct emissions are relatively easy to obtain, emissions in the subject's own production are more difficult; but it is the indirect ones from non-own sources those that require much more thorough research in order to get information on those emissions that go from the extraction of material and energy required for production to their transportation and the waste they generate.

Then, to measure the real ecological footprint from GG emissions, due to its enormous complexity, it is not easy to apply them with the due rigour and the information states provide must be considered cautiously, since they only provide direct emissions and not always the indirect ones, and rarely indirect emissions coming from other sources. Whether these are the reasons or maybe the most plausible reason to hide GG emissions by their armed forces, the fact is that no state provides this information despite this obligation was among the 2015 Paris agreements signed by all states present.

In this sense, Spain is not different from the rest of countries and does not provide information about its FAS' GG emissions. Therefore, we are aware of the limitations provided on this issue, although the following data come from reliable sources, and from them we can come to the conclusion that, though approximate, they bring us close to the real carbon footprint produced by the army in Spain.

This information comes from the study "Under the Radar. The Carbon Footprint of Europe's Military Sectors", commissioned by the Left in the European Parliament,[6] and written by two renowned experts, Stuart Parkinson and Linney Cottrell,[7] who analyse the carbon emissions of armed forces and military industries of EU member states, and provide information on Spain's military GG emissions in this area.

This report points out that, to measure the carbon footprint of Spanish FAS, they follow parameters similar to those of France and Germany and apply the same criteria to determine Spain's GG emissions. It differentiates between stationary FAS in bases and barracks and those that carry out training manoeuvres within the country or in operations outside Spain. It gives the stationary ones an emission of 447,000 tCO_2 and the same figure to those in operations, amounting a total of 894,000 tCO_2. Undoubtedly, this is a relative dimension since France's military potential is not comparable to that of Spain, which only deploys a maximum of 3,000 military personnel abroad, a much smaller number than France which, furthermore, has a much greater military potential including nuclear weapons. Germany's military capabilities are also far superior to those of Spain and, together with France, are three times the military expenditure of Spain.

Nevertheless, the study considers that Spanish military emissions produce an average carbon footprint in their direct and indirect emissions of 1,900,000 tCO_2 which result in an average for each of the 120,000 military members of 23.3 tCO_2 per person. A considerable figure that places Spanish FAS in GG emissions at the same level as the rest of European armed forces. But this measure includes only the 120,000 military personnel, and not the 34,500 civilian employees who work for the Ministry of Defence and must also be counted in their duties as emitters of polluting gases, which means that the carbon footprint drops to 18.08 tCO_2 per employee, whether civilian or military (see Table 5).

5. Fortuny, T, Bohigas, X. *Emisiones de gases de efecto invernadero de las Fuerzas Armadas de los EE.UU.* Informe 47, *Militarismo y crisis ambiental. Una necesaria reflexión*, Barcelona, Centre Delàs d'Estudis per la Pau

6. Parkinson, Stuart, y Cottrell, Linsey, (2021), *Under the Radar. The Carbon Footprint of Europe's Military Sectors.*

7. Stuart Parkinson, of Scientists for Global Responsibility (SGR), Linsey Cottrell of The Conflict and Environment Observatory (CEOBS), both in the United Kingdom.

Even then, though, emissions by a civilian who works for Defence are three times those of an average Spanish citizen. This shows a dimension of the FAS' ecological footprint and of how they contribute in a particularly outstanding manner to global warming and to climate catastrophes ravaging the world's population.

Table 5. GG Emissions by the Spanish Ministry of Defence 2019

GG emissions according to *Under the Radar Report*	tCO_2/GEI	tCO_2 Emissions/ Military *	tCO_2 Emissions/ Military and civilian **
tCO_2 stationary FAS emissions (Scope 1 and 2)	447,000	3.73	2.89
tCO_2 mobile FAS emissions (Scope 1 and 2)	447,000	3.73	2.89
Total	**894.000**	**7.46**	**5.78**
tCO_2 FAS emissions (Scope 3)	1,900,000	15.83	12.3
Total carbon footprint	**2,794,000**	**23.29**	**18.08**

* Number of FAS' military personnel 120.000.
** Number of civilians 34.500 employees for Defence
Personal compilation. Source: Under The Radar Report and Spain's PGE

2. MILITARY RESEARCH & DEVELOPMENT

Xavier Bohigas

The forecast expenditure on military Research and Development in the State General Budget (*Presupuestos Generales del Estado -PGE-*) for 2022 amounts to 938.56 million euros, which is an increase of 9.0% with respect to the budget for 2021.

As continues to be the norm in recent years, the expenditure in military R&D is reflected in the 2022 PGE, basically under two programmes. The 464A Programme, Research and Studies of the Armed Forces, included in the Ministry of Defence budget, with an allocation of 230.36 M€, and the 464B Programme, Support to technological innovation in the defence sector, included in the Ministry of Industry, Commerce and Tourism, with an allocation of 708.20 M€. See table 6.

Table 6. Foreseen investment for 464A and 464B Programmes corresponding to military R&D

Million of euros

Military research	PGE 2021	PGE 2022	variation (%)
464A Programme (Ministry of Defence)	184.59	230.36	+ 24.8
464B Programme (Ministry of Industry)	676.55	708.20	+ 4.7
TOTAL (464A plus 464B)	**861.14**	**938.56**	**+ 9.0**

The total investments in research and development foreseen in the 2022 PGE reach 13,298 M€. Therefore, the foreseen expenditure in military R&D represents 7.1% of the overall R&D investment. This percentage is slightly higher than that of 2021, which was 7.0%. The increase of the military R&D budget in 2022 with respect to 2021 is due, basically, to the spectacular increase of the 464A Programme. Its allocation in 2021 was 184.59 M€ and that for 2022 reaches 230.36 M€, which means a 24.8% increase. The 464B Programme also increases, but more moderately, from 676.55 M€ in 2021 to 708.20 M€ in 2022, a 4.7% increase.

2.1 ABOUT THE 464A PROGRAMME

The aim of the 464A Programme is "to contribute to provide the Spanish Armed Forces with arms and equipment systems with the most adequate technological level and features of all sorts for future missions, and help preserve and promote the Spanish defence industrial and technological base", according to the programme's explanatory memorandum attached to the PGE. The governing centres in charge of its management are the Defence Central Body (*Órgano Central de Defensa*) and the National Institute of Aerospace Technology (*Instituto Nacional de Técnica Aeroespacial "Esteban Terradas" -INTA-*). The first one has an allocation of 35.73 M€ which represents 15.5% of the 464A Programme, and the budget for the second amounts to 194.63 M€, which represents 84.5% of the programme. The budgetary variations with respect to 2021 are considerable. Thus, the budget managed by the Defence Central Body increases a

17.4% compared to the 2021 budget, and that of INTA increases a 26.3%.

Of the budget managed by the Defence Central Body, the item of real investments increases 21.9% with respect to the 2021 budget, while personnel costs decrease by 3.6%. The largest planned investment of the Defence Central Body is in information and communication technologies (9.83 M€), followed by investment in platforms, propulsion and weapons (7.13 M€).

The most spectacular increase is that of INTA's real investments, whose budget has more than doubled that of 2021. From 33.75 M€ foreseen in 2021 to 70.46M€ in 2022. Such an increase is due, basically, to investments in the Aerospace Platform of Research (*Plataforma Aeroespacial de Investigación -PAI-*), according to the presentation of the 2022 PGE.[8] INTA's personnel costs also increase by 6.5%, we ignore if due to an increase of staff members or to an increase in staff salaries.

INTA's activities are focused on aerospace research and development programmes, aeronautics, hydrodynamics and defence and security technologies. It gives continuity to projects within the EU Framework Programme "Horizon 2020" (INTA takes part in 24 projects, coordinating some of them) and the collaboration in programmes of the European Space Agency.

Among the projects it develops, we mention the PNOT programme (Earth Observation National Programme), which includes the ground commanding, monitoring and product generation system of the PAZ satellite, which is also expected to be reinforced with the activity of the *Ingenio* satellite. It continues its activity in the European programme GALILEO, in the ANSER space technology programme for Earth Observation, based on the development and use of constellations of small satellites. It has made the evaluation of a nano-satellite launcher (PILUM). It keeps developing ARTEMISA, system against intruder drones. It is also developing avionics and applied electronics projects.

The area INTA dedicates more efforts to in research and development is aeronautics and space.

On the other hand, INTA is carrying out the evaluation, homologation and issuing of defence and armament certificates both for public sector and private sector companies. We outline, among others, the military transportation aircraft Airbus-400, military helicopters and planes. It also carries out technical assistance activities.

8. *Libro Amarillo*, PGE 2022, page 295.

2.2 ABOUT THE 464B PROGRAMME

The 464B Programme is included in the Ministry of Industry, Commerce and Tourism budget, unlike the 464A, included in Defence.

The aim of this programme is "to give support to the participation of Spanish companies in developing technological-industrial projects related to defence", according to the Programme's descriptive memorandum. We should recall that the budget for this programme consists of refundable contributions to companies for the development of industrial technological products, i.e., these are credits that companies must return, with very favourable conditions. But, as already said on other occasions,[9] the allocation of the 464B Programme becomes, in fact, a disguised aid to the military industry since, despite being repayable credits, the percentage of repayment has been, to date, insignificant. There is no news that the present government wishes to reverse this situation.

The programme is focused to aid financially in research and development companies which develop, in 2022, the following programmes: F110 Frigate Programme; NH 90 Helicopter Programme and 8x8 Wheeled Combat Vehicle Programme. These programmes were initiated a few years ago. It is noteworthy that the 2022 budget does not include the S-80 submarine project, which received special attention in recent budget years.

Part of the loans foreseen in the 464B programme are directed to public companies and part to private sector companies. Both parts increase with respect to the 2021 budget (see table 7). The beneficiary companies of this aid are the large Spanish arms companies, which are the ones carrying out the above-mentioned arms programmes. These include: Navantia (developing the F-110 frigates), NH Industries (manufacturer of the NH-90 helicopters), General Dynamics (manufacturer of the 8x8 vehicles) and Indra (involved in the F-110 frigate and 8x8 vehicle projects).

9. Pere Ortega; *La burbuja de las armas y la industria militar en España*. Centre Delàs d'Estudis per la Pau, informe nº 33, June 2017. http://centredelas.org/publicacions/informe-33-la-burbuja-de-las-armas-y-la-industria-militar-en-espana-los-programmeas-especiales-de-armamento/. Pere Ortega y Xavier Bohigas; *Los despropósitos del gasto militar*. Centre Delàs d'Estudis per la Pau, informe nº 34, June 2017, p 15.

Tabla 7. 464B Programme Foreseen loans

Millions of euros

464B Programme	PGE 2020	PGE 2021	variation (%)
Loans to Public Sector	320.0	350.0	+ 9.4
Loans outside the Public Sector	356.5	358.2	+ 0.5
TOTAL (464B)	**676.5**	**708.2**	**+ 4.7**

The data we have presented here corresponds to the planned expenditures that are explicitly directed to military R&D. Possibly the military industry will access other spending programmes beyond the ones mentioned. The military industry has significant activity in the aerospace and telecommunications sectors, so it might opt to get funding under the programmes 467C (Research and technological-industrial development), 467I (Technological innovation in telecommunications) or others, arguing that resources would be devoted to research that could also be of civilian interest. In this case, expenditure on military R&D would exceed the 938.56 million euros corresponding to programmes 464 A and B.

2.3 EVOLUTION OF CIVILIAN AND MILITARY R&D IN RECENT YEARS

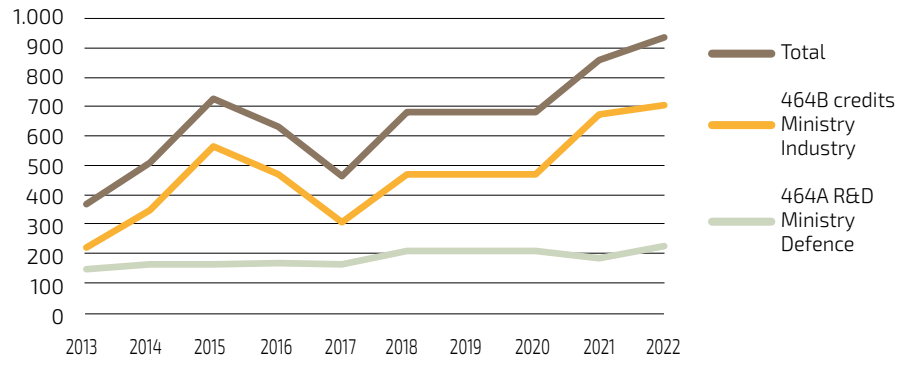
The allocation to military R&D in the PGE decreased since 2008 to a minimum of 363.4 M€ in 2013. From that year onwards, the planned military R&D expenditure in the PGE has been increasing with only a decrease in 2016 and 2017, as shown in Graph 1. The foreseen expenditure in 2018, 2019 and 2020 is the same, since the 2019 and the 2020 budgets were the 2018 budget extended.

The evolution of the total budget in civilian R&D has been very different during the same years. It also reached a minimum of 5,562 M€ in 2013, after five years of important cuts. From that year onwards, a barely noticeable recovery started, while the year 2021 budget saw a very important increase in R&D (allocation was almost doubled), thanks to the contribution of European funds. The budget in civilian R&D for 2022 also increases with respect to 2021, although more moderately. The significant increase of the 2021 and 2022 budgets only make sense if we take into account European Union funds; without them, the budgetary increase would follow the trend of previous years, with a very modest increase. See graph 2, which shows the budgetary evolution in civilian R&D, in years 2021 and 2022 the allocation coming from European funds has been segregated.

The recovery of investment in R&D has been very unequal if we compare the military and the civilian parts. Thus, the civilian R&D investment for 2022 represents an increase of 122% with respect to 2013, but if European funds were not taken into account, the increase would only be of a 25%. On the other hand, military R&D has a not at all negligible increase of 158%. It seems clear from these data that military R&D has been better treated than civilian R&D. European funds have been decisive.

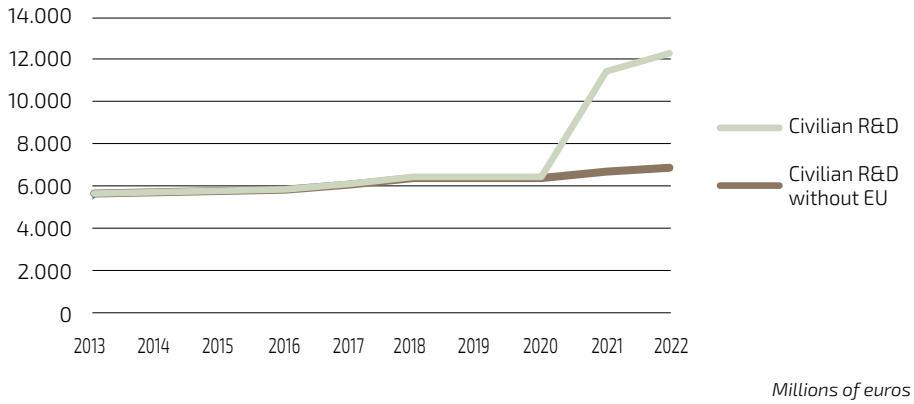
The low funding in civilian R&D is very worrying. Spain continues to be among the states with a lower than the average investment in civilian R&D among its neighbouring countries. Vindications by research personnel and the scientific community in general for an increase of real investment in research are, thus, not surprising.

Graph 1. Evolution of planned military R&D expenditure in the PGE between 2013 and 2022



Millions of euros

Graph 2. Evolution of planned expenditure in civilian R&D in the PGE between 2013 and 2022



Millions of euros

The budget shows the government's investment intentions. It is clear what these have been in recent years. But, besides, the comparison between civilian and military R&D funding is even more dramatic if we compare the budget execution, that is, the investment really made. The low execution of the civilian R&D budget is endemic, while the degree of compliance with the military R&D budget usually exceeds 90%. Thus, for instance,[10] in 2020, the execution rate of expenditure policy 46 (Research, Development and Innovation) was 52.1%, i.e., the public resources actually invested in R&D in 2020 were practically half of those budgeted. In contrast, the execution in Defence in the same year was 97%. This situation means that the percentage actually devoted to military R&D, with respect to total R&D, is, in the end, much higher than that reflected in the budget. As a result, the difference in treatment between civilian and military R&D is even more pronounced.

10. Report COTEC; *Ejecución presupuestaria de la I+D del sector público.* https://cotec.es/observacion/ejecucion-presupuestaria-de-la-i-d-del-sector/bbc598f2-edc4-a458-5c25-4dc1475c8545

3. 25 YEARS OF ARMS RACING: TAILOR-MADE POLICIES AND PUBLIC FUNDS FOR THE SPANISH MILITARY-INDUSTRIAL COMPLEX

Quique Sánchez and Pere Ortega

If we are to understand arms race escalation in which Spain is involved nowadays, as well as the policies that have led Spain to be the 7th largest arms exporter in the world and the 17th country with a higher military expenditure,[11] an analysis of the development and policies boosting the military-industrial complex in the last 25 years can be clarifying. We, therefore, start from a key moment a quarter of a century ago: in 1996 José María Aznar won the elections as the Popular Party (PP) candidate and formed a minority government. His cabinet did not take long to implement purely neoliberal policies that are still shaping the Spanish economy today, and which also re-shaped significantly the military-industrial complex. Through cuts in social services, tax cuts for the highest incomes and companies, deregulation and privatisation of public companies and services, a process of continuous weakening of the public sector to the detriment of the private sector began. Such a structural adjustment, through which strategic public companies were sold off and dismantled, also placed special emphasis on creating a "military industrial pole" that could be "one of the locomotive activities of the productive system and employment", in the words of the then Minister of Industry and Energy Josep Piqué (Ortega, 2019). It was precisely for this purpose that José María Aznar's government approved the first three Special Weapons Programmes (PEA) in 1998, for three weapons systems that had already begun to be designed during the previous government of Felipe González (PSOE).

3.1 SPAIN IN THE ARMS RACE: SPECIAL WEAPONS PROGRAMMES (PEA)

The Special WeaponsProgrammes are, undoubtedly, a defining component when it comes to explaining the arms racing trend of the last 25 years in Spain, as a catalyst and a boost for military expenditure, arms exports and for an increasingly stronger Spanish military industry.

Due to the PEAs' high development and funding cost, the Cooperation Management (*Gerencia de Cooperación)* of the Ministry of Defence drew up a "creative accounting" consisting of a three-parts agreement between the Ministry of Industry, the Ministry of Defence and the military companies, according to which, Industry advanced the money to military companies as R&D, through reimbursable credits at zero interest to be returned in 20 years, during the production phase, allowing the Ministry of Defence not to pay until weapons were received, at which point companies had to return the credit received. By doing this, the arms programmes were carried out without their cost appearing in the Defence budget, which avoided the political cost to Aznar's government, which was starting it mandate, without significantly increasing

11. SIPRI Arms Transfers and Military Expenditure Database

Defence expenditure. This formula made it possible to conceal the real Defence expenditure to public opinion and, on the other hand, it contributed to increase Spain's public allocation to R&D, which was then at the bottom of the OECD.[12]

From 1996 to 2022 the PEA have continued to increase in number to reach 34, and their costs amount an incredible figure of 51,664 M€ (see Table 8).

12. Spain devoted a 0.95% of GDP to R&D in 1997.

Table 8. Current Armaments Special Programmes in 2021

Millions of current euros

Name	Companies	Period	Current Cost
73 Aircrafts EF-2000	Airbus Defence, Santa Bárbara, ITP, Indra, Aeronova, Tecnobit	1997/2024	13,749.00
4 Frigates F-100	Navantia, Indra, Maxam	1997/2010	1,997.50
239 Armoured Leopardo	Santa Bárbara, Indra, Navantia, Electroop, Amper	1996/2017	2,550.77
139 Armoured Pizarro	Santa Bárbara, Steyr, Puch, Indra, Sapa Placencia	2005/2024	786.94
18 Helicopters Tigre	Airbus Helicopter, Sener, Amper, ECESA, Indra	1997/2014	1,738.03
1 Ship BPE	Navantia, Indra, Sainsel	2004/2010	505.47
14 Airplanes A400-M	Airbus Defence, Flabel, ITP, Sener, Tecnobit, Alcor	2001/2029	5,018.97
4 Submarines S-80	Navantia, Tecnobit, SAES, Indra, Abengoa, Sainsel	2011/2027	4,572.00
22 Helicopters NH-90 (first lot)	Airbus Helicopter, Sener, ECESA, ITP, Indra	2006/2028	1,682.44
23 Helicopters NH-90 (second lot)	Airbus Helicopter, Sener, ECESA, ITP, Indra	2018/2028	1,585.93
1 Frigate F-105	Navantia, Indra, Maxam	2006/2012	836.24
770 Missiles Iris T (EF-2000)	Sener, Expal, ICSA	2005/2011	282.43
4 BAC Ships Supplies and Combat	Navantia, Indra, Sainsel	2003/2022	260.16
4 BAM Ships	Navantia, Indra, Sainsel, Navalips	2006/2012	530.41
43 Missile Taurus (EF-2000)	Taurus Systems, EADS, Sener	2004/2010	89.64
2600 Antitank missiles Spike	Rafael (Israel), Santa Bárbara, Tecnobit	2007/2022	364.69
82 155 mm Shells	Santa Bárbara, Amper, Iveco	2006/2023	195.99
4 Helicopters Cougar UME	Airbus Helicopter	2007/2011	80.01
Extinguisher plane UME	Airbus Defence and Space	2008	40.55
Nodes CIS UME	Indra	2009/2010	60.37
8 Helicopters EC-135	Airbus Helicopters	2013/2015	49.00
2 BAM Ships (5th and 6th)	Navantia, Indra, Sainsel, Navalips	2014/2019	333.48
1 BAM Ship	Navantia, Indra, Sainsel, Navalips	2021/2024	183.00
1 Frigate F-110	Navantia, Indra	2015/2022	800.00
5 Frigate F-110	Navantia, Indra	2026/2031	4,325.00
348 Armoured Dragón 8x8 (900 in a second phase)	Santa Bárbara, SAPA, Indra, Escribano	2019-2023	2,100.00
4 UAV/Reaper Drones	General Atomics, Sener, Indra, IAI	2016/2020	160.00
24 Training planes Pilatus PC-21	Pilatus Aircraft LTD (Suiza)	2019-2022	204.75
2 satellites Spainsat NG I y II	Hisdesat, Airbus, Thales	2018/2024	1,617.00
Modernisation 17 helicopters Chinook CH-47D	Boeing	2018/2026	1,200.00
New European Combat Plane FCAS	Airbus, Tecnobit, Indra, Sener, ITP, GMV	2019-2027	2,610.00
3 refuel planes A330 MRTT	Iberia, Airbus,	2021-2025	810.00
18 helicopters H135	Airbus Helicopters	2023-2026	178.00
1 BAM-IS Ship	Navantia	2022-2024	166.46
TOTAL			**51,664.23**

Personal compilation. Source: States's General Budget

On its part, credits in R&D coming from the Ministry of Industry, which, we know, are of doubtful reimbursement, have totalled in this last quarter of a century a not unimportant 19,192 M€ (see table 9).

It is noteworthy that this decade-projected race to acquire new military capabilities, articulated around the PEA, has not been affected by government alternation between the Popular Party and the PSOE, not even in the current legislature, of coalition between PSOE and *Unidas Podemos*. Therefore, regardless of the political sign of the successive governments in the last 25 years, investments in new weapons, which boost the military industry and arms exports, while at the same time commits large sums within the State budget, have grown steadily since 1996, with the sole exception of the hardest years of the 2008 financial crisis. During his presidency (after Aznar, between 2004 and 2011), José Luis Rodríguez Zapatero (PSOE) increased the Special Weapons Programmes in 11 and lifted the military expenditure up to record levels, a trend that was only reversed once immersed in the 2008 crisis. Such decrease continued during the first years of Mariano Rajoy's (PP) government, although the cuts in military expenditure during the crisis were lower in comparison with most of the ministries (Ortega, 2019). From 2015 onwards public resources assigned to the military sector recovered the inertia they had before the crisis (unlike other portfolios, which kept on suffering "adjustments") and in 2016 the Rajoy government announced 4 new PEAs. Until then, payments for these programmes had been systematically cheated, appearing in very reduced amounts in the State General Budget, and being later covered by the approval of extraordinary credits by the Council of Ministers. This new exercise of creative

Table 9. Military R&D in Spain

Millions of current euros

YEARS	Ministry De-fence R&D	Ministry Indus-try Mili-tary R&D	Total Military R&D	Total R&D	% Military/ total
1996	291.29	332.25	623.54	1,244.29	50.11
1997	290.11	212.16	502.27	1,352.68	37.13
1998	300.14	581.00	881.14	1,867.95	47.17
1999	294.75	1,198.58	1,493.33	2,767.84	53.95
2000	293.48	964.11	1,257.59	3,053.86	41.18
2001	382.11	947.80	1,329.91	3,435.30	38.71
2002	314.04	1,176.85	1,490.89	3,465.40	43.02
2003	322.97	1049.90	1,372.87	4,000.12	34.32
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	26.75
2006	325.88	1,358.01	1,683.89	6,510.81	25.86
2007	361.04	1,225.06	1,586.10	8,060.42	19.68
2008	355.67	1,308.57	2,363.67	9,342.55	25.30
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
2011	203.91	770.71	974.62	8,493.11	11.47
2012	174.05	582.77	756.82	6,397.62	11.83
2013	145.29	218.15	363.44	5,926.29	6.13
2014	163.24	343.60	506.84	6,139.99	8.25
2015	163.00	563.92	726.92	6,395.40	11.36
2016	163.89	468.14	632.03	6,429.60	9.83
2017	159.39	302.36	461.75	6,501.17	7.10
2018	211.59	467.61	679.20	7,058.00	9.62
2019	211.59	467.61	679.20	7,058.00	9.62
2020	211.59	467.61	679.20	7,058.00	9.62
2021	184.59	676.55	861.14	12,344.18	6.98
2022	230.36	706.20	936.56	13,296.56	7.04
Total	**6,917.38**	**19,192.20**	**26,394.06**		

Personal compilation. Source: States's General Budget

accountability was finally invalidated by the Constitutional Court, but without significantly affecting the payment schedule. The arrival of Pedro Sánchez to government after Mariano Rajoy, first alone after the censure motion, and then in coalition with *Unidas Podemos*, has given continuity to this armament inertia. In fact, the two governments presided by Pedro Sánchez to date have allocated more than 16,000 billion to investments in new weapons (now under the euphemism of *Special Modernisation Programmes)*, even in a context of health and eco-social crises as the current one, with programmes such as the armoured VCR 8x8 *Dragón* (of which 348 will be bought in a first phase) or the new European combat aircraft FCAS, with a final cost that could exceed 50,000 million (see Table 8).

The participation of the Ministry of Industry and the use of R&D funds in this payment scheme for new weapons required for the PEA is justified, among other arguments, by the supposed benefits that the development of armament has for civilian industry, through a supposed transfer of technologies from one sector to another. After 25 years of funding these programmes, this premise has not been proven to any extent. Similarly, the usefulness of such weapons systems for our collective security, more than thirty to date, has not been demonstrated and the vast majority of these weapons have not been, nor will they be used beyond manoeuvres and trainings. Therefore, it can be said that the Spanish military industry is the great beneficiary of PEA. Among the companies that have been most favoured by these programmes we can outline Airbus, Santa Bárbara (General Dynamics), Indra, Tecnobit, SAPA or Navantia, responsible for implementing (often in consortium) several of these 34 PEAs approved to date (Table 8)..

3.2 MILITARY ECONOMY BOOST IN SPAIN FROM 1996 TO 2022

Therefore, to get an idea of the colossal magnitude of the current Spanish military expenditure, we must go back to 1996, when, after the *Partido Popular* came to the government, the projects of Special Weapons Programmes were launched, initially three of them: four F-100 frigates manufactured by Navantia, 87 F-2000 combat planes manufactured by Airbus and 239 Leopard armoured vehicles manufactured by Santa Bárbara Sistemas/General Dynamics, plus the company Indra, which would provide the electronics and additional technologies for all these weapons. The problem with these programmes lies in the fact that they mean a very costly mortgage on the state coffers, since given that their manufacturing often takes between ten and twenty years, the initial purchase commitment for those three PEA amounted to 12,767 million.

Such an excess in armaments investments has led to a significant increase of the military expenditure, which rose from 9,966 million in 1996, to 22,796 M€ for 2022, representing an increase of 129% in current values (see Table 10). Military investment in 1996 was 1,533 M€ and in 2022 has been 4,581 M€, a very considerable increase of 199%,[13] which demonstrates how PEAs have decisively influenced the increase of the Spanish military expenditure.

The 51,644 million allocated so far to the PEA represent 1,090€ per inhabitant dedicated to fighters, submarines, frigates, tanks, armoured vehicles, missiles, drones and other war-making technologies. On the other hand, it is worth noting how from the total investments in all areas of the central state, with the

13. Ortega, P., Bohigas, X., Sánchez, Q. *Análisis crítico del Presupuesto de Defensa del año 2021*, Working Paper December 2020, Centre Delàs, d'Estudis per la Pau.

Table 10. Military Economy in Spain 1996-2021

Millions of current euros

	1996	2000	2005	2010	2015	2020	2022	%
Military expenditure*	9,966	13,716	18,877	19,605	17,887	19,763	22,796	129%
Military Investments*	1,533	2,823	3,214	2,442	1,118	3,527	4,581	199%
Military material invoicing**	1,050	2,550	3,564	6,445	6,527	9,666		821%
Arms commerce***	116	139	1,230	2,238	3,720	3,622		3012%

Personal compilation.
* State General Budget
** Database on military industry Centre Delàs
*** Report Defence Material Exports

exception of capital transfers to autonomous communities and their investments, the military sector accounts for 21.4%, what means that for every 5 euros the central state devotes to investment, 1 goes to the military sector.

3.2.1 A SOARING MILITARY INDUSTRY

In direct relation to the growth of military expenditure, the arms production by Spanish military industries has also increased, and even more strongly, over the last 25 years, rising from a turnover of 1,050 M€ in 1996,[14] to the current 7,661.82 million in 2020, which represents a strong increase of 630%.[15] This explosion in the runover of the Spanish military industry has not only been possible due to the acquisitions made for the Spanish army, it is also explained by arms exports. Thus, while in 1996 exports amounted to 116 million of euros, in 2020 they amounted to 3,622 current million. Such an increase of 3012%[16] shows how the Spanish government has taken great pains in helping military industries to export, particularly after the 2008 financial crisis, when the then Minister of Defence, Pedro Morenés, introduced military attaché offices in consulates and embassies in 32 countries to help companies sell arms abroad. Thus, his ministry's austerity budgetary measures, which entailed reductions in military material acquisitions, were compensated by giving the industry support to sell more weapons to other countries (Font, Melero and Vega, 2020), which allowed Spain to reach the seventh place in the shameful world ranking of arms exporters, accounting for 3.2 per cent of global sales. This, on the other hand, shows the ineffectiveness of arms trade regulation which, despite stipulating eight rules under which arms cannot be sold to a country, does not manage to prevent around 20% of Spanish exports from going to countries which do not comply with one or several of these requirements, such as Saudi Arabia, the United Arab Emirates or Turkey.

Within the Spanish military industry, stand out companies as Airbus, Navantia, Indra, Expal (Maxam), Santa Bárbara (General Dynamics), Aernova Aerospace, Oesia, ISDEFE, Instalaza or Escribano. The key products of the Spanish military industry are military aircrafts (74.4% of total exports), and warships (9%), while the sale of bombs, rockets and missiles account for 2.5% of the business. In total, around 120 companies make up this "military industrial pole" which summing up their civilian and military production, have a turnover of around 2% of the Spanish GDP, 0.6% if only military turnover is considered. These companies employ between 60,000 and 70,000 people throughout Spain, of whom approximately one third are dedicated to military production, which means around 1% of the Spanish workforce.

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f we take into account and analyse comparatively the contribution to GDP, the employment it generates and the investments and public aids the military industry receives (especially those 51,644 million of the PEA), we can conclude that there is no other economic sector in Spain receiving a better treatment from the central state administration.

3.2.2 COLLUSION, REVOLVING DOORS AND CORRUPTION

To explain the situation of privilege the military industry has with respect to the policies and the making of public budgets, as well as the growth of the Spanish military-industrial complex over the last 25 years, it is essential to understand the perfect harmony that exists between the actors that make up this complex: government and political class, military industry executives and high-ranking military personnel. Such levels of collusion often trespass the limits of ethics and legality, as evidenced by the numerous cases of revolving doors, influence trafficking, corruption or even the authorisation of arms sales to countries involved in armed conflicts and/or which systematically violate human rights. The functioning of revolving doors among these three spheres is well-oiled and there are plenty of examples of industrial businessmen who have gone into politics, and of military and political figures who are brought to take a seat on the Boards of arms companies.

As an example of this circuit and of the synergies between different actors we will use the paradigmatic case of the public company Defex which, although it cannot be extrapolated to the entire military industry, includes several elements than can help us understand these synergies within the military-industrial complex and the arms racing of the last quarter of the century.

Defex was created in 1972 with the corporate purpose of helping the "promotion and export of goods and services of Spanish companies", being mainly involved in arms exports. Controlled in a 51% by the *Sociedad Española de Participaciones Industriales* (SEPI), the Ministry of Defence, the Ministry of Finance, the Ministry of Foreign Affairs and the Ministry of Economy have a sit on its board of directors. The remaining 49% of the company was controlled by private companies such as Expal, Maxam, SAPA or Instalaza.

14. Manonellas, M, Oliveres, A, Xarles, M, (1998), *La industria española de armamentos: de la política industrial a la economía de las empresas*, Anuari CIP 1998, Barcelona, Icaria
15. Database on the Spanish military industry in Centre Delàs d'Estudis per la Pau, http://database.centredelas.org/industria-militar-en-espana/?lang=es as of 20/11/2021
16. Database on Spain Sales of defence material in Centre Delàs d'Estudis per la Pau

Defex's liquidation in 2017 was precipitated by a series of scandals and judicial investigations that arose around a contract for arms sales to Angola. From this case, contracts in Saudi Arabia, Cameroon, Egypt, Senegal, Gabon and Algeria began to be investigated for crimes of corruption in international business transactions, continuous offences of embezzlement of public funds, criminal organisation, counterfeit and money laundering. Judge José de la Mata considered "absolutely unbearable" that something like this could happen in a mostly public company, whereas a report by the Guardia Civil's Unit against Organised Crime (*Unidad contra el Crimen Organizado -UCO-*) concluded that Defex was acting as a criminal organisation when closing deals with third countries.

One of the investigation pieces concluded that contracts signed from 2011 to 2016 for sales to Saudi Arabia would have moved some hundred million euros in bribes to senior officials of the Saudi regime. The senior Deffex officials convicted to date are businessmen (one of them a colonel in the reserve) with distinguished surnames within the military,[17] among which Álvaro Cervera Pérez, a personal friend of emeritus King Juan Carlos de Borbón and, according to the Prosecutor's Office, a commercial agent in Saudi Arabia who for a time directed and controlled "a corporate network and numbered accounts that have been used to channel illicit commissions to third parties and to continuously appropriate funds from the public company Defex". Someone nicknamed as "the King" appears in these investigations as one of the beneficiaries of the plot, although his identity was not finally conclusively proven.

Notwithstanding, there is much information which does place the emeritus king as a key intermediary in the business between Spain and Saudi Arabia, but as in similar cases such as the fast train (AVE) to Mecca or the negotiation for the sale of 200 Leopard tanks for the Saudi regime as well, the excuse of the inviolability of the then monarch does not allow to shed more light on these matters and to fully understand the role he played in favour of the Spanish military industry. Despite this, these connections at the highest level do allow us to infer a high level of collusion between the military industry and the highest spheres of state power. In this sense, it is also remarkable how an "instrument for corruption" such as Defex (as the then Secretary of State for Defence, Agustín Conde, called it) managed for so many years to ensure that the Interministerial Board for the Trade and Control of Defence Materiel and Double-Use Technologies (*Junta Interministerial para el Comercio y Control del Material de Defensa y Tecnologías de Doble Uso* -JIMDDU-), in charge of authorising arms sales abroad, approved so many arms exports through fraudulent contracts to countries that did not comply with legal requirements.

A more detailed analysis of the revolving doors phenomenon within the military-industrial complex can help us understand this. Precisely during the period when Defex's contracts with Saudi Arabia were signed, which moved around 100 million in bribes (2011 to 2016), the Ministry of Defence in Mariano Rajoy's government was Pedro Morenés, who had just held several management positions in military and security companies such as Instalaza, MBDA or Segur Ibérica. These three companies were awarded more than one hundred public contracts, while he was in office. Morenés was also part of controversies which were related to the possible delay in the manufacture of two F-110 frigates to favour MBDA or the sale to Saudi Arabia of 400 bombs that the subsequent PSOE government would make infamous after falsely announcing the suspension of this transaction..

Other former Defence ministers, Eduardo Serra and Julián García Vargas, in the Aznar and González governments respectively have also ended up closely linked to military companies. The former is the president of Everis, a consultancy firm which, according to an investigation by El Diario.es,[18] sold explosives to Saudi Arabia in 2017 worth 88.8 million of euros and trained Saudi military personnel in the use of mortars for their subsequent deployment on the border with Yemen. García Vargas, for his part, is now the president of the Foundation FEINDEF, the International Fair of Defence and Security (*Feria Internacional de Defensa y Seguridad*) that every year brings together in Madrid representatives of arms companies, senior military commanders and political representatives from all over the world. Finally, it is also striking the role of the above-mentioned Josep Piqué (Ministry of Industry and Energy, and of Foreign Affairs in different governments of the Popular Party -PP) as the current president of ITP Aero, which manufactures parts and maintains the engines of Saudi fighter jets that have been bombing Yemen since 2015.[19]

17. Pablo Elorduy, *Hijos de y apellidos ilustres afrontan años de cárcel por los negocios corruptos de Defex*. El Salto, 12th January 2020. https://www.elsaltodiario.com/corrupcion/apellidos-ilustres-afrontan-anos-carcel-negocios-corruptos-defex

18. Pol Pareja, *El contrato secreto para vender armas a Arabia Saudí que autorizó el Gobierno de Rajoy: 250 morteros y 175.000 proyectiles*. El Diario.es, 11th May 2021,

19. Pol Pareja, *Una empresa española presidida por Josep Piqué produce los motores de los cazas saudíes que bombardean Yemen*. El Diario.es, 24th November 2019. https://www.eldiario.es/politica/presidida-josep-pique-bombardean-yemen_1_1250306.html

All these elements combined explain how Spanish arms exports to a regime such as Saudi Arabia have been able to reach 1,193 million of euros in the last decade,[20] despite the obvious involvement of this country in Yemen, the systematic violations of human rights it commits and the many evidence of indiscriminate attacks against the civilian population in the conflict. In our opinion, the fact that Saudi Arabia (maybe the most glaring example) is a preferential client for arms made in Spain, shows plainly how the strengthening of the Spanish military-industrial complex meets objectives that have nothing to do with defence and security (neither in this nor in other countries), but rather with maintaining and expanding the privileges of an industry that is perfectly imbricated in the political power, economic and military spheres, even when doing this often means violating the law or contributing to humanitarian catastrophes as the one in Yemen.

20. Font, Melero and Vega: 2020. Report 44 of the Centre Delàs d'Estudis per la Pau

If ethical and humanitarian criteria were not enough to question this unjustified boost to the military economy, economic arguments based on the efficiency of investments and the creation of job can be useful. In this sense, a 2017 study by Heidi Garrett-Peltier,[21] published by the Watson Institute of Brown University helps us dismantle the so much trite myth of job creation by the military industry. According to this research, which calculates job multipliers with the investment of a million dollars in different areas, including the military, investments in education and health generate more than twice as many jobs as in the military sector, and up to a 40% more when dedicated to clean energies.

21. Heidi Garrett-Peltier; 2017. *Job Opportunity Cost of War*. Watson Institute, Brown University. https://watson.brown.edu/costsofwar/files/cow/imce/papers/2017/Job%20Opportunity%20Cost%20of%20War%20-%20HGP%20-%20FINAL.pdf

4. CONCLUSIONS

Military expenditure in Spain continues to be excessively high. We want to outline, among other aspects, how it allocates huge resources to producing new weapons, burdening the development of the productive economy in the most needed sector: the eco-social.

This military expenditure continues to be a prisoner of the inertia to allocate resources to the military-industrial complex, under the false pretence of contributing to the population's welfare with it, when, on the contrary, these investments fund policies that devastate the common good. Investment in weapons, in military R&D and in maintaining a large military force as the Spanish army, only contributes to strengthening the security of the large military conglomerates of the United States and the European Union (NATO and PESCO) and to reinforcing the extractivist economic political model of the big transnational corporations which provoke a socio-ecological crisis that even threatens humanity's survival. This spending policy reinforces a security model based on the states armed defence and not in human security, based on the defence of human needs (health, work, well-being, housing, etc.).

Moreover, we know that the interrelationship between military expenditure and environmental crisis is very narrow. On the one hand, the role armies play in maintaining the status quo, protecting the "national interests" of big powers and, thus, their big transnational corporations, securing extraction and supply routes of energy and other non-renewable resources of the Earth's crust. On the other hand, because the military activity itself leaves a considerable ecological footprint, in particular when talking about greenhouse gases which provoke the already fledging environmental collapse. In the case of the Spanish army, we are talking about an average of carbon footprint in their direct and indirect emissions of 1.900.000 tCO_2.

For all these reasons we express our opposition and criticism to this budget which, taking advantage of European aids, will allow Spanish public resources to be dedicated to maintaining military investments amounting to 3,875 million in 2022, and also allocating 936 millions to military R&D, most of which, 705 millions, will be destined to companies for the development of new weapons programmes. Huge figures that call into question the fact that the current government is walking in the right direction in order to change policies towards the common good.

These military expenditures have no other function than providing resources to maintain some supposed dissuasive capabilities of doubtful geopolitical use for the armed forces or being directly used in military interventions in other countries or in armed conflicts and wars. These functions are a determining factor in the militarisation of society, since it ends up accepting the use of military force as the best way to get security while there are other ways to solve conflicts. A militarisation that combines the interests of shareholders and managers of military companies

because they have capital gains. On the other hand, the military establishments are also part of this military industrial complex since their existence depends on their self-justification.

Finally, although lower in number but of great importance, there are the politicians linked to defence ministries and departments who, with their influence on governments, obtain perks from military companies. A conglomerate of interests that not only puts pressure on governments to maintain the perverse spiral of using military force to resolve conflicts, but also influence public opinion by launching dishonest messages about the benefits of an industry that creates jobs, helps the country's technological development through R&D&I and strengthens the growth and enrichment of the economy. These issues have been broadly analysed and presented in many other publications of the Centre Delàs d'Estudis per la Pau, which we repeat once again.

Investments in military industry destined to civilian productive economy would generate more employment in the civilian sphere, as shown by several studies, among others, that of the Economy Nobel prize winner Vassily Leontief[22] who stated that all the US military economic conglomerate needed up to three times more resources to develop, while the civilian sphere consumed only a smaller part of those same resources. This can be extended to military R&D, and its contributions to the development of technologies in the civilian sphere, when there exists the experience that Germany and Japan were deprived of having an army and military industry after the Second World War, and all research was diverted to civilian industrial production. With this, they managed, despite having been devastated by war, to make their economies flourish only a few years later.

22. Leontief, W., (1983), *Military Spending: Facts and Figures, Worldwide Implications and Future Outlook*. Y *Disarmament, Foreign Aid and Economic Growth*, (2004), Peace Economics, Peace Science and Public Policy, Harvard

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