

Madrid. Spain 12, 13 and 14 May 2025

Official Magazine FEINDEF 25

Organised by:









feindef.com







FEINDEF 25 Opening Event

The fourth edition of FEINDEF 25, Spain's International Defence and Security Exhibition, opened with a clear and unambiguous message: defence and security are fundamental pillars of peace, well-being, and freedom. This edition of FEINDEF, held with the institutional support of the Ministry of Defence since its inception in 2019, has firmly established itself as one of Europe's leading trade fairs and a key platform for engagement among governments, industry, academia, and international organisations.

In the opening address, emphasis was placed on the strategic relevance of FEINDEF 25 in today's complex geopolitical environment, marked by Europe's efforts to reinforce its defence autonomy and the essential role of NATO in maintaining global stability. The exhibition spans five operational domains, land, sea, air, space, and cyberspace, and remains steadfast in its commitment to internationalisation, technological innovation, and the consolidation of global partnerships.

Ángel Olivares, President of the FEINDEF Foundation, described the fair as an open and dynamic platform, reflective of the strength, values, and potential of Spain's defence and security industry. He further underscored the importance of multilateralism and the defence of international justice, invoking the words of President Kennedy to remind us of our shared humanity as the foundation for lasting peace and cooperation.

Special recognition was extended to the founding trustees of the FEINDEF Foundation: Ricardo Martí Fluxá, President of TEDAE; Gerardo Sánchez Revenga, President of AESMIDE; and María Amparo Valcarce, Secretary of State for Defence.

In his remarks, Gerardo Sánchez Revenga affirmed that technology is now central to all areas of development, including defence, and that innovation is a vital driver of competitiveness.

He highlighted that the defence sector, as represented by AESMIDE, is fully engaged in this technological evolution, and has intensified its capacity for adaptation and transformation to remain at the forefront.

Ricardo Martí Fluxá, President of TEDAE, conveyed that defence must not be viewed as a cost, but rather as a forwardlooking investment in freedom, security, and stability for future generations. He expressed pride in the innovative spirit of the companies exhibiting at FEINDEF 25, which continue to contribute value, knowledge, and cutting-edge solutions to enhance the security of both Europe and the Atlantic Alliance. At the same time, he called for a deeper strategic awareness in light of current geopolitical tensions, the evolving international order, and hybrid threats that challenge traditional security models. He reminded the audience that defence is not merely a matter of public policy, but a fundamental condition for safeguarding our liberties, protecting democratic values, and preserving our way of life.

FEINDEF 25 brings together more than 600 exhibiting companies, 91 official delegations from 49 countries, and representatives from international organisations including NATO and the United Nations. Moreover, the exhibition underscores the economic and technological contribution of Spain's defence and security industry, which generates over €17 billion in GDP and sustains more than 200,000 high-quality jobs. These figures reaffirm Spain's position as the fourth most significant defence industry in Europe and the eighth largest exporter globally.

This edition of FEINDEF stands as a testament to Spain's unwavering commitment to innovation, international cooperation, and the enhancement of its defence capabilities in pursuit of global security.







Roundtable: **"Technological Challenges and Operational Transformation within the Armed Forces (FAS)**"

The conference programme of FEINDEF 25 commenced with the participation of the Chiefs of Staff of the Spanish Army and Navy. Under the title "Technological Challenges and Operational Transformation within the Armed Forces," the session provided a platform to analyse the principal challenges and opportunities arising from the current technological revolution within the defence sector.

The discussion opened with a broad question regarding the integration of new technologies into military forces. General Enseñat made a distinction between emerging technologies and disruptive technologies, noting that the latter fundamentally reshape operational practices and, as such, have a direct impact on military doctrine and strategic planning. He underscored the essential role of the Training and Doctrine Command as a key driver of knowledge management, drawing upon systematic observation, experimentation, specialist publications, and lessons-learned analysis. General Enseñat also highlighted the growing importance of artificial intelligence in enhancing decision-making processes and affirmed that digital transformation must ultimately translate into operational superiority on the battlefield.

Admiral General Piñeiro situated this transformation within a wider framework of radical change, driven by the rapid pace of technological advancement and heightened by ongoing disruptions in global supply chains. He emphasised the strategic priority of achieving defence autonomy in Spain, underscoring the critical need for sustained collaboration between industry and the academic community. He also noted that the Spanish Navy is actively advancing the development of a secure combat cloud and identified electronic warfare and the cyber domain as Moderated by: Mr Carlos Franganillo Hernández, journalist

Speakers: General **Amador Enseñat y Berea** (Army Chief of Staff)

Admiral General **Antonio Piñeiro Sánchez** Navy Chief of Staff

Air General **Francisco Braco Carbó** Air and Space Chief of Staff (JEMA)

key components of contemporary conflict scenarios.

Air General Braco reflected on the Air Force's longstanding technological orientation, citing its leadership in implementing digital transformation initiatives. He referenced specific programmes such as Titan, which optimises resource allocation and air mission scheduling, and BACSI, a strategic project aimed at digitally interconnecting all systems within an air base. Both initiatives are designed to enhance operational efficiency and optimise the management of both human and material assets.

All speakers agreed on the imperative of retaining the human element at the core of the decision-making process. They stressed that technological advancement must be accompanied by robust training in ethics and core values. Moreover, it was noted that new technologies are generating growing interest among younger generations in the Armed Forces. Admiral Piñeiro cited the use of a submarine simulator as both an educational tool and an innovative instrument for recruitment. Air General Braco reaffirmed the high levels of preparedness exhibited by the newest cohorts of officers and underscored the essential link between the Armed Forces, industry, and the university system.

In closing, the Chiefs of Staff reiterated that technological transformation extends beyond equipment and procedures. It also entails a significant evolution in organisational culture and personnel training. While the challenges presented are considerable, the opportunity to modernise and enhance defence capabilities is essential to ensuring the continued competitiveness and operational effectiveness of the Armed Forces within an increasingly demanding international landscape.







Interview: **"Indra's Vision for the Defence Industry"**

Following an introductory update on the current defence landscape by journalist and moderator Mónica Carrillo, José Vicente de los Mozos reflected on the rapid pace of global transformation. Within this dynamic context, he noted, Europe has become increasingly aware of the imperative to strengthen its strategic autonomy, not only in the area of defence, but across other critical sectors such as technology.

De los Mozos identified the figure of Donald Trump as a catalyst in accelerating this paradigm shift. At this edition of FEINDEF 25, technology clearly emerged as the central focus. Across the exhibition halls, the presence of cutting-edge innovations was evident. He affirmed that the defence industry is prepared to meet the demands of this new scenario, while also emphasising the need for stronger coordination and greater cohesion, both nationally and across Europe, in the execution of joint initiatives and collaborative projects.

In the field of innovation, Indra was highlighted as a key player, currently participating in 14 of the 19 principal European defence programmes. In the context of the conflict in Ukraine, De los Mozos structured his analysis around three core priorities: the modernisation of ground vehicles; the growing prominence of drone and counter-drone systems, underlining how cost-effective platforms are capable of neutralising significantly more expensive assets; and the critical importance of secure communications in an environment where emerging technologies have the potential to render traditional communication systems inoperable. Moderated by: Ms. Monica Carrillo Journalist Speaker: Mr. José Vicente de los Mozos CEO, INDRA

When asked by Mónica Carrillo about the company's future regarding mergers and acquisitions, De los Mozos responded that Indra has a well-defined economic ambition, grounded on two strategic pillars: the acquisition of capabilities not currently within its portfolio, and the vertical integration of its value chain. He revealed that the company is currently assessing around 20 potential acquisition targets, each aligned with a clear strategic vision in terms of direction, product positioning, and partnerships. The overarching objective, he noted, is to strengthen the industrial base and to advance collectively by building new capabilities and reinforcing the entrepreneurial ecosystem.

In closing, he spoke of the transformative impact of disruptive technologies, such as artificial intelligence, digital twins, and cyber defence, stating unequivocally that these are here to stay. In this regard, one of his foremost strategic priorities is to position Indra among the top-tier technology companies in Europe.

To conclude his remarks, the CEO of Indra left a statement that encapsulated his ambition and vision: "Indra Group leads defence technology in our country."







Presentation: **"EUROPEAN DEFENCE FUND: new funding opportunities for Defence Industry in 2025**"

The presentation delivered by Krastio Preslavsky and Francisco Casalduero offered a comprehensive overview of the European Defence Fund (EDF) and the funding opportunities available to the sector in 2025. Against the backdrop of ongoing international conflicts, both speakers underscored the urgent need to reinforce the European defence industrial base. They positioned the EDF as a strategic instrument designed to stimulate innovation and foster greater cooperation among EU Member States.

Krastio Preslavsky opened the session by contextualising the evolving landscape of the defence industry within the current geopolitical climate. He highlighted Spain's growing engagement in European programmes and noted the significant involvement of small and medium-sized enterprises (SMEs), academic institutions, and technology centres. He also pointed out that the European Union is actively creating opportunities for new actors wishing to integrate into the continent's expanding defence and security ecosystem.

Francisco Casalduero proceeded to outline the structure and functioning of the European Defence Fund, which allocates a total of \in 8 billion for the 2021–2027 period—one third of which is dedicated to research and two thirds to development. He clarified that the EDF does not fund procurement, but instead focuses exclusively on research and development initiatives. He also stressed the rigorous nature of the selection process, with over 200 projects expected to be approved by the end of 2025.

Speakers: Mr. Krastio Preslavsky

Deputy Head of Unit for Defence Industrial Programming Coordination in the Directorate-General for Defence Industry and Space of the European Commission (DG DEFIS)

Mr. Francisco Casalduero.

Programme Manager for Defence Systems Coordination in the Directorate-General for Defence Industry and Space of the European Commission (DG DEFIS)

The submission deadline for new proposals is set for 16 October 2025. Casalduero provided a detailed explanation of the eligibility criteria, limited to legal entities established in EU Member States and Norway, and elaborated on funding rates, which may reach up to 100% for research activities and range from 50% to 100% for development projects. He also noted that the calls cover a broad spectrum of thematic areas, including cybersecurity, space, health, and disruptive technologies, and that two funding models are available: based on actual costs or through work packages, the latter being particularly tailored to accommodate small-scale projects.

The session reinforced the European Defence Fund's pivotal role as a driver of technological advancement and strategic industrial growth across Europe. With SME participation having grown from 35% to 47% in just one year, and with the forthcoming implementation of the European Defence Industry Programme (EDIP), the European Commission is reaffirming its long-term commitment to building a more robust, innovative, and integrated European defence and security sector.







UGT roundtable:

"Employment. Challenges and opportunities in the new investment cycle"

During his address, José Bayón highlighted that the growth and consolidation of FEINDEF 25 reflect the dynamism and strategic momentum of the Spanish defence and security sector. He noted that one of the government's principal challenges is to achieve the NATO objective of allocating 2% of GDP to defence investment. To reach this target, he underscored the need to prioritise education and the development of human capital. In this regard, he placed emphasis on the relevance of dual-use technologies, those with both civilian and military applications, and the important role played by the School of Industrial Organisation, which actively participates in European training initiatives. These programmes are aimed at equipping young professionals with the skills needed to contribute innovative, value-added solutions to the sector. He also introduced a new initiative to train executive-level professionals specialised in defence, with the goal of facilitating crosssector knowledge transfer and preparing personnel to meet the evolving challenges facing the industry. Bayón further underlined the increasing demand for highly skilled jobs across the defence and security value chain.

Raúl Presol offered a broader reflection on what he described as a pivotal moment for the Spanish defence industry, driven by a significant uptick in investment. He referred to the sector as a key contributor to territorial cohesion, with the capacity to generate quality employment not only in major urban centres but also across Spain's autonomous communities. Presol identified two priority areas for action: first, addressing the perception of the defence sector, which has historically been Moderated by: Mr. Félix González Argüelles Secretary for Administration and Resources, UGT FICA Speakers: Mr. José Bayón Director General, EOI Mr. Raúl Presol Gonzalo Chief Human Resources Officer, RHEINMETALL Mr. Justo Sierra Rey CEO and Chairman, UROVESA; Chairman, ASIME Mr. Juan Antonio Vázquez Real Secretary for Industrial Policy, UGT FICA

shaped by societal misconceptions; and second, the urgent need to develop a highly qualified and diverse workforce, from engineers and physicists to skilled production personnel, capable of responding to the industry's real-world demands.

In his intervention, Justo Sierra focussed on the core factors that will shape the growth of the defence industrial base in the coming years: streamlined access to facilities, the strengthening of supply chains, which, he noted, generate four indirect jobs for every direct position, and, above all, human talent. He stressed that both initial and continuous training are key to seizing the current opportunity and called for a concerted effort involving companies, associations, trade unions and public administrations.

Representing the trade union perspective, Juan Antonio Vázquez reaffirmed his organisation's long-standing support for the sector, pointing to its strong economic impact and long-term sustainability. He welcomed the new wave of industrial employment being generated and emphasised the importance of aligning training programmes with the actual needs of the market. He also proposed the integration of early retirees from the armed forces into the defence industry workforce.





Roundtable: **"Al in the Value Chain: Advanced Logistics and the Future of Military Sustainment**"

José Luis Rivera Pardo emphasised that maintaining technological superiority on the battlefield requires the Army to be equipped with next-generation systems that ensure mission readiness and operational advantage. To achieve this, he underlined the necessity of cutting-edge logistics capabilities that maximise availability and readiness. In this context, the Technological Experimental Logistics Brigade (BLET) is set to play a key role in implementing artificial intelligence-driven solutions, particularly in vehicle fleets, by enabling real-time data monitoring and the anticipation of technical failures. This predictive and optimised maintenance capability will significantly enhance operational efficiency. Rivera highlighted the critical challenge of operating vehicles at great distances from their support centres, where predictive foresight enabled by AI is fundamental. Incorporating advanced technologies into the logistical chain, while ambitious, is essential to securing the Army's technological and tactical edge.

From a naval perspective, Ramón Touza Gil stated that logistics and sustainment form the backbone of maritime operational effectiveness. He identified artificial intelligence as the transformative lever that will allow current arsenals to evolve toward the concept of an "intelligent arsenal," with the logistics information system at its core. He outlined two principal challenges for this transformation: seamless integration with digital twintechnologies and ensuring robust cybersecurity across platforms. He also stressed the need to combine corrective and predictive maintenance using intelligent warehousing systems.

Moderated by: Mr José María Navarro Editor-in-Chief, Defence.com Technology and Industry, Edefa Group Speakers: Brigadier General José Luis Rivera Pardo Director of Engineering, Army Logistics Support Command (MALE) Commander Ramón Touza Gil Head, Navy Intelligence Centre (CIA2) Mr. Raúl Lodos García Director of After-sales & Integrated Logistics Support, UROVESA Mr. Jaime Rodríguez Lagunas Global Lead for Data and AI in Supply Chain & Operations, ACCENTURE Mr. Christoph Meyer AI Expert and CTO, Thales Lab CortAIX, THALES

In this context, providing real-time, accurate logistical data to naval commanders is vital for operational decision-making. Touza recalled that the Navy has been actively developing monitoring capabilities for years to increase operational availability at sea.

Raúl Lodos García reinforced the added value that Al brings to the maintenance of military ground platforms. Operating within a business model that delivers short production runs to multiple clients, his organisation applies artificial intelligence to analyse logistics data, forecast equipment failures and adapt maintenance information into user-specific technical language.

He pointed out that Al-driven systems allow for dynamic stock definition and real-time predictive maintenance, thereby significantly enhancing the efficiency and effectiveness of support operations. He advocated for the promotion of talent across Europe and the development of artificial intelligence that is secure, trustworthy, and resilient to error.

Finally, Jaime Rodríguez Lagunas (Accenture) reflected on the imperative of supply chain resilience, particularly in the context of recent global disruptions such as the COVID-19 pandemic, the Suez Canal blockage, and the conflict in Ukraine. He emphasised that AI facilitates valuable applications such as predictive maintenance and inventory management, while stressing that success ultimately depends on data quality and effective collaboration between humans and machines.





Roundtable:

"The Growth of Defence Investment: Challenges, Priorities and Strategic Returns"

In this panel dedicated to the defence industrial base, representatives from both the public and private sectors examined the challenges and opportunities for advancing reindustrialisation and strengthening technological sovereignty across Spain and Europe.

A key theme of the discussion centred on the need to generate industrial scale through strategic international investments. Although not always directly linked to Spain, these operations create transferrable capabilities that can strengthen the national ecosystem. Such initiatives act as catalysts for developing local industrial capacity and accelerating the process of technological indigenisation.

There was broad consensus among participants on one critical requirement: speed. This imperative applies across all phases, government decision-making, procurement procedures, programme planning, and project execution. Bureaucratic slowness, both at national and EU levels, was highlighted as a persistent obstacle that delays programme launches and hampers Spain's participation in major international initiatives, as illustrated in the Eurofighter programme. In contrast to earlier periods of geopolitical stability, the current context demands rapid, coordinated, and decisive action.

Industry stakeholders, meanwhile, must be positioned to respond through proactive upstream investment in technology, ready-to-deploy industrial capabilities, and a highly skilled workforce. While Spain is recognised for its strong talent base, the panel noted the urgent need to scale and adapt this Moderated by: Mr. Miguel Ángel de la Cruz President, Association of Defence Journalists Speakers: Mr. Raymond Piselli VP of Corporate International Business Development, LOCKHEED MARTIN Mr. Álvaro Santodomingo Executive Director, Defence Business Unit, ITP Aero Mr. Jorge Tamarit CEO, EUROFIGHTER

resource pool to meet evolving technological requirements. Civil sectors, particularly aeronautics, were acknowledged for their counter-cyclical resilience and are now seen as valuable contributors to national defence capabilities.

Speaking on behalf of Lockheed Martin, Raymond underlined that the challenge is not merely to increase production of aircraft or missile systems, but to invest systematically in human capital. This includes training and knowledge transfer of technological competencies. Without these foundational elements, industrialisation remains unattainable.

The panel also called for a reform of existing procurement models, noting that short-term contracts hinder strategic planning and resource optimisation. Multi-year agreements and long-term partnerships were strongly endorsed to ensure predictability and enable industry to secure key inputs. Participants further stressed the importance of articulating a national and European-level strategy that balances short-term and long-term projects.

Finally, investment in research and development was reaffirmed as a fundamental pillar of competitiveness. Coupled with a stable and predictable fiscal framework, R&D spending is essential for consolidating a resilient, innovative, and sustainable industrial defence ecosystem.

Auditorium INNOVA / Hall 6 Space FOR_DEF & SEC





Opening Event INNOVA Space FEINDEF 25 (Auditorium)

During the opening event of the INNOVA space at the FEINDEF 25 exhibition, the emphasis was placed on the imperative to build a robust innovation ecosystem in the defence sector, one that brings together all relevant stakeholders. Manuel Cutrín, CEO of ISDEFE, underscored that this space should not merely serve as a technological showcase, but rather as a dynamic and collaborative environment designed to foster new ideas. Lieutenant General Miguel Ivorra, Director General of DIGEID, reinforced the notion that the future of Spanish defence must be grounded in enhanced cooperation, more innovation, and a more prominent role for Spain. He further identified entrepreneurship as a key driver of this transformation, concluding that it is essential to securing national autonomy, reinforcing defence capabilities, and ensuring competitiveness.

Speakers:

Lieutenant General Mr. Miguel Ivorra Ruiz Director General of Strategy and Innovation of the Defence Industry(DIGEID) Mr. Manuel Cutrín CEO, ISDEFE

Auditorium INNOVA / Hall 6 Space For_Def & Sec / Hall 6





Activities Presentation INNOVA Space

The programme and activities of the INNOVA space, a room dedicated to holding conferences and events related to innovation, were presented. The presentation was given by Mr. Jesús Alonso, Business Development Director of ISDEFE, and Valmte. Mr Fernando Suárez, Deputy Director General of PLATIN. During the session, the various projects and initiatives currently underway within the INNOVA Space were presented, underscoring its role as a strategic hub for professionals and experts to exchange knowledge and share experiences in the field of technological and business innovation.

Speakers: Mr. Jesús Alonso Business Development Director, ISDEFE Vice Admiral Fernando Suárez Deputy Director General, PLATIN

Auditorium INNOVA / Hall 6 Space FOR_DEF & SEC



12/05/2025



Panel:

"Barriers and Challenges to Defence Innovation"

In the lecture "Barriers and Challenges to Defence Innovation," industry leaders examined the principal challenges and opportunities for advancing innovation. Miguel Rego (Navy/ Cybersecurity) emphasised collaboration as a strategic cornerstone. The CEO of FUNDITEC highlighted its role as a bridge between ideas and products, providing crucial support to startups. Jesús Abraham (Telefónica/Wayra) cautioned against structural complacency and advocated for Defence-specific models grounded in dual-use technology. Jesús Ángel García (INDRA) stressed that technology must anticipate future needs. Guillermo González (ISDEFE) identified the challenge of effective collaboration with end users. Javier López San Román (Navantia) focused on emerging technologies including artificial intelligence, quantum computing, and biomaterials. Shared challenges included modernising regulations, involving users from the outset, overcoming risk aversion, and fostering a culture of experimentation. The debate was moderated by Luis Hernández of the Ministry of Defence.

Moderated by: Mr. Luis Hernández

Head of Innovation Sub-Unit, SDG PLATIN. Ministry of Defence. Speakers: Mr. Jesús Ángel García Head of R&D and Universities, INDRA Mr. Jesús Abraham

Head of Defence Innovation, TELEFÓNICA **Mr. Javier López San Román** Head of European Affairs at Navantia **Mr. Miguel Rego** CEO, FUNDITEC **Mr. Guillermo González** Head of Innovation and R&D, ISDEFE



Launch Challenge by monodon

In the presentation, Monodon's R&D team introduced the Twilight Challenge project, a bio-inspired autonomous underwater vehicle capable of exploring depths of up to 200 metres. They highlighted that the vehicle replicates marine animals through the use of soft tissues and flexible structures, enabling efficient and natural locomotion. Furthermore, they noted that it is produced using additive manufacturing techniques, features sensing systems modeled on the senses of living organisms, and employs optical communication to operate underwater with minimal energy consumption, thereby maximising its operational autonomy.

Mr. lago González Head of Open Innovation, Monodon



40 Years of ISDEFE. Video screening and discussion on ISDEFE's 40-year journey

Within the framework of the INNOVA Space, the 40th anniversary of ISDEFE was commemorated with a round table moderated by journalist Carlos Molina (El País / Cinco Días). Vice Admiral Roca, Director of the Joint Cyberspace Command (MCCE), praised ISDEFE's pivotal role in the development of the joint command, emphasising the knowledge, dedication, and spirit of service demonstrated by its personnel.

Angelines Turón, Deputy Director General for ICT, expressed gratitude to ISDEFE for its people-focused work and its capacity to drive modernisation. Both received special recognition from Manuel Cutrín and Jesús Alonso (ISDEFE), honouring their distinguished careers.

The event also highlighted that the foremost challenge today lies in the transformation of humanity through cyberspace, which has reshaped the way we work, communicate, and address emerging challenges such as artificial intelligence in the defence sector. Moderated by: Mr. Carlos Molina Journalist, El País - Cinco Días Speakers: Vice Admiral Francisco Javier Roca Commander, Joint Cyberspace Command (JCCC) Angelines Turón Deputy Director General for ICT, SEPE

Auditorium INNOVA / Hall 6 Space FOR_DEF & SEC



12/05/2025



Roundtable: **"Defence on the Road to Innovation"**

The round table, "Defence, the Road to Innovation," moderated by Óscar Jiménez (Ministry of Defence), explored how to turn ideas into tangible products within the sector. The discussion highlighted the DIANA programme, which promotes collaboration between industry, government, academia, and capital, supporting both established and emerging technologies.

Lucía Haro (INCIDE) emphasised the role of the DIANA accelerator in fostering strategic entrepreneurship. J.M. Muñoz (UPM) addressed technology transfer from the university. Paloma Almodóvar (Zelestium) shared the experience of her battery startup, launched with DIANA's support. Juan Antonio Tébar (CDTI) underlined the importance of aligning innovation with public-private investment. César Ramos (TEDAE) advocated for combining traditional industry with new startups as the cornerstone of technological autonomy.

Common challenges identified included budgetary stability, political consensus, defence culture, and attracting talent.

Moderated by: Mr. Óscar Jiménez Head of Planning Area, Progr. SDG PLATIN R&D Control **Speakers:** Major General Jorge Corte-Real Andrade Military Deputy Director, DIANA Mr. Juan Antonio Tebar Chumillas Director of Innovation Policies, CDTI Mr. Juan Miguel Muñoz Rector's Delegate for Innovation, UPM Ms. Lucia Haro Cabinet Technical Officer, INCIBE Ms. Paloma Almodóvar **R&D Director, ZELESTIUM** Mr. César Ramos Director General, TEDAE









Roundtable: **"New Defence Scenario: Future challenges"**

The second day of the FEINDEF 25 conference opened with a high-level round table moderated by Álvaro Santodomingo, Executive Director of Defence at ITP Aero, centred on the challenges and opportunities of the new defence investment cycle. In an international context marked by geopolitical tensions, hybrid threats and rapid technological transformation, speakers agreed on the need to strengthen technological sovereignty, industrial innovation and international cooperation as strategic pillars.

Carlos Alzola, CEO of ITP Aero, offered a historical lens, drawing a comparison with the defence landscape of the 1980s and 1990s: "It's a story of growth. The existence of ITP was driven by a national requirement in air propulsion" He highlighted that today the company "is a global leader in complex hot structures and low-pressure turbines," employing more than 6,000 professionals across four countries and contributing to all major European defence programmes.

Miguel Ángel Morell, representing Indra, reflected on the legacy of the previous investment cycle, which he said helped "create engineering within companies" and professionalise the sector. Now, he argued, the priority is "technological sovereignty and strategic autonomy," asserting that developing proprietary products is essential for competing in international programmes: "It's not enough to have the knowledge, you need to have the product." Moderated by: Mr. Álvaro Santodomingo Executive Director, Defence ITP Aero Speakers: Mr. Carlos Alzola CEO of ITP Aero Mr. Miguel Ángel Morell Indra

Both speakers identified budgetary stability, the reinforcement of the domestic supply chain, and the shortage of engineers as pressing challenges. To address the latter, Morell issued a direct appeal: "50% of the population are women, we need more women in engineering."

On the future of air propulsion, Alzola noted that ITP Aero is currently undergoing "record years of investment in technology," focused on three strategic lines: "developing more efficient products, new advanced materials, and exploring novel forms of propulsion." He cited the ADMIRE centre, a \in 24 million investment in advanced manufacturing, as a flagship initiative: "We aim to achieve what until now seemed impossible."

The round table closed on a unified note: "This new cycle is a historic opportunity to establish Spain as a leading player in the European defence industry," provided it sustains a "strong commitment to innovation, domestic industrial development, and public-private collaboration."







Roundtable: **"Eurofighter: At the Forefront of European Strategic Sovereignty"**

The Eurofighter is increasingly recognised as a key capability in today's European geopolitical and defence landscape. With close to one million flight hours, over 720 units ordered by nine nations, and the involvement of 400 companies and 100,000 professionals, it stands as one of Europe's most significant examples of industrial and technological cooperation.

Its continued deployment in NATO missions and international operations reinforces its role as a strategic asset for deterrence and power projection.

During his remarks, Jorge Tamarit emphasised that the programme delivers not only advanced military capability, but also substantial industrial and strategic value for Europe: "Eurofighter is, has been, and will continue to be the largest defence cooperation programme in European history." He noted that the programme is projected to contribute approximately €90 billion to European GDP by 2033, with an estimated fiscal return exceeding €22 billion.

Speaking on behalf of the Ministry of Defence, Colonel Francisco Javier Martín García-Almenta underlined that the Eurofighter remains "the backbone of our national defence," highlighting its readiness for both domestic operations and international deployments. He also stressed the importance of ongoing technological development, particularly in sensors and electronic warfare, to ensure that "the weapon system remains operationally relevant."

Speakers:

Mr. Jose Gascó
Head of Defence External Communications Airbus Defence and Space
Colonel Francisco Javier Martín García-Almenta
Head of Fixed Wing Air Systems / DGAM
Ms. Yolanda Lara.
Eurofighter Programme Manager, Airbus Spain
Mr. Luis Alberto Marcos
ITP Aero EJ200 Programme Manager
Mr. Jorge Tamarit Degenhardt
CEO of Eurofighter GmbH

Yolanda Lara outlined advances in the programme's industrial digitalisation: "Today we can say that the industrial process on the Eurofighter assembly line is fully digital," a transformation that enhances efficiency and drives down costs. She also pointed to the integration of next-generation weaponry and the introduction of a new electronically scanned radar system from 2026, emphasising that this evolution calls for "a new model of collaboration with the armed forces."

Luis Alberto, representing ITP Aero, recalled that the company was founded to meet the propulsion of the programme. They are currently developing a new nozzle designed to enhance engine performance and reduce its infrared signature. "A great idea is of little value if it cannot be manufactured or maintained," he said, underscoring the need to align innovation with operational sustainability.

The session closed with a clear consensus: The Eurofighter not only meets the current operational requirements of European defence, but also lays the technological foundations needed to confront the future challenges of European combat aviation.





Presentation: "Navantia: Spearheading Innovation"

During the session held at the ITP Aero hall, Ricardo Domínguez, President of Navantia, offered a comprehensive overview of the Spanish state-owned naval company's legacy, current position, and future outlook. With a heritage spanning over 300 years, Navantia has demonstrated a consistent capacity to adapt and evolve, whilst keeping true to its spirit.

On the international front, Domínguez highlighted the company's operational footprint in Australia and Saudi Arabia, and pointed to the recent acquisition of four shipyard facilities in the United Kingdom. This move, described as a "strategic milestone", not only reinforces Navantia's local industrial base but also consolidates its standing as a key global actor in one of the world's most competitive naval defence markets.

Innovation formed a central theme of the address. Domínguez noted that Navantia invests 10% of its annual budget in R&D&I, backing initiatives such as the Integrated Services System (ISS) and the Digital Twin, a virtual 3D model that enables simulation and optimisation of processes with zero operational risk. It also presented monodon, an open innovation cell that drives disruptive technologies in coordination with the entrepreneurial ecosystem, and announced the launch of a Centre of Excellence aimed at maximising in-house talent and Speaker: Mr. Ricardo Domínguez, President of Navantia

technological capabilities.

At the European level, Domínguez underscored Navantia's leadership in NEREUS, a European Defence Fund initiative involving 24 organisations from 14 countries to design a shared naval escort platform adaptable to multi-domain operational contexts.

Domínguez concluded by underlining Navantia's role as a catalyst for technological and industrial transformation, with a strong international outlook and a firm commitment to European leadership, well positioned to address the increasing strategic relevance of the shipbuilding sector.







"Industry Challenges: Cooperation and Organisation to Address Sectoral Demands"

The round table, moderated by Pilar de la Cuesta, defence correspondent at ABC, brought together leading figures from the Spanish defence industry, who concurred that the sector is currently at a pivotal juncture. Rising investment levels, the imperative to reinforce technological sovereignty, the resilience of supply chains, and the attraction of skilled talent were identified as top strategic priorities.

Participants emphasised the need to enhance coordination between large enterprises and SMEs and called for stronger backing from the Ministry of Defence to facilitate SME integration into strategic programmes, particularly in areas of governance and sustainability. The innovative contribution of SMEs and the need for deeper cooperation were underscored as critical enablers in a context of mounting operational demands. Agility in responding to emerging threats and a sustained export drive were cited as key levers for the sector's future growth.

Another focal point was the consolidation of industrial capabilities through acquisitions, strategic partnerships and consortia built around shared technological roadmaps. To this end, establishing clear governance frameworks, rooted in trust and adaptability, was deemed essential in navigating an evolving environment.

Moderated by: Ms. Pilar de la Cuesta Defence journalist ABC Speakers:

Mr. Pedro Alfaro Managing Director, Zelenza Mr. Manuel Cutrín CTO of Indra Ms. Belén Feu Molina CTO, EM&E Group Mr. Enrique López, CEO, AMPER

Publicly listed companies such as Amper and Indra were highlighted as pivotal in attracting investment and contributing to the structuring of the defence sector. Their capacity to integrate smaller firms while preserving agility and identity was seen as a core strength in building a more cohesive industrial ecosystem.

Overall, participants agreed that while the Spanish defence industry rests on a robust foundation, it requires greater structural articulation and defined corporate governance for collaborative projects. Looking ahead, the shared outlook was one of confidence in the sector's trajectory towards greater autonomy, innovation, internationalisation, and cross-sector collaboration, positioning Spain to consolidate its role as a key player on the European and global stage.



Roundtable: **"SMEs and Innovation in the Supply Chain"**

The roundtable on the third day of FEINDEF focused on the crucial role of SMEs and innovation within the defence industry supply chain. It was emphasised that the large prime contractors, as pillars of strategic programmes, require a robust, agile, and innovative supply chain, where small and medium-sized enterprises play a fundamental role in ensuring the operability, success, and sustainability of the sector.

The discussion explored how effective collaboration between companies of varying sizes can be achieved, highlighting the need to cultivate environments that enable technology firms to grow and develop autonomously, while maintaining independence and stability. Innovation emerged as the primary driver of competitiveness, alongside public-private cooperation, which lies at the heart of AESMIDE's work, the association uniting all participating companies.

A significant challenge identified was talent loss. Participants agreed that Spain trains highly skilled professionals who are, however, not retained due to a shortage of attractive projects and competitive working conditions. This brain drain results in a loss of technological and industrial capacity, despite the country's potential to develop cutting-edge technology.

Moderated by:

Ms. Carlota Sánchez-Cuenca Secretary General of AESMIDE Speakers: Brigadier General Vicente Torres Vázquez Deputy Director General of Industrial Defence Strategy Mr. Jesús Abraham Fernández Head of Defence Innovation, Telefónica Mr. Francisco Cortes CEO and Founder, SENSIA Mr. José Rosell CEO and Co-founder, S2 Grupo

Finally, the Ministry of Defence's role was highlighted as a key link between industry and end users. Its responsibility extends beyond equipping the Armed Forces with suitable systems to actively supporting the industry's technological evolution. This reciprocal relationship is vital for the sustainable and competitive progress of the defence sector.

You can see this content here

Official Magazine FEINDEF 25





Roundtable: **"The Ministry of Defence's Digital Strategy"**

At this roundtable, representatives from CESTIC outlined the entity's essential role in driving the Ministry's digital transformation amid a continuously evolving geopolitical and technological landscape. Emphasis was placed on its function as a central technological infrastructure, tasked with the efficient management, processing, and distribution of information within the defence sphere.

The speakers explained that CESTIC's mission is to optimise the use of data and ICT systems to enhance both strategic decision-making and operational management. This, in turn, supports the efficiency of internal services and strengthens governance, key factors to ensure a defence posture adapted to the challenges of the new environment.

Moderated by:

Commander Francisco Cuartero Lorenzo Plans and Policies Department of the General Directorate CESTIC

Speakers:

Lieutenant General Mr. José María Millán Martínez Director General, CESTIC Colonel Pablo Moreno Galdó Deputy Director General for Information and Telecommunications Plans and Services, CESTIC Mr. Roberto López Gómez Deputy Director General for Digital Transformation at CESTIC Captain Gregorio Pulido Alonso Head of Cybersecurity, CESTIC Captain Rafael Roberto Delgado Carpenter Head of the CESTIC Governing Body

You can see this content here

Official Magazine FEINDEF 25

21





Interview:

" Autonomy: The Importance of Investing in Technological and Industrial Capabilities"

In recent years, EM&E Group has solidified its position as an attractive employer for young talent through its commitment to developing and controlling proprietary technology. This strategy, centred on innovation and technical challenge, has been crucial in attracting and retaining staff, especially in a context where internal training is a key investment.

The company has executed a planned territorial expansion, opening offices in strategic locations such as Alcalá de Henares, Córdoba, Huesca, Cádiz, Asturias, Valencia, and internationally, with a presence in Peru.

Upholding its commitment to the Armed Forces, EM&E continues to advance technological solutions tailored to the operational demands of today's environment. At the same fair, FEINDEF showcased the FEROX armoured vehicle, engineered to provide enhanced versatility and lightness, alongside the new aunav BEST modular robotic platform, which features artificial intelligence and is designed for operation in extreme environments.

Mr. Miguel Rego Director General, INDIE Mr. Fernando Fernández, CEO, EM&E Group

With a vertical production model, EM&E contributes to strengthening national and European strategic autonomy by maintaining control over key technologies. In line with the goal to reach 2% of GDP investment in defence, the company underscores the importance of continuing to advance capabilities and technological readiness. Aligned with its philosophy, EM&E remains dedicated to constant evolution: "If you stand still, you become obsolete."



Presentation: **"CompactifAI – AI Model Compressor and Its Application in Defence"**

This conference examined the role of artificial intelligence as a crucial tool for defence in a context where technological sovereignty is becoming increasingly strategic. Digital autonomy, system security, and infrastructure resilience are progressively reliant on advanced technologies such as AI.

The discussion emphasised the need to convert technological innovation into tangible operational capabilities, necessitating close collaboration among public institutions, national industry, and developers of disruptive technologies. Three experts, each representing one of these key areas, contributed to addressing this challenge.

A shared conclusion was the urgency to accelerate the adoption of AI within the defence sector. Key priorities identified include overcoming regulatory obstacles, robustly supporting domestic industry, increasing investment, and fostering environments conducive to technological experimentation. The overarching goal is to prevent a loss of competitiveness and reduce reliance on external capabilities amid a more demanding geopolitical landscape.

Moderated by: Ms. Iraia Ibarzábal Chief Growth Officer of Multiverse Computing Speakers: Dr. José Díaz Caro Deputy Chief Technology Officer (CTO) of CESTIC Mr Manuel Gallardo Chief Business Transformation Officer of Oesía Mr. Alberto Reguera Head of Aerospace & Defence, Multiverse Computing



"Investment as a Driver of Technological Innovation and Industrial Development"

Opening the session, Lieutenant General Miguel Ivorra and José Moisés Martín, Director General of the CDTI, underlined the vital role of defence investment as a lever for technological innovation and industrial growth. The defence industrial strategy unveiled in 2023 outlines an ambitious roadmap aimed at maximising technological returns, enhancing strategic autonomy, strengthening the industrial base and generating high-skilled employment.

Speakers stressed the importance of close coordination between the Ministry of Defence, the Ministry of Science and the CDTI to drive forward projects that contribute to a more secure, prosperous and cohesive Spain.

Presenting:

Lieutenant General Miguel Ivorra Director General of the Directorate of Strategy and Innovation for the Defence Industry Mr. José Moisés Martín Carretero General Director of CDTI Moderated by: Mr. Francisco Herranz Coordinator, Infodefensa.com **Speakers:** Ms. Beatriz Arribas Valiente Programme Director, UROVESA Mr. Gabriel Coloma Director of Business Development for the EU and NATO, EM&E Mr. Alfredo López Director of Engineering, Defence Business Unit, ITP Aero

Ms. Marta Nogueira Ramírez

Regional Vice President, Airbus DS Global Business (Spain)

In the ensuing discussion, Beatriz Arribas highlighted the importance of a resilient domestic supply chain and national development as key to achieving industrial autonomy. Gabriel Coloma emphasised the need for sovereign manufacturing capabilities and deeper European cooperation to ensure technological progress. Alfredo López focused on the protection of national sovereignty through the identification and development of critical technologies, while Marta Nogueira pointed to the widening technological gap with the US and China, advocating for a strong European industry built on the dual foundations of national sovereignty and pan-European collaboration.



"Dual Technologies: Strategic Innovation and Public-Private Collaboration for a Competitive Ecosystem"

The roundtable on dual-use technologies reaffirmed their significance for competitiveness and strategic autonomy. Speakers underscored the critical importance of close collaboration between the public, private and military sectors as a catalyst for innovation. This cooperation was recognised as essential to enabling access to advanced technologies, reinforcing supply chains and accelerating the development of effective and operationally relevant solutions. Participants also highlighted the value of proximity to the end user, the synergy between major contractors and SMEs, and the role of dual technologies in bridging the civil-military divide.

In closing, the panel emphasised that anticipation remains key to building sustainable and sovereign technological capabilities.

Moderated by:

Ms. Carlota Sánchez-Cuenca Secretary General of AESMIDE Speakers: Mr. Arnaud Bedu Sales Accounts Partner, ACCURIS Solutions Ms. María Luisa Díaz Menéndez Head of Planning and Strategy, INTA Ms. Paula Martín Coba Product and TRC Manager



"Cyber Defence in the New Strategic Environment: Protecting the Digital Domain in Times of Hybrid Warfare"

Cyber defence has become a core pillar of national security, responding to increasingly sophisticated threats in an environment where conflict extends beyond the physical domain into cyberspace, a space as invisible as it is potentially devastating.

Hybrid warfare, which merges conventional force with cyberattacks, disinformation campaigns and covert operations, aims to destabilise governments, institutions and societies from within. In this evolving battlespace, securing the digital domain demands cutting-edge technologies, enhanced operational resilience, and robust international cooperation.

Speakers agreed that cyber defence today represents not only a technical imperative but also a strategic and political challenge. They underscored the urgency of defending peace, freedom and security in a hybrid threat landscape. Particular concern was expressed regarding the impact of quantum computing on existing encryption systems, highlighting the need for rapid, forward-leaning responses. The panel also Moderated by: Mr. Ángel L. López Zaballos Coordinator, TEDAE Cybersecurity Group Speakers: Vanguard Javier Roca Rivero Commander, Joint Cyberspace Command (JCCC) Mr. Sergio Gamo Velasco Manager of Strategy, Business Development and Innovation in Defence and Security, Telefónica Mr. Emilio Rico TRC Security Advisor Mr. Igor Unanue CTO, Thales

pointed to the disruptive potential of 5G in military contexts, and reaffirmed the strategic relevance of artificial intelligence and quantum technologies as essential enablers for digital defence. In parallel, they warned of the growing sophistication and automation of cyberattacks, which call for next-generation defence architectures and continuous vigilance.

In conclusion, cyber defence must be anticipatory, agile and fully integrated within national and international frameworks to ensure resilience and strategic security in an increasingly interconnected and exposed digital environment.

You can see this content here

26





Roundtable:

"Cyberspace as an Operational Domain: Manoeuvre, Deterrence, and Digital Superiority"

Cyberspace has emerged as a fundamental pillar of modern life and a recognised fifth operational domain, alongside land, sea, air and space. Despite its lack of physical boundaries, its impact is pervasive across critical sectors such as communications, commerce and security. In this environment, data assumes a strategic dimension; the ability to process it efficiently and convert it into actionable intelligence is essential, particularly in the defence arena.

Against a backdrop of persistent uncertainty and evolving threats, readiness and proactive defence remain critical imperatives. The Ministry of Defence continues to strengthen the Armed Forces' freedom of action in cyberspace, working in close coordination with industry partners, including those represented at this roundtable. These collaborations have fostered the development of advanced digital platforms and combat clouds, where artificial intelligence plays a decisive role in vulnerability detection and real-time operational monitoring. Secure communications systems, independent from public networks, are also being deployed to guarantee tactical superiority across all scenarios.

Moderated by:

Ms. María José Muñoz Estévez Head of Institutional Communication and Press, Ministry of Defence

Speakers:

Commander Enrique Pérez de Tena Martos Head of Institutional Relations MCCE Mr. David Conde Thales Head of SOC & CERT Mr. Carlos Díaz Hidalgo Director of Cybersecurity, TRC Mr. Sergio Gamo Velasco Head of Defence and Security Business Development, Telefónica Mr.Jorge Uyá Managing Director of Accenture

However, one of the most pressing challenges lies in the limited public awareness of cyber risks and the widespread undervaluation of personal data. Spain, with a strong pool of cyber talent, has a significant opportunity to consolidate a robust cyber defence posture built on cooperation between public institutions and private enterprise. In this domain, trust-based collaboration stands as a strategic enabler, underpinning the resilience and effectiveness of cyber defence capabilities.



Guardia Civil Seminar:

"Strategy, International Cooperation, and the Capabilities of the Guardia Civil in Integrated Border Management"

The presentation offered a comprehensive insight into the Guardia Civil's role within today's complex global security landscape, emphasising its shift towards a more proactive and adaptive posture in addressing evolving threats.

International cooperation was identified as a strategic cornerstone, with active engagements involving Europol, Frontex, and police forces across Latin America and Africa, centred on intelligence exchange and the coordination of joint operations.

The intervention also spotlighted the Guardia Civil's participation in foreign missions, where it contributes to stabilisation efforts, security operations, and the local forces in international theatres.

In closing, the speaker underscored the imperative to respond to emerging forms of crime and hybrid threats, highlighting continuous training and institutional resilience as critical enablers in confronting both current and future challenges effectively.

Moderated by:

Lieutenant Colonel Marcos Pérez-Mayor Rodríguez, Guardia Civil, Tax and Border Headquarters

Speakers: Brigadier General Joselito Minuto

Head of the Naval Air Operational Command of the Guardia di Finanza

Mr. Martin Ubelhor

Deputy Head of the Innovation and Security Research Unit (HOME F2); Directorate-General for Migration and Home Affairs (DG HOME)

Auditorium INNOVA / Hall 6 Space FOR_DEF & SEC



13/05/2025



Roundtable: **"The University– Industry Relationship in the Defence Sector**"

At Innova, the day opened with a reflection on business– university collaboration, highlighting the importance of long-term partnerships, robust institutional support, and the integration of young talent into the defence innovation ecosystem. The discussion also identified key structural challenges, such as the limited availability of dedicated R&D infrastructure for defence and the disconnect between academic research and the operational needs of the sector. As areas for improvement, they proposed streamlining procedures, fostering innovation, reinforcing collaborative networks, promoting entrepreneurship, and aligning timelines with the real demands of research and development.

Moderated by:

Mr. Félix Pérez Professor Emeritus, ETS of Telecommunications Engineering, UPM Speakers: Mr. Jesús Ángel García Head of R&D and Universities, INDRA

Mr. Luis Enrique García Vice-Rector for Research, UC3M Mr. Gabriel Molina CFM. Material Physics Center, CSIC Mr. Antonio Portilla Professor, Signal Theory and Communications, UAH Mr. Jesús Abraham Head of Defence Innovation, TELEFÓNICA Mr. Iago González Head of Open Innovation, Monodon Mr. Miguel Varga Material Physics Center, CSIC

Π



NAVANTIA Conference: **"National and European Overview** of Defence Startups: New Opportunities for Entrepreneurship"

Auditorium INNOVA / Hall 6

Navantia reaffirmed its commitment to innovation through the expansion of monodon. During the conference, the following figures were shared: six centres of technological excellence, more than 250 professionals working on innovation projects, a network of 75 collaborators, more than 100 projects underway and the future inauguration of 6,000 m² of new facilities. The discussion also explored the startup landscape within the defence sector, emphasising the importance of institutional backing, the relevance of the DARPA model, and Spain's potential in cutting-edge fields such as photonics and quantum technologies.

Speakers:

Mr. Ricardo Domínguez
Navantia President
Ms. Ana Moya
Director of Engineering and Innovation at NAVANTIA
Ms. Patricia Sierra
Head of Monodon

Auditorium INNOVA / Hall 6





TELEFÓNICA Conference: **"Defence Innovation Hub. Talent Incubator"**

At the "Defence Innovation Hub. Talent Incubator" conference, a strategic roadmap was outlined to drive innovation in the sector through the creation of a dedicated hub aimed at streamlining processes and accelerating technological development, particularly from start-ups, spin-offs and SMEs. This ecosystem would feature a single point of contact, a regulatory-compliant technology sandbox for secure experimentation, a multi-domain testing environment, tailored legislation, and an international collaboration network. Its core objectives include attracting and retaining innovation, supporting the development of emerging technologies, promoting the defence-technology nexus, and enhancing the efficiency of current procedures. In a rapidly evolving landscape, adaptability was identified as a critical success factor. **Mr. Jesús Abraham** Head of Defence Innovation, TELEFÓNICA

Auditorium INNOVA / Hall 6 Space FOR_DEF & SEC



13/05/2025



INDRA Conference: **"Technology and Innovation in the Evolution and Disruption of Defence Systems**"

At the conference on innovation in defence systems, three core challenges were identified: adaptability to emerging threats, European strategic autonomy, and coordination among key stakeholders. Best practices put forward included early-stage collaboration, the adoption of shared standards, and the acceleration of technology deployment. Indra is responding through the creation of open observatories, collaborative environments and innovation laboratories focused on advanced communications, quantum technologies and optics, reaffirming its firm commitment to collaboration as a catalyst for technological innovation.

Mr. José Miguel Pascual

Director of Technology Observatories, Disruptive Technologies Laboratories, and Electronics CoC

Auditorium INNOVA / Hall 6



13/05/2025



ELEVATOR PITCH STARTUPS

At FEINDEF, startups took centre stage in the elevator pitch sessions, showcasing cutting-edge innovations such as specialised vehicles (Little Cars), heatstroke prevention technology (Biodata Bank), Hyperloop transport (Zeleros), LEO satellites for defence (Fossa), space connectivity solutions (Hydra Space), advanced photonics (Fyla Laser), emergency communications systems (Beagle Technology), radiotherapy prevention (Disit Biotech), haptic tactical training (Owo Defence), drone systems (Red Team Shield), sounding rockets (Nerva Technologies), Al for surveillance (Panssari), and XAI for decision-making (Skios).

The agile and dynamic format captured strong interest from attendees, keen to explore new ideas, projects and prototypes poised to shape the future of technology in the defence and security domain.







Roundtable:

"Female Talent: A Key Driver in the Growing **Defence Sector**" **MID PROJECT** (Women, Engineering and Defence)

A round table discussion, held under the auspices of the MID Project (Women, Engineering and Defence), served as a platform for highlighting the ongoing commitment to equality and professional excellence in the defence sector. It is an initiative, promoted by the Secretary of State for Defence in collaboration with the Royal Academy of Engineering, Isdefe, the Círculo de Tecnologías Foundation, and the Feindef Foundation. The session was opened with a reflection on the gender gap that persists from an early age across the STEM sector.

Currently, women represent less than 25% of personnel in the industry, and in the armed forces, the figure stands at just over 13%. While there is a positive trend, progress remains gradual and is not yet visible at senior levels.

The three leading women in defence who participated in the discussion shared their professional journeys, each shaped by early exposure to technical disciplines and strong family influences. Their respective paths, from aeronautical engineering to high-ranking defence roles, demonstrated a shared conviction that talent transcends gender. Nonetheless, they emphasised the need to raise awareness among young girls about their potential to pursue careers in technical fields. They asserted the importance of women in balanced teams, noting that diversity of approaches, leadership styles, and female empathy represent valuable assets in a sector undergoing transformation.

On the issue of talent retention, consensus was reached around the structural nature of the challenge. The focus, they stated,

Moderated by:

Ms. Eva Cervera Managing Director of the Edefa Group Speakers:

Brigadier General Loreto Gutiérrez Hurtado Director of the Department of Homeland Security Ms. Elena Delgado

National Business Development Director, EM&E Group Ms. María Jesús Llordén

Manager of the Innovation and Services Centre (CIS) of the Directorate of Technologies for Defence and Security at ISDEFE

must be on fostering early interest in STEM disciplines and establishing a professional ecosystem that not only attracts but also retains young talent, particularly in areas characterized by high technological demand.

During the session, the MID Awards were conferred as follows:

- Individual recognition was awarded to Ms Concepción Rodrigo Bayo, Captain of the Navy Corps of Engineers and Director of the Naval Weapons School, in recognition of her distinguished professional career.
- Institutional recognition was granted to Sainsel Sistemas Navales for its promotion of the MID Project's core values. The award was accepted by its President, Ms Susana Hernández Ruiz.
- Extraordinary recognition was bestowed upon Ms Sandra Gusi Martínez, a biologist specializing in microbiology and researcher in the molecular biology and immunology laboratories of the Department of NBC Defence Systems at INTA's La Marañosa campus.

The closing address was delivered by Ms María Amparo Valcarce García, Secretary of State for Defence, who expressed her gratitude for the work carried out under the MID Project. She concluded by affirming that investing in security must go hand in hand with investing in talent, and that Spain cannot afford to forgo half of its capabilities: women.







Roundtable: **"Disruptive Technologies for the Future"**

The round table commenced with an address by Mr Emilio Varela, who outlined the strategic vision of the Oesía Group, centred on equipping Spain with genuine strategic autonomy. To this end, he explained, the company has optimised its technological capabilities, concentrating on areas of specialisation such as autonomous navigation and photonics. This strategic focus aims to deepen expertise in technological niches with high transformative potential.

Mr Miguel Ángel Frutos, CTO of UAV Navigation, underscored that disruptive technologies do not emerge spontaneously, but rather require robust and safeguarded ecosystems. He emphasised that innovation demands foresight, preinvestment, and access to real validation environments. He presented an artificial intelligence system capable of replacing human operators in autonomous systems, enabling the anticipation of adversarial action with agility and precision. He further highlighted the importance of integrating conventional knowledge with emerging technologies.

Mr Santiago Simón explained that photonics, understood as the science of light, constitutes a key enabler of Spain's technological autonomy. He noted that radio frequency photonics addresses the limitations of current systems and facilitates the development of entirely Spanish quantum communication solutions, featuring random key generation and advanced security protocols. Integrated photonics, he added, represents for light what microchips once did

Speakers:

Brigadier General **Rafael Gómez Blanco** Deputy Director of Fighter Aircraft Engineering and RPA,

Logistic Support Command,

Mr. Miguel Ángel Frutos

Technical Director and CTO of UAV Navigation (OESÍA Group) **Mr. Emilio Varela Sieira**

Corporate Director of Strategy and Corporate Development, OESIA Group

Mr. Santiago Simón

Head of the Photonics Department and Head of the Photonics Unit at Grupo OESÍA

for electronics, enabling significant reductions in power consumption and size without compromising functionality. Brigadier General Rafael Gómez Blanco concluded the session by focusing on the differential capabilities required by the Air Force, not only in terms of enabling technologies, but also in specific operational products. He noted that many of today's disruptive technologies are not new in concept, but that their current adaptation and application are what create strategic advantage. He expressed concern regarding the pace of innovation relative to other global actors and advocated for the development of more agile innovation ecosystems, supported by stronger connections between academia, research centres, industry, and operational end-users. "We must deliver differentiated products to our warriors," he concluded.

In closing, the session highlighted the increasing collaboration between industry, defence, and research as a natural and necessary response to contemporary threats. Nonetheless, key challenges remain, including talent retention and the urgent need for sustained investment. The consensus was unequivocal: the security of all must be a shared objective.



Presentation by TEDAE: "Social Perception of Defence and Security in Spain"

The TEDAE Association presented a previously unpublished study on the social perception of defence and security in Spain. Mr Ricardo Martí Fluxá opened the session by framing the discussion within the current landscape of public and strategic debate, in which both Europe and Spain are confronted with escalating security challenges. He emphasised the importance of placing citizens "at the centre" of the discourse surrounding investment in defence. Against this backdrop, TEDAE commissioned GAD3 to conduct a nationwide survey to gain a clearer understanding of public opinion on this sector.

Mr Narciso Michavila, President of GAD3, presented the findings of a representative survey conducted with over 1,200 citizens aged 18 and above from across the country. He noted that we are witnessing the "end of an era" and entering a new phase characterised by hybrid and emerging threats. The survey revealed that Spaniards are increasingly conscious of global uncertainty. While concerns about pandemics and terrorism are declining, anxiety regarding armed conflict and systemic vulnerabilities is on the rise.

Among the key insights, the study found that 60% of the population supports the development of the national defence industry, with particularly strong backing among younger demographics. The results underscore that investment in defence is also perceived as investment in freedom, employment, innovation, technological sovereignty, and peace. Nevertheless, only 33% of respondents believe that Spain is currently prepared to meet the challenges it faces.

Speakers:

Mr. Ricardo Martí Fluxá President of the Spanish Association of Defence, Aeronautics and Space Technologies (TEDAE) **Mr. Narciso Michavila** President of GAD3

The study also identified a shift in societal priorities: while housing and unemployment remain the top concerns, defence and security have emerged as the country's third strategic axis. There is also a marked shift in public perception regarding defence spending: for the first time, more citizens consider the defence budget insufficient than excessive.

Among the most highly regarded institutions, the Armed Forces have gained significant recognition since 2022, now standing as the second most positively rated entity. By contrast, the private sector continues to carry some negative associations, although the public acknowledges its relevant role (6.6/10) and values its contribution to national industrial development.

On international cooperation, 80% of Spaniards view collaboration with NATO positively, though there is widespread opposition to participating in conflicts that lack a clearly defined interest or justified cause. It was also noted that 51% associate defence investment with a direct improvement in national security, while many also identify broader benefits such as the creation of skilled employment and the transfer of defence technologies to civilian applications.

The presentation highlighted that Spanish society is engaging with the defence debate with increasing maturity and shared purpose. With growing awareness of global challenges, investment in security is increasingly seen as a strategic imperative. Transparent communication and recognising citizens as stakeholders are essential to building a culture of democratic and collective commitment to defence.





Guardia Civil Seminar: "Innovative models in cybersecurity and against cybercrime"

The Guardia Civil organised this seminar with the objective of showcasing and comparing international operational models in the fight against cybercrime. Brigadier General Francisco José Almansa opened the session by underlining the growing relevance of this criminal phenomenon and introduced the two speakers, whose contributions offered a complementary and insightful perspective on the strategies being developed in Brazil and Spain.

Otavio Margonari Russo presented the recent structural transformation within the Brazilian Federal Police, implemented in 2023 in response to the new government's political commitment to intensify efforts against cyber and environmental crime. Since then, the Directorate for Combating Cybercrime – which he leads – has operated as an autonomous entity with its own organisational framework. This directorate addresses a range of criminal typologies, from child sexual exploitation and electronic fraud to hate crimes and complex high-tech attacks. Margonari shared compelling data that reflects the impact of the new structure: in 2024, 33.98% of all Federal Police operations were linked to cybercrime, with a 218% rise in operations and a 303% increase in indictments compared to 2022. He also noted a strong rise in specialist training, with a 122% increase in enrolment for technical courses and events.

Lieutenant Colonel Alberto Rodao outlined the Spanish model,

Moderated by:

Brigadier General **Francisco José Almansa Aguilar** Head of Digital Innovation of the Guardia Civil **Speakers:**

Lieutenant Colonel **Alberto Rodao Martín** Head of the Cybercrime Department at the UCO (DC3) **Mr. Otavio Margonari Russo**

Director of Cybercrime Combating at the Brazilian Federal Police

which is integrated within the Judicial Police structure and the Guardia Civil's Intelligence Headquarters. He emphasised that unlike traditional forms of crime, cybercrime is defined by the volatility of digital evidence, which demands agile responses and highly adaptable structures. In Spain, efforts to combat cybercrime are organised around three primary areas: cyber-attacks, online child sexual abuse, and digital fraud. Rodao detailed the activities of specialised units operating on the dark web, and highlighted the importance of international collaboration and partnerships with the private sector, all coordinated closely with judges and prosecutors. He stressed the importance of reporting cyber incidents, as underreporting leaves many cases outside both statistical tracking and operational response.

Both speakers concurred that there is no universal model for success; rather, each country must tailor its strategy to its own level of capacity, centralisation, and specialisation. In conclusion, the session underscored the critical importance of public-private cooperation and international coordination in addressing an increasingly complex threat landscape.

As a gesture of recognition and institutional camaraderie, a symbolic tricorn was presented to the Brazilian Director on behalf of the Director General of the Guardia Civil.





The National Intelligence Centre (CNI) Presentation: **"Information Systems and Cybersecurity"**

The National Security Office (ONS) delivered an in-depth presentation on the management of classified information in public procurement processes. It emphasised that confidentiality, availability and integrity must be guaranteed for such information. It was clarified that not all contracts involving access to classified information should be treated as "classified contracts" in their entirety, some may only contain annexes or specific clauses regulating those sensitive elements. The risks of both under-classification, which can jeopardise national security, and over-classification, which limits supplier participation and inflates costs, were also addressed. One of the cornerstones of the process is the classification guide, referred to as the "bible" of contractual security, as it defines what information is classified, for how long, and under what conditions. The need for security clearances, the communication of contracts to the competent authority, specific contractual clauses, and strict access control throughout the subcontracting chain were all highlighted as essential safeguards.

The presentation concluded with an analysis of international programmes involving multiple countries operating under different legal frameworks. In these cases, Programme Security Instructions (PSI) are employed to harmonise minimum security standards. In a context of rising defence expenditure and rapid digitalisation, it was noted that the number of contracts involving access to classified information is expected to increase significantly, placing greater demands

Speakers:

Representative of the National Security Office (ONS) Representative of the National Cryptologic Centre (CCN)

on administrative resources and requiring improved efficiency. The National Cryptologic Centre (CCN) addressed the emerging challenge posed by quantum computing to current cryptographic systems. An overview was given of quantum computing and its potential to undermine the public key algorithms currently in use across banking, government services and digital identity systems within the next 10–15 years. In response, the European Union has launched a transition strategy towards post-quantum cryptography (PQC). Spain is expected to have a national roadmap in place by 2026, with full migration to new cryptographic standards in critical systems by 2030, and in medium-risk systems by 2035. The principle of crypto-agility, designing systems capable of swiftly updating their cryptographic algorithms, was underscored as fundamental.

In conclusion, the speakers warned that the future of cryptography has already arrived. Being prepared is not a choice, but a necessity: failure to act leaves citizens exposed and the nation at a competitive disadvantage. Accelerating the modernisation of security systems is imperative, and both Europe and Spain have already taken important steps in this direction.



Hall 8



14/05/2025



Round Table UNIVERSITIES -FEINDEF - CIRCLE FOUNDATION :

"A 360° View of the Spanish Defence Industry: Innovation, Dual Technologies, and Contribution to Strategic Autonomy"

The roundtable offered a comprehensive overview of technological innovation in the defence sector. Major General Miguel Ángel Orduña opened the session by underscoring that military capabilities must serve both to deter and, if deterrence fails, to actively defend national interests. To achieve this, sustained investment in R&D&I is essential, particularly in a landscape where the private sector is increasingly leading on key technological advancements.

Gonzalo León stressed that there can be no strategic autonomy without technological sovereignty, an objective that depends on access to knowledge, the availability of skilled talent, secure supply chains and a robust regulatory environment. He emphasised that innovation must be agile and adaptable, and that international cooperation is indispensable, given the impracticality of absolute self-sufficiency.

From Navantia, Jorge Quiroga highlighted the value of a strong defence industrial base, capable of producing systems with high technological complexity. Reinforcing this industrial ecosystem, he noted, requires active collaboration, a culture of intellectual property, and effective strategies for talent attraction and retention.

Moderated by:

Ms. María Guijarro Engineer and Vice-President, Defence Technologies Association

Speakers:

Major General **Miguel Ángel Orduña Rodríguez** Chief of the Plans Division, Air and Space Staff **Mr Jorge Quiroga Blanco** Research, Development & Innovation Manager, Navantia **Mr. Gonzalo León**

Vice-President, Círculo Foundation and Professor, Polytechnic University of Madrid

Ms. Marina Martínez

CDTI Horizon Europe National Contact Point Cluster-3 "Civil Security" Horizon Europe

Mr. José Miguel Pascual Ruiz

Director of Hardware and Innovation Competence Centres at Indra

Marina Martínez (CDTI) addressed the protection of critical infrastructure and the need to ensure the continuity of essential services, advocating for a holistic approach that bridges defence and broader society. She referenced the European "Preparedness Union Strategy" as a guiding framework to foster civil-military cooperation and build resilience against future crises.

José Miguel Pascual (Indra) asserted that achieving design authority is a fundamental step toward securing industrial sovereignty. Spain, he argued, possesses a mature industrial base which, with the right partners, is well positioned to consolidate its strategic autonomy.

The discussion also turned to dual-use technologies—those with both defence and civilian applications. Speakers agreed that defence can and should serve as a technological catalyst, enabling innovations that later transition to the civilian sector. However, they also pointed to the hidden costs associated with adapting these technologies, stressing the importance of reducing such barriers in order to remain globally competitive.

In conclusion, the session reinforced a shared message: only through sustained innovation, public-private collaboration, and a long-term industrial strategy can Spain and Europe achieve true strategic autonomy.

You can see this content here

Official Magazine FEINDEF 25



Panel:

"Defending Us All: Engaging the Younger Generation in Europe's Defence Sector"

The panel tackled a pressing issue for the future of European security: how to meaningfully engage younger generations in the shared defence endeavour. Irene Blázquez opened the session by emphasising that, amid rising geopolitical volatility and rapid technological change, it is crucial to integrate the generational perspective into the broader discussion on European defence.

Moderator Emilio Doménech set the tone with a reflection on the widespread lack of awareness among young people about the sector, referencing findings from the joint IE University and Airbus report, which revealed that 90% of young Europeans are unable to name a single company in the defence industry.

When asked what it means to "defend a society" today, panellists agreed that the definition has evolved: it now includes protecting democratic values, safeguarding cyberspace, ensuring the continuity of essential services, and upholding rights in a rapidly shifting environment. For Alejandra Fernández, this also entails identifying and empowering young talent, while María Escribano and Captain Santiago underlined the role of the Armed Forces in maintaining constant readiness for unforeseen challenges.

Moderated by:

Emilio Doménech CEO of WATIF

Speakers:

Ms. Irene Blázquez Navarro Director of the IE Center for the Governance of Change (opening)

Ms. Alejandra Fernández Founder, Junior Female Leaders Ms. Elsa Arnaiz

President and CEO of Talent for the Future

Mr. Michele Testoni Associate Professor at IE University and author of the report Next Generation Security

Ms. María Guijarro

Aeronautical Engineer at Airbus Defence and Space Captain **Santiago García Navarro** Air and Space Army NH90 Pilot

The discussion also explored generational misperceptions of the sector, concluding that the issue lies less in disinterest than in a lack of effective communication. Elsa Arnaiz noted that many young people are unsure how to access or engage with the field of defence, while Michele Testoni highlighted that Europe has operated in a "strategic vacuum" for decades, shielded by the US and NATO, leading to a diminished perception of external threats.

On the question of young people's willingness to contribute to national defence, the panel acknowledged the concern that fewer than 35% feel adequately prepared, but viewed this figure as understandable. Importantly, they expressed confidence that youth would rise to the occasion when needed. Instances such as the Valencian floods in 2024 were cited as evidence that the desire to contribute exists, though structured preparation remains insufficient.

In conclusion, the panel agreed that the way forward is through honest, mature communication. Defence should be framed not solely as a military endeavour, but as a collective responsibility that spans security, technology, civic rights and societal wellbeing.

You can see this content here

Official Magazine FEINDEF 25





Presentation:

"European Defence Fund: New Funding Opportunities for the Defence Industry in 2025"

The European Commission presented the latest opportunities under the European Defence Fund (EDF), which will channel $\in 8$ billion through 2027 to strengthen technological and industrial cooperation in the defence sector.

Francisco Casalduero, from the Directorate-General for Defence Industry and Space (DG DEFIS), clarified that the EDF supports research and development projects, excluding procurement, with a structure that combines full funding for research and progressive co-financing for development, depending on project maturity and Member State commitment.

The programme requires applications to be submitted by consortia composed of at least three entities from different Member States and actively promotes the involvement of SMEs, start-ups and research centres. This is facilitated through targeted calls, technical advisory tools such as free coaching, access to testing infrastructures, and matchmaking events. In 2024, SMEs accounted for 47% of applications and 38% of selected beneficiaries, receiving more than 25% of the overall funding envelope.

Speakers:

Ms. Nuria Mariñas European Commission (introduction) Mr. Francisco Casalduero.

Programme Manager for Defence Systems Coordination at the Directorate-General for Industry, Defence and Space (DG DEFIS) of the European Commission

For 2025, nine competitive calls are already open with a submission deadline of 16 October, alongside two restrictedaccess calls. The topics span traditional domains (land, maritime, air, cyber and space) as well as emerging areas like disruptive technologies, biotech and digitalisation.

Casalduero also highlighted complementary instruments such as ASAP (Act in Support of Ammunition Production), EDIRPA (European Defence Industry Reinforcement through common Procurement Act), and the forthcoming EDIP (European Defence Industrial Programme), aimed at industrialisation, fostering multinational collaboration and enhancing supply chain resilience.

He concluded by encouraging companies to focus on the needs of the end user, make use of the programme's technical support framework, and engage with their National Focal Points, essential contacts in each country to guide stakeholders through the process. He also underscored the importance of the European Defence Innovation Scheme (EUDIS), which seeks to attract talent, engage start-ups, and bring fresh actors into the European defence innovation ecosystem.

You can see this content here

42



Presentation PROMPATHON COPILOT Microsoft

Within the framework of FEINDEF 25, the PROMPATHON COPILOT challenge, spearheaded by Microsoft Spain in partnership with ISDEFE, was officially launched.

This initiative introduces an innovative approach to addressing defence's technological challenges through artificial intelligence tools. The 2025 edition focuses on drone management for military logistics, a domain undergoing significant operational transformation. Leveraging solutions like Copilot enables the exploration of new forms of digital assistance, automation, and enhanced efficiency in complex operational environments.

The presentation marked the official kick-off, inviting participants to develop creative proposals that showcase the potential of emerging technological capabilities and young talent applied to the defence sector.

Roundtable:

"Federated Test Ranges for the development of dual technologies. Fight while you develop, develop while you train"

The roundtable discussion, hosted by Telefónica within the Innova space, convened representatives from the three armed forces alongside experts in technological innovation to explore the potential of collaborative test environments. Framed around the concept of a federated Test Site, the discussion focused on the need to establish shared infrastructures that facilitate experimentation, training, and the concurrent development of dual-use technologies such as 5G. Speakers emphasised the advantages of this model, highlighting cooperation between military branches and agencies as a driver of mutual learning, enhanced operational efficiency, and accelerated innovation. The session also addressed key challenges, including inter-institutional coordination, the cultivation of specialised talent, and ensuring digital security, critical factors for positioning Spain as a technological leader within the NATO framework.

Moderated by:

Mr. Jesús Abraham Head of Defence Innovation, TELEFÓNICA Speakers: Commander Jaime Calvo (MCCE) Commander Jesús Aparicio (ET) Commander Manuel García (Navy) Commander Vieira (Air and Space Force)

