WORKING PAPERS
CENTRE DELÀS
april 2019

CENTRE DELÀS D'ESTUDIS PER LA PAU

European Defence Fund

The EU's willingness to increase military spending and encourage the arms sector

Authors: Teresa de Fortuny · Xavier Bohigas

The European Commission announced in 2016 the EU's intention to implement a Fund to finance the research and development of military products and technology. The Fund will be endowed with 13 billion euros from the Union's budgets for the period of 2021-2027. It is also foreseen that, in the development projects, the Member States will commit to contribute 80% of the costs. It is estimated that the sum of the resources coming from the Community budget and the resources coming from the state budgets of the Member States, will exceed 50 billion euros. The European defence and security industry and military research centers will be the ones who will carry out this investigation and benefit from grants from the Fund. It will be the first time that the EU will allocate resources to strictly military research.

The European defence industry played a crucial role in the decision to implement this Fund. In 2015, the European Commission created a Group of Personalities with the mission of advising on military research, with an important representation of that sector. The Fund's proposal came from that Group of Personalities. It is an analogous process to the one that, in the past decade, led to European programs of security research funding.

Once the research and development projects are completed, the defence industry will own the resulting products and technology and will profit from their sale.

The implementation of the Fund will lead to a substantial increase in military spending in Europe. On one hand, the EU will provide resources from the community budget. On the other hand, the Member States will co-finance the development projects and also commit to buy the resulting products.

INDEX

INTRODUCTION

Jean-Claude Juncker, the president of the European Commission, made public in his declaration on the State of the Union of 2016 the intention of the EU to promote and finance military investigation and announced the creation of a European Defence Fund (the Fund).

The Commission, however, had been working on this for some time. In 2015, the European Commissioner for Internal Market and Services, Elżbieta Bieńkowska, created a Group of Personalities (GoP) to advise on defence research. Of the 16 members, seven were presidents of arms companies (Indra, MBA, Saab, Airbus, BAE Systems, Leonardo, Liebherr-Aerospace), two were the presidents of military research centers (Fraunhofer-Gesellschaft and TNO), one was the director of an institute of international studies (Finnish Institute of International Affairs) and six were European politicians. This GoP presented a report in 2016 recommending the implementation of a defense research program with the aim of promoting a technological and industrial base for European defence. The program would be integrated into the Multiannual Financial Framework for 2021-2027. The European Commission took a good part of these recommendations in aspects such as the level of financing, intellectual property, a guaranteed market and, since 2021, a well-endowed financing program

FUND "PRECURSORS"

Within the current budgetary period of the EU, which ends in 2020, two preliminary stages of this Defence Fund are already being implemented: The Preparatory Action on Defence Research (PADR), which covers the period 2017-2019 and the European Defence Industrial Development Programme (EDIDP),that will be developed in 2019-2020. The PADR finances military research and the EDIDP will finance the development of prototypes, equipment and technology. It is, therefore, public resources of the EU for military research.

It is, therefore, public resources of the EU for military research

PROJECTS IN THE MARK OF THE PADR

The PADR budget is 90 million euros, distributed between the three years of the program: 25 million for 2017 (the first projects have already been committed and started); 40 million for 2018 (calls for proposals approved and closed); 25 million for 2019 (pending confirmation and approval).[1] Its implementation will be through grants. In 2017, the first call for funding of military research projects was opened and five projects that are already being financed were approved:[2] Ocean2020, ACAMSII, GOSSRA, Vestlife y PYTHIA.

Ocean2020: will receive a grant of about 35 million euros. Its objective is to support maritime surveillance missions and, for this purpose, it will integrate drones and unmanned submarines in the operations of the fleet. The information obtained will be combined with conventional systems to provide military commands with a complete picture from many different sources. The aim is to improve situational awareness in the maritime environment. The project will be managed by a consortium led by the Italian company Leonardo and brings together 42 partners

1. European Defence Agency. Pilot Project and Preparatory Action on Defence Research. https://www.eda.europa.eu/what-we-do/activities/activities-search/pilot-project-and-preparatory-action-for-defence-research

2. European Comission, "El Fondo Europeo de Defensa pone en marcha nuevos proyectos de investigación paneuropeos", Press-release, February 16, 2018. http://europa.eu/rapid/press-release_IP-18-763_es.htm

from fifteen EU countries. In 2019 there will be two demonstrations in the real world, one in the Baltic countries, led by the Swedish Navy, and another in the Mediterranean, led by the Italian Navy. The Defense Ministries of Spain, Estonia, France, Greece, Italy, Lithuania, the Netherlands, Portugal, Sweden and the United Kingdom are participating in it. The industrial partners are: Indra, Safran, Saab, MBDA, PGZ/CTM Hensoldt, Intracom-IDE, Fincantieri and Qinetiq. The research centers participate: Fraunhofer-Gesellschaft, TNO (Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek), Center for Maritime Research and Experimentation (CMRE NATO) and the Italian Istituto Affari Internazionali (IAI).

ACAMSII: this project will develop adaptive camouflage for soldiers that will protect them against sensors that operate in a series of wavelength ranges. Partners from Germany, France, Lithuania, the Netherlands, Portugal and Sweden are participating. The participating companies come from the textile, aerospace and defense system integrators sectors: CITEVE, Damel and Safran. The research centers are: Totalförsvarets forskningsinstitut (FOI) of Sweden, Fraunhofer-Gesellschaft and TNO.

Gossra: will improve the compatibility of complex systems elements (for example sensors or digital protective goggles) worn by soldiers. It aims to guarantee, on the one hand, that the devices with which the soldiers are equipped work together and, on the other hand, to create a methodology to specify how the components are connected, which will facilitate the development of new devices that can work with the existing equipment. This project will be managed by partners from Germany, Spain, Italy, the Netherlands, Poland, Portugal and Sweden. The companies involved are Rheinmetall, Indra, GMV Aerospace and Defense, Leonardo, Larimart and Saab, as well as the Tekever and iTTi SMEs and the TNO research center.

Vestlife: aims to create ultralight armored suits for infantry soldiers, effective clothing in a defense context, but light, flexible and comfortable. Participants from Spain, Finland, Italy, the Netherlands and Portugal, together with the companies CITEVE and FY-composites, and the research centers AITEX and TECNALIA. Two SMEs also participate in the project: BRAPA and Petroceramics.

PYTHIA: in December 2017 the first grant agreement was signed with this consortium. This project aims to determine the key trends in the world of innovative defense technologies, which is rapidly evolving.

The PYTHIA project aims to determine the key trends in the world of innovative defense technologies, which is rapidly evolving

ACAMSII	Adaptive Camouflage for the Soldier II
Subvention (€)	2,631,507
Starting date	May 1, 2018
Duration	36 months
Participants (7)	
TOTALFORSVARETS FORSKNINGSINSTITUT (FOI)	Sweden
CENTRO TECNOLOGICO DAS INDUSTRIAS TEXTIL E DO VESTUARIO DE PORTUGAL (CITEVE)	Portugal
FRAUNHOFER GESELLSCHAFT ZUR FÖRDERUNG DER ANGEWANDTEN FORSCHUNG E.V. (IOSB)	Germany
DAMEL - CONFECCAO DE VESTUARIO LDA (DAM)	Portugal
TEXTILE INSTITUTE OF CENTER FOR PHYSICAL SCIENCES AND TECHNOLOGY (FTMC)	Lithuania
NEDERLANDSE ORGANISATIE VOOR TOEGEPAST-NATUURWETENSCHAPPELIJK ONDERZOEK TNO (TNO)	The Netherlands
SAFRAN ELECTRONICS & DEFENSE (SAF)	France

GOSSRA	Generic Open Soldier System Reference Architecture
Subvention (€)	1,488,642
Starting date	June 1, 2018
Duration	22 months
Participants (9)	
RHEINMETALL ELECTRONICS GMBH (RME)	Germany
GMV AEROSPACE AND DEFENCE S.A. (GMV)	Spain
ITTI SP. Z O.O. (ITTI)	Poland
TEKEVER ASDS LDA. (TEKEVER)	Portugal
LARIMART S.P.A. (LARIMART)	Italy
LEONARDO - SOCIETA PER AZIONI (LDO)	Italy
SAAB AKTIEBOLAG (SAAB)	Sweden
INDRA SISTEMAS SA (INDRA)	Spain
NEDERLANDSE ORGANISATIE VOOR TOEGEPAST-NATUURWETENSCHAPPELIJK ONDERZOEK (TNO)	The Netherlands

OCEAN2020	Open Cooperation for European Maritime Awareness
Subvention (€)	35,480,000
Starting date	April 1, 2018
Duration	36 months
Participants (42)	
LEONARDO - SOCIETA PER AZIONI	Italy
NATO SCIENCE AND TECHNOLOGY ORGANISATION	International
INDRA SISTEMAS SA	Spain
FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.	Germany
SAAB AKTIEBOLAG	Sweden
OSRODEK BADAWCZO-ROZWOJOWY CENTRUM TECHNIKI MORSKIEJ SPOLKA AKCYJNA	Poland
SAFRAN ELECTRONICS & DEFENSE	France
INTRACOM SA DEFENSE ELECTRONIC SYSTEMS	Greece
NEDERLANDSE ORGANISATIE VOOR TOEGEPAST-NATUURWETENSCHAPPELIJK ONDERZOEK TNO	The Netherlands
QINETIQ LIMITED	United Kingdom
BALTIJOS PAZANGIU TECHNOLOGIJU INSTITUTAS	Lithuania
GMV IS SKYSOFT SA	Portugal
MBDA DEUTSCHLAND GMBH	Germany
I.D.S. - INGEGNERIA DEI SISTEMI - S.P.A.	Italy
GMV AEROSPACE AND DEFENCE SA	Spain
TERMA A/S	Denmark
ECA ROBOTICS	France
FINCANTIERI SPA	Italy
E-GEOS SPA	Italy
TEKNOLOGIAN TUTKIMUSKESKUS VTT OY	Finland
CYBERNETICA AS	Estonia
UMS SKELDAR	Sweden
SEADRONE	Spain
AUTONAUT LTD	United Kingdom
BLUE BEAR SYSTEMS RESEARCH LIMITED	United Kingdom
CONSORZIO NAZIONALE INTERUNIVERSITARIO PER LE TELECOMUNICAZIONI	Italy
ETHNIKO KAI KAPODISTRIAKO PANEPISTIMIO ATHINON	Greece
PROLEXIA	France
SCHONHOFER SALES AND ENGINEERING GMBH	Germany
ANTYCIP SIMULATION SAS	France
INFINITE VISION GMBH & CO. KG	Germany
INSIS SpA	Italy
ALTUS LSA COMMERCIAL AND MANUFACTURING SA	Greece
LUCIAD NV	Belgium
ISTITUTO AFFARI INTERNAZIONALI	Italy
HENSOLDT SENSORS GMBH	Germany
BLACKSHAPE SPA	Italy
MINISTERO DELLA DIFESA	Italy
LITHUANIAN ARMED FORCES	Lithuania
MINISTRY OF NATIONAL DEFENCE, GREECE	Greece
MINISTERIO DA DEFESA NACIONAL	Portugal
MINISTERIO DE DEFENSA DE ESPAÑA	Spain

PYTHIA	Predictive Methodology for Technology Intelligence Analysis
Subvention (€)	947,610
Starting date	February 1, 2018
Duration	18 months
Participants (8)	
ENGINEERING - INGEGNERIA INFORMATICA SPA	Italy
ZANASI ALESSANDRO SRL (Z&P)	Italy
EXPERT SYSTEM FRANCE (ESF)	France
HAWK ASSOCIATES LIMITED (HAWK)	United Kingdom
WOJSKOWA AKADEMIA TECHNICZNA IM JAROSLAWA DABROWSKIEGO (WAT)	Poland
INSTITUT PO OTBRANA (BDI)	Bulgaria
I.C.S.A. INTELLIGENCE CULTURE AND STRATEGIC ANALYSIS (ICSA)	Italy
UNIVERSITATEA NATIONALA DE APARARE CAROL I / CAROL I NATIONAL DEFENCE UNIVERSITY (NDU)	Romania

VESTLIFE	Ultralight Modular Bullet Proof Integral Solution for Dismounted Soldier Protection
Subvention (€)	2,433,425
Starting date	May 1, 2018
Duration	36 months
Participants (6)	
ASOCIACION DE INVESTIGACION DE LA INDUSTRIA TEXTIL (AITEX)	Spain
CENTRO TECNOLOGICO DAS INDUSTRIAS TEXTIL E DO VESTUARIO DE PORTUGAL (CITEVE)	Portugal
BRASSER PAUL (BRAPA)	The Netherlands
FUNDACION TECNALIA RESEARCH & INNOVATION (TECNALIA)	Spain
PETROCERAMICS SPA (PETROCERAMICS)	Italy
FY-COMPOSITES OY (FY-COMPOSITES)	Finland

Three more projects are expected to be financed within the 2018 budget, pending publication.

On March 19, 2019 the Commission published the new calls for proposals for 2019, which will earmark 25 million euros to research into the mastery of the electromagnetic spectrum and future disruptive defense technologies, two areas considered essential for Europe's technological leadership and independence. Calls for disruptive technologies will examine how the Union can better support these technologies that can generate transformative changes in the military field. This will prepare the ground for the arrival of the European Defense Fund, which could assign up to 8% of its budget to these technologies. The themes of these calls are the following:

Themes	Allowance (millions of euros) for each theme (budget 2019)
Mastery of the electromagnetic spectrum - Radar, communications and electronic warfare functions based on the *European Active system Electronically Scanned Arrays* for military applications	10
Future disruptive technologies for defense (without predefined themes)	3.96
Future disruptive technologies for defense (5 predefined themes)	7.5
Unmanned systems - Interoperability standards for military unmanned systems	1.5
TOTAL	**23.26**

PROJECTS UNDER THE EDIDP FRAMEWORK

Endowed with 500 million euros, the Commission is already launching the first work plan under the EDIDP coverage, with which it will subsidize industrial defense projects during 2019-2020. On April 4, the Commission has published 16 calls for proposals for 2019 and it is expected that some more will be published in 2020.[3] These calls will cover priority areas in all fields: air, land, sea, cyberspace and space.[4] See breakdown below:

3. See "call for proposals" in the European Commission, "El Fondo Europeo de Defensa va por buen camino, con 525 millones de euros para Eurodrone y otros proyectos conjuntos de investigación e industria", Press-release, March 19, 2019. http://europa.eu/rapid/press-release_IP-19-1717_es.htm

4. European Comission; "Stepping up the EU's role as a security and defence provider". EDIDP and PADR – factsheet, 19/03/2019. https://ec.europa.eu/docsroom/documents/34510

Facilitation of the operations, the protection and the mobility of military forces

Categories	2019 (M€)	2020 (M€)
Capabilities for the detection of CBRN threats (chemical, biological, radiological and nuclear) and medical countermeasures		13.5
Multi-objective unmanned ground systems	30.6	
Underwater control that contributes to the resistance in the sea		22.5
Capacities of antidrones systems		13.5

Strategic information and security of communications and the cyberspace

Categories	2019 (M€)	2020 (M€)
Air or space capabilities for intelligence, surveillance and reconnaissance (ISR) and communications, tactical aerial remote control systems and series of sensors for air traffic management integration	43.7	
Cybersituation and defense capabilities, military networks and technologies for secure communications and information sharing	17.7	14.3
Cybersituation and early warning capabilities		22.5
Satellite communication capabilities: situation, navigation and timing	44.1	
Capacity of maritime surveillance		20
European control and command system (C2) for strategic and tactical levels.	20	

Capacity to establish very high technology operations

Categoríes	2019 (M€)	2020 (M€)
Improvement of the current technology and development of the next generation of precision ground attack capabilities	6.5	7
Ground combat capabilities		9
Aerial combat capabilities	12	22
Future naval systems and related technologies	14.5	

Innovative defense technologies and SMEs

Categories	2019 (M€)	2020 (M€)
Simulation and virtual reality instruments, and equipment for training, systems design, development and integration, testing and validation		3.5
Artificial intelligence defense technologies		5.7
Category for SMEs – Innovative defence-oriented solutions	7.5	10

Apart from those 21 calls, two projects have been proposed to receive direct aid: 100 million euros will be used to finance the development of the Eurodron (*Medium Altitude Long Endurance Remotely Piloted Aircraft System*, MALE RPAS), considered essential for the strategic autonomy of Europe and 37 million euros will be allocated to interoperability and security of military communications through the ESSOR program.

Eurodron is managed by OCCAR (*Organization Conjointe de Coopération en matière d'Armement*) and aims to develop a double turboprop aircraft in two configurations: a version for intelligence, surveillance and reconnaissance, and another equipped with armament. France, Germany, Italy and Spain are participants in the project and Belgium has observer status.[5] Airbus, the main contractor, together with the other participants, Dassault and Leonardo, presented a model[6] at the Berlin Air Show in April 2018. On December 13, 2018, the invitation to submit an offer related to the development and production phase of the European MALE RPAS program was announced on the Airbus website.[7] Airbus, as the main contractor, will coordinate the industrial response.

The ESSOR project (*European Secure SOftware defined Radio*) is an interoperable system of military voice and data communications. It is a PESCO project.[8] The governments of Finland, France, Italy, Poland, Spain and Sweden are participating. Also managed by OCCAR. The members of the industrial consortium are Bittium of Finland, Indra of Spain, Leonardo of Italy, Radmor of Poland and Thales of France.[9]

5. Fergus Kelly; "EU allocates €525 million for defense projects including Eurodrone", *The Defense Post*, March 19, 2019. https://thedefensepost.com/2019/03/19/eu-funding-defense-projects-eurodrone-525-million/
6. Sebastian Sprenger; "Companies unveil 'Eurodrone' model at Berlin Air Show", Defense News, April 26, 2018. https://www.defensenews.com/industry/techwatch/2018/04/26/companies-unveil-eurodrone-model-at-berlin-air-show/
7. Airbus, "The European MALE RPAS programme successfully passed the System Preliminary Design Review as final milestone of the Programme Definition Study", *Airbus Newsroom*, 13 December 2018. https://www.airbus.com/newsroom/press-releases/en/2018/12/The-European-MALE-RPAS-programme-successfully-passed-the-System-Preliminary-Design-Review.html
8. Fergus Kelly; "EU allocates €525 million for defense projects including Eurodrone", The Defense Post, March 19, 2019. https://thedefensepost.com/2019/03/19/eu-funding-defense-projects-eurodrone-525-million/
9. Press-release, "ESSOR (European Secure SOftware defined Radio) programme continues into the development of Operational Capability 1 (OC1)", Bittium Corporation, November 7, 2017. https://www.bittium.com/index.php?id=1602&locate=PRM%2F2017%2F2722446

THE ROLE OF THE GROUP OF PERSONALITIES

With only a few projects already approved so far, most of them can be seen as the winners of those entities whose presidents were members of that Group of Personalities created in 2015 by the European Commission to advise on defense research. That is to say, the Commission creates an advisory group constituted in good part by the private sector of the military and security industry. This group advises a policy of public investment in research and development in the field of defense that substantially benefits this sector. And the Commission scrupulously follows its recommendations.

The Commission creates an advisory group constituted in good part by the private sector of the military and security industry

We are witnessing the repetition of the move that the Commission and the European defense industry made years ago in the field of security. Indeed, in 2003, the European Commission established a Group of Personalities (GoP) in the field of security research, which included 8 representatives (of 21 members) of the arms industry.[10] In February 2004, the Commission was already including most of the GoP recommendations and announced the launch of a *Preparatory Action on Security Research* (PASR). This GoP for security research laid the foundations for the future *European Security Research Program* (ESRP), whose objective was the development of security technologies and the promotion of a globally competitive European security industry. In 2007, the ESRP, with an allocation of 1,400 million euros, was integrated into the FP7 framework program (Seventh Framework Program for Research and Development, 2007-2013). Currently, the ESRP is the security component, with an allocation of 1,700 million euros, of the *Horizon 2020* program, covering the period 2014-2020.

In the two GoPs, the one in 2003 on security research and the one in 2015 (mentioned at the beginning of this article) on defense research, the specific weight of the European defense and security industry was significant, as shown in the following table. The military research centers Fraunhofer-Gesellschaft and TNO were part of the 2015 GoP (TNO was also a member of the 2003 GoP).

Involvement of security and defense companies in the Group of Personalities (GoP) in 2003 and 2015

Company	GoP 2003	GoP 2015
AIRBUS (abans EADS)	X	X
BAE Systems	X	X
THALES	X	
LEONARDO (abans FINMECCANICA)	X	X
ERICSSON	X	
INDRA	X	X
SIEMENS	X	
DIEHL	X	
MBDA*		X
Saab		X
Liebherr-Aerospace		X
	8/21	7/16

* MBDA is a joint venture constituted by Airbus, BAE Systems y Leonardo

10. Ben Hayes, NeoConOpticon. The EU Security-Industrial Complex. Transnational Institute, 2009. http://www.statewatch.org/analyses/neoconopticon-report.pdf

Reviewing the participating companies in the few projects already approved, we observed significant presences: Leonardo, Indra, Airbus, Saab, MBDA, Thales, TNO, Fraunhofer-Gesellschaf.

It is easy to relate these new EU policies to the fact that, in recent years, the arms industry has been expanding its production towards security and surveillance technology. In addition to airplanes or combat tanks, currently the EU also manufactures radars, detection systems, biometric surveillance and identification devices, technology for border walls, etc.

In other words, the EU has been contributing to the European security and defense industry for years, first with grants for security research and, later, with the acquisition of patents and results of that research. But this is the first time that the EU is allocating public funds to strictly military research and encouraging the subsequent purchase of the resulting military products and technologies.

This is the first time that the EU is allocating public funds to strictly military research and encouraging the subsequent purchase of the resulting military products and technologies

THE FUND

GENERAL DESCRIPTION

The PADR and the EDIDP represent the preamble to the implementation of the Defense Fund. The proposed financial volume for the period 2021-2027 is 13 billion euros, to be covered by the next EU budget: 4.1 billion for research projects and 8.9 billion for development projects. In February 2019, a preliminary political agreement has been reached to regulate the Fund by the European Parliament, the Council and the Commission in the so-called tripartite negotiations.[11] It must now be formally approved by the European Parliament and the Council.

The text of this preliminary agreement tells us that the objectives of the Fund are:

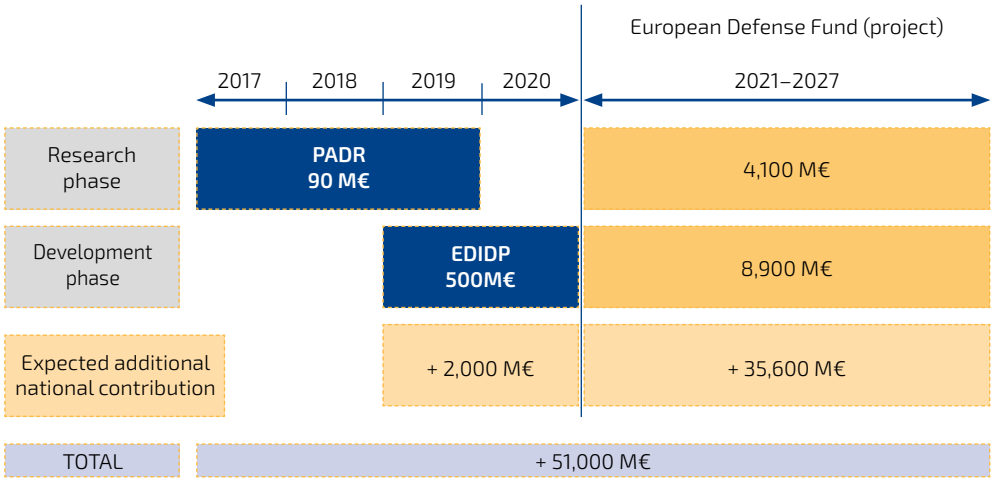
- the promotion of the European defense industry to make it more competitive and innovative,
- the promotion of joint investments in research and development of defense products and technologies (to improve cost-efficiency),
- to encourage the joint purchase of defense equipment,
- the promotion of the internal market consumption of European defense technologies and products (which will increase non-dependence on non-European sources).

According to the regulatory proposal, the Fund will promote cooperation between Member States in the production of interoperable and cutting-edge defense equipment and technology. It is alleged that the current duplicity of military capabilities implies greater spending and less interoperability. The Fund will promote the joint purchase of defense equipment and will especially encourage participation in collaborative projects of small and medium enterprises (granting them higher funding rates), which will be financed mainly through grants. The Fund will cover the entire cycle: research, prototype development and model certification. Other objectives of the Fund will be the introduction of new defense products and technologies, including disruptive ones and a more efficient use of military research spending in the EU.

11. Council of the European Union, Proposal for a Regulation Of The European Parliament and of the Council establishing the European Defence Fund. General Secretariat of the Council, March 1, 2019. https://data.consilium.europa.eu/doc/document/ST-6733-2019-REV-1/en/pdf

In the research and design phase, financing can reach up to 100%. In the prototype development phase, the Fund will complement the investment of the Member States by financing up to 20% of the costs. For activities beyond the prototype phase, in other words testing, qualification and certification activities, funding of up to 80% is foreseen.

		EU	Member States	Subtotals
PADR		90	-	90
EDIDP		500	2,000	2,500
Fund 2021-2027	Research	4,100	-	4,100
	Development	8,900	35,600	44,500
	Total	**13,590**	**37,600**	**51,190**



The EU may also finance joint pre-commercial procurement by awarding grants to administrations or contracting companies. Different forms of financial agreements will be made available to Member States for the joint development and acquisition of defense capabilities.

In order for a project to be eligible for financing, it must be assumed co-operatively by a consortium of at least three entities with headquarters in at least three different member states or associated countries. At least three such entities shall not be directly or indirectly controlled, during the full implementation of the project, by the same entity, and must not control each other. This requirement will not be required for projects related to disruptive technologies for defense or projects that explore the viability of new products or technologies, activities that may be carried out by a single entity.

The Fund defines disruptive technologies for defense as those that imply a paradigm shift in the concept and direction of defense issues, replacing existing defense technologies or making them obsolete. Between 4 % and 8 % of the total budget shall be allocated to them by the Fund. The work programs will formulate the most appropriate ways to finance them. It is surprising that, for certain technologies, the requirement of cooperation between at least three entities from different Member States should be eliminated, bearing in mind that one of the

objectives of the Fund is the promotion of joint investments in research and development.

The proposed regulation prohibits financing the development of lethal autonomous weapons without the possibility of human control. Yes, the development of rapid alert systems and countermeasures with defensive objectives will be fundable. According to this, it seems that it would suffice that lethal autonomous weapons have a human control mechanism to make them eligible. However, the existence of this mechanism does not guarantee its use. On the other hand, the expression "rapid alert systems and countermeasures with defensive objectives" is so imprecise that it can include a wide variety of weapons. An unequivocal drafting of prohibition would be necessary, regardless of the existence or not of a human control device.

The regulation text establishes in the Article 11-6 that projects for the development of products and technologies whose use or production are prohibited by international law will not be eligible. However, the lack of specificity of this restriction is worrisome. For example, there is a Treaty on the Prohibition of Nuclear Weapons that has not yet entered into force because it has not reached the minimum number of signatory states. This lack of specificity in the regulation of the Fund could serve as a justification to subsidize a project related to nuclear weapons.

There is a Treaty on the Prohibition of Nuclear Weapons that has not yet entered into force because it has not reached the minimum number of signatory states. This lack of specificity in the regulation of the Fund could serve as a justification to subsidize a project related to nuclear weapons

It stipulates that only entities established in the EU or in partner countries and not controlled by third countries, or by legal entities in third countries, can qualify for funding. Under certain circumstances (which the text does not specify), subsidiaries established in the EU of companies from third countries will be eligible for financing, provided that certain conditions are met that ensure that the security and defense interests of the EU and its Member States are not compromised and. This disposition seems an open door to the participation of non-European industry. And it does not seem very consistent with the objective of achieving an autonomous European technological base.

According to the proposal, the Commission will be the one deciding on the implementation of the work program and in awarding decisions. The Commission will be assisted by a committee composed of the Member States ("the Committee"). The EU financing will be granted based on competitive calls for proposals in accordance with the Regulation 2018/1046 of the European Parliament and the Council. However, in exceptional circumstances (which are also unspecified), EU funding may be awarded to a project without a call for proposals. Which we do not believe is the optimal way to avoid situations of corruption or privileges.

The agreement provides for the Commission to appoint independent experts to assist in the ethical scrutiny and the evaluation of the proposals. The Committee will be informed annually about the list of experts, but will not be made public. They will be chosen based on their skills, experience and knowledge. They will be EU citizens of the largest possible number of Member States and will be selected from calls addressed to Ministries of Defense and subordinate agencies, other related government agencies, research institutes, universities, business associations or companies in the defense sector. They will not evaluate or advise on matters where they have a conflict of interest, in particular regarding their current position.

This proposal of regulation does not avoid the revolving door phenomenon. Since the text refers to the current roles of independent experts, but not to possible future roles. The revolving door concept can be defined as the transfer between the senior posts of the Administration and the private sector. In the case, between Ministries of Defense, subordinate agencies and related government agencies and the defense and security industry. It is notorious that the revolving door phenomenon is much more entrenched in the field of the defense sector than in other industrial areas. On the other hand, the defense industry will participate again in making decisions that affect its own interests, in other words, in the selection of projects presented by the sector's own companies, ethical review, and consideration.

After evaluating the proposals with the help of independent experts, the Commission has to select the projects that will be financed by the Fund. The Member States will be informed of the results of the evaluation, the list of the selected projects and the progress of these projects.

The Fund's regulatory document states that, in the prototype phase, Member States normally decide on the consolidation of their investment and initiate the process of purchasing future defense products or technologies. For this reason, in this specific phase, the Member States approve commitments such as cost sharing. To ensure the credibility of their commitment, the EU assistance under the Fund's coverage will normally not exceed 20% of the eligible costs, with the rest being borne by the national funding of each Member State. In other words, the financing of this phase by the Fund will have a predictable multiplier effect: the total expenditure will be 5 times the amount contributed by the Fund.[12] The agreement already contemplates, in the criteria for granting aid by the Fund, the commitment of the Member States to co-finance the development projects. So much that, as an eligibility criteria for a project to be eligible, the consortium submitting it must show that the costs of an activity that are not covered by Union funding will be covered by other means of financing, such as the contributions of the Member States and associated countries or the co-financing of entities (Article 23).

It is expected that the EU share of 20% for prototype development projects can be increased in two cases: when the recipient consortium is composed of at least 10-15% of SMEs and when the project is framed in the context of the PESCO (Permanent Structured Cooperation). In any case, the additional bonus shall not exceed 35% (Article 14).

According to the Fund's preliminary agreement, the defense sector has to cover specific indirect costs, such as security costs. This justifies the establishment of a flat rate of 25% of the total eligible direct costs, to pay indirect costs. As an alternative, the eligible indirect costs can be determined in accordance with the usual cost accounting practices of the recipient.

To ensure that the funded projects will contribute to the competitiveness and efficiency of the European defense industry, the agreement considers important that Member States provide themselves with the final product or use the technology jointly, by organizing their supply processes together, particularly through the use of a central purchasing agency.

12. European Comission, "Fondo Europeo de Defensa: 5 500 millones de euros anuales para impulsar las capacidades de defensa de Europa", Press-release, June 7, 2017. http://europa.eu/rapid/press-release_IP-17-1508_es.htm

The award criteria for development projects must take into account that the member states commit themselves politically or legally to, jointly, using, possessing or maintaining the resulting defense product or technology.

The *European Defence Agency* will participate as an invited observer in the committee that will assist the Commission, provide its point of view and experience. The *European External Action Service* will also be invited to collaborate.

The implementation of the Fund is linked to the will to constitute a European armed force. In fact, those projects that are carried out in the context of the Permanent Structured Cooperation (PESCO) may, if eligible, receive an additional co-financing premium of 10%.[13] And, on the other hand, as expected, it is also part of the EU's foreign policy. According to the proposed regulation of the Fund, projects should be in line with the priorities of the Common Foreign and Security Policy (CFSP) or related to NATO.

The EU will not have intellectual property over the products or technologies resulting from the funded projects, unless EU support is provided through public procurement. The results will be the property of the recipients that generated them. The justification, according to the proposed regulation of the Fund, is based on subsidizing only the phases of research and development of defense products and technologies. That is to say that with public funds the previous activities necessary for the production and commercialization of products will be financed, but the profit obtained from the sale will be exclusively in the private sector.

SUBSIDY OF THE PROJECTS

For a project to be eligible for financing, it must be related to one or more of the following activities:

a) activities with the objective of creating, consolidating and improving knowledge, products and technologies, including disruptive technologies, that can obtain significant effects in the area of defense;

b) activities that aim to increase interoperability and resilience, including secure production and exchange of data, mastering crucial defense technologies, enhancing security of supply or enabling the effective exploitation of results or defense products or technologies;

c) studies, for example, on the viability of new or improved technologies, products, services or processes;

d) design of a product, tangible or intangible component or defense technology and definition of the technical specifications with which that design has been developed, which may include tests to reduce risks in an industrial environment;

e) the development of a product model, tangible or intangible component or defense technology, that can present the performance of said element in an operating environment (prototype system);

The implementation of the Fund is linked to the will to constitute a European armed force

13. European Comission, "Presupuesto de la UE para el período 2021-2027: la Comisión acoge con satisfacción el acuerdo provisional relativo al futuro Fondo Europeo de Defensa", Press-release, February 20, 2019. http://europa.eu/rapid/press-release_IP-19-1269_es.htm

f) testing of a product, tangible or intangible component or defense technology;

g) the qualification of a product, tangible or intangible component or defense technology;

h) certification of a product, tangible or intangible component or defense technology;

i) the development of technologies or goods that increase efficiency throughout the life cycle of defense products and technologies.

According to the proposed regulation of the Fund, this will be implemented through annual work programs in accordance with Article 110 of the Financial Regulation.

Except for the part of the work program dedicated to disruptive technologies for defense applications, the research topics and project categories will cover products and technologies in the areas of:

a) preparation, protection, deployment and sustainability;

b) information management and command, control, communication, computers, intelligence, surveillance and recognition (C4ISR), cyberdefense and cybersecurity;

c) combat and effectors.

CONTEXTUALIZATION OF THE FUND

The budget of the Fund will not be the only part destined to the military sphere. In fact, according to the preliminary agreement, the Fund will complement other EU programs proposed by the Commission, in particular the 6,500 million euros of the Connecting Europe Facility, aimed at improving the strategic transport infrastructures of the EU to adapt them to military mobility and the proposal of a new Horizon Europe program of research and innovation, of 100 billion euros. The Horizon Europe program is designed for research in general, but the agreement quoted clearly indicates that part of the program is expected to be allocated to military research.

The budget of the Fund will not be the only part destined to the military sphere

The implementation of the Fund, if finally approved, will have a negative impact on other EU budgets. The EU's overall budget proposed by the Commission for the period 2021-2027 is 1.135 billion euros. According to a press release from the Commission in May 2018,[14] it is necessary to increase funding for new and urgent Union priorities and this will entail cuts in other chapters. According to the Commission, it is currently appropriate to invest in areas such as research and innovation, youth, the digital economy, border management, security and defense. And it proposes that the financing of the common agricultural policy and the cohesion policy (which includes the long-term integration of migrants) be reduced, in both cases around 5%. Priority will therefore be given to areas such as border management, security and defense that will not result in the social welfare of the European population.

14. European Comission, "Presupuesto de la UE: la Comisión propone un presupuesto moderno para una Unión que proteja, empodere y vele por la seguridad", Press-release, May 2, 2018. http://europa.eu/rapid/press-release_IP-18-3570_es.htm

CONCLUSION AND FINAL THOUGHTS

It is clear that the proposal for the regulation of the Fund has an unmistakable interest in encouraging the consumption of military equipment by the Member States. Repeatedly, it affirms the convenience of promoting an internal market of products and defense technology. Furthermore, an eligibility criteria for a development project to obtain a grant will consist of recipients demonstrating that member states have jointly committed to use, possess or maintain the final product or technology, as stipulated in Article 24 of the regulation proposal.

It is also evident that the regulation text has the desire to favor the research and development of disruptive technologies. This decision is, at least, disturbing, because it can lead to obtaining more deadly and unpredictable weapons. Gunpowder was, at the time, a disruptive technology since it supposed a radical change in the formulation of warfare.

Member States' contributions will imply a significant increase in defense expenditure in national budgets, possibly to the detriment of social sectors. The Commission has already stated that this is its intention with regard to the Union's budgets. Overall, European defense spending (of the Member States and the EU) will experience a substantial increase.

The execution of the Fund will mean the culmination of the masterful move that the European defense and security sector has been carrying out since the last decade. Public funds will subsidize research (100% of the costs in charge by the EU) and development (20% by the EU and the rest by the Member States) of military products and technology. The defense industry will carry out this investigation, will keep the intellectual property of the resulting defense material and technology and will sell those results to the member states that, according to the regulations of the Fund, will have committed themselves to it. A process absolutely analogous to the one that, in the past decade, subsidized research in security technology. The defense and security companies are selling this security technology to both EU states and third countries to which the European Union is outsourcing immigration control. And the justification for all this is, according to the proposal of regulation of the Fund, that the situation in the regions close to Europe is unstable and that the EU faces the emergence of new threats, such as cyber attacks and other more conventional challenges. On the one hand, it is highly doubtful that protection against cyber attacks requires military equipment. We do not understand why the management of cybersecurity should fall on military rather than civilian hands. On the other hand, it can be assumed that the instability in countries neighboring Europe referred to in the regulation text is related to immigration. Immigration coming from countries in armed conflicts that are encouraged and maintained by weapons exports from the EU, and from countries where poverty forces its inhabitants to emigrate.

The European security and defense industry is influencing and participating in the decisions on EU defense policy. The leaders of the Union have repeatedly invited the military industrial sector to be part of the bodies that design the guidelines for the community security and defense policies.

Finally, it should be remembered that some of the weapons and security technology companies that will benefit from the implementation of the Fund have a long history of corruption and bad practices. To mention a few: BAE Systems, Leonardo, Thales, and Indra.[15] This was not an obstacle for all of them to be part of one or the other or both groups of personalities on security research and defense research.

In conclusion, the leaders of the EU are clearly betting on an increase of Europe's militarization.

15. See the Annexes of J. Calvo Rufanges, et altri, *La transformación del complejo militar-industrial*, Centre Delàs d'Estudis per la Pau and NOVACT, 2017. And, for the case of Indra: Antonio M. Vélez; "Hacienda y la Seguridad Social permitieron a Indra redactar pliegos de concursos que amañó con sus rivales", eldiario.es, 01/08/2018. https://www.eldiario.es/economia/Hacienda-Seguridad-Social-permitieron-Indra_0_798970848.html

Centre Delàs d'Estudis per la Pau
Carrer Erasme de Janer 8, entresòl, despatx 9
08001 Barcelona · T. 93 441 19 47
www.centredelas.org · info@centredelas.org

Authors: Teresa de Fortuny · Xavier Bohigas

Barcelona, april 2019

Graphic Design: Esteva&Estêvão

With the support of: Generalitat de Catalunya · Agència Catalana de Cooperació al Desenvolupament

In collaboration with: ENAAT european network against arms trade