



ANNUAL REPORT

2019



**Isdefe**  
your best ally

To mark the end of 2019 and as is customary, Isdefe presents its Annual Report 2019, which includes the company's activities and results during this period, and all the agencies and institutions to which it provides service. The report also reviews the organisation's performance in the three aspects of sustainability: economic, social and environmental. Isdefe, aware of the importance of transparency, integrity and business ethics, has decided once again to endorse this report through the 10 Principles of the United Nations Global Compact and the GRI Standard reporting methodology. By doing so, the company aims to demonstrate its ability to generate shared value in the areas in which it operates and its commitment to our environment.

The digital version of the Annual Report is available at:

[www.informesanualisdefe.com](http://www.informesanualisdefe.com).

In addition, in 2019 Isdefe also published its Non-Financial Information and Diversity Statement under Act 11/2018. Some of the data from the statement have been included in this Report. The Non-Financial Information and Diversity Statement is available at:

<https://www.isdefe.es/informaci-n-no-financiera>.





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## Letter from the President

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It gives me great pleasure to introduce, for the first time, the Isdefe Annual Report, which describes the main milestones and initiatives that the company undertook over the course of FY 2019, together with its economic, social and environmental management. The good results achieved are undoubtedly the result of the principle of excellence, which guides the operations and governance of the organisation.

Although the Report is for last year, I would be remiss not to mention the deep scar that the pandemic that is devastating us on a global scale is leaving on our country. Society is witnessing the key role that the Ministry of Defence and the Armed Forces are playing in mitigating the health emergency and its effects, both economically and socially, underscoring their mission and contribution to the welfare of the country. In response, the Secretary of State, together with other ministerial departments, is undertaking a set of actions intended to reactivate the national defence industry and to save jobs, the goal being to restore modernisation programmes to normal and guarantee the security of the supply chain so as not to compromise our strategic capabilities.

In this context, it is reassuring to have Isdefe as a multidisciplinary support tool, both in the field of defence and security and in all of its other areas of activity. Isdefe's strength, resulting from its 35 years of experience, together with its firm commitment to innovation and R&D, allow it to combine its usual activities with the new demands for services that are required by the Public Administration.

Consequently, Isdefe is essential to supporting the needs that the current challenges are imposing on the Ministry of Defence as part of the process of adapting to the new normal, a process in which participating in international initiatives such as the European Defence Fund (EDF) and Permanent Structured Cooperation (PESCO) will undoubtedly play a decisive role. The organisation is simultaneously continuing to provide services that are closely related to its main function in other sectors, promoting aspects such as digital transformation, cybersecurity and analysing the appearance of emerging technologies, like 5G and artificial intelligence.

To conclude, I would like to note the work of my predecessor, the Board of Directors and the employees of Isdefe, who have showcased their special effort and considerable skills during this difficult time that we are experiencing. All this together has allowed the company to continue its activity with its renowned high level of quality. I am thankful for and recognise the work of our employees and their commitment to public service.

**Ms. Esperanza Casteleiro Llamazares**  
Secretary of State for Defence  
President of Isdefe



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## Letter from the CEO

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Isdefe is a state-owned consulting and engineering company that focuses on the field of Public Defence and Security. It provides its services primarily to the Ministry of Defence. The company's highly specialised knowledge in technological capabilities, management and unique services (space stations) allows us to act as the in-house technical service provider in the Public Administration, Air Transport, ICT, Energy and Space sectors.

In 2019, the company consolidated its activities as the in-house technical service provider for the Spanish government, which accounted for 91% of its activity over the course of the year. These activities are based on the premises of quality, promotion of R&D, international presence, professional development and best governance and corporate social responsibility practices.

This Annual Report lists Isdefe's activities throughout 2019 and its strategy, based on supporting the Administration in areas contained in the National Security Strategy and reliant on technological modernisation, in keeping with the guidelines set out in the Digital Transformation Plan of Spain's central government and its public agencies.

It is within this framework that we take part in the programmes of international organisations, especially the European Defence Action Plan, in an effort to strengthen our innovation-based capabilities and develop synergies so as to fulfil our purpose of supporting the Ministry of Defence, Public Administrations and international institutions in areas of technological and strategic interest by providing the highest quality services.

In 2019, our activities were focused on maintaining a culture of integrity, with management practices to ensure legal compliance, and good corporate governance standards based on principles of economic-financial sustainability, and social and environmental responsibility.

Isdefe's greatest asset is its personnel, who, through their efforts and dedication, have achieved the good results obtained and the high satisfaction of those to whom we provide our services, who are appreciative of their commitment and professionalism.

The 2019 Isdefe Annual Report is available in the usual formats and on the dedicated portal [www.informeanualisdefe.es](http://www.informeanualisdefe.es).

**Francisco Quereda Rubio**  
Chief Executive Officer of Isdefe



# 1. OUR ORGANISATION



**Isdefe** (Ingeniería de Sistemas para la Defensa de España, S.A., S.M.E., M.P.) is a State-owned commercial company founded in 1985 and attached to the Ministry of Defence through the National Institute of Aerospace Technology (INTA), which holds all of its share capital.

Isdefe is the foremost in-house technical service provider to the Spanish Administration in the field of defence and security and as such provides its services to the Ministry of Defence, the Ministry of Home Affairs and the rest of the Central Government. It also puts its knowledge and expertise at the disposal of Administrations from other allied countries and international public organisations, engaging in initiatives of interest for Defence and Security by working for the European Commission, the European Defence Agency (EDA), the European Border and Coast Guard Agency (Frontex), the European Space Agency (ESA), the European GNSS Agency (GSA) and the North Atlantic Treaty Organisation (NATO).



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# Mission, vision and values

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## Mission

Support the Ministry of Defence, Public Administrations and international institutions in areas of technological and strategic interest by providing high-end consulting and engineering services, as well as by managing, operating and maintaining space sites.



## Vision

To progress as a leading multidisciplinary consulting and engineering company by developing high-quality innovative projects that are economically and socially profitable.



## Values

### **Independence**

We always defend the interests of the Spanish Government against any kind of industrial, commercial or economic constraint.

### **Proactivity**

We anticipate needs by providing innovation in our solutions.

### **Global vision**

We are a multidisciplinary organisation with a great diversity of professional figures who combine to provide a comprehensive service portfolio.

### **Commitment**

We are committed both to the public organisations we work for, to our organisation and to the rest of society through a work methodology based on ethics and professionalism.

### **Experience and knowhow**

Our activity is geared towards providing knowledge developed over more than 30 years of service provision and offering efficient solutions.





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# Activity and service sectors

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We provide the Central Government with engineering, consulting and technical assistance services, in particular around defence and security, and other sectors of activity:





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## Strategies, objectives and areas of action

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The most relevant strategic actions in this period focused on:

Guaranteeing Isdefe's activities as the in-house technical service provider for the Central Government, delivering economic/financial sustainability, maintaining service provision quality, promoting R&D, international outreach, career advancement and good governance and CSR practices.

Isdefe's strategy places particular emphasis on bolstering support for the government in areas included in the National Security Strategy and its technological modernisation, promoting the transformation and development of human resources, modernising corporate services, incorporating new technologies into processes and following the guidelines set out in the Digital Transformation Plan of the Central Government and its public agencies.

As a technology provider to the Ministry of Defence and Public Administrations, Isdefe's policies, objectives and

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**As a technology provider to the Ministry of Defence and Public Administrations, Isdefe's policies, objectives and areas of action are determined by its public company status and compliance with public sector rules.**

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areas of action are determined by its public company status and compliance with public sector rules. Moreover, it reaffirms our commitment to participate in programmes carried out by international bodies, particularly the new framework of the European Defence Action Plan. This action policy will strengthen us in the defence and security environments in which the company was created, and allow us to pivot to new needs, combining our innovation-based developments with the knowhow and synergies obtained in other sectors of activity.

In its commitment to good corporate governance, Isdefe supports a governance management model grounded in ethics, regulatory compliance and transparency. This commitment is one of the cornerstones of Isdefe's strategy to fulfil its purpose of supporting the Ministry of Defence, Public Administrations and international institutions in areas of technological and strategic interest through high-end consulting and engineering services, as well as by managing, operating and maintaining space sites, as stated in our mission and values.



During 2019, our activities focused on maintaining a culture of integrity based on management practices that ensure legal compliance with regulations and standards for good corporate governance.

## Our action lines for the period focused on:

- **Continue** to consolidate Isdefe as the benchmark in-house technical service provider for the Administration in technology-related areas, mainly those associated with defence and security, providing high added value and analysing and adapting activity in areas considered “non-core”.
- **Enhance** economic and financial sustainability in the short and medium term.
- **Boost** the modernisation of corporate services by integrating new technologies into processes and following the guidelines set out in the Digital Transformation Plan of the Central Government and its public agencies.
- **Develop** human resources, training, motivation, recognition and talent retention in the framework of the public sector.
- **Foster** engagement in projects and programmes at international bodies and institutions (EU, NATO, EDA, OSCE, ESA, Eurocontrol, etc.) and, particularly, within the new framework set up by the European Defence Action Plan
- **Continue** with our corporate social responsibility commitments and public service vocation.



The following strategic objectives have been established for the 2018-2022 period:

**Ensure** compliance with requirements as an in-house service provider

Provide **Sustainability** and **Financial Balance**

Power the **Modernisation** of Digital Management and Transformation

Promote **Career Advancement**

Maintain **International Presence**



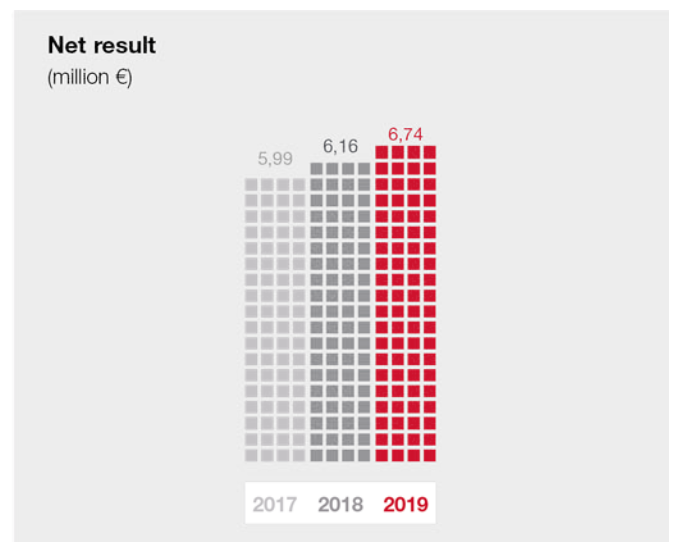
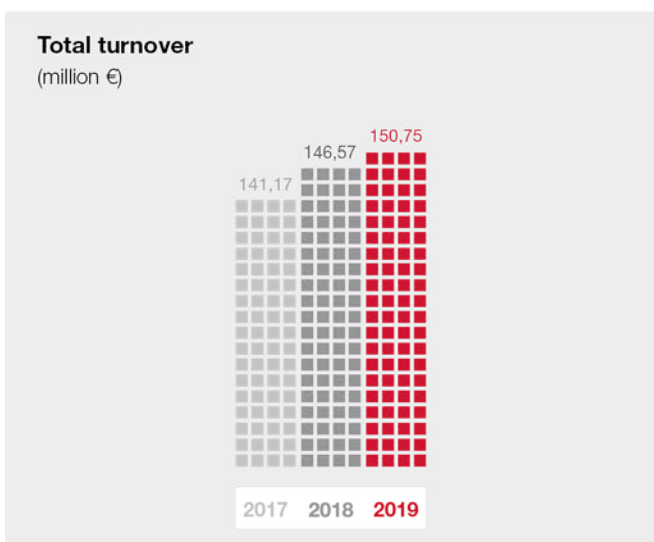
## Our business in figures

As the in-house service provider for the Central Government and bodies, entities and institutions linked and attached to it and under Article 3 of the Public Sector Procurement Act 9/2017, Isdefe must perform services for the public sector that account for more than 80% of its overall turnover.

This figure needs to be indicated in the annual accounts report for the corresponding fiscal year, verified by

external auditors and stated in the Audit Opinion Report. Other activities not included in the role of in-house technical service provider are carried out both for national and international institutions.

Our status as in-house service provider means our results are the outcome of actual costs incurred plus a sustainability margin (4%), established in the resolution on the current approved fees<sup>1</sup>.

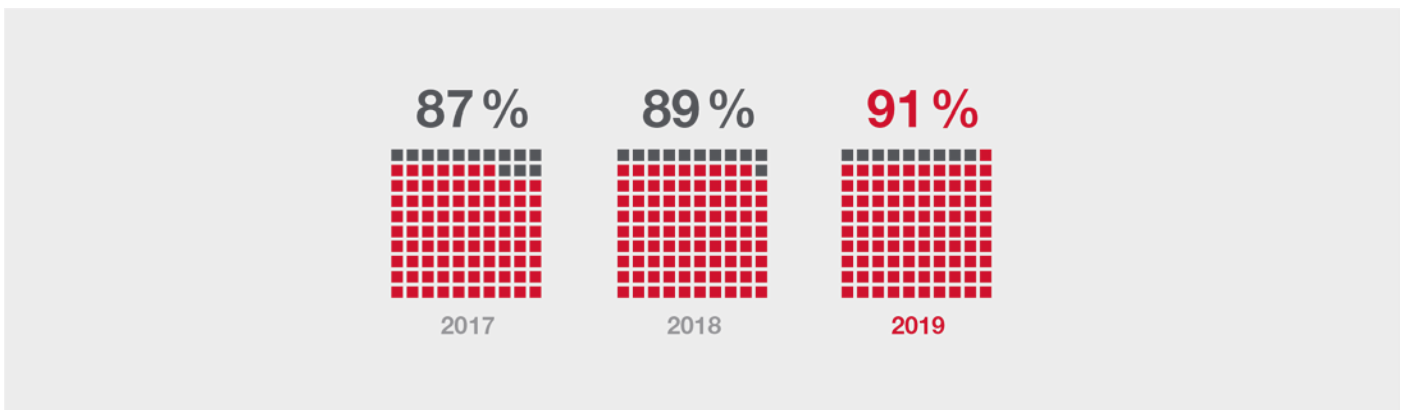


1. For more information, see "Fees" in the Non-Financial Information Statement: <https://www.isdefe.es/informaci-n-no-financiera>



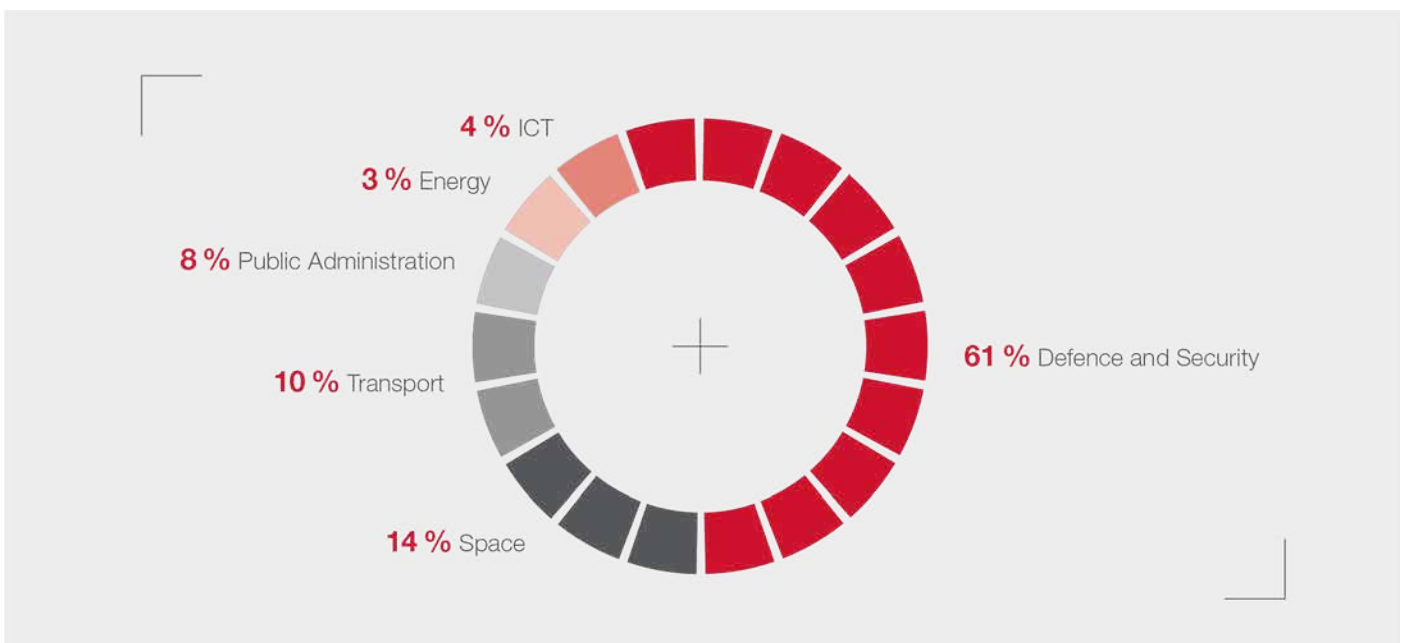
# Isdefe activity

For the last three years, the turnover from Isdefe's activity as an in-house technical service provider was:



## Engineering and consulting activities

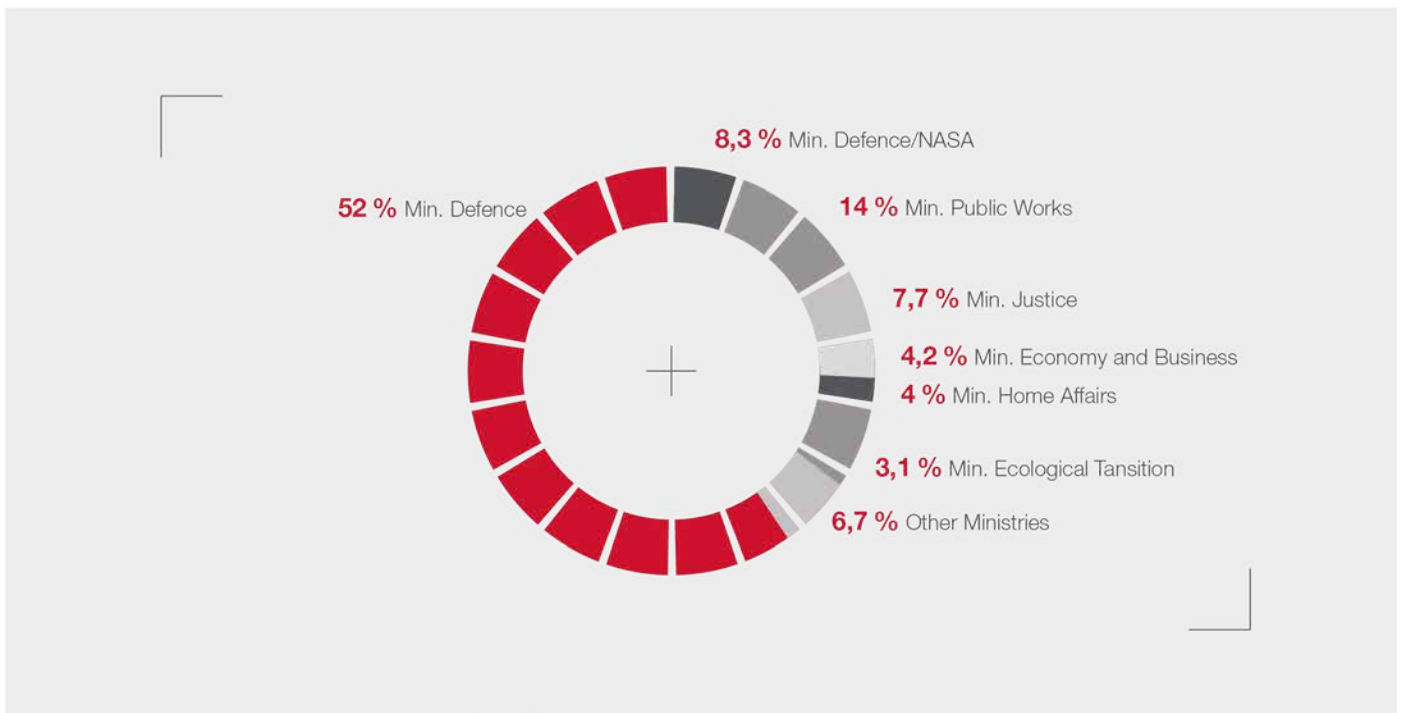
Isdefe's activity essentially focuses on the Defence and Security sphere, although significant activity is performed in different sectors:



The three sectors showing the greatest volume of activity for the past year were Defence and Security, reaching 61% of the total, followed by Space (14%) and Transport (10%).



## Isdefe activity for Public Bodies and Institutions



With regards entities and organisations served, activities for the Ministry of Defence made up almost half of the organisation's overall activities.

With respect to **Turnover**, the total reached was €150.75 million, of which €137.12 million came from the activity carried out as an in-house service provider, an increase of more than 5% compared to the preceding year.





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## Locations

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Our corporate office is at Calle Beatriz de Bobadilla, 3, Madrid. There the company's management and 77% of staff work. Other work sites where we carry out some of our activities are in: Torrejón de Ardoz, Robledo de Chavela, Villafranca del Castillo, Cebreros, Canary Islands and Cartagena.

However, most of the operational activities are deployed at the work sites of the institutions and clients we provide services to.



**77 %**

of our staff work at Calle Beatriz de Boadilla 3, Madrid



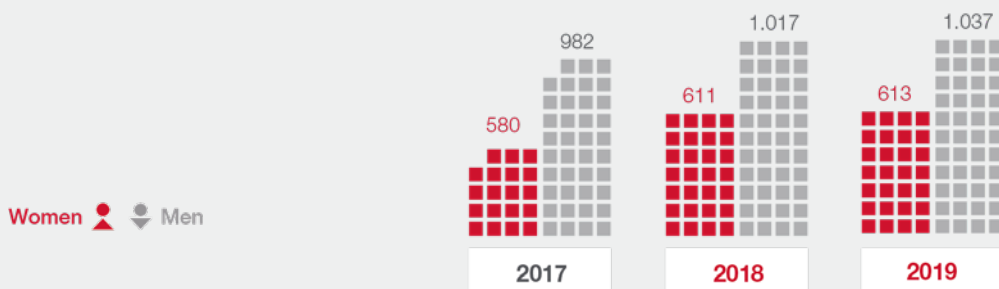


### Isdefe staff at 31 December 2019

Isdefe has **1,650** people on staff. The distribution by work sites is:



### Evolution of the workforce 2017-2019



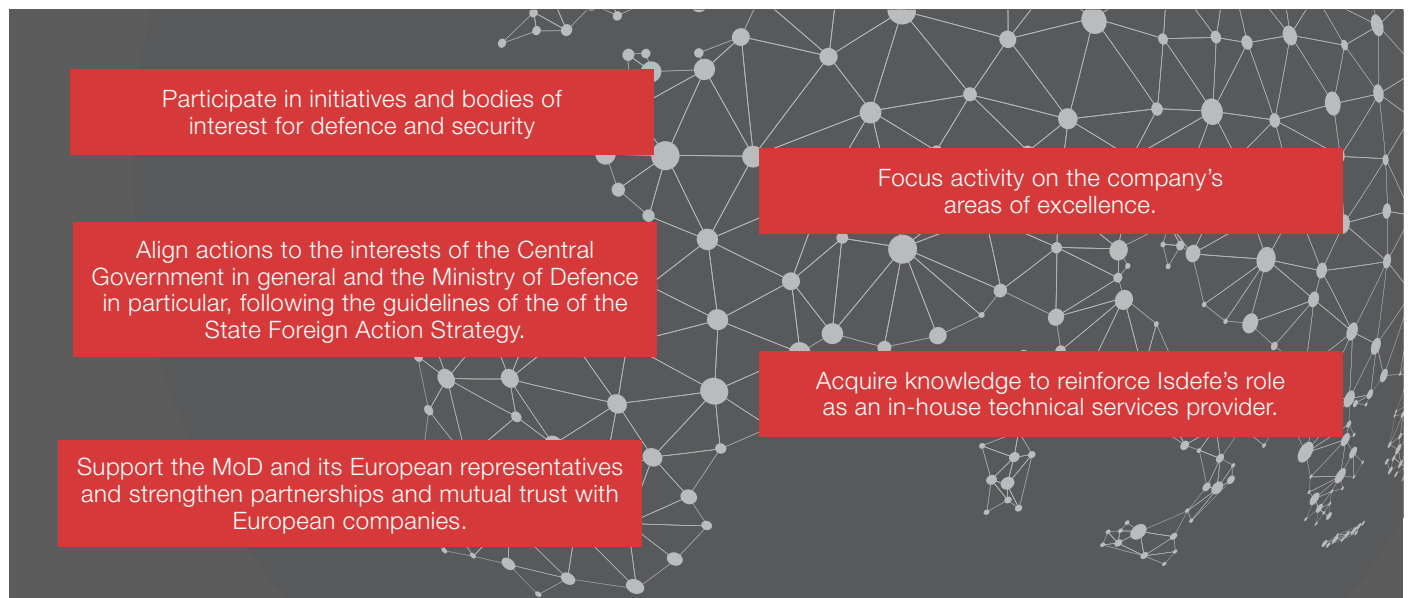


## International reach

In addition to the actions Isdefe carries out at a national level commissioned by the Administration in areas of technological and strategic interest, it also performs activities in international organisations and countries, especially in the European environment, where Isdefe does not act as an in-house service provider (<20% of its activity).

Isdefe's activity strategy focuses on European multi-lateral bodies and the administrations of Spain's allied countries.

### Objectives



### Evolution of International Activity

(Million €)





Most of Isdefe's **international activity** in 2019 was developed in the European context and focused on stepping up engagement in EU programmes: European Commission, EDA, OCCAR, OSCE, FRONTEX, ESA, Eurocontrol, etc. and NATO, especially in the new European defence framework and in the areas of security, airspace and air traffic.

During the 2019 financial year, the concept of European in-house service provider was promoted and powerful partnerships were developed with Isdefe's European counterparts (IABG, Fraunhofer, TNO, FOI, etc.).

During this period we were a further tool for the Ministry of Defence and the Central Government to boost Spain's international positioning.

## Areas of action by activity sector

### Defence and Security

European Commission.

European Defence Agency (EDA).

European Border and Coast Guard Agency (FRONTEX).

Organisation for Joint Armament Cooperation (OCCAR).

NATO: NATO Communications and Information Agency (NCIA), NATO Airborne Early Warning & Control Programme Management Agency (NAPMA), Support and Procurement Agency (NSPA), Allied Command Transformation (ACT), Cooperative Cyber Defence Centre of Excellence (CCDCOE).

Peruvian Armed Forces Procurement Agency (ACFFAA), Peruvian Ministry of Defence.

National Cataloging Office (NCO) of the Ministry of Industry and Energy of Saudi Arabia.

### Space

European Space Agency (ESA).

European GNSS Agency (GSA).

European GNSS Service Centre (GSC).

European Union Satellite Centre (SatCen).

National Aeronautics and Space Administration (NASA).

### Public Authorities

Technical assistance in international projects co-financed by the Government of Spain to oversee their correct planning and execution by Spanish companies (Egypt, Jordan, Kenya, Senegal, Madagascar, Bolivia, Uganda, Honduras, Ivory Coast).

### Transport


















European Union Aviation Safety Agency (EASA).

Single European Sky ATM Research Joint Undertaking (SESA RJU).



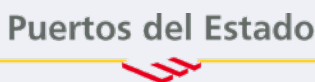
# Entities and organisations we provide services to

## Public Administration

 <p>GOBIERNO DE ESPAÑA</p>	<p>MINISTERIO DE DEFENSA</p>
 <p>GOBIERNO DE ESPAÑA</p>	<p>MINISTERIO DE CIENCIA E INNOVACIÓN</p>
 <p>GOBIERNO DE ESPAÑA</p>	<p>MINISTERIO DE TRABAJO Y ECONOMÍA SOCIAL</p>
 <p>GOBIERNO DE ESPAÑA</p>	<p>MINISTERIO DE ASUNTOS EXTERIORES, UNIÓN EUROPEA Y COOPERACIÓN</p>
 <p>GOBIERNO DE ESPAÑA</p>	<p>MINISTERIO DE JUSTICIA</p>
 <p>GOBIERNO DE ESPAÑA</p>	<p>MINISTERIO DE UNIVERSIDADES</p>
 <p>GOBIERNO DE ESPAÑA</p>	<p>MINISTERIO DE INDUSTRIA, COMERCIO Y TURISMO</p>
 <p>GOBIERNO DE ESPAÑA</p>	<p>MINISTERIO DE SANIDAD</p>
 <p>GOBIERNO DE ESPAÑA</p>	<p>MINISTERIO DEL INTERIOR</p>
 <p>GOBIERNO DE ESPAÑA</p>	<p>MINISTERIO DE POLÍTICA TERRITORIAL Y FUNCIÓN PÚBLICA</p>
 <p>GOBIERNO DE ESPAÑA</p>	<p>MINISTERIO PARA LA TRANSICIÓN ECOLÓGICA Y EL RETO DEMOGRÁFICO</p>
 <p>GOBIERNO DE ESPAÑA</p>	<p>MINISTERIO DE TRANSPORTES, MOVILIDAD Y AGENDA URBANA</p>
 <p>GOBIERNO DE ESPAÑA</p>	<p>MINISTERIO DE ASUNTOS ECONÓMICOS Y TRANSFORMACIÓN DIGITAL</p>
 <p>GOBIERNO DE ESPAÑA</p>	<p>MINISTERIO DE CULTURA Y DEPORTE</p>
 <p>GOBIERNO DE ESPAÑA</p>	<p>MINISTERIO DE LA PRESIDENCIA, RELACIONES CON LAS CORTES Y MEMORIA DEMOCRÁTICA</p>
 <p>GOBIERNO DE ESPAÑA</p>	<p>MINISTERIO DE EDUCACIÓN Y FORMACIÓN PROFESIONAL</p>
 <p>GOBIERNO DE ESPAÑA</p>	<p>MINISTERIO DE AGRICULTURA, PESCA Y ALIMENTACIÓN</p>



## National Public Organisations





# 1. OUR ORGANISATION

## International Public Organisations



## Multilateral Organisations







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## Values and commitments

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**1,650**

Expert employees

**85 %**

Engineers and graduates

**37 %**

Women

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## We are knowledge

### Defence and security

- › Planning
- › Command and control networks and systems
- › Platforms
- › Technology centers
- › Logistics
- › Intelligence and electronic warfare systems
- › Security in information systems and critical infrastructure
- › Strategic infrastructure
- › Border surveillance and control
- › Technological and industrial management
- › Crisis and emergencies management systems

### Space

- › Space stations and infrastructure
- › Satellite applications

### Transport

- › Traffic management
- › Transport centres
- › Advanced concepts

### Public administrations

- › Enhancement and modernisation
- › Market regulation and supervision

### Energy

- › Energy diversification and efficiency

### Information and communication technologies

- › Radio spectrum
- › Communication networks and systems





**50 hours**  
in training  
Employee / year

**83 %**  
permanent  
contracts

**89 %**  
in-house technical  
service provider

**562,654 €**  
investment  
in R&D

COMMITMENT TO  
**EXCELLENCE**

PROMOTION OF  
**TALENT**  
IN TECHNOLOGY  
Scholarships

**INNOVATION**  
AT THE SERVICE  
OF DEFENCE AND  
SECURITY

**RELIABILITY**  
OF THE  
ADMINISTRATION

**INTERNATIONAL**  
PRESENCE IN  
NATIONAL DEFENCE  
INITIATIVES

**SATELLITE**  
COMMUNICATIONS AND  
EARTH OBSERVATION

**SAFE**  
TRANSPORT

**GUARANTEE**  
FOR BUDGET AND  
PROGRAMMING IN  
PROGRAMME OFFICES

SUPPORT TO  
GOVERNMENT IN  
**DECISION-  
MAKING**

**SECURITY**  
IN INFORMATION AND  
CRITICAL INFRASTRUCTURE



AGENDA  
**2030**

## 2. OUR ACTIVITY SECTORS





A military helicopter is shown in flight, lifting a large, dark, rectangular container or piece of equipment. The helicopter's main rotor blades are blurred, indicating motion. The container is suspended by several cables. The background is a clear sky with some light clouds.

## 2.1. Defence and Security Sector





**Isdefe** was founded with the aim of meeting demands for technological solutions to advanced programmes within the Ministry of Defence and now we are the benchmark in-house technical service provider for the Spanish Administration in Defence and Security.

We provide technological and strategic consulting services to the Ministry of Defence and Armed Forces, Ministry of Home Affairs, law enforcement and civil protection agencies, and international and multilateral organisations including the European Defence Agency (EDA) and the North Atlantic Treaty Organisation (NATO).



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## Defence Planning

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The strategic consulting services and capability-planning methodology developed by Isdefe support the strategic military-planning process of both the Spanish Ministry of Defence and the European Defence Agency (EDA).

**Ministry of Defence / Defence Staff (EMAD) / Secretariat of State for Defence / General Directorate for Armament and Material (DGAM)**

Strategic and technical consulting services in the national defence-planning process during its definition and implementation stages:

- **Defence Staff (EMAD) / Joint Military Staff (EMACON):**  
Support for EMACON in the preparation of the Military Capabilities Objective, an objective which integrates the material and human resources required by the Armed Forces, including the main weapons systems.
- **Secretariat of State for Defence / General Directorate for Armament and Material (DGAM) / Deputy General Directorate for Planning, Technology and Innovation (SGPLATIN):**  
Support for DGAM in the preparation of the programming of material resources (systems and infrastructure) required for FAS for the coming years.



**Ministry of Defence / Defence Staff (EMAD) /  
Joint Centre for Concept Development (CCDC)**

Technical consulting on the definition and development of the concept of Personnel Recovery. Participation in the review and updating of the NATO doctrine documentation associated with Counterinsurgency.



**Ministry of Defence / Air Force Staff (EMA) /  
Headquarters**

Technical support for planning the human and economic resources required to implement air operations committed to by Spain with national and international organisations, both in the field of actual operations and training operations, analysing the capabilities available in the Air Force.

**European Defence Agency (EDA)**

Continuation of the support service to the European Defence Agency through participation in the definition of Strategic Context Cases (SCCs), establishing the challenges and lines of action arising from the Defence priorities drawn from the Capability Development Plan.





# Command and Control Networks and Systems

We provide engineering and consulting services at the strategic, operational and tactical levels to the Ministry of Defence and the NATO Communications and Information Agency (NCIA) to develop major Communication and Information Systems (CIS) and Command and Control systems, both in the military scope and for law enforcement agencies.

**Ministry of Defence / Secretariat of State for Defence / General Directorate for Armament and Material (DGAM) / Deputy General Directorate for Planning, Technology and Innovation (SGPLATIN)**

Technical support for the European Strategic Command and Control programme office led by Spain within the European Union's PESCO (Permanent Structured Cooperation) framework to provide EU Military Staff with proprietary resources for the strategic conduct of European Union operations and missions.

Consulting and assistance in the process of obtaining material resources, supporting the definition of the alternative for obtaining and preparing the Viability Document for the following programmes/projects:

- MC3 Plan (Modernisation of the deployable CIS systems of the Army and the Royal Marines)
- Tactical Radio Joint System (SCRT)
- TETRAPOL Communications Systems

Technical assistance to the DGAM Federated Mission Networking (FMN) Procurement Group.

Support for the DGAM Galileo PRS group in the definition, procurement and monitoring of PRS pilot projects.





Technical support for SDGPLATIN:

- In preparing the feasibility document for the Joint Intelligence, Surveillance and Recognition (JISR) capability of the FAS; in the harmonisation of General Staff Requirements; in the consolidation of feasibility studies, and in the updating of the planning for the implementation and commencement of cost estimates.
- In the procurement, monitoring and technical support of R&D projects related to C4ISR, particularly for the joint capability of JISR, Command and Control systems, and those related to the interoperability of UAVs, as well as matching projects related to Artificial Intelligence and Defence Research.

### Ministry of Defence / Secretariat of State for Defence / Centre for Information and Communication Systems and Technologies (CESTIC)

Technical consulting on strategic planning and regulatory development.

Engineering and management services for the implementation and operation of the Defence Comprehensive Information Infrastructure (I3D), for the development and implementation of the capabilities of the National Command and Control System, and for the Spanish Military Satellite Communications System (SECOMSAT).

Participation in projects for the deployment of local WiFi connectivity in barracks across Spain.



### Ministry of Defence / Defence Staff / Operations Command (MOPS)

Engineering and consulting services in knowledge and information management for Operations Command and the Joint Military Staff.

Support for the Operational Logistics Section (J4A) for engagement in national and NATO exercises, interoperability with other systems, and coordination of logistics databases for subordinated units dependent on Operations Command (MOPS).

Support in operations, first-level support and configuration control of the NATO subsystem supporting the FAS Logistics Command and Control (LOGFAS) deployed at MOPS.

Support service in the Intelligence section (J2), in the implementation of the Interoperability capability of JISR capability related to the SAPIIEM systems at MOPS and in the support and training required to allow the systems to be operated in national and NATO exercises.



## 2. OUR ACTIVITY SECTORS

### Ministry of Defence / Defence Staff (EMAD) / Armed Forces Bureau of Intelligence (CIFAS)

Technical support in the knowledge management systems of the Armed Forces Bureau of Intelligence and engagement in multinational programmes for the production of military mapping of areas of geostrategic interest.

Support in sustaining JISR capability related to SA-PIIEM systems in CIFAS (SICONDEF and BICES) operating environments, and first-level support and incident resolution for the Bureau's engagement in the national and NATO exercises in which it participates.

### Ministry of Defence / Defence Staff (EMAD) / CIS Command of the Armed Forces (JCISFAS)

Technical support in telecommunications, navigation and identification, frequency management and orbit-spectrum integration. Support for the Tactical Data Link Management Centre in matters of technology and the evolution of data link standards and equipment, combined interoperability exercises and link network management.

Participation in the development of the network, systems and filing infrastructure of the EMAD Database.

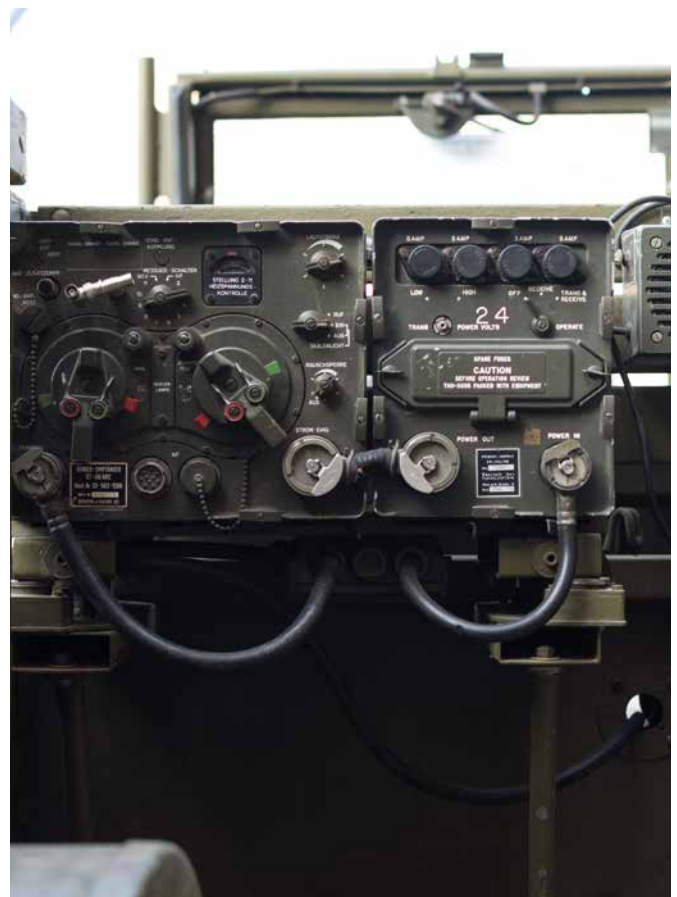
### Ministry of Defence / Army / CIS Command (JCISAT)

Engagement in the study of new technologies for deployable CISs and tests associated with the Army's adaptation to the future operational environment (Experimental Brigade, BRIEX2035).

Support in the rollout of tactical communications and C2 systems architectures according to the NATO Architecture Framework (NAF) methodology.

Participation in defining national data interoperability standards, in the international MIP Programme forum and in exercising CWIX demonstrations, promoting the use of data exchange mechanisms through the Tactical Data Interface (IDT).

Support in administering the SIMACET network of the Permanent General Headquarters (CGP) and in the control and monitoring of current C3S (Systems Control and Coordination Centre) networks for migration to the Defence Comprehensive Information Infrastructure (I3D).





### Ministry of Defence / Army / Army Support / Army Logistics Support Command (MALE)

Technical support for Army Logistics Support Command (MALE) through the MALE Engineering Headquarters in command and control systems, the new battalion-level system BMS-ET, and field and coast artillery command posts.

Support for MALE in the S4 (SG/2 Shareable Software Suite) group of NAAG (NATO Army Armaments Group), a group that makes a valuable contribution to the development of ballistic software within NATO.

### Ministry of Defence / Air Force / Air Force Support / Air Force Logistics Support Command (MALOG)

Support in the implementation of the Air Command and Control System (ACCS) at ARS Torrejón, in decision-making regarding the Air Force programme and in the identification of risks and roadmaps.

Support in the technical management of the Programme Offices for the Acquisition of Air Command and Control Systems, in the replacement of surveillance and defence radars and in the incorporation of Mode 5 and S capabilities in said radars.

Joint engagement with the Air Force Staff (EMA) in the planning of EoIP migration programmes for the Air Command and Control System, as well as the drop-down component.

### Ministry of Home Affairs / Deputy General Directorate for Security Information and Communications Systems (SGSICS)

Engineering services for the procurement and management of a unified communications service for the General Directorates for Police and the Civil Guard, covering all communications (landline and mobile phones, IP, etc.) required by law enforcement agencies to fulfil their mission of safeguarding citizens' rights and freedoms.

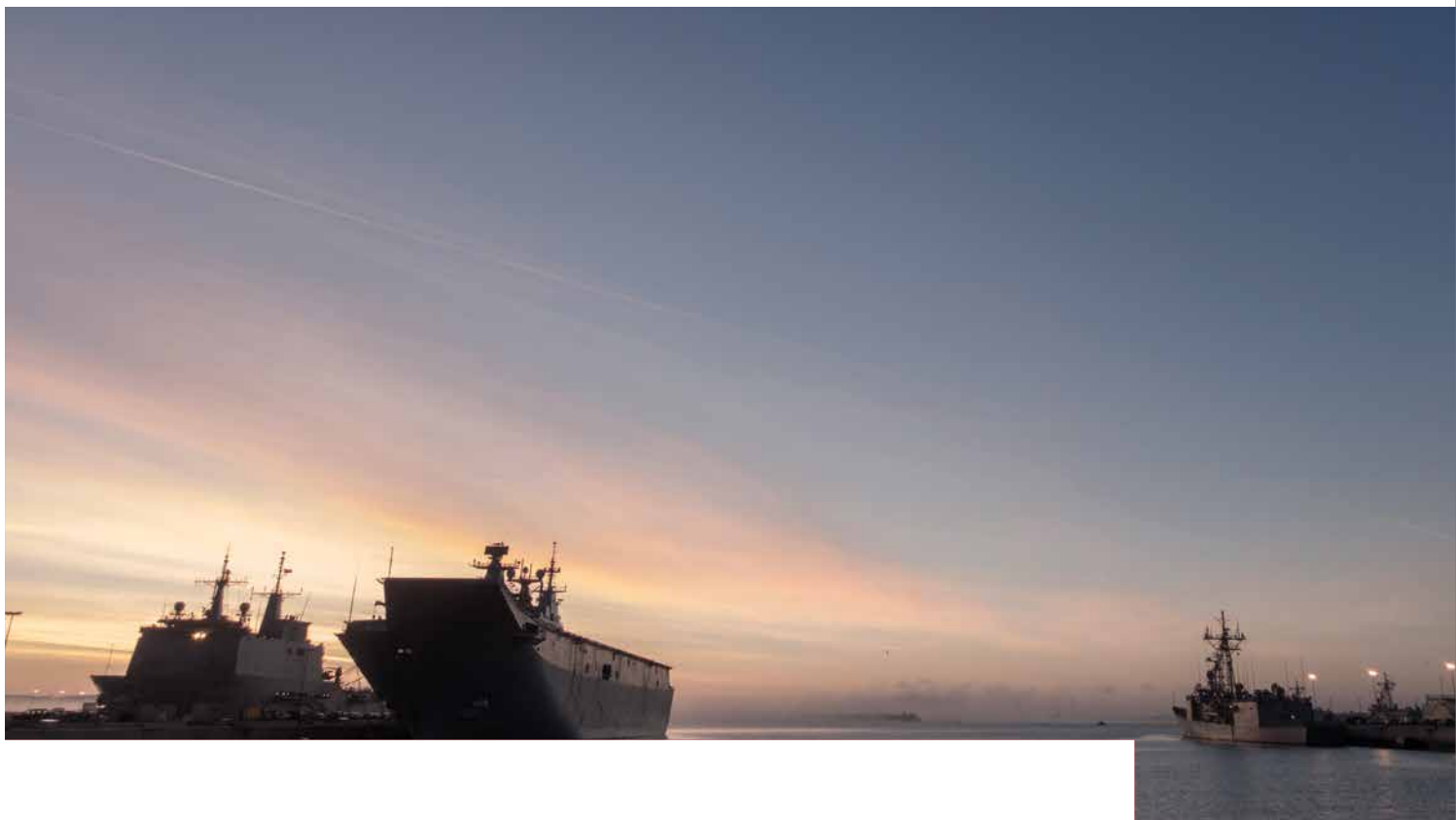
### Ministry of Home Affairs / General Directorate for the Civil Guard

Technical support for the Networks Area of the Civil Guard Telecommunications Service in the management and maintenance of LAN, WAN and peripheral networks (landline, mobile and videoconferencing) and their administration, control and security.

### NATO Communications and Information Agency (NCIA)

Technical assistance to the Agency in the management of NATO programmes for the implementation of Alliance information and communications systems, mainly at its facilities in The Hague.

Support in portfolio and programme management, technical architecture management and support for integration and validation at programme level.



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# Platform Procurement and Support Programmes

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We provide technical consulting services in the planning, economic/financial, technological and support areas throughout the life cycle of air, land and naval platform programmes, including remotely piloted ones, guaranteeing an effective and comprehensive solution.

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**Ministry of Defence / Secretariat of State for Defence / General Directorate for Armament and Material (DGAM) / Deputy General Directorate for Programmes Management (SDG GESPRO)**

## **Land Programmes Area:**

Support for the Programme Offices of Land Systems Command: Pizarro, Ammunition and Wheeled Combat Vehicles (VCR 8x8).

- Review of the test documentation at the configuration-element level developed in the Technological Programme file and factory sign-off on the main groups. Review of demonstrator acceptance test protocols.
- Support in drafting technical documentation for the contract launch of 348 VCR 8X8s in first production run and bid analysis.



### **Air Programmes Area:**

Support for the Programme Offices of Air Systems Command:

- Rotary Wing: support for the Programme Offices of the NH-90 and TIGRE Systems Command.
- Fixed Wing: support for the Programme Offices of the EF2000, A400M, UAS and future Air Programmes, such as the FCAS/NGWS (Future Combat Air System/Next Generation Weapon System) Programme.

### **Naval Programmes Area:**

Support for the Programme Offices of Naval Systems Command:

- F-110 Frigate: support in the preparation of the Execution Order signed with Navantia for the construction of five F-110 frigates and tracking of the execution of Technological Programmes (PROGTEC), and in high technological content systems.
- BAM Offshore Patrol Vessel programme: support in the contract specification of the Intervention and Rescue BAM (BAMIS)..
- S-80 Submarine: Support in tracking the construction and closure of the first element of the S-81P series and in air-independent propulsion (AIP) system alternatives.

### **Other Support Services:**

Technical assistance for the development and continuous improvement of processes, methodologies and tools for the comprehensive management of weapons and material programmes and the development of a quality management system (ISO 9001:2016) for the Deputy General Directorate for Programme Management.

Support to Land Systems Command in the management of the SISCAP programme.

**Ministry of Defence / Secretariat of State for Defence / General Directorate for Armament and Material (DGAM) / Deputy General Directorate for Defence Inspection, Regulation and Industrial Strategy (SDG INREID)**

Technical support for the different units of SDG INREID:

- Arms and Explosives Unit: in the authorisation of weapons-manufacturing facilities, risk classification and weapon certifications.
- Industrial Security Area: in the maintenance of processes ensuring compliance with Information Security regulations held by MoD companies (SEGINFOEMP).
- Airbus Getafe: in the MRTT (Multi Role Transport Tanker) programmes for the Government of Singapore (GoS) and the Republic of Korea (RoKAF).
- Airbus Helicopter: follow-up on the NH90 programme at its new location in Marignane (France). Control of production processes and the incidence of location change from an airworthiness point of view for industrial and rendition flights.
- Airworthiness Unit: in international collaboration and recognition activities of the Defence Airworthiness Authority.



## 2. OUR ACTIVITY SECTORS

**Ministry of Defence / Secretariat of State for Defence / General Directorate for Armament and Material (DGAM) / Deputy General Directorate for Armament and Material Procurement (SDG ADQUI)**

Support for Programme Offices on international and national procurement issues for Air, Naval and Land Platforms, including:

- The EF2000, the HALCON project (procurement of aircraft to replace F18s in the Canary Islands fleet), the A400M (Global Support Step2 contract, global amendment to the Development and Production Contract for the A400M-DPP OCCAR/A400M/001 Programme).

**Ministry of Defence / Secretary of State for Defence / General Directorate for Economic Affairs (DIGENECO)**

Support for the Budget Office (OPRE) in the financial management of Special Weapons Programmes and the preparation of reprogramming files for approval by the Cabinet.

Technical support for the Cost Evaluation Group (CEG) in estimating the life-cycle cost of the systems and infrastructures to be acquired by the Ministry of Defence, in analysing programme viability and providing information for decision-making by the planning authorities, both in the long term and in individual acquisitions per programme.

**Ministry of Defence / Army / Army Logistics Support Command (MALE)**

Support for the MALE Engineering Department in the acquisition or evolution of different systems: anti-aircraft artillery, field artillery, manned and unmanned ground and air platforms, inhibitors, electronic warfare stations, etc. Support in system definition, requirements-gathering and the systems procurement and support cycle.

Support in defining and designing the Army's Future Logistics Base in matters relating to systems, technologies, equipment and people needs.

Support in predictive studies of the Weapon Systems life cycle: implementation of IoT and AI-based analytics technologies. Support in the implementation of Additive Manufacturing in the National Territory (Army) and in Military Operations (EDA).

Continued technical assistance in the implementation of Lean Manufacturing at OLCs.

Technical support for the Engineering Department at the Helicopter Maintenance Centre (PCMHEL) for airworthiness maintenance of the HA-28 Tigre and HT-29 NH90GSPA weapon systems.





### Ministry of Defence / Navy / Navy Logistics Support Command (JAL)

Support for activities in the Platforms sector of the JAL Deputy General Directorate for Engineering, preparation of Navy Logistics Support analysis guides and Integrated Logistics Support (ALI) management guides, and definition of the EDC cost groups of the F-110 Programme.

Technical support for the Cost Evaluation Section in Special Weapons Programmes S-80 and F-110, in their economic monitoring by leveraging earned value methods.

Support for the Constructions Inspectorate Command in Cadiz during the construction of five corvettes as part of the contract Navantia closed with the Royal Saudi Navy.

Collaboration in the preparation of different support guides and definition of Logistics 4.0 throughout the process associated with the Spanish Navy's F-110 project.

Technical support for the Submarine Technical Certification Office (OCTSUB).

### Ministry of Defence / Air Force / Air Force Logistics Support Command (MALOG)

Support in the procurement and management of the new Air Force weapons systems material. Support for the management of the C3 contract for Eurofighter maintenance through to 2021, control of material procurement and repair needs.

Collaboration in the management of electronic orders in phase 2 of initial procurement and support for artillery premises in material management.





## 2. OUR ACTIVITY SECTORS

### Ministry of Defence / Air Force Staff (EMA)

Support in the drafting of Staff Requirements documents (REM) for skills acquisition.

Technical support in the planning of manned and unmanned air platform procurement programmes for the Air Force coordination team with the central authority's Procurement and Programmes offices (DGAM): Reaper, EUROMALE, Anti-drone and SUAV procurement programmes and also as future users of the NGWS (Next Generation Weapon System).

Isdefe has spearheaded management with the European Commission and its INEA (Innovative Network and Energy Agency) and SDM (SESAR Deployment Manager) management entities for the use of CEF (Connecting Europe Facility) funds leveraged in the implementation of the SESAR programme in the Air Force. Projects executed on air platforms and ground segment systems.

### Ministry of Defence / EMAD / Military Emergencies Unit (EMU)

Technical assistance in the process of outsourcing maintenance and spare parts procurement, performing breakdown analysis studies, defining Integrated Logistics Support (ILS) for new acquisitions in the EMU Vital Plan and implementing the S1000D standard.

### Navantia S-80

Isdefe's collaboration in the S-80 Submarine Programme in activities related to the Verification of Operational Requirements, support for the Safety Programme and preparation of technical documentation through a team made up of Spanish Navy personnel classified as Special Services, at the Cartagena shipyard.

### European Union / EDA

Completion of a study for the definition and deployment of a Multinational Capacity of Deployable Camps for military and civil operations, based on a collaborative Pooling and Sharing strategy.

### Ministry of Public Works / Administrator of Railway Infrastructures (ADIF)

Support in the implementation of an Internal Audit System in the preparation of the Assurance and Risk Analysis Map.

Technical assistance in the comprehensive review of Conventional Network maintenance contracts.







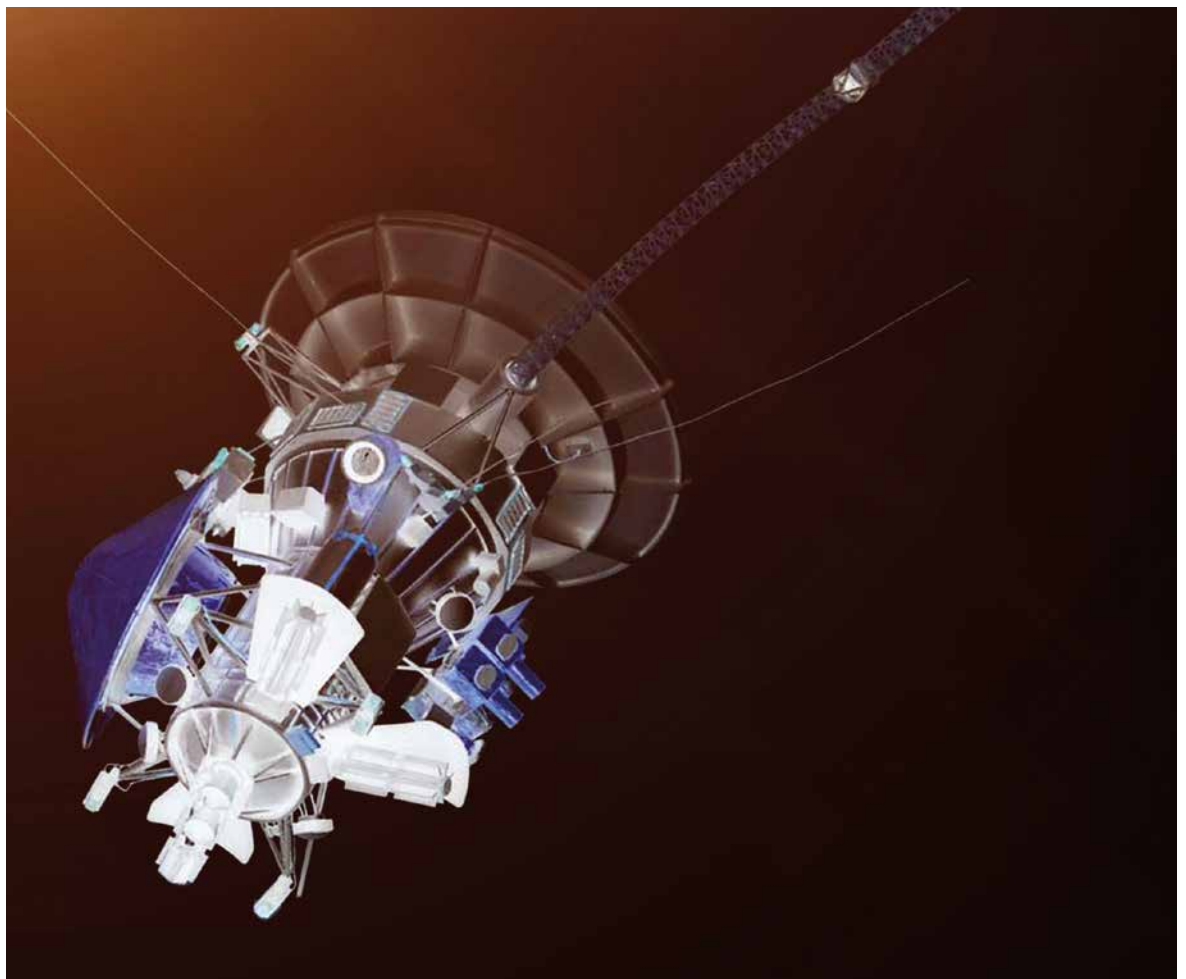
### NATO / NATO AEW&C Programme Management Agency (NAPMA)

Consulting services to the NATO Agency (NAPMA). Isdefe is part of a consortium with IABG (Germany) and TNO (Netherlands) supporting the Agency in FLEP (Final Lifetime Extension Programme) activities, which will extend the life of the NAEW fleet through to 2035.

### European Union / GALILEO

Engineering and consulting services for the European GNSS Service Centre (GSC): Integrated Logistics Support (ILS) for the start-up and operation of the Centre and for integration with the other GALILEO Centres. Logistics engineering studies for the improvement and optimisation of support processes and operations.

Services for the Galileo Security Monitoring Centre (GSMC): in the definition of the Integrated Logistics Support (ILS) of Buildings E2 and E6. Preparation of studies of Failure Mode, Effects and Criticality Analysis (FMECA). Preparation of the Maintenance Plan. Definition of KPIs and metrics for operations control.





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## Technology Centres

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We supply multidisciplinary work teams in defence research, development and experimentation centres, with the knowledge and experience required for scientific-technical and management environments needed to carry out activities in the aeronautical and space fields and in technologies related to nuclear, radiological, biological and chemical defence.

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### Ministry of Defence / Secretariat of State for Defence / National Institute of Aerospace Technology (INTA)

Support for the Cybersecurity Lab attached to the Cybersecurity and Communications Area of the La Marañosa Institute of Technology (ITM), in tasks involving security analysis around source code and vulnerabilities of applications developed by the DGAM.

Support in the certification and classification of different types of military and transport aircraft and helicopters: Airbus A330 MMF, C-295 TS-03 and C-295 MW CA-01 aircraft (Canada).

Engineering services for the development, maintenance and operation of Unmanned Air Platforms: RPAS SIVA, Milano and ALO (in collaboration with Boeing), and target & decoy DIANA aircraft.

Turbojets: Participation in the operation, maintenance and development of the wind tunnel for turbojet tests: Rolls Royce Trent -900, Trent-XWB and Trent-3000.

Aeronautical Materials and Structures: Technical support in national and international projects for research on protective aeronautical coatings such as GENERA, HELADA, EMEP, RAISELIFE and PHOBIC2ICE, SENTINEL 6 and ATHENA.



Degassing tests and analysis of the metric and systematic spectrum of oils, lubricants and fuels to serve the Air Force and aviation industry.

Classification of environmental tests for EXPAL Mk pumps for the Eurofighter and preparation of a plan to convert CEMIS into a European benchmark for environmental tests on aviation hydrogen cells.

Participation in the test of the European HYCARUS project for supplying aircraft with fuel cells.

Participation in onboard product development projects for planetary satellite missions such as: EXOMARS, MARS-2020, SOPHI, METIS, SEOSAT/UVAS, MYRIADE, MAGMA, NEWTON and RAMAN.

Support for the activity of the Astrobiology Centre such as the partnership with NASA's InSight Mission to Mars or Virtual Observatory project operation.

SPASOLAB laboratory support for space solar cell classification for the JUICE (Jupiter Icy Moons) mission. Collaboration in the design of a stratospheric balloon together with the DoD (USA), NRL (USA).

Development of software for the testing of tactical links Link16 and Link22 to carry out the link between the PATRIOT weapons system and the BMD operations centre, or the LINPRO national data processor mounted on ships.

Support in the application for accreditation as a reference laboratory for the calibration of ionising radiation.

Participation in Intercomparison exercises organised by the Robert Koch Institute, Bacterial EQAE 2019 and EQAE1 Biotoxins.

Support in the operation of the Torregorda Centre for product verification and approval.



### Ministry of Home Affairs / CETSE Safety Technology Centre

Technical support services for Research, Development and Innovation. Support for the promotion of R&D initiatives. Support in the coordination of the Security User Community (CoU España), search and channelling of funding opportunities, support for ongoing innovative projects such as the GLOBAL-CD system for drone detection and neutralisation.



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## Logistics and Supply Chain Systems

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We provide engineering, consulting and support services to enhance the efficiency and control of the Armed Forces' logistics systems, providing solutions in the supply chain and logistics centre management, and knowledge and support across NATO Codification System processes.

**Ministry of Defence / Secretariat of State for Defence / General Directorate for Armament and Material (DGAM) / Deputy General Directorate for Defence Inspection, Regulation and Industrial Strategy (SDG INREID)**

Technical assistance in the international expansion of NATO codification services with the incorporation of new countries such as Saudi Arabia and Peru as users of the SICAD codification system developed by Isdefe for the Spanish Ministry of Defence and used in six countries. Isdefe engages in teaching NATO codification management courses at the international level at the NCB College of the NATO Support and Procurement Agency (NSPA).



**Ministry of Defence / Army / Army Logistics Support Command (MALE)**

Support in initiatives to implement 4.0 technologies, such as the definition of new Logistics Base supply processes and technologies for the design of an innovative technological logistics centre with 4.0 technology.

Technical support in the implementation of machine learning techniques to ensure inventory data reliability in Army information systems.

Support in the consolidation of the project to rationalise the Army logistics system with a systemic view of logistics applications and its centralised and unified management.

**Ministry of Defence / Navy / Navy Logistics Support Command (JAL)**

Technical support for the Navy in the definition of the new Navy Logistics Information System.

**Ministry of Defence / Military Emergencies Unit (EMU)**

Engineering and consulting services for the evolution of the EMU Logistics System (SIGLUME) and its integration with other systems.

**Ministry of Defence / Air Force / Air Force Logistics Support Command (MALOG)**

Technical consulting to define and monitor the different Air Force deployment kits.

Collaboration in the monitoring of the activity of the different fleets, coordinating with artillery premises and logistics hubs on organic production planning (repairs and manufacturing). Support in the 2019 annual requirements determination plan. Configuration of the Procurement Plan for aircraft spare parts and preparation of proposals for the processing of spare parts files and monitoring of their management.

Technical support for the implementation of modifications to advance in the implementation of single sky regulations.

Collaboration in various onboard weapons upgrading and procurement programmes (AMRAAM C-7, TAURUS missiles, IRIS-T).





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## Intelligence and Electronic Warfare Systems

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We provide engineering and technical consulting services to military and police agencies around intelligence-gathering and electronic warfare, as well as in the conceptualisation and testing of systems to inhibit, disrupt or intercept unauthorised communications, with the aim of supporting strategic, operational and tactical managers in the development of their missions.

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**Ministry of Defence / Secretariat of State for Defence / General Directorate for Armament and Material (DGAM)**

Support in DGAM weapons programmes such as the SANTIAGO Programme: definition of phase II design and development. Collaboration in different satellite initiatives and programmes both for communications and Earth Observation Systems such as the European initiative EDA GOVSATCOM, which laid the foundations for the future *SpainSAT*.



**Ministry of Defence / Secretariat of State for Defence / General Directorate for Armament and Material (DGAM) / Deputy General Directorate for Planning, Technology and Research (SDGPLATIN)**

Support for the monitoring and control of R&D programmes with strategic value for national defence such as sensors for the new F-110 frigate, measurement of radar and infrared signatures for Navy vessels, the European Tactical Airlift Programme (ETAP) for future airspace fighters, advanced technologies and unmanned platform programmes such as *Pelican*.

**Ministry of Home Affairs / Secretary of State for Security / Deputy General Directorate for Planning and Management of Medium Security Infrastructure (SGPGIMS)**

Technical support for the Deputy General Directorate, as the authority responsible for the management of European Internal Security Funds (ISFs) in the control and verification of projects and new developments in external border control and police cooperation. Technical assistance to the Ministry in the presentation, monitoring and justification of projects co-financed by this fund in the field of visas.

**Ministry of Home Affairs / Secretary of State for Security / Deputy General Directorate for Information and Communications Systems for Security (SGSICS)**

Technical assistance in the area of the Legal Interception of Telecommunications and Data Retention System to monitor the status and performance of the resources deployed and to support the management of procurements in this regard.





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## Security for Information Systems and Critical Infrastructures

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We help to ensure the safety of critical systems, covering all security-related activities from a comprehensive approach (information, persons, facilities), paying special attention to relevant information systems for national defence and security, the normal operation of Public Administrations and critical infrastructures.

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**Ministry of Defence / Defence Staff / Cyber Defence Joint Command (MCCD)**

Engineering and technical assistance services in the areas of cyber defence, supporting MCCD plans to obtain defence, operation and response capabilities to develop military operations in cyberspace. The scope of the technical assistance encompasses the Operations Zone, where Isdefe engineers are part of the military contingent sent by the MCCD to carry out cyber defence activities (CIS security audits and inspections).





### Ministry of Defence / Defence Staff (EMAD) / Joint Military Staff (EMACON)

Support for the Joint Action Support Command (JAAC) and the CIS Command of the Armed Forces (JCISFAS) for the implementation in the Spanish Armed Forces of the NATO Federated Mission Networking (FMN) concept. Participation in different national and international work panels and groups and in designing and deploying the Interoperability Laboratory.

Assistance in the planning and implementation of different national and NATO exercises, including the National Validation, Verification and Confirmation Exercise (V2CN), the *Steadfast Cobalt series* and *Coalition Warrior Interoperability* Exploration.

### Ministry of Defence / National Intelligence Centre (CNI) / National Cryptology Centre (CCN)

Support for the National Cryptology Centre Certification Organisation for activities carried out in the field of the National ICT Security Assessment and Certification Scheme (ENECSTIC):

- Certification of ICT security products.
- Accreditation of Scheme evaluation laboratories.

Support for the CCN Projects and Technologies Department for the preparation of the ICT Security Product Catalogue (CPSTIC), qualified for use in the scope of the National Security Strategy, high category and internal evaluation tests.

### Ministry of Defence / Army / CIS Command (JCISAT)

Advice to the cybersecurity section in the review of security documentation, the preparation of inspection reports of national classified systems and the security documentation and technical configuration of standalone computers handling National and NATO/EU classified information. Mentoring of the Army's virtual Cyber Defence Awareness classroom.

### Ministry of Transport, Mobility and Urban Agenda / State-owned Port Authorities

Technical support in port security to move towards comprehensive security, leveraging both public-public partnerships with law enforcement agencies and public-private partnerships with companies that carry out commercial activities in the service area of ports of general interest.

Support in the definition of regulatory criteria in security, implementation and outreach activities; monitoring compliance with regulations on maritime protection and definition of systems allowing implementation of port security regulations.



## 2. OUR ACTIVITY SECTORS

### Ministry of Transport, Mobility and Urban Agenda / Port Authorities

Technical support services for updating a port authority's Operator Security Plan and support to develop measures associated with regulations around critical infrastructures and maritime protection.

Support for adaptation to the National Security Scheme (ENS) and to draft technical specifications for various services.

### Ministry of Justice / Deputy General Directorate for Digital Transformation Planning and Management

Technical and management support for the Minerva and LexNET Technological Modernisation, Electronic Communications, Digital Justice and Dashboards projects for monitoring the Justice Administration.

Support for the Ministry's engagement in European Union projects for the interconnection and interoperability of Justice Administrations, such as eCodex and eSENS.

Support in the functions of the Secretariat of State Technical Committee on Electronic Judicial Administration (CTEAJE).

### Ministry of Justice / Deputy General Directorate for Innovation and Quality of the Judicial Office and Tax Office

Support for change management in the Justice Administration for deployments of the new Judicial Office and Tax Office models in the Justice Administration.

Support in public communication functions of the Ministry and in preparing handbooks on procedures related to the implementation of new technological tools such as those for Digital Justice.

### Ministry of Justice / Deputy Secretariat of State for Justice / General Directorate for Registers and Notaries (DGRN)

Advice on systems security, interoperability, efficiency and engineering, particularly around the implementation and deployment of the new Civil Registry model.

Technical support in application and compliance with the EU's General Data Protection Regulation and adaptation of the National Security Scheme (ENS) in all services within the remit of the General Directorate.

### Ministry of Justice / State Attorney / General Directorate of the State Legal Service

Performance of technical support activities and advice on the analysis and adaptation of data protection regulations and the National Security Scheme.





### Ministry of Foreign Affairs, European Union and Cooperation

Technical support in the preparation, implementation and monitoring of the Digital Transformation Action Plan for procedures and systems handling classified information.

Support in the accreditation of information systems handling national and/or international classified information.

### Ministry of Territorial Policy and Public Function / Secretariat of State for the Public Function / General Secretariat for Digital Administration

Technical support in the field of digital administration for the progress and monitoring of actions in the fields of security, interoperability, planning and reporting of results at the national and international levels.

Advice for adaptation to the National Security Scheme in the evolution and improvement of both it and the National Interoperability Scheme and the definition of a forthcoming cybersecurity operations centre.

### Ministry of Science, Innovation and Universities / Technical General Secretariat

Support and advice in the analysis and regulatory adaptation of data protection and the National Security Scheme.

### Ministry of Health / General Directorate for Public Health, Quality and Innovation

Support in the evolution of the Health Information System and the interoperability of digital medical records and e-prescriptions between the Ministry and the Autonomous Communities.

Participation in improving the interoperability of clinical information at the European level and terminology standardisation of the National Health System for the purpose of statistical consolidation.

Support for the Institute for the Elderly and Social Services (IMSERSO) to improve management in the procurement of information systems projects and services to make the results of these procurements more efficient and secure.

### Ministry of the Presidency, Relations with the Cortes and Democratic Memory / National Heritage

Advice and support in security systems: for security infrastructures, anti-intrusion security systems, perimeter security systems, CCTV systems, security management systems, access control systems, fire protection systems and inspection equipment (metal detection arches and scanners) at the different National Heritage locations and offices.





## 2. OUR ACTIVITY SECTORS

### European Union / European Defence Agency (EDA)

Study of the state-of-the-art of technologies and threats applicable to cyber defence with the aim of identifying and proposing projects contributing to improve military capabilities in the field of cyber defence at the European Union level.

### European Union / European GNSS Agency (GSA)

Engineering and consulting services to the EU GNSS Security Accreditation Board (SAB) in the accreditation activities of European Union satellite navigation systems (EU GNSS Systems): independent audit of security documentation, technical system security testing, open source analysis, risk analysis and security standards development.

### European Union / European Union Satellite Centre (SatCen)

Technical consulting on information security and accreditation of systems handling classified information: risk analysis, analysis of security architectures, secure configuration of information systems, preparation of security documentation (SSRS, SecOPs and SISRS) and migration plans for classified information systems.





### NATO / Allied Command Transformation (ACT)

Isdefe, in collaboration with the MCCD, provides technical support to the NATO Cooperative Cyber Defence Centre of Excellence (CCDCoE), participating in the organisation of international cyber exercises such as LockedShields and CrossedSwords, the execution of international courses and the rollout of Red Team reports and studies.

Technical support to NATO's Allied Command Transformation (ACT) with engineering personnel at its facility in Norfolk (Virginia, USA), providing strategic consulting on the development of NATO capabilities in cyberspace operations. Support for the development of doctrine, highlighting the concept of *Cyber Operational Domain Awareness*.

### Critical Infrastructure Operators

Consulting services for Critical Infrastructure operators or Ministry of Defence suppliers to establish control points and accredit systems that handle classified information: Security Plan, Risk Analysis, Secure Information System Configurations. Preparation of security documentation: DRES, POS. Services in all cases focused on information security or the security of low-cost, short-term critical infrastructures.





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## Strategic Infrastructures

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We provide strategic infrastructure management-support services for naval bases, police centres and airports, essential to the normal operation of a country. Technical support services in the planning, design and management of these special types of facilities, applying the dual use of engineering both to the military and civil fields.

**Ministry of Defence / Navy / Navy Support / Navy Logistics Support Command (JAL) / DIGENIN**

Technical assistance services within the framework of the infrastructure investment programme associated with the S-80 submarine programme.

**Ministry of Home Affairs / Secretariat of State for Security**

Drafting of the implementation project for the construction of a new National Police station in Torrejón de Ardoz (Madrid).

Works management, implementation management and OHS coordination of the construction works for the new National Police station in Seville, southern district.



Ministry of Health / National Institute of Healthcare Management (INGESA)

Support services for project management, OHS coordination and technical assistance for the construction of a new hospital in Melilla.





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## Border Surveillance and Control Systems

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Isdefe provides strategic and technical consulting services with a high technological component in border surveillance and control, integrating detection methods, command and control communication instruments and solutions for the detention and identification of potential threats in sea and land border areas.

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**Ministry of Home Affairs / Secretariat of State for Security**

Technical support for the modernisation of the perimeters bordering Spain and Morocco in the Autonomous Cities of Ceuta and Melilla, equipping them with new technical and technological systems: studies, project drafting, implementation management work and OHS coordination of the works in the first phase of the new perimeter security infrastructures.





**Ministry of Home Affairs / Secretary of State for Security / Deputy General Directorate for Information and Communications Systems for Security (SGSICS)**

Consulting services for the implementation of technology systems for border control, both in instruments for automated border control and the establishment of integrated video surveillance, number plate recognition and facial biometrics systems.

Support for the national deployment of the European PNR (Passenger Name Records) system, EES (Entry-Exit System) and ETIAS (European Travel Information and Authorisation System).

Support for the definition and implementation of the new system for managing applications for international protection (such as asylum or refuge) and digital transformation through the implementation of new systems and the reengineering and integration of e-government applications.

**Ministry of Home Affairs / Secretariat of State for Security / General Directorate for the Civil Guard**

Support for the upgrading and maintenance of the Border Surveillance System (SIVE), the deployment of which already extends for more than 3,500 km around the Spanish coasts and islands.

**Ministry of Foreign Affairs / European Union and Cooperation / General Directorate for Spaniards Abroad and Consular Affairs**

Technical assistance in the planning, control and monitoring of compliance with Schengen visa regulations at Spanish consulates.





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## Technological and Industrial Management

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We partner in the development of the national industrial capacity by supporting the definition of technology-based and industrial plans and policies, managing industrial cooperation, analysing industrial capabilities, implementing technology-based surveillance and competitive intelligence systems and promoting innovation platforms.

**Ministry of Defence / Secretariat of State for Defence / General Directorate for Armament and Materials (DGAM) / Deputy General Directorate for Defence Inspection, Regulation and Industrial Strategy (SGD INREID)**

Technical support in industrial analyses and studies of various programmes with national funding or funded by the European Defence Fund or in cooperation with NATO.

Consulting and support for the NGWS (Next Generation Weapon System) programme set to replace European fighter aircraft fleets, the analysis of programme-related national industrial capabilities and the technologies to be developed.

Engagement in the preparation of the Annual Report on the National Defence Industry, preparation of industry reports and analysis of the industrial capabilities of the national Defence Industrial and Technology Base (BITD).



**Ministry of Defence / Secretariat of State for Defence / General Directorate for Armament and Material (DGAM) / Deputy General Directorate for International Relations (SDG REINT)**

Technical support for the internationalisation of the Spanish defence industry (institutional support, bilateral meetings, re-issue of the Catalogue of the Spanish Defence Industry), international cooperation in the area of armaments through multilateral forums (NATO, Lol, EDA, OCCAR, EU), support for the EDAP Permanent Secretariat, and support in controlling foreign weapons trade and foreign investments in defence.

**Ministry of Defence / Secretariat of State for Defence / General Directorate for Armament and Material (DGAM) / Deputy General Directorate for Planning, Technology and Innovation (SGD PLATIN)**

Support for the Technology Surveillance and Forecasting System (SOPT) for defence in its functions. Consulting and support in the review of the Technology and Innovation Strategy for Defence (ETID).

Support for the activities of NATO's Science and Technology Organisation (STO) in bilateral cooperation initiatives with other countries. Support for European cooperation activities in defence R&D: analysis of work programmes and evaluation criteria for the incorporation of national proposals for European funding within the scope of the Preparatory Action on Defence Research (PADR) and the forthcoming European Defence Action Plan (EDAP).

Support for the management and evaluation of the 2019 Matching Programme, seeking technological synergies with the National R&D Plan.

**Ministry of Science and Innovation / Secretariat of State for Universities and Research and Development / General Directorate for Research and Development / Deputy General Directorate for Fostering Innovation**

Advice on improving processes and tools of the Reasoned Reporting system for tax rebates based on business investment in R&D.

**European Union / European Defence Agency (EDA)**

Technical support for the EDA in the field of technology planning:

- OSRA Project: definition and identification of the technology objectives of Member States and their prioritisation since the Agency is a key player in issues around future European Defence Funds managed by the Commission.
- Forecasting Project regarding technological forecasting on the state of the art in relevant technological areas of the defence industry, including sessions with European experts (e.g., Human Enhancement Technologies, Artificial Intelligence, Guidance, Navigation and Control Technologies for Unmanned Systems, Smart Textiles, Quantum Technologies...).
- Identification of future CapTech services and operational improvements such as expert forums to facilitate strategic dialogue with industry and other IT stakeholders in the European defence context going forwards. Identifying future services and operational improvements.
- Engagement in the 2020 development contract of the Key Strategic Activities (KSAs) which will identify the relevant industrial defence areas in order to safeguard and develop the strategic autonomy of the European Union.





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## Crisis and Emergencies Management Systems

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We provide technical support to national and international organisations to manage special situations via consulting for military and civil-protection bodies in the development of crisis control and management centres, paying special attention to command and control and communication systems, in addition to other organisational and managerial aspects.

**Ministry of Home Affairs / Secretary of State for Security / Deputy General Directorate for Information and Communications Systems for Security (SGSICS)**

Technical assistance for the State Emergency Digital Radio Communications System (SIRDEE) in monitoring its status, updating system deployments and support tools, and in monitoring the deployment of the LTE (Long Term Evolution) network as a technology for future system evolution.



### Ministry of Defence / Military Emergencies Unit (EMU)

Technical support services for CIS systems being used at the EMU: Fixed and deployable CIS systems, SIMGE (Integrated Emergency Management System), RENEM (National Emergencies Network), Collaborative Portal and collaborative tools on SharePoint.



A satellite is shown in space, with its solar panels extended. The Earth is visible in the background. The satellite has a cylindrical body with a circular opening on the left side. The solar panels are rectangular and arranged in a star-like pattern around the central body. The text "2.2. Space Sector" is overlaid on the satellite's body.

## 2.2. Space Sector



**Isdefe** is active in engineering and specialist technical support in the space sector, in the field of navigation and satellite communications, Earth observation and Space Situational Awareness (SSA) for the Spanish administration, the European Commission and several international space agencies.

It also carries out management, operational and maintenance activities for space communication centres and sites in Spain both for the National Institute of Aerospace Technology (INTA) and the European Space Agency (ESA), as well as the US National Aeronautics and Space Administration (NASA).



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## Space Stations and Infrastructures

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We provide engineering and technical support services for communications and satellite tracking and for space exploration missions from space stations in Spain. We also manage space station operations and maintenance.

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**Ministry of Defence / Secretariat of State for Defence / National Institute of Aerospace Technology (INTA)**

Comprehensive support for INTA space infrastructures:

- INTA Torrejón Space Centre (CEIT), with a multidisciplinary team of specialists in Ground Segment, control centre, mission analysis and contribution to the search for new business opportunities through INTA.
- Canary Islands Space Centre (CEC), operation and maintenance in close collaboration with CEIT to provide full support to INTA across its Ground Stations Network. The Canary Islands Centre has become the 24x7 hub for all INTA stations.





**Ministry of Defence / Secretariat of State for Defence / National Institute of Aerospace Technology (INTA) / National Aeronautics and Space Administration (NASA)**

Operation and maintenance services for the deep space communications complex at Robledo de Chavela (Madrid Deep Space Communications Complex, MDSCC) dedicated to communications with NASA spacecraft and other space agencies in Deep Space. It currently provides daily support across more than 30 missions, 365 days a year.

Technical and administrative support for the construction of two new antennas at the centre.

Administration and maintenance of the NASA Training and Visitors Centre at Robledo de Chavela.

**Ministry of Defence / Secretariat of State for Defence / National Institute of Aerospace Technology (INTA) / European Space Agency (ESA)**

Technical support in the field of astrophysics and space science for the INTA Astrobiology Centre (CAB) and for ESA in the mission of the X-ray astronomical observatory, XMM at the European Space Astronomy Centre (ESAC).

**European Union / European Space Agency (ESA)**

Technical support for the space infrastructures of the European Space Agency (ESA) at Cebreros; operation and maintenance of the deep space station since it is the reference for the Agency's deep space network.

Engineering services for ESA in the safety control of Ariane space-launcher vehicle operations and quality at the Guiana Space Centre in Kourou.





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## Satellite Applications

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We provide technical support to develop and implement new applications in the area of satellite navigation and communications. We provide technical support to scientific programmes in the space area, for Earth observation and the monitoring of space trash.

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### **Ministry of Defence / Secretariat of State for Defence / National Institute of Aerospace Technology (INTA)**

Technical support services for the different activities within the Global Navigation Satellite System (GNSS) in the three Galileo infrastructures in Spain: Competent PRS Authority (CPA), GNSS Service Centre (GSC) and Backup Galileo Security Monitoring Centre (GSMC).

Technical management support activities for the development and deployment of CPA infrastructure for the management of the public regulated service and the Galileo system PRS at national level.

### **Ministry of Transport, Mobility and Urban Agenda / Administrator of Railway Infrastructures (ADIF)**

Satellite communications management and control service supporting localisation systems in metre-gauge railways (former FEVE).



### European Commission / European GNSS Agency (GSA)

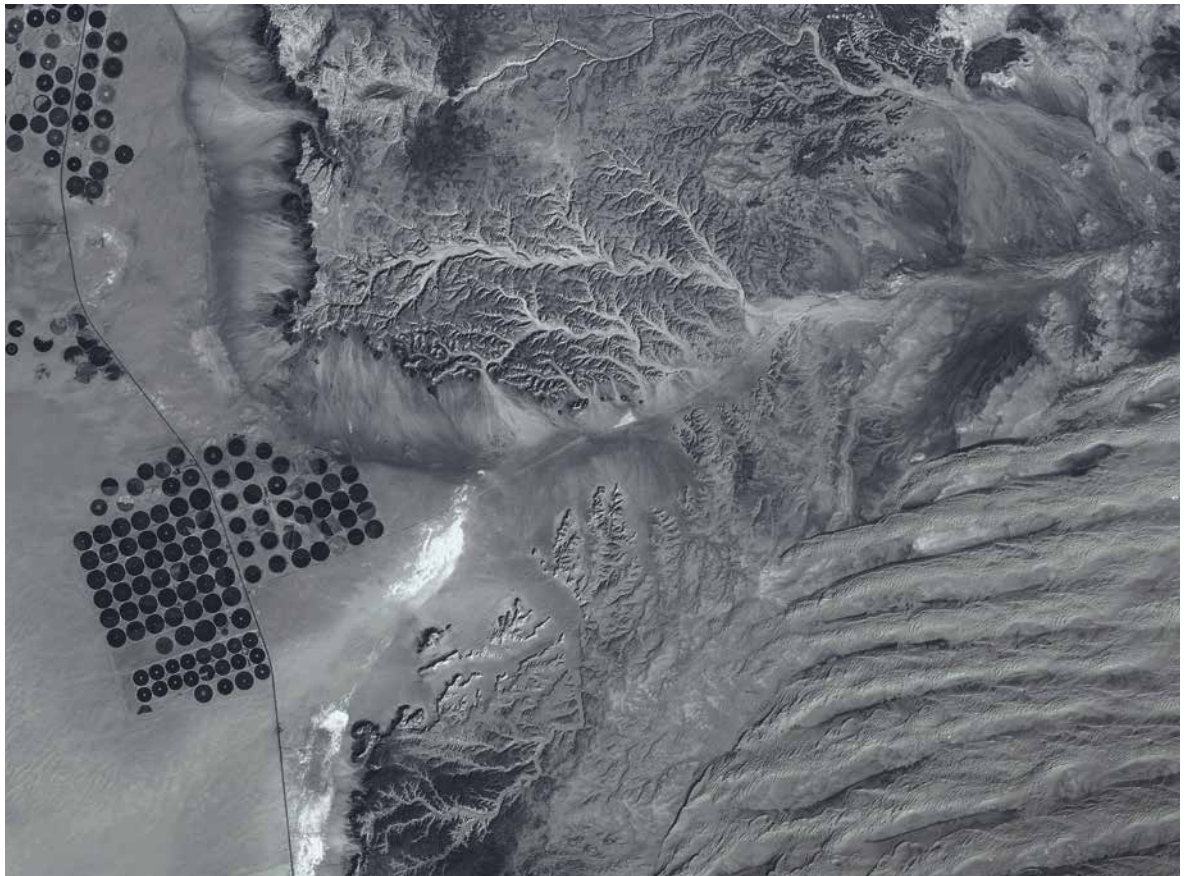
Engagement as part of the operations team of the European Navigation Satellite System Service Centre (GSC) with the implementation of a new operational infrastructure. The GSC forms the interface with user communities and supports the Open Service, Commercial Service and Search and Rescue (SAR) services of the Galileo programme.

### European Union / European Space Agency (ESA)

Technical advice for the accreditation process of the future version of the Ground Control Segment of the Galileo system, responsible for the follow-up, monitoring and control of all constellation satellites.

Security analysis to define the future evolution of the Galileo system, known as the Second Generation (G2G).

Support and advice on security, accreditation and risk analysis for the consortium led by GMV dedicated to infrastructure management in the Galileo ground segment (Ground Control Segment Exploitation Phase-WP3x).





## 2.3. Transport Sector



**Isdefe** provides engineering and consulting services aimed at the organisations tasked with the regulation, supervision and provision of transport-related services across their different aspects, driving the generation of new technological capabilities, improved security and optimisation of operational procedures.



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## Traffic Management

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We provide technical consulting services to manage the implementation and operation of traffic management support systems, lending technical assistance to national authorities in areas such as regulation and oversight, technical service provisioning and operational safety audits.

Ministry of Transport, Mobility and Digital Agenda / ENAIRE

Traffic management activities for the commissioning of:

- A new version of the SACTA system at the control towers in Palma de Mallorca, Barcelona, Malaga and Madrid.
- New terminal area control centre (TACC) at Valencia and the Murcia Region International Airport.
- Deployment of new ENAIRE voice and data network infrastructure (REDAN) across the national territory.
- “Mode S” secondary radars on the island of Lanzarote, at Turrillas (Almería) and Valdespina (Palencia).

Technical assistance for the development of the ENAIRE Contingency Plan at the control centres of Madrid and Barcelona and the control tower at Madrid airport.



Support activities for the ENAIRE Network Operation Oversight and Service Centre (SYSRED), providing real-time operational oversight of the Network and operational and maintenance services for centralised air navigation systems, including:

- Delivering on requirements and needs, analysing technologies and tools, defining the new operating model and coordinating and engaging in validation tests, among other activities.

Technical consulting services for the design and implementation of the R&D Management System:

- Procedures for the internal ideas competition, as well as the Observatory, Committee and Innovation Unit.
- Analysis of areas of interest, services, opportunities, prospects, regulatory frameworks, strategic opinions, problems and challenges in the scope of application of the Air Traffic Management System.
- Improvement of the web platform serving as a tool for SESAR projects management.

### Ministry of Transport, Mobility and Digital Agenda / General Secretariat for Transport / General Directorate for Civil Aviation (DGAC)

Collaboration in setting out sector policies through airport, air navigation and air transport strategies by drafting studies on market developments, public pricing, access by new operators and other public service obligations.

Support for the regulatory development of the Single European Sky (SES) and its implementation in national regulations.

Technical support for the Civil Secretariat of the Interministerial Defence-Public Works Commission (CIDEFO) and the USOAP Programme Office for overseeing the implementation in Spain of the regulations arising from the International Civil Aviation Organisation (ICAO).

### Ministry of Transport, Mobility and Digital Agenda / Spanish Aviation Safety and Security Agency (AESA)

Support in inspection activities for monitoring compliance with operational safety regulations by air navigation service providers, airport managers, air transport operators and aeronautical staff.

Consulting oriented to the implementation of new operating concepts and the study of ongoing improvement in air safety.



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## Transport Centres

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We support the authorities of transport management and control centres, both at the airport and port level, in the performance of activities for the specification of information systems, for the verification, validation and certification of applications and equipment, and for decision-making support systems, contributing to the development and implementation of protection strategies for transport systems and facilities.

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### Ministry of Transport, Mobility and Digital Agenda / AENA

Support in managing the life cycle of applications for airport operations, security and ICT infrastructures, both at the specification, testing and control stages and at the stage of supporting their implementation and deployment in airports within the network. Support activities for:

- Advanced Control Tower project at Tenerife Norte and Valencia airports and start of the CDM Airport Collaborative Decision Making certification process at Malaga-Costa del Sol airport.
- Coordination of AENA's engagement in SESAR projects.
- Project for the connection of CDM airports with the Network Manager (Eurocontrol) to improve air operation predictability and accuracy.
- Tests for the implementation of passenger self-boarding using biometrics through facial recognition.
- Control and supervision of the partial renewal of the TETRA network at Barcelona-El Prat Airport.
- Management of the framework agreements that will serve as the basis for the procurement and installation of equipment associated with public information systems, check-in systems, server equipment and microcomputing equipment for the entire airport network.





- Approval tests on automatic doors and safety filters.
- Commissioning of the Murcia Region International Airport.
- Various initiatives connected with the AENA Strategic Information Systems Plan.
- Verification, validation and certification tests of various applications in airport operations, services, security and commercial environments.

AENA support office to improve infrastructure efficiency, service quality and income optimisation. The activities covered by this office are:

- Technological monitoring of sector developments and trends and those in other compatible sectors.
- Market comparison of the different innovation initiatives in the airport sector.
- Update and coordination, both internal and external, of innovative projects within the framework of the AENA 4.0 airport strategy.
- Technical and economic analysis of subsequent deployments and implementations.

Technical support to the Airport Management Centre (CGA) of Madrid-Barajas airport, in the implementation of service improvements, coordination of training actions, resource management, control of file activities under execution, management of technical incidents in the infrastructure and systems area, system integration functional specification and Centre systems requirements specification.

#### Ministry of Transport, Mobility and Digital Agenda / General Secretariat for Transport / General Directorate for Civil Aviation (DGAC) and Aviation Safety and Security Agency (AESA)

Collaboration in the implementation of the National Aviation Safety Programme (NSP) across all airports in the national network, by conducting audits, inspections, tests and drills at the different airports in order to oversee compliance with the physical safety programme of airport service providers.

Collaboration with AESA on the inspection and supervision of operational safety of the airport system and that of airport service providers of ground-handling services. Participation in safety assessment processes through internal technical audits.

#### Ministry of Transport, Mobility and Digital Agenda / ENAIRE

##### Technical support for satellite navigation systems (GNSS) in:

- Updating the ENAIRE PBN (Performance Based Navigation) implementation plan.
- GNSS interference detection and location projects.
- Contribution to the SESAR Joint Undertaking project in relation to types of airport approach services based on satellite use.
- Support in the preparation of ENAIRE bids for SESAR (Dual Frequency / Multi Constellation DFMC GNSS/SBAS and GBAS) and VLD-01 (*Demonstration of runway enhanced approaches made with satellite navigation DREAMS*) projects.



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## Advanced Concepts

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We engage in developing new concepts and technologies in the field of transport operations by supporting the drafting and implementation of regulations, fostering multimodal operations, the implementation of satellite navigation-based transport operations (GNSS) and providing technical support to the integration of Remotely Piloted Aircraft Systems (RPAS) in the non-segregated airspace.

### European Union / Single European Sky Joint Undertaking (SESAR-JU)

Participation, together with ENAIRE (Linked Third Party), in the following Wave 1 phase projects of the SESAR 2020 programme:

- Pj.03a Integrated Surface Management, for RPAS integration into ground operations at airports: the project was completed with the execution of validation exercises through a simulation of RPAS operations at the Salamanca air base (Matacán)
- Pj.04 Wave1 Total Airport Management, for the integration of airports in the ATM network: the project was completed with the execution of validation exercises at Madrid-Barajas and Palma de Mallorca airports.
- Pj.14 CNS, for GNSS (Global Navigation Satellite Services) developments in the SESAR environment.



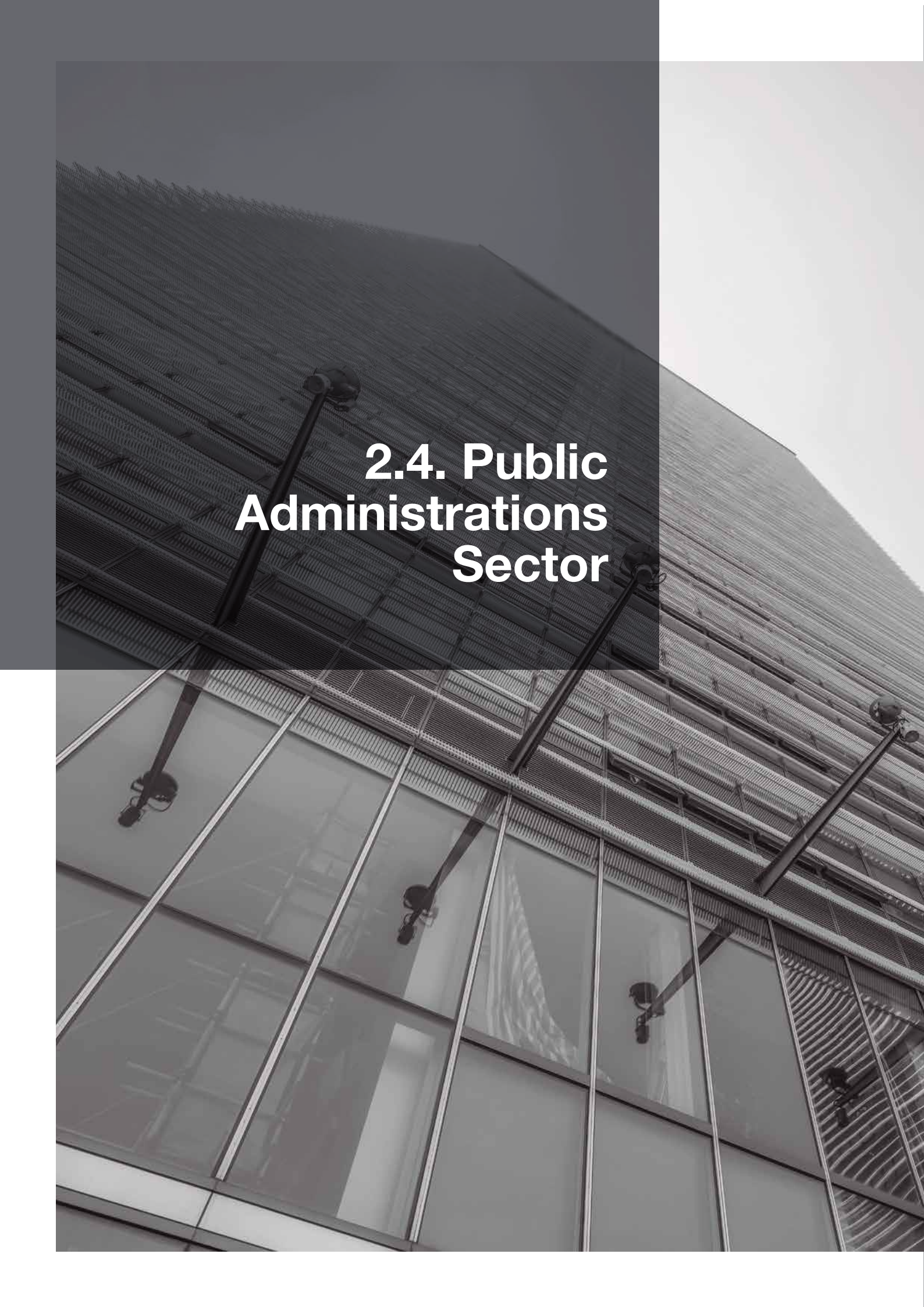
- Pj.19 Content Integration, for the harmonisation of the features of all the projects within Wave 1 and development of the operations concept: the project was completed with the updating of the high-level requirements for the entire SESAR programme.
- Pj.24 Network Collaborative Management: the project was concluded with the coordination of demonstration exercises for the integration of airports with the Network Manager through the exchange of AOP/NOP (Airport Operations Plan/Network Operations Plan) information and arrivals management via TTA (Target Time of Arrivals) information.
- DOMUS project: demonstration verification exercises spearheaded by Isdefe were executed at the ATLAS aerodrome in Villacarrillo (Jaén).

### European GNSS Agency (GSA)

Strategic consulting and support activities for the management of the Galileo and EGNOS programmes:

- GNSS and space-based applications for transport.
- Remote activation service for emergency radio beacons for transport.
- GNSS for UAVs.





## 2.4. Public Administrations Sector



**Isdefe** provides technical support and specialist consulting services to Central Government bodies oriented to enhancing their capacity, efficiency and sustainability and supporting their digital transformation and technological modernisation processes to respond to society's demands.

In the field of economic management of the civil service, Isdefe provides support in the management of public funds, provides technical support for defining and implementing procurement strategies, price estimates and analysis, and the development of cost analysis accounting models.



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## Consulting for the Transformation of the Operation of the Administration

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Isdefe provides engineering and consulting services for the improvement and modernisation of public administrations in areas such as strategic consulting, process reengineering and change management.

### Ministry of Defence / Army / Army Logistics Support Command (MALE)

Advanced logistics data analysis, including the development of predictive models for estimating probable life of materials, data mining in vehicle usage patterns and maintenance manpower capability in the Army..

### Ministry of Home Affairs / General Directorate for Traffic (DGT)

Support in various strategic areas for the development of regulatory projects, preparation of the new national road safety strategy, study of the transformation of mobility and improvement in the management of the Directorate itself.



### Ministry of Home Affairs / General Directorate for Traffic (DGT)

Performance of technical support and advisory activities in the analysis and adaptation of data protection regulations.

### Ministry of Finance / General Directorate for Streamlining and Centralisation in Procurement

Performance of technical consulting, support and technical assistance activities in the analysis and adaptation of data protection regulations and the National Security Scheme. Support and advisory activities in the field of centralised procurement.

### Ministry of Labour and Social Economy / State Public Employment Service (SEPE) / Deputy General Directorate for Information and Communications Technology

Quality and safety engineering and consulting services through a Programmes and Services Office for the planning, management, control and monitoring of all ICT programmes, services and projects.

Engineering and consulting services to the Security and Quality Office for consulting support in the field of Security and Process Engineering and support for the quality assurance of information systems serving citizens and management units.

Support in the interoperability and exchange of information between SEPE systems and other public authorities and external bodies, coordinating actions within the scope of the Public Employment Services Information System (SISPE).

### State Agencies / Spanish Aviation Safety and Security Agency (AESA), Spanish Agency of Medicines and Medical Devices (AEMPS), Spanish Agency for International Development Cooperation (AECI) and the State Meteorological Agency (AEMET)

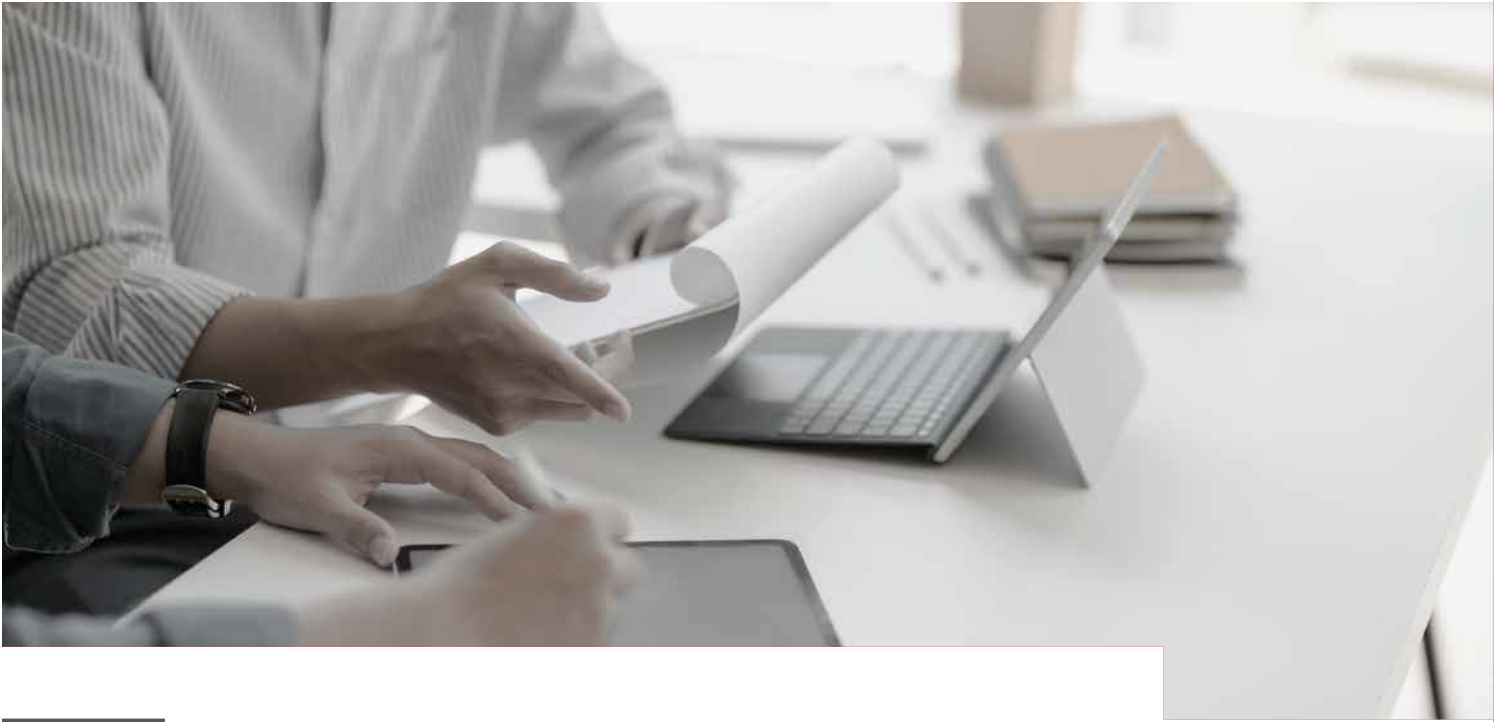
Consulting and technical assistance services aimed at optimising the management of the Central Government, improving the quality, efficiency and effectiveness of public services, covering the definition and establishment of requirements for the objectives-based management model and its deployment and implementation across organisations.

Isdefe is supporting State Agencies in different areas:

- Implementation of the full planning cycle, from strategic to operational, and in performance management through indicator systems.
- Support in the analysis and improvement of economic and financial management (cost and management accounting systems), in the establishment of public rates and prices through market studies and analyses, and proposals for self-financing strategies.
- Management optimisation through reengineering and process and procedure automation.
- Improved project and programme management.

Isdefe also provides this type of service to other public bodies such as the Prado Museum and the National Commission on Markets and Competition (CNMCVC).





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## Technological Modernisation and Digital Transformation

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Isdefe provides support to governments for their digital transformation, providing solutions that encourage the improvement and innovation of their services and their technological modernisation.

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### Ministry of Justice / Secretariat of State for Justice

Technical support in the planning, design, execution and automation of tests for judicial information systems pursuant to ISO 29119 (Software and Systems Engineering / Software Testing) and life cycle management and application configuration.

Activities aimed at providing innovative digital services and improving the quality of the public service of Justice.





### Ministry of Universities / Spanish Service for the Internationalisation of Education (SEPIE)

Technical assistance to improve and extend the monitoring of actions, streamline, reduce administrative burdens and simplify and standardise procedures (zero-paper office).

Support in defining and implementing the e-management system for public funds from the Erasmus+ Programme, its management and the procedures associated with aid granted. System maintenance and improvement.



### Ministry of Transport, Mobility and Urban Agenda / Administrator of Railway Infrastructures (Adif)

Consulting for the crosscutting transformation of Adif information systems with a management and coordination support office to:

- Centralise functional and financial information at portfolio level and around plans, programmes and projects, facilitating the monitoring of actions in the ICT field.
- Power productivity and boost value delivery on an ongoing basis, with the required quality, safety, deadlines and costs.
- Enhance cost efficiency, aligning efforts and improving capabilities to achieve strategic objectives.
- Promote the cultural change that allows for collaborative work internally and with other areas and directions, bolstering business satisfaction and IT/business alignment.
- Increase quality and safety across all action areas, defining and promoting the adoption of best practices in relation to coordination and establishing continuous improvement and innovation.

### European Aviation Safety Agency (EASA)

Support the Agency in integrating data and statistics on European and global air traffic for operation in a business intelligence environment.



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## Support to Economic Management of the Civil Service

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Isdefe provides support to the Central Government in the management, evaluation, monitoring and continuous audit of Public Funds Programmes, both national and European.

It also performs cost-accounting related activities through the calculation of tariffs and their structuring, and provides consulting services to design strategies, policies and analyses of technical-economic information for regulatory bodies and supervisors of services in regulated markets.

### Ministry of Defence / Secretary of State for Defence / General Directorate for Economic Affairs (DIGENECO)

Support to the Procurement Area through the preparation and processing of procurement regulations and drafting of the Ministry of Defence's annual procurement report.

Support to the Procurement Modernisation Programme (PMC), highlighting the development and launch of the Public Sector Procurement Management Excellence Model, the preparation of the Ministry of Defence's Annual Procurement Plan (PACDEF) and the preparation of procurement strategies for the centralised MINISDEF categories and their monitoring.

Support in the process of reviewing and implementing cost accounting models based on the activities of the Ministry of Defence as a whole: Ministry and Under Secretariat, EMAD, SEDEF, Army, Navy and Air Force.



Technical support in carrying out specific cost studies requested on demand to establish public prices for any activities the Ministry of Defence might provide to other bodies.

#### **Ministry of Defence / Secretariat of State for Defence / General Directorate for Infrastructure (DIGENIN)**

Assistance in tendering, controlling and monitoring centralised electricity supply contracts. Support in the implementation and monitoring of the framework agreement for the supply of bulk fuels and in the design of the framework agreement for the centralised procurement of natural gas.

Consulting at international energy-efficiency forums.

#### **Ministry of Defence / Institute For Defence Housing, Infrastructure and Equipment (INVIED)**

Technical support in management areas, highlighting the use of the activity-based cost accounting model in CANOA (Standardised Cost Accounting Systems for Administrative Organisations).

#### **Ministry of Defence / Navy / Navy Logistics Support Command (JAL)**

Support for the CIS Area of the Support Directorate in defining and monitoring support contracts for Navy communication facilities and equipment.





## 2. OUR ACTIVITY SECTORS

### Ministry of Home Affairs / General Directorate for Traffic (DGT) / National Road Safety Observatory (ONSV)

Technical consulting for information processing, monitoring and control of annual calls for aid regarding Road Safety research and support programmes for victims of traffic accidents.

### Ministry of Foreign Affairs, European Union and Cooperation / General Directorate for Sustainable Development Policies (DGPOLDES)

Technical consulting for the calculation and review of the assessment of Official Development Assistance (ODA) and preparation of information for multilateral development organisations and initiatives, mainly the OECD/UN Development Assistance Committee.

### Ministry of Finance / General Directorate for European Funds (DGFE)

Support to the General Directorate, as the National Managing Authority for ERDF funds, in the selection of eGovernment operations in the public sector, the verification of management and the appointment of Intermediate Bodies. These services enabled the compliance objectives to be met in the period, and a significant return of ERDF funds to Spain was achieved to bolster processes for improving services to citizens.

### National Markets and Competition Commission (CNMC)

Analysis of developments in broadband infrastructures at the national level and of competition conditions in the telecommunications market.

Verification of results of accounting models to determine costs of regulated e-communications services



### Ministry of Ecological Transition and the Demographic Challenge / Secretariat of State for Energy / IDAE

Continued technical assistance since 2017 for management of the 2014-2020 “Sustainable Growth” ERDF operational programme. Support in information organisation, procedures and systems. Consulting and support in the management of the different lines of action, especially regarding their relations with the European Investment Bank (EIB) for the management of financial aid instruments.

### Ministry of Territorial Policy and Public Function / General Directorate for Regional and Local Cooperation

Technical support in the management of various operational programmes involving ERDF and ESF funds in the field of local cooperation.

### Reina Sofía National Art Centre Museum (MNCARS)

Technical support in the field of economic/financial and contractual management. Assistance in the review of the activity-based cost accounting model in the CANOA system to determine costs and establish public prices.



### Spanish Radio and Television Corporation (CRTVE)

Support in the control and monitoring of the centralised electricity supply contract. Consulting for the definition of the strategy and preparation of the specifications for the new centralised contract.

### Ministry of Universities / Spanish Service for the Internationalisation of Education (SEPIE)

ASupport and partnership in the management of the Erasmus+ Programme and procedures associated with the aid granted through it.

### National Markets and Competition Commission (CNMC)

Support for the operation of the Regulatory Cost Information Model developed with the assistance of Isdefe for oversight of regulated activities in electricity and natural gas transport.

Consulting for the design of strategies, policies, plans and analysis of technical/economic information for regulatory authorities and regulated market supervisors in the transport, postal, telecommunications and energy sectors.

Assessment of potential price-regulation scenarios in the supervised sectors, in accordance with compliance with regulatory objectives and their market impact, helping to leverage decision-making.



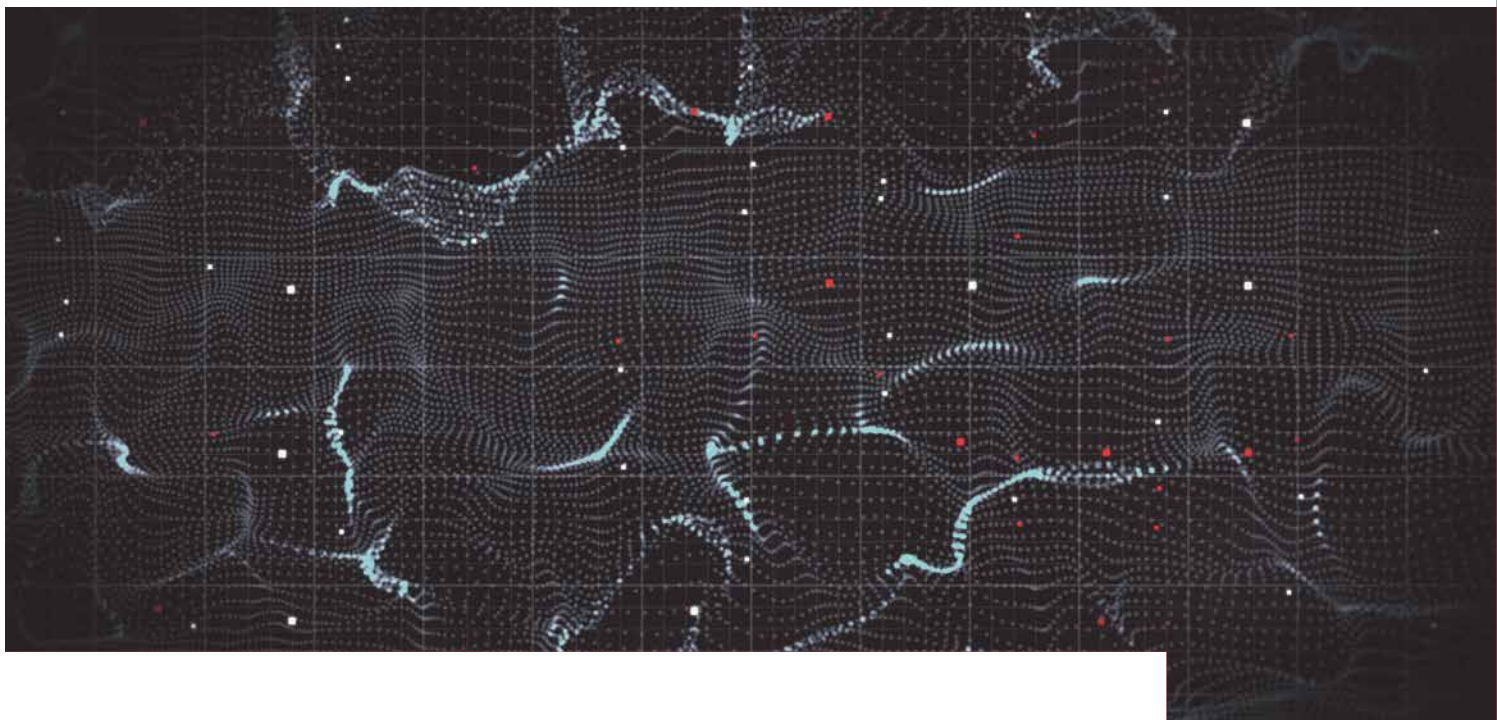


## **2.5. Information and Communication Technology (ICT) Sector**



**Isdefe** has extensive experience in ICT, providing engineering and consulting services to the Central Government, defining digital public services and e-administration, planning and managing the radio spectrum, managing the digital dividend and reducing the digital divide.

Our teams support the competent government agencies in regulating and supervising ICT services.



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## Radio Spectrum

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In the area of radio spectrum planning and management, we support the Administration for different radio communications services throughout the Spanish territory, assuring quality and universal availability at the service of society. We also provide consulting and assistance services in the definition and monitoring of National Plans for the Transition to Digital Terrestrial Television (DTT) and for managing the Digital Dividend.

**Ministry of Economic Affairs and Digital Transformation / Secretariat of State for Telecommunications and Digital Infrastructure**

Technical support in the following actions:

- Planning and management of the radio spectrum for the development of radio communications services: broadcasting and fixed wireless loop, point-to-point fixed and fixed-satellite service links, mobile services and space services.
- In the evolution of digital terrestrial television, from implementation to support for the rollout of frequency migration processes (first and second digital dividend) for use by mobile electronic communications services in the deployment of 4G and 5G technologies, as well as support for the monitoring and implementation of the 5G National Plan.
- In the creation, commissioning and operation of the Intermediate Body in the ICT sector for the ERDF Smart Growth Operational Programme for the 2014-2020 programming period.





- To the technical office for the management of the National Natural Language Technology Plan and in the coordination of ICT actions and projects in this area with the European Commission.
- In the definition, design, implementation and operation of improvements in the management and control system of public aid for R&D in the ICT sector.
- To the cabinet of the Secretary of State in the planning and promotion of technological innovation programmes and institutional missions in the ICT field in relation to international organisations and the European Union. Ministry of Economy and Business / Secretariat of State for Digital Advancement (SEAD).





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## Communication Networks and Systems

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We carry out specialised technical support activities in information security and digital trust, providing support for managing and executing communications programmes such as the New Infrastructures Programme fostering the deployment of ultrafast networks and broadband infrastructures, in addition to providing regulatory consulting services and analysis of telecommunications markets.

**Ministry of Economic Affairs and Digital Transformation / Secretariat of State for Telecommunications and Digital Infrastructure**

ICT strategic consulting services in activities that leverage data of a markedly confidential nature or where a guarantee of objectivity and independence of third-party interests is required, such as in the analysis of sensitive business information or the definition and execution of digital transformation plans.



### Ministry of Home Affairs / Prison Labour and Vocational Training (TPFE)

ICT service consulting for the strategic definition, planning, control and monitoring of information networks and systems, within the TPFE Strategic Plan for E-Government and Digital Transformation.

### Spanish Radio and Television Corporation (CRTVE)

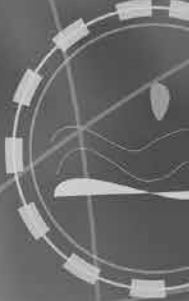
Support in the modernisation of network infrastructures, moving them forward to state-of-the-art standards to have a highly capable, agile and robust network that can guarantee high reliability and quality in its public service provisioning.

Strategic consulting to develop and integrate AI technologies into audiovisual content generation and distribution processes, with semantic technology project development activities to integrate automatic metadata systems and implement semantic search engines.

Support in the evaluation and improvement of algorithms for content recommendation and implementation of users' online consumption dashboards through advanced analytical techniques.



## 2.6. Energy Sector





**Isdefe** provides technical support to major energy policy implementation plans and programmes, both for Energy Efficiency and Renewables.

Consulting in the field of Energy Security, along the lines established in the National Energy Security Strategy, in the areas of regulations and legislation, security of supply, promotion of local sources, economic and environmental sustainability and security culture outreach.



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## Energy Diversification and Efficiency

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We provide support services to the Public Administration in the design, implementation and monitoring of programmes and projects related to: security policies, energy efficiency, renewable energies and technical consulting for the development, technical management and monitoring of these types of projects.

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**Ministry of Ecological Transition and the Demographic Challenge / Secretariat of State for Energy / IDEA**

Support for the IDAE in the following areas of activity:

- Modelling of the national energy system through energy forecasting tools for the development of the National Integrated Energy and Climate Plan (PNIEC).
- Support in the design, management and execution of administrative procedures connected with the electricity sector, renewable energies and self-consumption.
- Assistance in managing the register of the specific remuneration regime for electricity production facilities using renewable, cogeneration and waste sources.
- Development and management of public aid programmes affecting energy-consuming sectors.



### Ministry of Industry, Trade and Tourism (MINCOTUR) / Secretariat of State for Trade

Support in the supervision and monitoring of the construction of a 120 MW wind farm in Egypt, executed by GAMESA.

Participation in the technical and economic evaluation process for the awarding and selection of candidate projects for financing through the Fund for the Internationalisation of Enterprise (FIEM).

### Ministry of Economic Affairs and Digital Transformation / Secretary of State for Energy and Business Support

Collaboration as a Technical Engineering Unit in external debt conversion programmes and investments in different African countries such as Senegal and Mauritania, boosting the participation of Spanish companies in technology and equipment export projects.

Support for the full development cycle of renewable energy projects, especially in rural electrification projects in remote and **isolated areas**.

Consulting and technical support as a Programme Office to the Jordanian and Spanish authorities on the construction of a Solar Plant in the Azraq region of Jordan.



A black and white artistic photograph showing a hand reaching out to touch a glowing, digital globe. The globe is composed of numerous small white dots and thin lines, representing data or a network. The background is dark with some light streaks, suggesting a futuristic or technological environment. The overall mood is one of innovation and research.

## 2.7. R&D Activities





At **Isdefe**, innovation pursues objectives closely linked to its nature as an in-house technical service provider to the Central Government: knowledge generation, anticipation of needs and improvement of engineering and consulting services in strategic areas of government. For this reason, we have focused on R&D activities as the tool that will enable us to identify and understand which technologies await in the future, to better anticipate the impact these technologies could have, particularly in the field of Defence and Security.



## 2. OUR ACTIVITY SECTORS

Through the implementation of R&D activities, Isdefe's competitiveness and our positioning in strategic areas are improved, thus underpinning the company's vocation as the flagship in-house technical service provider.

In terms of sustainability, investment in R&D makes it possible to be more innovative through the development of new products and services of public interest, an investment that improves the quality of the consulting and engineering services we provide to the Administration.

The practical application of the results of the R&D activities we take part in provides us with first-hand knowledge that will help us stay ahead of the curve regarding opportunities and challenges facing the Administration we serve.

All this helps to consolidate Isdefe's role as a transforming public agency within R&D, while boosting staff skill-sets in the company's strategic areas.

In the field of innovation, the Business Development Department prepares, oversees and coordinates the implementation of R&D to, among other issues, ensure its alignment with the company's strategic areas.

An example of this activity is the Horizons Network, a corporate initiative created to reinforce the company's values of innovation and to keep ahead of the curve, enabling the organisation's capabilities to be channelled into analysing and forecasting the new future challenges for the Administration, to develop innovative ideas and propose solutions to them.

Investment in R&D ensures the future of the company while its results benefit the Administration and society in general.

In 2019 we strengthened our contribution to national R&D putting in place a management model based on two axes:

- **Innovation Activities.**
- **Research and Development Activities.**





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## Innovation Activities

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### Horizons Network

The Horizons Network is the instrument around which innovation at Isdefe is structured. Through the Network, the company is able to stay ahead of the opportunities and challenges facing public authorities, developing ideas and proposing innovative solutions. The Network identifies and leverages existing sources of knowledge in the innovation ecosystem, sets up a range of action lines focused both on staff and public agencies, and makes tools available to the organisation to foster the corporate innovation-driven culture of the staff.

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**The Horizons Network develops activities in surveillance and technological and methodological forecasting in areas of strategic interest for Isdefe, mainly by tapping the University-Isdefe collaborative network structured through the six Observatories created in 2016.**

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In addition to academic knowledge, the Network draws on the knowledge of staff, the agencies it works for, national and international partners and collaborators. It also uses information from open sources.

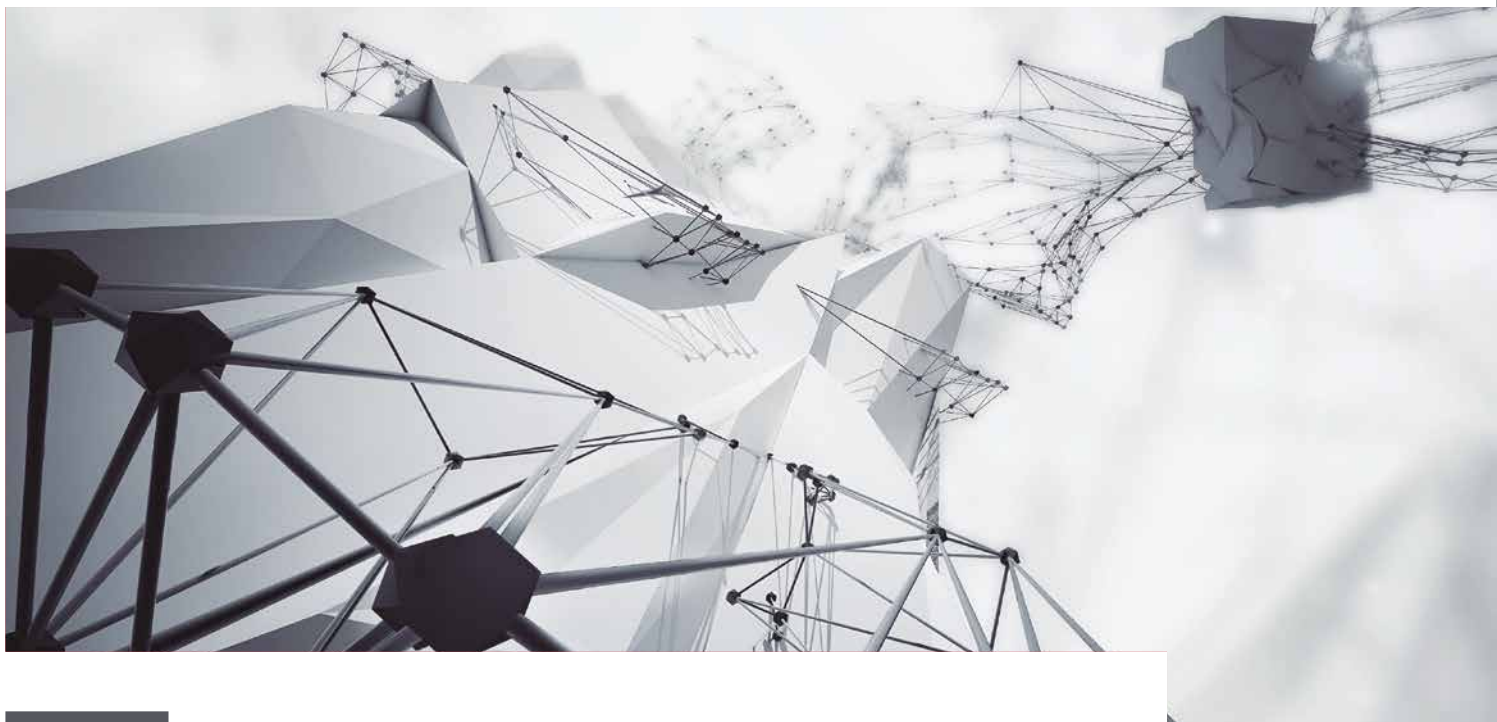
The Horizons Network supports the internal knowledge management system through its knowledge communities: heterogeneous groups made up of Isdefe employees who share their experiences and knowledge within a collaborative framework.

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**The energy community and information technology community were created in 2019. The R&D evaluator community and funding community were strengthened.**

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In order to make the objectives and results of the Horizons Network public, a number of outreach and promotional activities were carried out in 2019. The Network's observatories engaged in 12 national and international technology and professional conferences and published nine papers in scientific journals. The documentation resulting from the work performed is available for public consultation, for the benefit of the scientific and technical community.



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## Research and development activities

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### R&D ideas gathering and management programme

The fifth edition of the company's benchmark R&D ideas-gathering programme was held in 2019. The programme leverages staff engagement in the process of generating Research, Development and Innovation projects with internal applications and for our clients.

It fosters the corporate R&D culture by engaging and raising awareness right across the organisation around the importance of innovation and its role in the process in generating value for the company.



**4ª CONVOCATORIA**  
PROGRAMA DE CAPTACIÓN Y GESTIÓN DE IDEAS DE  
**I+D+i**



The winning projects in the 2019 Call were:

### MOCED - Methodology for the Management and Operation of Distributed Space Centres

- **Objective:** Study of the best methods for managing and operating the ground segment for aerospace projects in order to achieve a system of distributed space centres for telemetry and remote control purposes, and to download and process payload data.
- **Government interest:** INTA (National Institute of Aerospace Technology) at the national level; ESA (European Space Agency) internationally.
- **Status:** Project in formalisation phase.

### SEMCE - Applying Artificial Intelligence to Achieve the Goals of the National Integrated Energy and Climate Plan (PNIEC)

- **Objective:** To develop a model based on artificial intelligence techniques that is able to assess the level of compliance with the targets laid out in the National Integrated Energy and Climate Plan (PNIEC) through a pilot programme that compares the actual consumption in buildings of Spain's national government against their energy ratings. The project will include a prototype and proof of concept of the tool.
- **Government interest:** IDAE – Institute for Energy Diversification and Savings.
- **Status:** Project in formalisation phase.





## 2. OUR ACTIVITY SECTORS

In this Call, there was special recognition for the following projects:

### SIMADE – Application of Systems Engineering to Design a Future Army Command and Control System

- **Objective:** To study and experience the application of systems engineering methods and tools in the design of a future Army Command and Control System (SIMADE). With this initiative, Isdefe would make a valuable contribution to the Army, one of our main clients, and provide us with high-level knowledge around it, which could be very useful for possible future partnerships.
- **Government interest:** General Staff of the Army.
- **Status:** Project in formalisation phase.

### ISDEFE APP - Isdefe in Your Hand

- **Objective:** To develop an app that harnesses smartphone potential (NFC system among others) and adapts it to focus on the daily needs of Isdefe employees. The app will facilitate our day-to-day work with a solution pivoted to Isdefe: log-in management, company news and fast daily tasks management. In short, it will help us in our daily work and make us feel more a part of the company. This R&D project would be another step in the Isdefe Digital Transformation process.
- **Government interest:** IDAE - Isdefe.
- **Status:** Project in formalisation phase.





## Collaborative projects

Isdefe continues to consolidate its participation in European project programmes such as Horizon 2020, SESAR and GSA, as well as the Preparatory Action for Defence Research (PADR), the forerunner to the future European Defence Research Programme (EDPRP).

Isdefe engaged in the following R&D projects in 2019:

### PJ04 W2 TAM **NEW** - PJ04 W2 Total Airport Management

- **Start:** 2019.
- **Status:** Project in progress
- **R&D line:** Transport – Transport Centres
- **Funding Programme:** SESAR – *Very Large Demonstrators (Wave 2)*

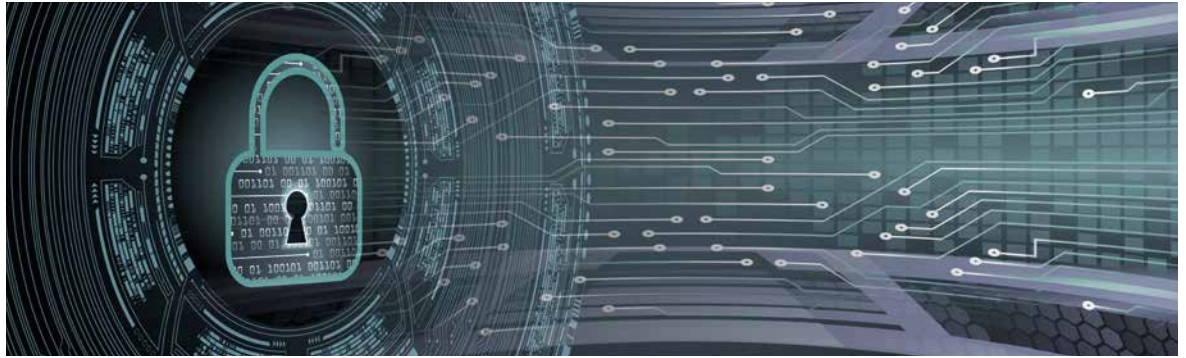
The TAM project aims to improve the integration of airports and large and medium-sized or regional airport networks, improve the integration of airports in the airside and landside areas and conduct further research into monitoring environmental aspects and managing day-to-day airport operations.

It is a continuation of the SESAR PJ04 – Total Airport Management project being developed within wave 1 of the programme.

### PJ13 W2 ERICA **NEW** - Enable RPAS, Insertion In Controlled Airspace

- **Start:** 2019.
- **Status:** Project in progress
- **R&D line:** Transport – Transport Centres
- **Funding Programme:** SESAR – *Very Large Demonstrators (Wave 2)*

Remotely piloted aircraft systems (RPASs) offer significant services to civil and military aviation. RPAS access to non-segregated airspace would result in major economic benefits and market opportunities, but this is not yet possible due to safety and operational reasons. The EU-funded PJ13 - W2 ERICA project will estimate technical and operational opportunities that permit RPASs safe operation in nominal conditions and emergencies in controlled airspace. It will also create and test solutions without negative impacts on air traffic. The project aims to develop recognised European RPAS operations in non-segregated airspace that will enable civil and military RPASs to operate with air traffic management systems within and outside Europe.



### COPKIT - Technology, training and knowledge for Early-Warning / Early-Action led policing in fighting Organised Crime and Terrorism

- **Start:** 2018.
- **Status:** Project in progress.
- **R&D line:** Defence and Security – Intelligence and electronic warfare.
- **Funding Programme:** H2020 – Secure Societies.

The COPKIT project addresses the problem of analysing, preventing, investigating and mitigating the use of new information and communication technologies by organised crime and terrorist groups. This question is a key challenge for policy-makers and law enforcement agencies due to the complexity of the phenomenon and the quantity of factors and actors involved by developing an early alert system based on intelligence at the strategic and operational levels. EUROPOL participates in COPKIT as head of its Advisory Board and the 2017 SOCTA report “Crime in the Age of Technology” states that “This is now, perhaps, the greatest challenge facing LEAs around the world”.

### DOMUS - Demonstration of Multiple U-Space Suppliers

- **Start:** 2018.
- **Status:** Project in progress.
- **R&D line:** Transportation – Advanced Concepts
- **Funding Programme:** SESAR – Connecting Europe Facility.

The DOMUS project is the result of the bid submitted for the CEF-SESAR-2018-1 U-SPACE call, the aim of which is to prepare a rapid deployment of U-Space services for phase U2, including those deployed for phase U1, which will allow the operation of RPAS at low altitude in:

- Beyond Visual Line of Sight (BVLOS) flights.
- Flights in rural settings.
- Flights in urban settings.
- Flights in suburban settings.

The deployment of these services will facilitate processes and authorisations for certain RPAS operations. To this end, DOMUS will conduct a series of real RPAS flights using a U-Space architecture developed by the Spanish industry and operated by various U-Space service providers and the Spanish air navigation service provider, ENAIRE.





### EMEGEWEA - Global Structured Methodological Ecosystem for Public Safety

- **Start:** 2018.
- **Status:** Project in progress.
- **R&D line:** Defence and Security – Intelligence and electronic warfare.
- **Funding Programme:** Isdefe R&D Ideas-Gathering and Management Programme.

The aim of the project is to define and design a Global Structured Methodological Ecosystem in the field of public security to obtain “Customised Intelligence”, in accordance with the threat and time frame considered, to facilitate efficient decision-making and thus provide LEAs with a tool for critical reflection and the systematic planning of operations and to boost capabilities. The efficient use of Open Source Intelligence (OSINT) will allow support for the correct and timely decision-making that makes it easier to stay ahead of criminal and/or terrorist events, individuals or organisations that threaten public security. The conclusions and recommendations of this R&D work will therefore leverage and step up central government responsiveness to the security challenges facing society today, from the operational and strategic level.

### MEDEA - Mediterranean practitioners network capacity building for effective response to emerging security challenges

- **Start:** 2018.
- **Status:** Project in progress.
- **R&D line:** Defence and Security – Crisis and Emergency Management Systems.
- **Funding Programme:** H2020 – Secure Societies.

The Mediterranean and Black Sea region is characterised by a very volatile and dynamically changing security environment that pose severe threats and challenges on the societies and prosperity. The MEDEA project, during its 60 months of implementation provides funding for four interrelated actions: 1) Establish and operate the MEDEA network, a multidisciplinary network of security practitioners, 2) Engage participants in early governance on emerging security challenges, 3) Push for the “co-creation” of security technologies and capabilities innovations between practitioners and innovation suppliers, and 4) Establish and annually update the Mediterranean Security Research and Innovation Agenda (MSRIA).





## 2. OUR ACTIVITY SECTORS

### PETRUS - PRS JTA - MS: PRS JOINT TEST ACTION

- **Start:** 2018.
- **Status:** Project in progress.
- **R&D line:** Space – Systems and Earth observation.
- **Funding Programme:** European GNSS Agency.

The PETRUS project responds to the needs of the European Galileo Agency (GSA) in the areas of:

1. Provision of test data and results to the programme supporting validation of the PRS service.
2. Provision of test and demonstration results to assess the suitability of the ERP to meet the needs of potential users;
3. Provision of lessons learnt on different features of the PRS service: quality and safety of the PRS service, performance, operational concept and definition of use cases.
4. Performance of awareness-raising activities and use of PRS.

### PJ10 PROSA - Controller Tools and Team Organisation for the Provision of Separation in Air Traffic Management

- **Start:** 2016.
- **Status:** Project in progress.
- **R&D line:** Transport – Traffic Management.
- **Funding Programme:** SESAR – *Very Large Demonstrators (Wave 1)*.

Project aimed at providing air traffic controllers with more automated tools so they can be available and fully empowered to take appropriate decisions and actions in more complex situations or ones that require tactical intervention to resolve a conflict between aircraft. PJ10 PROSA will develop these tools and perform different validations for each of them until reaching a maturity level corresponding to V3 according to the European Operational Concept Validation Methodology (E-OCVM).





### PJ08 AAM - Advanced Airspace Management

- **Start:** 2016.
- **Status:** Project in progress.
- **R&D line:** Transport - Advanced Concepts.
- **Funding Programme:** SESAR – *Very Large Demonstrators (Wave 1)*.

PJ08 is a project of the SESAR 2020 programme focused on developing a dynamic airspace configuration function that includes dynamic mobile areas based on a better traffic prediction that will be executed as one of the processes to match traffic capacity with demand and meet the performance objectives of the air traffic management system in Europe.

### PJ14 EECNS - Essential and Efficient Communication Navigation and Surveillance Integrated System

- **Start:** 2016.
- **Status:** Project in progress.
- **R&D line:** Transportation – Advanced Concepts.
- **Funding Programme:** SESAR – *Very Large Demonstrators (Wave 1)*.

The objective of this project is to specify and develop future technologies stemming from CNS domains to support and manage operational services such as 4D path management in the future ATM system. Performance requirements for CNS systems are increasingly complex and demanding and must be considered as part of an integrated and holistic system of systems, including CNS air and land solutions that consider convergence towards a common infrastructure and a unified concept of operations, where possible.

### PJ24 NCM – Network Collaborative Management

- **Start:** 2016.
- **Status:** Project in progress.
- **R&D line:** Transport – Traffic Management.
- **Funding Programme:** SESAR – *Very Large Demonstrators (Wave 1)*.

PJ24 is a trust-building project between the various actors in the air traffic network, designed to demonstrate the maturity of the integrated network and local concept elements. It is about helping meet performance objectives and expectations, a challenge that requires a collaborative and synchronised effort by all the stakeholders involved in air traffic flow and capacity management (ATFCM). This project will pave the way for SESAR implementation activities and the rollout of the future performance-based ATM environment in Europe.



## 2. OUR ACTIVITY SECTORS

### PJ19 CI - Content Integration

- **Start:** 2016.
- **Status:** Project in progress.
- **R&D line:** Transport – Traffic Management.
- **Funding Programme:** SESAR – *Very Large Demonstrators (Wave 1)*.

This project provides the guide, principles and framework for the remaining SESAR 2020 projects, enabling an evaluation of benefits obtained against those desired. PJ19 CI focuses its efforts on:

1. Integrating the results of SESAR 2020 projects into the Operations Concept and analysing the proposed changes.
2. Providing the principles for content integration so that the SESAR global architecture is consistent and functional.
3. Establishing the general framework of the necessary features of the global system and managing the features developed.
4. Supporting content evolution and maintaining the European ATM architecture (EATMA), as well as providing training in all SESAR 2020 projects for their implementation.

### SESAR PJ03 SUMO - Surface Management Operations – Surface Operations by RPAS

- **Start:** 2016.
- **Status:** Project in progress.
- **R&D line:** Transport - Advanced Concepts.
- **Funding Programme:** SESAR – *Very Large Demonstrators (Wave 1)*.

The main objective of this project is to determine the impact of the integration of the Remotely Piloted Aircraft Systems (RPAS) to be operated at airports, an environment dominated by aircraft with crew on board. The project will make it possible to identify RPAS requirements so they can be integrated with other traffic in airport operations, in particular for surface movements, finishing both the technological aspects as well as interoperability and procedures, including pilots and RPAS and ATC operators and in the context of SESAR concepts and technologies.





### SESAR PJ04 – Total Airport Management

- **Start:** 2016.
- **Status:** Project in progress.
- **R&D line:** Transport - Transport Centres.
- **Funding Programme:** SESAR – *Very Large Demonstrators (Wave 1)*.

This SESAR project focuses on developing and validating new systems and procedures to achieve improvements in airport operations management through two key areas: airport-ATC-network ATM and integrated airside and landside process management. The project aims to evolve from reactive management to proactive decision-making in which all stakeholders work together to achieve the best outcome in each situation. The main elements forming the project baseline are: A-Collaborative Decision Making (A-CDM); Advanced Tower; working methods and tools implemented in the Airport Management Centres.

### STARRY (STARs that 'R' Young)

- **Start:** 2016.
- **Status:** Project in progress.
- **R&D line:** Space: Space Stations and Infrastructures.
- **Funding Programme:** H2020 Marie Curie.

A project funded in H2020 through its Marie Curie scholarship programme in which two researchers from the University of Leeds are trained in the development of sophisticated research tools to explore, interpret and analyse state-of-the-art astronomical data from observatories specialising in the field of star formation. The training programme is supplied by world-leading experts in stellar astrophysics at the University of Leeds. The development, maintenance and exploitation of space-science data archiving takes place at Isdefe. The programme will exploit current data from the European Space Agency (ESA) GAIA mission. It will answer the question “Are massive stars forming in clusters?”



### A Success Story

#### ARETA: Aviation Real-time Emissions Token Accreditation

The ARETA project arose in response to the 3rd Call for the R&D Ideas-Gathering and Management programme launched by the Isdefe Business Development department in June 2017.

The scope of the idea submitted during the competition phase was to draw up an architecture and technological solution that would allow relevant information on real-time emissions from air routes to be captured by leveraging Big Data techniques, and subsequently tokenising it using Blockchain infrastructure for trading emissions rights, emission verification/certification and any analysis of emissions which could be handled with machine-learning techniques to predict/impact pollution along the different air routes.

#### Purpose

The idea submitted to the Programme became the ARETA internal R&D project, with the following objectives:

1. To be a technological demonstrator of Big Data, Blockchain and AI technologies. The demonstrator aims to serve as an example and guide for initiatives in which both Isdefe and other agencies, mainly Central Government ones, can participate, such as AESA, AENA, Senasa, etc.
2. To propose a technological interpretation to the emission offset mechanisms currently under way.
3. It is not a general solution for implementing the conventional process of offset systems nor, therefore, a turnkey project.

#### Functional requirements

The definition of the functional requirements around data intake, storage and processing, as well as the identification of the necessary data sources, are described below:

- Definition and implementation of a Big Data platform architecture.
- Definition and implementation of analytics and data visualisation.
- Definition and implementation of Blockchain architecture.
- Definition and implementation of a data governance architecture.



The ARETA project leverages the framework of the ICAO initiative CORSIA [ICAO1], i.e., Carbon Offsetting and Reduction Scheme for International Aviation, adopted on 27 June 2018, which was rolled out gradually, beginning development on 1 January 2019. In January 2018, more than 70 countries, representing more than 85% of international flights, voluntarily agreed to engage in the programme.

Commercial flights are estimated to account for 2% of human-caused CO<sub>2</sub> emissions into the atmosphere; of these, 70% are estimated to come from international flights, in other words 1.3% of the total. Commercial aviation also accounts for 12% of total emissions by the transport sector - in other words, ships, trucks, rail, cars, etc., account for the remaining 88%.

Additionally, within the European Union framework, the EU-ETS programme has been established to offset CO<sub>2</sub> emissions for intra-EU flights. It is currently supplementary to CORSIA due to its scope of intra-EU flights, and is pending review in 2024, coinciding with one of the main phases of CORSIA implementation. The ARETA project takes both CORSIA and EU-ETS as a reference.

In the official constitution of the project, a consultation was launched with the Spanish Aviation Safety and Security Agency (AESA) on the suitability of the proposed use case and its feasibility, after which it was decided to realign the use case to cover more points of interest, always related to the environmental aspect.

The ARETA project addresses:

- Estimated CO<sub>2</sub> emission calculations for subsequent tokenisation and offset using a Blockchain infrastructure.
- Estimated emission calculations related to air quality at airports for subsequent analysis and visualisation.

All this under a Data Governance prism to ensure the quality of the data on the platform, its lineage, its definition by means of glossaries and dictionaries, etc.



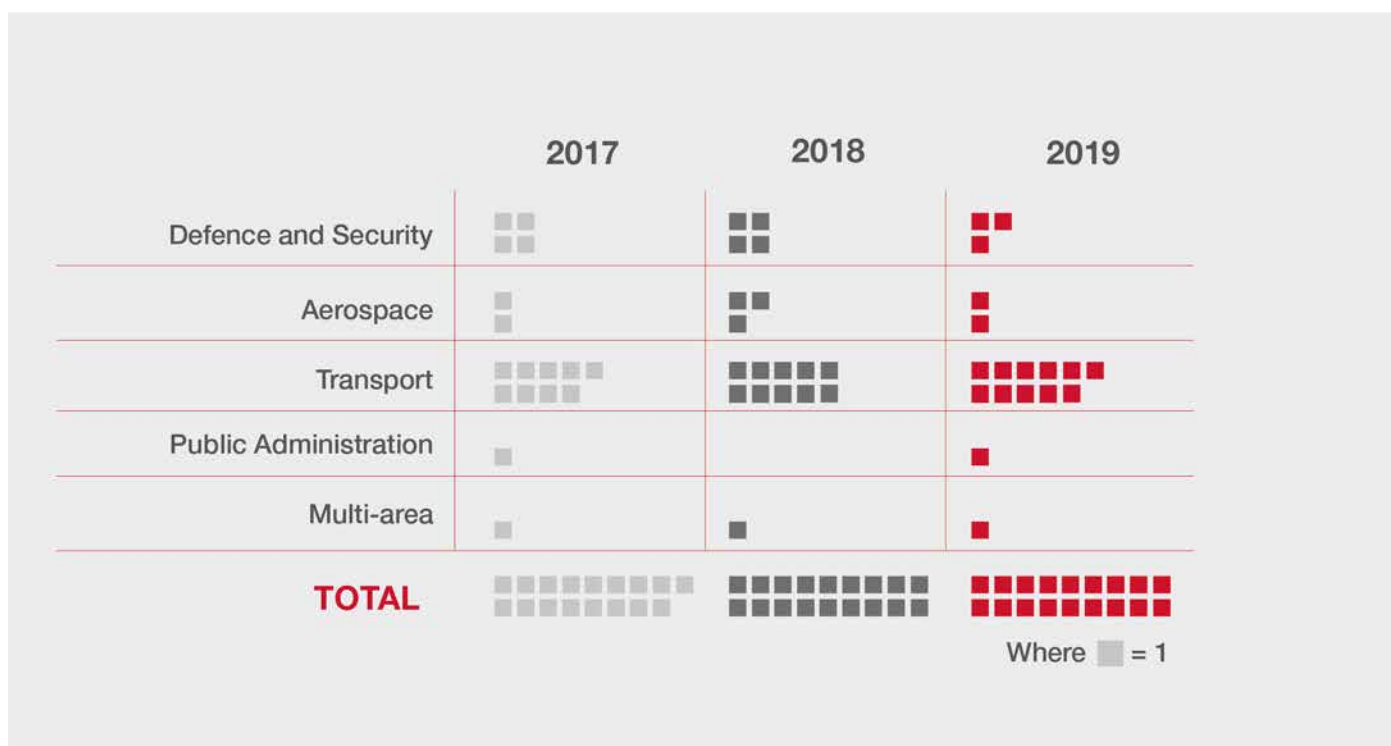


## R&D indicators

### Distribution of R&D projects by area of activity

	2018	2019
Horizons Network	1	1
Sum of Internal and European Projects	17	17
Internal Projects	4	2
European Projects	13	15
<b>Total</b>	<b>18</b>	<b>18</b>

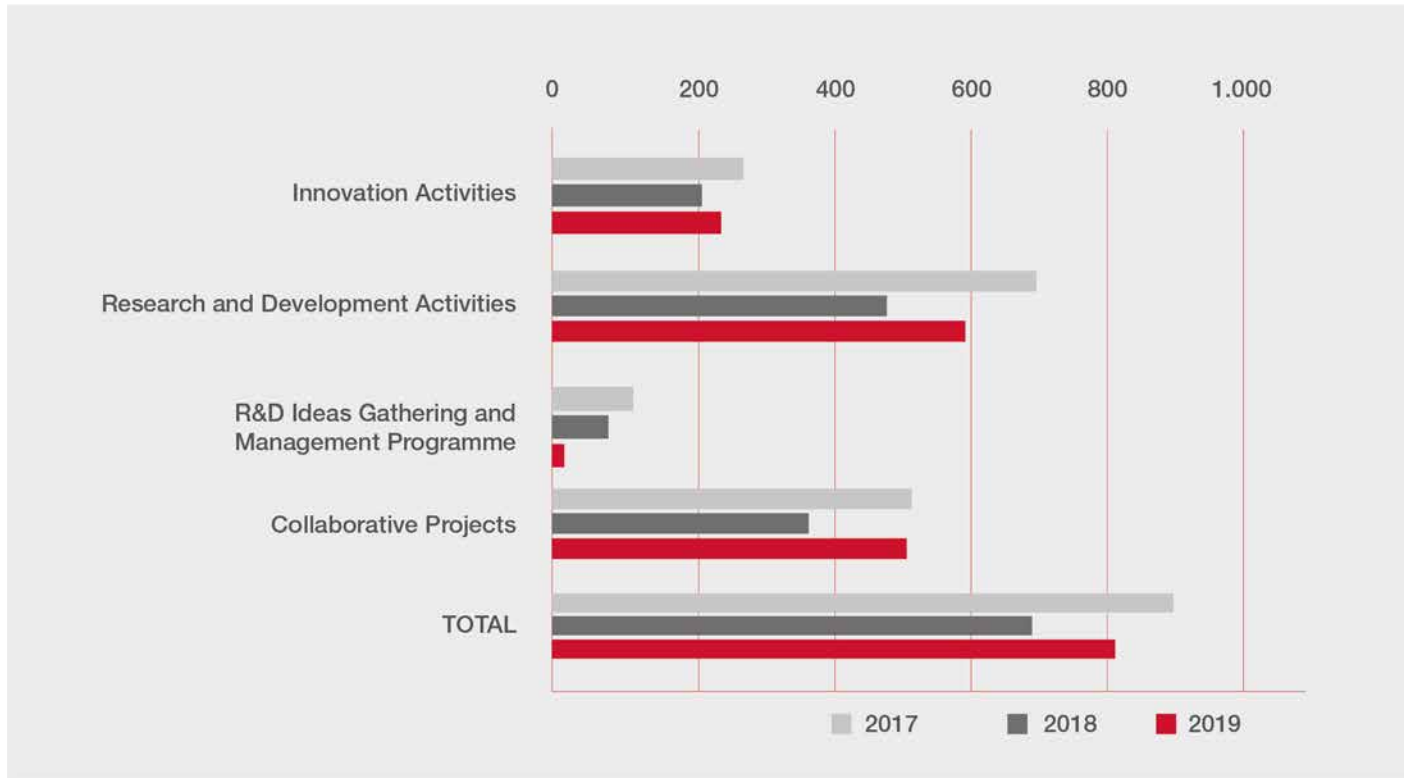
### Distribution of R&D Projects by Knowledge Area



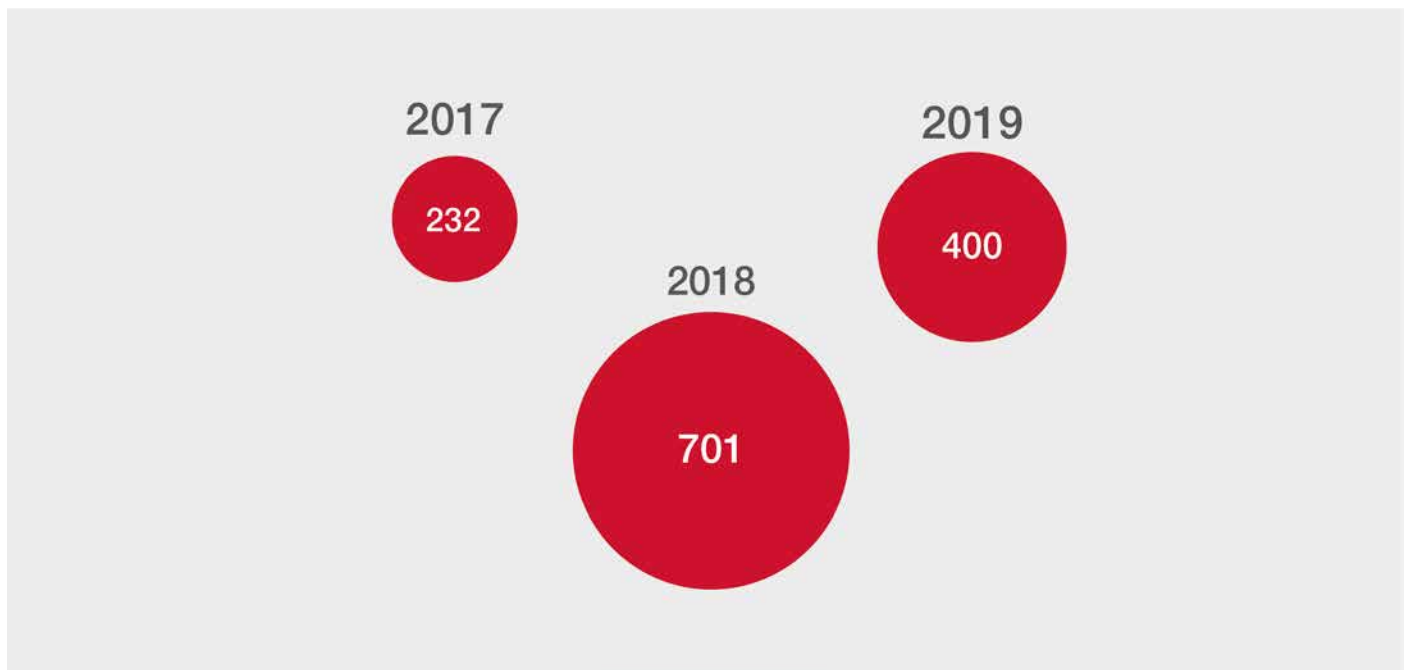




Distribution of R&D Project Costs by Area of Activity (thousand €)



Funding received for R&D activities (thousand €)





### **3. COMMITMENTS TO OUR STAKEHOLDERS**





# Dialogue with our stakeholders

A crucial part of our business strategy involves actively listening to our stakeholders, with whom various communication channels are always open.



Outreach around good corporate practices is also a communication and active collaboration tool with our stakeholders, and prevents and mitigates potential negative impacts on human rights. For this reason, Isdefe, through reference entities in Corporate Social Responsibility such as Global Compact and Forética, works on the promotion of these business success stories.



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## Committed to our clients

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With the aim of our projects and work being recognised by the entities and bodies we provide services for as benchmarks in quality, excellence and commitment, we undertake to carry out our activities in consulting, technical assistance and development in systems engineering to the highest standards in order to meet these expectations.

For this purpose, the following guidelines have been set:



The ordering body/client is the core element of Isdefe's focus.



All Management Units and Departments are responsible for achieving service quality through all phases of execution, within the deadline and following the conditions established according to the schedule. The quality of the services generated by Isdefe is therefore the responsibility of all company personnel.



Isdefe personnel are responsible for implementing the process of continuous improvement in their area of activity, stimulating and supporting teamwork and training.



Management establishes periodic reviews of the Quality System to ensure prevention, prompt detection and speedy correction of nonconformities.



### Quality, excellence and innovation

Isdefe is committed to excellence through the continuous improvement of the quality of its services in order to deliver on the expectations and needs of the agencies and organisations we serve and to be leaders in innovation.

All Management Units, Departments and Areas are responsible for achieving service quality through all phases of execution, according to the schedule.

The quality of the services generated by Isdefe is therefore the responsibility of all company personnel.

Isdefe has a Quality Management System with the following certificates.



#### AENOR certification for the Quality Management System according to standard UNE-EN ISO 9001: 2015 (ER-0929/1998)

For the provision of consulting and technical assistance services in the Defence and Security, Aerospace, Transport, Public Administration, Information and Communication Technologies (ICT) and Energy sectors.



#### Certification from the Ministry of Defence for the Quality Management System according to standard PECAL/AQAP 2110 (EXP. NO. 077/03/01/01)

For consulting and technical assistance services in systems engineering for the Ministry of Defence. Certified since 08 November 2002.



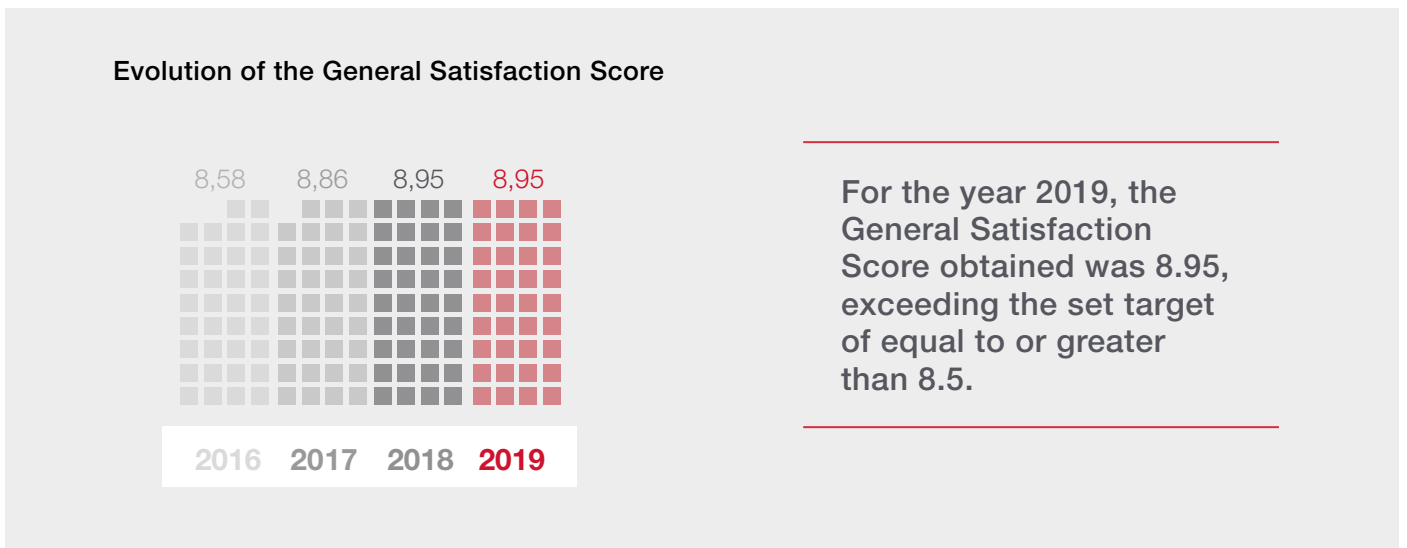


### Our goal: client satisfaction

Isdefe continuously conducts surveys to determine the importance of and global satisfaction with our services and their evolution in different aspects:

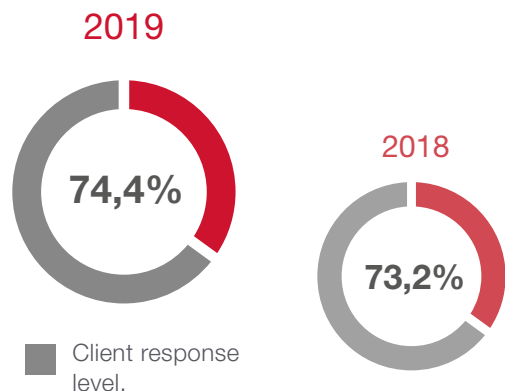


Within the overall objectives communicated to all staff for the year 2019, the company established that its General Satisfaction Index should be equal to or greater than 8.5..



### Level of response

A survey was sent to all clients receiving Isdefe services (317) and the response rate was 74% of the clients surveyed. This meets and exceeds the company control threshold for participation, set at 55% for 2019.





# Committed to our employees

The Isdefe workforce at 31 December 2019 comprised 1,650 people, 91.6% (1,511) belonging to the Operating Units (production) and 8.4% (139) to Corporate Services (administration and management services).

Isdefe is a company that excels in knowledge resources and employs them to the hilt.

Most of the staff have highly specialised knowledge and operate in the technological, management and specialist service domain (aerospace facilities).

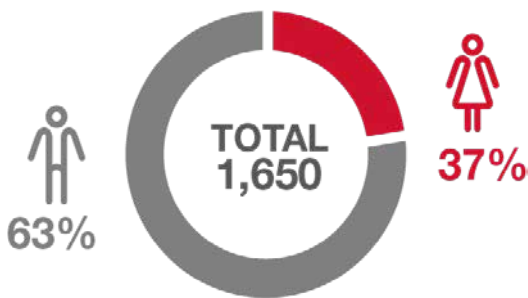
**87% of the workforce have a medium or higher degree, of which 82% are in engineering and technical careers.**

## Our team in numbers

Isdefe has a diverse team that wishes to stay with the company, as shown by the following figures:

### Total number and distribution of employees by age

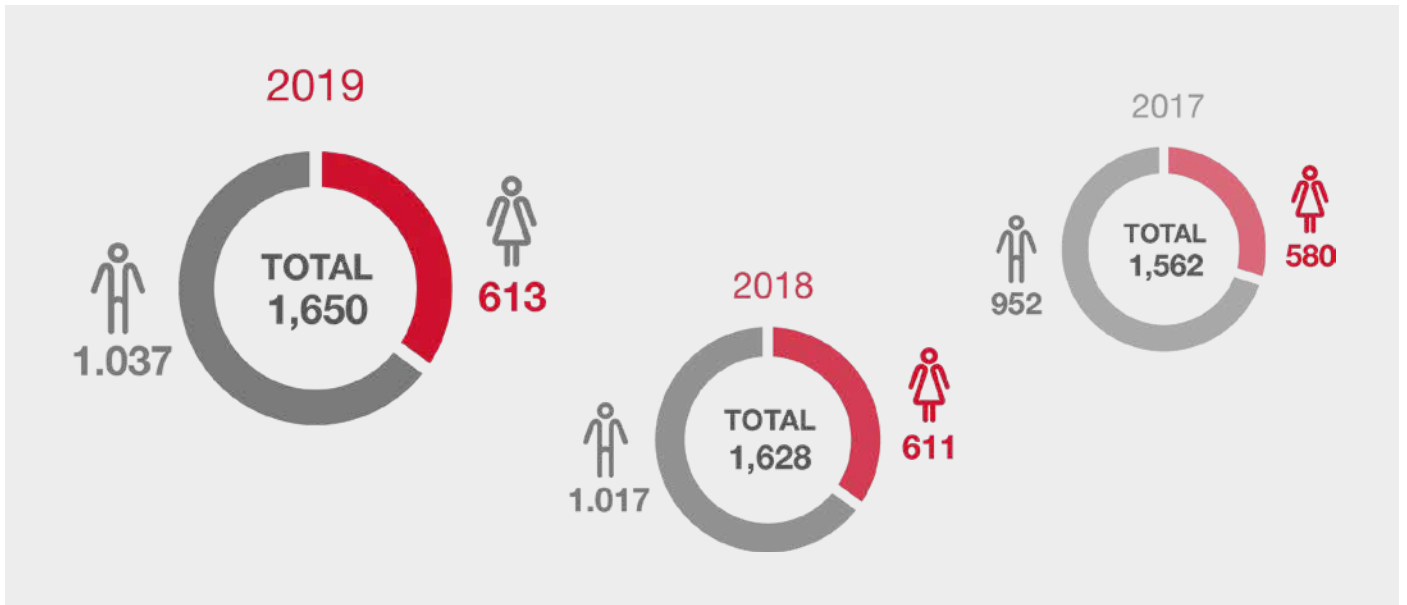
	2017	2018	2019
21-25	7	22	26
26-30	72	90	90
31-35	173	160	138
36-40	358	346	306
41-45	411	445	445
46-50	213	219	266
51-55	153	170	177
56-60	113	108	124
>61	62	68	78
<b>Total</b>	<b>1,562</b>	<b>1,628</b>	<b>1,650</b>



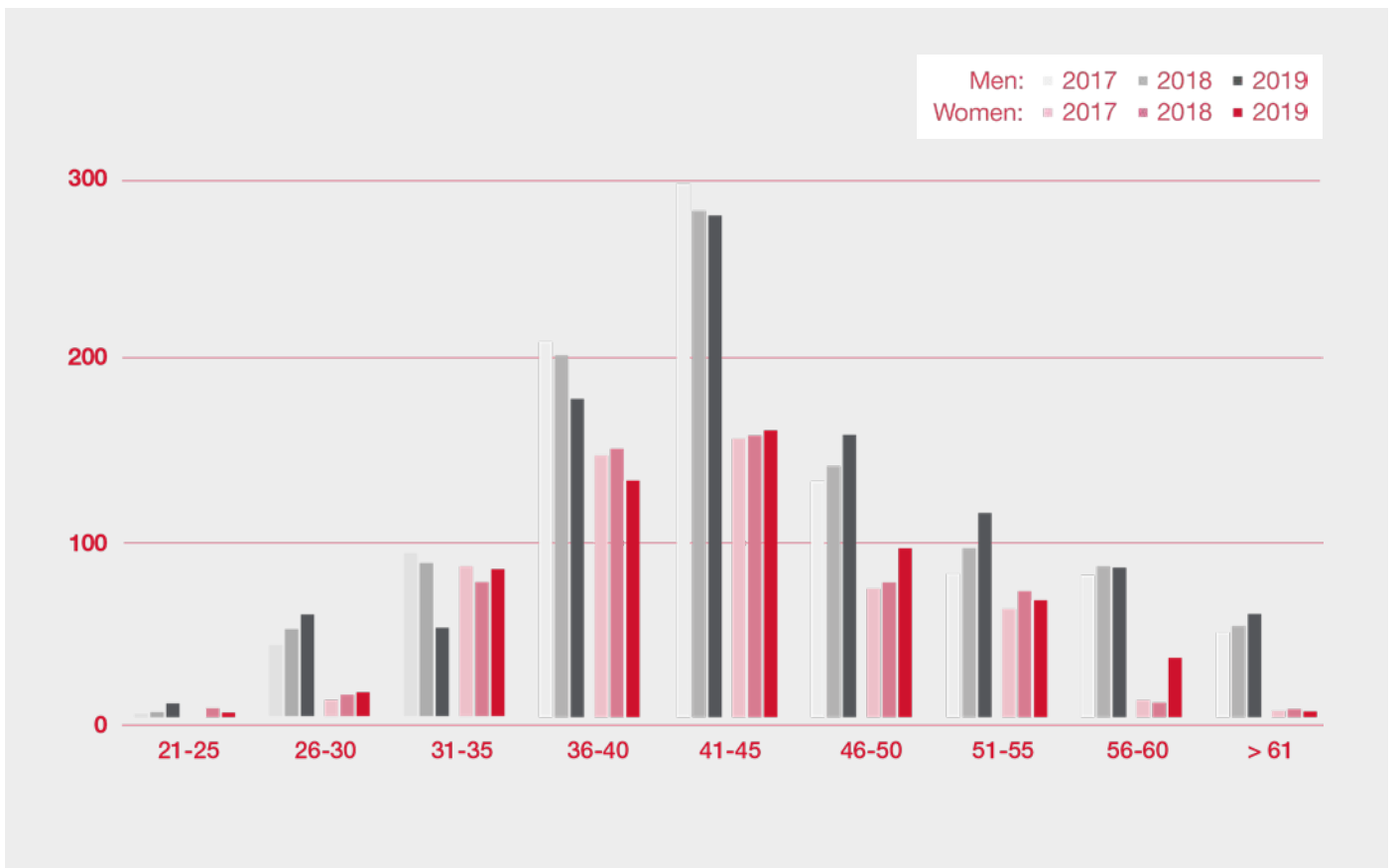




Evolution of the workforce by gender



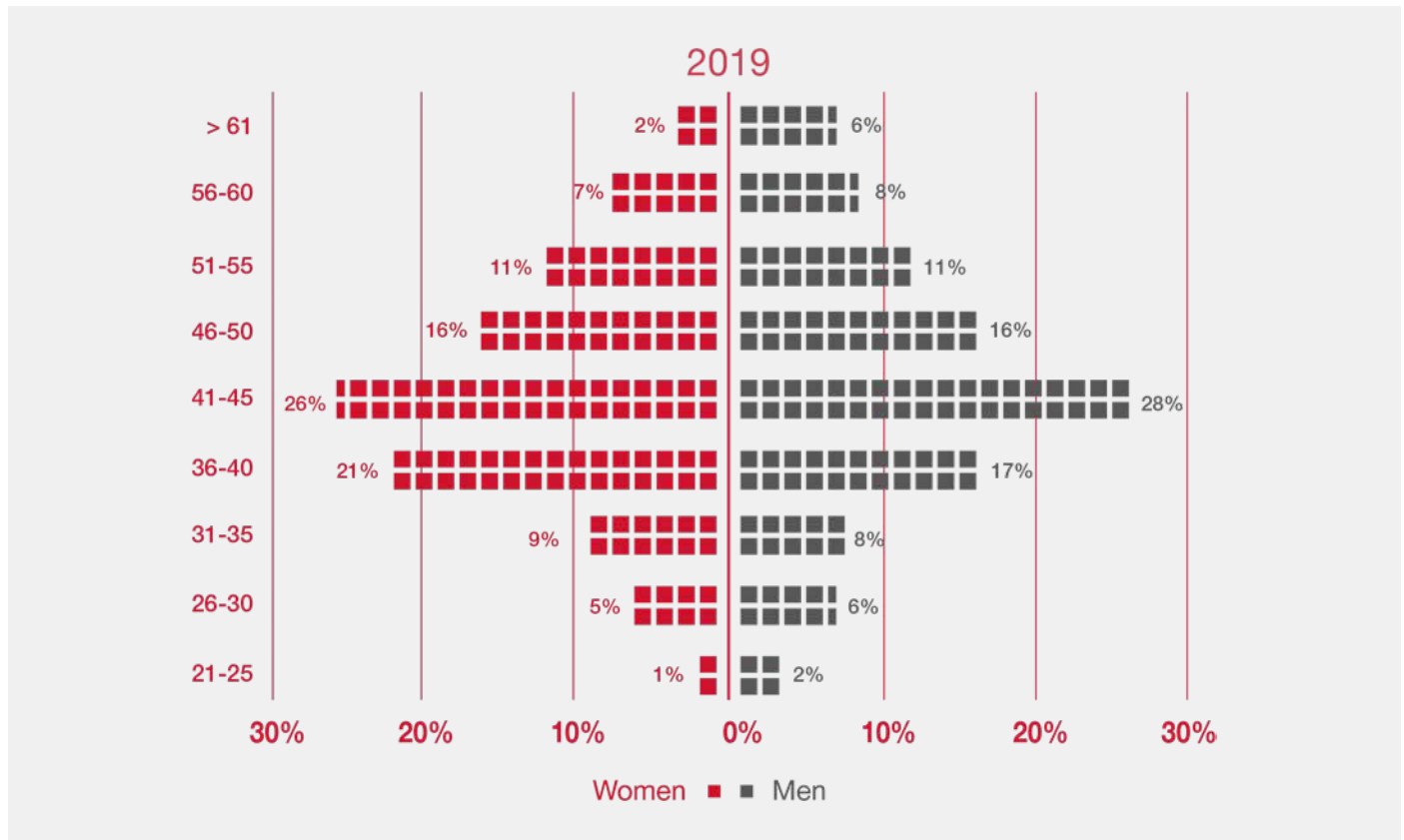
Evolution of employees by gender and age





### 3. COMMITMENTS TO OUR STAKEHOLDERS

#### Isdefe population pyramid by gender and age

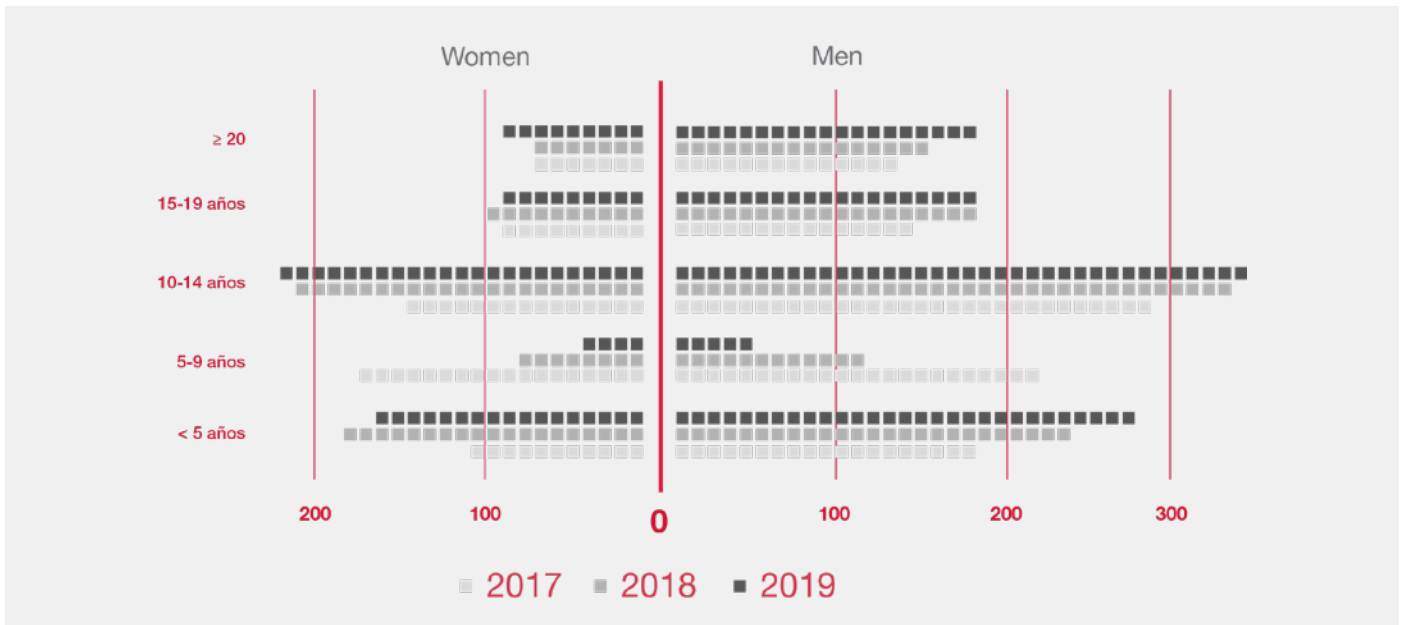


#### Total number and distribution of employees by professional classification

Classification	2018	2019
Engineers and graduates	1,137	1,170
Technical engineers, surveyors and certified assistants	233	231
Administrative and workshop managers	36	35
Non-certified assistants	90	89
Admin officers	105	98
Core technical officers	8	8
Admin assistants	14	13
First and second officers	5	6
<b>Total</b>	<b>1,628</b>	<b>1,650</b>



**Evolution of number of employees by gender in past three years**

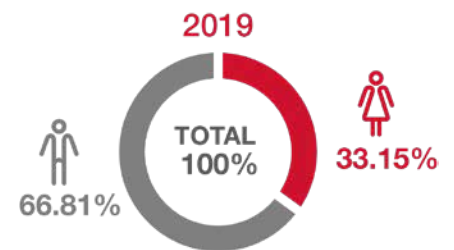


**Recruitment, selection and promotion policy**

Selection and career advancement for our employees is based on their skills and performance of their professional roles and on the criteria of merit, equality, publicity, competition and capacity as required for the vacant position to be covered in accordance with the rules set out by additional provision 29 of Act 6/2018 of 3 July on General State Budgets<sup>2</sup>.

**Personnel selection processes**

Since 1 January 2019, Isdefe has carried out 220 selection processes for company recruitment, as well as 21 for scholarships. In the selection processes, there were more male applicants per post (men 4.51; women 1.72); however, in relative terms the number of women selected was higher (women 19.31%; men 14.78%).



	2018			2019		
	Women	Men	Total	Women	Men	Total
<b>Applicants</b>	399	1,065	1,464	378	994	1,372
Applicant / Process Rate	1.57	4.19	5.76	1.72	4.51	6.23
<b>Selected Applicants</b>	91	163	254	73	147	220
Selection Rate / Applicants (Woman / Woman; Man / Man)	35.83%	64.17%	100%	33.15%	66.81%	100%
<b>Selected / Total</b>	<b>35,83%</b>	<b>64,17%</b>	<b>100%</b>	<b>33,15%</b>	<b>66,81%</b>	<b>100%</b>

2. There is no general state budget law for 2019, and we must therefore understand the reference to 2018 to be extended.



### 3. COMMITMENTS TO OUR STAKEHOLDERS

The distribution of new recruits and departures by age group was:

	2018				2019			
	New recruits		Departures		New recruits		Departures	
	Women	Men	Women	Men	Women	Men	Women	Men
21-25	13	8	0	1	4	14	0	3
26-30	17	25	8	9	10	23	5	14
31-35	19	22	11	15	10	22	9	18
36-40	10	18	8	14	7	20	13	19
41-45	6	8	3	5	5	12	9	8
46-50	3	5	1	3	7	4	1	7
51-55	0	2	1	2	0	1	2	2
56-60	0	0	0	0	0	0	2	1
> 61	0	1	3	5	0	0	2	4
<b>Totals</b>	<b>68</b>	<b>89</b>	<b>35</b>	<b>54</b>	<b>43</b>	<b>96</b>	<b>43</b>	<b>76</b>

#### Career advancement

Isdefe promotes the professional and personal development of all its employees, ensuring **equal opportunities and fostering a merit-based corporate culture**.

#### Training

We screen training needs to meet the organisation's requirements and channel it through training representatives. Each management unit has a training representative with the rank of Manager or Department Director which allows us to gather and analyse needs for subsequently drafting training plans. The training plan is three-yearly, but is reviewed and updated annually. The 2018-2020 training plan has given greater importance to online and internal training.

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**Over 82,000 hours of training delivered in 2019**

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#### Investment in training





### Training activities during 2019

Aerospace technologies

Cybersecurity

Logistics

Obtaining and maintaining certifications

Training aimed at supporting public management

Training in management and individual skills and ethical values

Isdefe has its own **Virtual Campus** for corporate training (onboarding plan, code of ethics, criminal risk prevention, security of classified information, corporate tools, etc.), supplemented by external platform training in technical, office automation, language, skills and management areas.

It also has a **content platform focused on self-development** available to staff. All these online activities enable greater access to training for employees working at the different operational centres.

### Health and Safety

Isdefe has a **Medical Service** located at its head office that assumes Health Surveillance with a programme of mandatory and voluntary medical examinations aimed at guaranteeing and protecting the health of all employees in the work environment, as well as vaccinations and health improvement campaigns.

The technical area of the **Prevention Service** also promotes initiatives aimed at improving the health and safety conditions of Isdefe workers. In 2019 these initiatives included:

- Improvement and monitoring of the Systematic Management of PPE (personal protective equipment).
- Implementation of the database for the control and monitoring of corrective actions.
- Safety and ergonomics visits to workstations at client and in-house centres.
- Organisation of driving courses in extreme situations.
- Workshops on postural hygiene and Mindfulness workshops in the field of psychosociology.

Through its Prevention Plan, Isdefe informs all staff of the preventive organisation and the participation of different company agents, such as the In-house and External Prevention service, Health and Safety Committees, Prevention Delegates, designated workers and preventive resources.



#### Occupational health and safety conditions



**261**

Vaccinations (against flu and for risk zones; tetanus, hepatitis, cholera, typhoid...)



**4.589**

Hours of training in OHS courses



**1.210**

Medical examinations at head office and peripheral centres



### 3. COMMITMENTS TO OUR STAKEHOLDERS

#### 2019 Prevention Plan

The 2019 objectives included the training and retraining of workers with specific risks from handling loads by using technical resources (forklift truck, mobile personnel lifting platform), as well as the retraining of all workers with specific positions that have risks of falling from a height.

A further objective achieved this year was the performance of measurements of industrial hygiene conditions in positions with risks of exposure to chemical contaminants and exposure to risks or measurements to determine worker exposure to noise.

This system is completed with legal audits every two years. The management of the Isdefe Prevention Management System has been defined as effective, in accordance with the audit conducted by AENOR in 2019.

#### Accident rate

- Accident frequency rate: calculated per 100,000 hours worked.
- Occupational disease incidence rate.
- The frequency of occupational diseases in relation to total time worked by all workers during the reporting period was zero.

Accidents	2018			2019		
	Total	With sick leave	Without sick leave	Total	With sick leave	Without sick leave
Women	13	1	12	15	6	9
Men	21	11	10	14	6	7
<b>Totals</b>	<b>34</b>	<b>12</b>	<b>22</b>	<b>29</b>	<b>12</b>	<b>16</b>

#### There were no occupational diseases in 2018 or 2019.

The total accident frequency rate per 100,000 hours worked was 1.79. There was one death due to an occupational accident on the way to/from work.

#### Work/life balance

Isdefe adopts measures aimed at facilitating enjoyment of the work/life balance and promotes its responsible exercise by parents and staff that care for disabled relatives.

- Flexibility in working hours of 1 hour 30 minutes.
- Continuous working day for parents with children under 12 and staff that care for disabled relatives.
- Cumulative breastfeeding leave.





## Social relations

Social dialogue at ISDEFE is structured through its **five works councils and workers' representatives**, as well as the six trade union sections in place. Isdefe engages with these workers' representatives/unions through the reporting, consultation and negotiation processes laid down in the Workers' Statute and the Collective Agreement of the sector of Engineering and Technical Studies Offices.

### Establishment and level of employee representation:

Work site	Legal representation of workers	Members of the Works Council
Madrid Headquarters	Works Council	23
Torrejón de Ardoz	Works Council	9
Robledo de Chavela	Works Council	5
Canary Islands	Workers' Representatives	3
Villafranca de Castillos / Cebreros	Works Council	5
Cartagena	N/A	0
<b>Total</b>		<b>45</b>

### Trade union sections established at Isdefe:

UGT-FeST	CSIC	USO	CCOO-COMFIA	CGT	SOMOS
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As a result of the different dialogue processes, Isdefe signed the following documents with the workers' representatives in 2019:

### Negotiation processes

- Agreement on the remuneration increase provided for in the General State Budget Act 2018 and 2019, and on an additional increase of 0.2%.
- Publication of work schedules.
- Implementation of the timetable logging system (clock in/clock out).

### Information processes

Information in accordance with the provisions of Article 64 of Royal Legislative Decree 2/2015 of 23 October approving the restated text of the Workers' Statute Act.

#### Quarterly information



#### Economic

Balance sheet, profit and loss and revenue.



#### Collaborations

Direct subcontracting (consultants), list of temporary employment agencies, interns.



#### Other information

Absenteeism, evolution of the workforce, evolution of recruitment, presentation



### 3. COMMITMENTS TO OUR STAKEHOLDERS

#### Other non-periodic information

- Setting and monitoring of general objectives.
- Basic copies of employment contracts.
- Notification of extensions.
- Overtime.
- In-company implementation of the right to equal treatment and opportunities between women and men (reduction and changes in working hours for the care of children and relatives).
- Subsidised training.
- Penalties imposed for critical faults.
- Company decisions that could lead to significant changes in the organisation of work and employment contracts at the company.
- Information and consultation on the adoption of possible preventive measures, especially in the event of a risk to employment.



#### Collective agreements

*“Article 21 of the 19th Collective Agreement of the Engineering Companies Sector on Occupational Health and Safety refers to the OHS Committee and the Prevention Delegates.*

1. *[...] the importance of preserving human life and the right to physical integrity of all those involved with their work in the production process of this sector [...].*
2. *[...] draws attention to the recipients of this Agreement, so that they comply and ensure compliance with the occupational health and safety standards established by the legislation in force in this field [...].*
3. *[...] Election of prevention delegates where there are no legal representatives of personnel [...].*
4. *[...] Establishment of the Sector-specific OHS Committee, comprising four representatives from each of the two signatory parties to this Agreement [...].”*

#### Workers’ representatives on the formal Health and Safety Committees:

Sites	Committees	Delegates
Madrid	1	5
Torrejón	1	3
Robledo	1	2
Villafranca / Cebreros	1	1
Maspalomas	0	1

#### Labour relations

These are governed by the Decision of 7 October 2019 of the General Directorate for Labour, registering and publishing the 19th Collective Agreement for the Sector of Engineering Companies and Technical Studies Offices, the Workers’ Statute and different Company Agreements. This Agreement applies to 1,650 employees representing 100% of the total workforce.





## Equality

Isdefe has an **Equal Opportunity Plan** which was approved by management in 2018.

The Plan was drawn up by the Equality Committee, of which Management and Workers' Representatives form part.

The Plan, effective 2018-2020, contains a set of measures regarding:

- Equality Culture and Plan Visibility.
- Internal and External Communication.
- Staff Recruitment and Selection.
- Training and Career Development.
- Professional Level and Remuneration.
- Professional Promotion.
- Work/Life Balance.
- Sexual Harassment.

### Equality Plans

Royal Decree 1615/2009 of 26 October regulates the granting and use of the "Equality in the Company" distinction, as set out in Article 50 of the Law for the Effective Equality of Women and Men. Isdefe obtained this recognition in 2010 and has revalidated it since then, obtaining a new favourable report on said maintenance in 2018, and is waiting to receive the result of the 2019 report.

The Equality Plan approved in 2018 is aimed at eliminating any obstacles that may exist in order to achieve real and effective equality, and is a priority commitment for Isdefe.

### Anti-Harassment Protocols

Isdefe has a protocol regulated in the Standards of Action against Harassment and Discrimination which includes bullying, sexual harassment and discriminatory treatment at work.

Under this protocol, there were two complaints in 2019, neither sexual in nature.

### Universal Access for People with Disabilities

Isdefe promotes the right to equal opportunities and treatment, as well as the real and effective exercise of rights by persons with disabilities on an equal basis with other citizens, as established in Royal Legislative Decree 1/2013 of 29 November approving the Restated Text of the General Law on the Rights of Persons with Disabilities and Social Inclusion

### Discrimination

Isdefe treats all its staff and the people with whom it relates with absolute impartiality.

It does not accept any form of discrimination in the workplace or professional setting on the basis of birth, age, race, sex, religion, ideology, social origin or disability or any other reason, nor any manifestation of physical, psychological or moral harassment or abuse of authority or any other conduct that may create an environment that is intimidating or offensive regarding the rights of individuals, both among its employees and in its relations with customers, potential customers and suppliers.





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## Committed to our suppliers

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Isdefe is considered a Contracting Authority pursuant to Act 9/2017 of 8 November on Public Sector Procurement, which transposes into Spanish law the directives of the European Parliament and of the Council 2014/23/EU and 2014/24/EU, subjecting all procurement processes to the principles of **freedom of access to tenders, publicity, transparency, nondiscrimination and equal treatment among bidders, implementing the principle of integrity across all its procedures.**

Isdefe demands from the economic operators with which it is entering into contracts the same capacity and solvency requirements as required by the Administration and certification of not incurring grounds for prohibition and incompatibilities under the terms established in Act 9/2017.



### Subcontracting and Suppliers

The general principles of public procurement are included in the specifications defined for each of the procedures published on our procurement profile, hosted on the **Public Sector Procurement Platform** (<https://contrataciondelestado.es>), where all information regarding Isdefe's procurement of suppliers is published. Isdefe demands from the economic operators with which it is entering into contracts the same capacity and solvency requirements as required by the Administration and certification of not incurring grounds for prohibition and incompatibilities under the terms established in Act 9/2017.

With the entry into force of Act 9/2017, Isdefe strengthened its social and environmental commitments, establishing the following crosscutting measures for all procedures:

- Extension and compliance of our environmental policy to suppliers by including an environmental clause in all specifications. <https://www.isdefe.es/gesti-n-medioambiental>.
- Mandatory compliance by all suppliers with the regulations in force regarding employment, social security, disability inclusion and occupational health and safety, in addition to the applicable collective agreements, through the inclusion of a labour and CSR obligations clause in all specifications.
- Mandatory compliance with the regulations in force regarding employment, social security, disability inclusion and occupational health and safety.

There is also a tie-break clause benefiting companies with **a higher ratio of disabled workers on permanent contracts in their staff, with lower rates of temporary contracts in their staff** or with a higher ratio of women hired in case tender proposals are awarded the same score.

In accordance with the contract, we establish criteria intended **to reduce the level of greenhouse gas emissions; leverage energy savings and efficiency measures, and use energy from renewable sources for performance of contract.**



For the electricity contracts we tender, a higher score is awarded to bidders offering energy supplied from renewable sources or high-efficiency cogeneration.

### Relations with Suppliers and Subcontractors



Isdefe ensures that the design of award criteria allows us to obtain high quality works, supplies and services by including qualitative, environmental, social and innovative aspects linked to the object of the contract. The most significant of these are:

- In electricity contracts tendered by Isdefe in 2019, bidders were required to be supplied from 100% renewable energy.
- Cleaning contracts included criteria in favour of the energy efficiency of cleaning machinery.
- The contract for beverage dispensing machines was amended to remove all plastic from them and replace it with recyclable material.
- Labels were required from paper suppliers to ensure provenance from sustainable crops and composition free of contaminants.
- A work was tendered for the installation of electric car charging points at the Isdefe facility.
- Paper was removed from the entire procurement process by implementing an all-electronic tender.
- Initiatives were implemented to reduce bottled water consumption. The CSR area leveraged a supply contract to acquire a reusable glass bottle for water intended for all workers.
- Orders for plastic water bottles intended for meetings were removed and replaced with jugs of water.

### Procurement Oversight and Audit System

Isdefe is considered an in-house technical service provider for the Administration and all Isdefe contracts are therefore subject to the controls that the Administration itself wishes to exercise over it, through its control bodies. In this regard, we comply with all the principles of transparency and scrupulously deliver on the obligation to refer all contracts to the Court of Auditors.

Third-party contracting at Isdefe is generally regulated in the commissions we receive and, in any event, no partial services we may contract with third parties will exceed 50% of the commission amount.

The Isdefe procurement area scored 77.8 points in the 2018 Transparency Index of Public Companies, making it the second highest-rated organisation in this field. The good practices that led to this result were continued and reinforced in 2019.



### 3. COMMITMENTS TO OUR STAKEHOLDERS

Isdefe implemented a system of internal oversight and control of the work carried out by its suppliers, assessing the quality of the services, supplies and works executed during the year. This control is part of the quality indicators, with the satisfaction rate in 2019 coming in at 99.32%, exceeding the set target of 95%.



2019 satisfaction rate of **99.32%**,  
exceeding set target of 95%

Isdefe's policy is that all personnel acting within the framework of its procurement procedures must take appropriate measures to combat fraud, favouritism and corruption, and effectively prevent, detect and resolve conflicts of interest that may arise in tender procedures in order to avoid any distortion of competition and ensure transparency in the procedure and equal treatment of all candidates and bidders.

In particular, Isdefe points out to its staff that the concept of conflict of interest covers at least any situation in which staff serving the Contracting Authority also participate in the development of the tender procedure or could influence the outcome, or directly or indirectly have a financial, economic or personal interest that could be seen to compromise their impartiality and independence in the context of the tender procedure. Any person participating in the Procurement Process who identifies any event in any of the bidding companies which may be affected by the Code of Ethics or may be classified as one of the practices listed above must explain it in a letter addressed to the Procurement Area.

The contractual obligation to know and respect the Isdefe Code of Ethics during all procedure phases was included in all specifications in 2019. Isdefe provides entities interested in procurement procedures with communication channels where interested parties can address any queries or communications, either over the public sector procurement platform or by emailing us directly ([unidadcontratacion@isdefe.es](mailto:unidadcontratacion@isdefe.es)).

All of the queries raised through the public sector procurement platform were answered by the Isdefe Procurement Area in 2019.

**As a state-owned public company and considered an in-house technical service provider, Isdefe is subject throughout procurement to all the controls that the Administration exerts on its own units through its control bodies (General Intervention Board of the State Administration and Court of Auditors).**

These controls include the obligation to submit all contracts and the financial statements to the Court of Auditors, and the **publication of all contract awards on the Transparency Portal.**



## Committed to society

Isdefe has a social action programme aimed at contributing to sustainable development in the environment in which we operate, through solidarity initiatives we carry out in partnership with foundations and NGOs aligned with the company's strategy and values, with the focus within the sphere of Public Administrations and especially the field of Defence and Security.

### Corporate Volunteering with Masnatur

For the past decade, Isdefe has been developing a corporate volunteering project with the Masnatur Foundation, organising leisure activities for people with disabilities. The aim of this collaboration is twofold: on the one hand, to promote the comprehensive development of people with disabilities and provide rest for their families and, on the other, to offer our staff the possibility of developing their role as volunteers.



In 2019, Isdefe organised a Christmas party, where children and volunteers had the chance to enjoy a festive day out.

### Collaboration with the Civil Guard Solidarity Association

In 2019, Isdefe continued to work with the Association, made up of serving civil guards - experts in rescues, civil protection and salvage operations - which cooperates with persons and entities in need of humanitarian aid.



### Christmas Charity Campaign

The twelfth Isdefe Christmas Charity Campaign took place in December, during which several initiatives were introduced to share Christmas with the most vulnerable groups. Through the Madrina Foundation and the Reyes Magos de Verdad Association, staff had the opportunity to collaborate with the aim of ensuring that no child went without a toy at Christmas.





#### Collection of Solidarity Caps

Isdefe continued to collaborate with the Seur Foundation on the “Caps for a New Life” project, launched in 2012.

By collecting the plastic caps that employees deposit at company headquarters, funding is obtained for children for medical and orthopaedic treatments not covered by the public health system. The project also has an environmental sustainability aspect, due to the fact that it recycles bottle caps.

#### Participation in the Naval Race

Isdefe joined the sixth edition of the solidarity naval race held to mark Naval Week, where part of the proceeds went to the Alicia y Guillermo Foundation, an organisation dedicated to the care of elderly people with few financial resources.

More than 100 Isdefe personnel participated in the race which, in addition to its solidarity nature, aims to provide outreach on the role of the Navy, its history and its relationship with society. In 2019, the race was dedicated to the commemoration of the First Round the World Trip.



#### Donation of computers

The donation of computer and health material was formalised with the Defence Staff Operations Command in 2019. The aim of this collaboration is to support Operations Area Command, strengthening ties between civil society and forces deployed in military missions.



#### Values education

Isdefe partnered with the Fundación Cine para Educar, which aims to provide education on values, especially aimed at children, and to raise the profile of companies committed to the Sustainable Development Goals (SDGs).





## Featured participations in 2019

- WORLD ATM CONGRESS 2019.
- Practical seminar of the European Fund Management: Present and Future.
- 57th Army Awards Gala.
- ISDEFE engagement in 5th edition of SYMDEX.
- “Antonio de Oquendo” Prize at the 2019 Navy Awards.
- 7th National Congress on Defence and Security R&D (DESEI+d 2019)
- 2<sup>nd</sup> Public Procurement Seminars: Analysis of In-house Service Providers in the Current Legal System.
- CIBERWALL Congress 2019 on Digital Security and Cyber Intelligence, National Police Force (CNP).
- International Defence and Security Fair (FEINDEF 2019).
- Air Force Environmental Excellence in Maintenance Award.
- 1<sup>st</sup> Maintenance Reliability Workshop: Isdefe presents the speech “Design Based on the Reliability and Maintenance of the GSMC”.
- Summer Course 2019: “Impact of Artificial Intelligence” UfM CESEDEM Chair.



FEINDEF 2019



Navy Awards 2019



World ATM Congress 2019



57th Army Awards



European Fund Seminars

## Committed to our services

Two corporate videos and five sector-specific videos were produced in 2019, identifying our organisation through images that faithfully reflected our values, character, nature, mission and vision.

On this occasion, the aim was to gather around 50 staff members to appear in the videos, since **Isdefe is its people and their knowledge**, and what better way to present our company’s image than through the people who form this wonderful organisation.

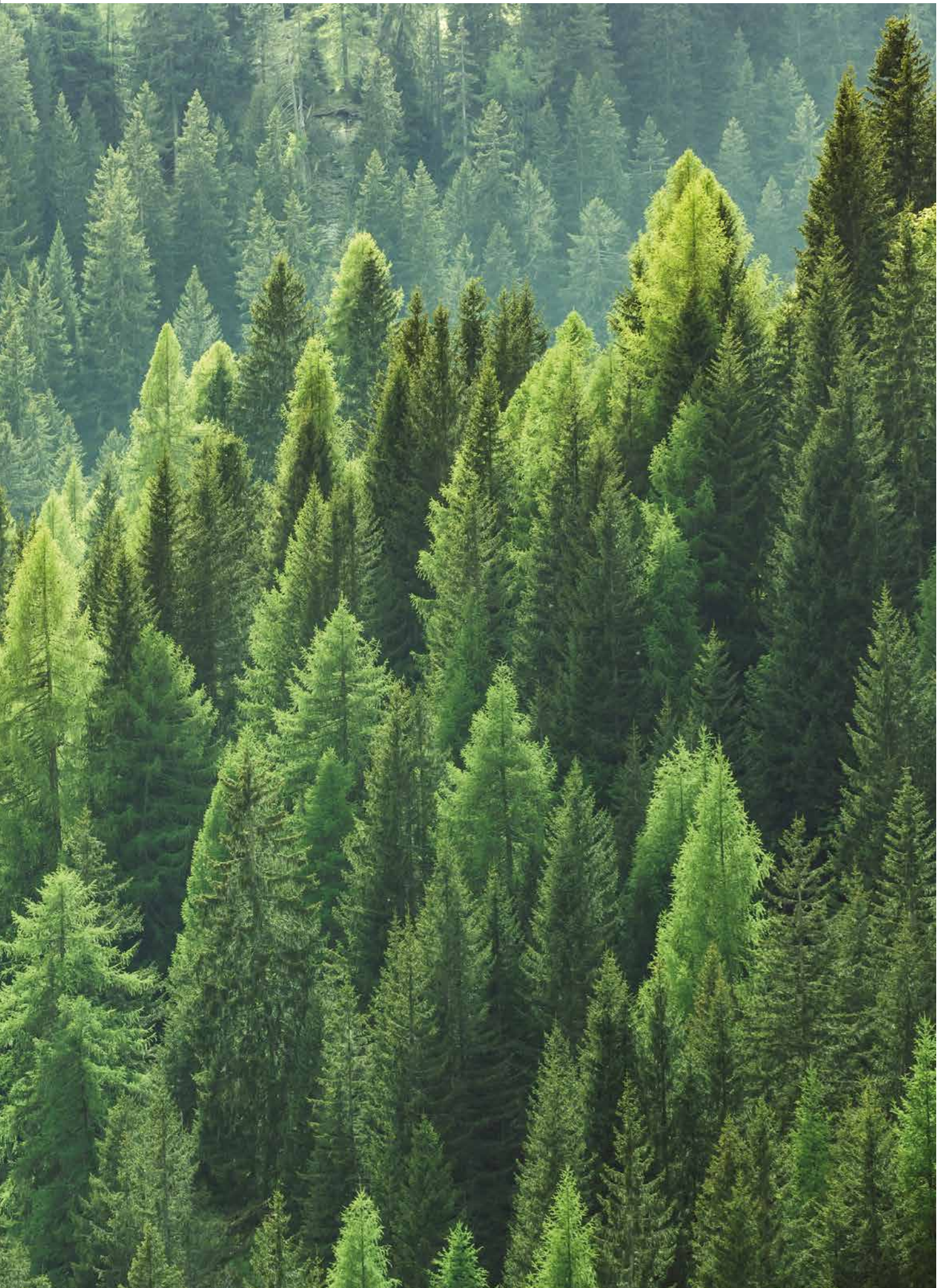
<https://www.youtube.com/c/Isdefe>



The image is a vertical composition of two forest scenes. The top half shows a dense forest of coniferous trees, with the color of the foliage transitioning from a deep, dark red on the left to a vibrant, bright green on the right. The bottom half shows a similar dense forest of coniferous trees, but with a more uniform and bright green color palette. The overall effect is a visual metaphor for environmental performance, with the red representing a less favorable state and the green representing a more favorable one.

## 4. OUR ENVIRONMENTAL PERFORMANCE







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# Tools for Environmental Management

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Isdefe has in place a certified Environmental Policy and Environmental Management System (EMS) which promotes the efficient use of natural resources, pollution prevention and environmentally friendly management of possible waste generated in the performance of our activity.

Our Environmental Policy aims to achieve the following objectives:

Comply with environmental legislation applicable to our activities, as well as those environmental commitments agreed with clients.

Identify and assess the environmental aspects arising from our activities in order to prevent negative impacts on the environment.

Properly manage waste generated through reuse, segregation and recycling.

Promote energy efficiency, making rational use of available resources.

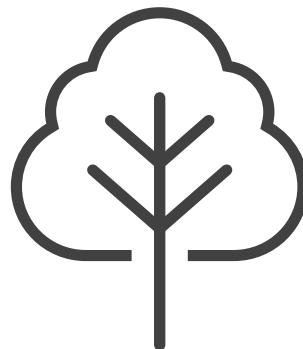
Raise environmental awareness among employees by fostering the establishment of good environmental practices in the workplace.

Establish an ongoing improvement process for our environmental performance through the regular review of our EMS and the environmental objectives and goals set out.

Promote and disclose this policy among Isdefe employees, collaborators, sub-contractors and suppliers and make it available for the stakeholders.

## Compliance with Standards

Isdefe complies with environmental laws and regulations and had no penalty or investigation procedure in this area during the year.

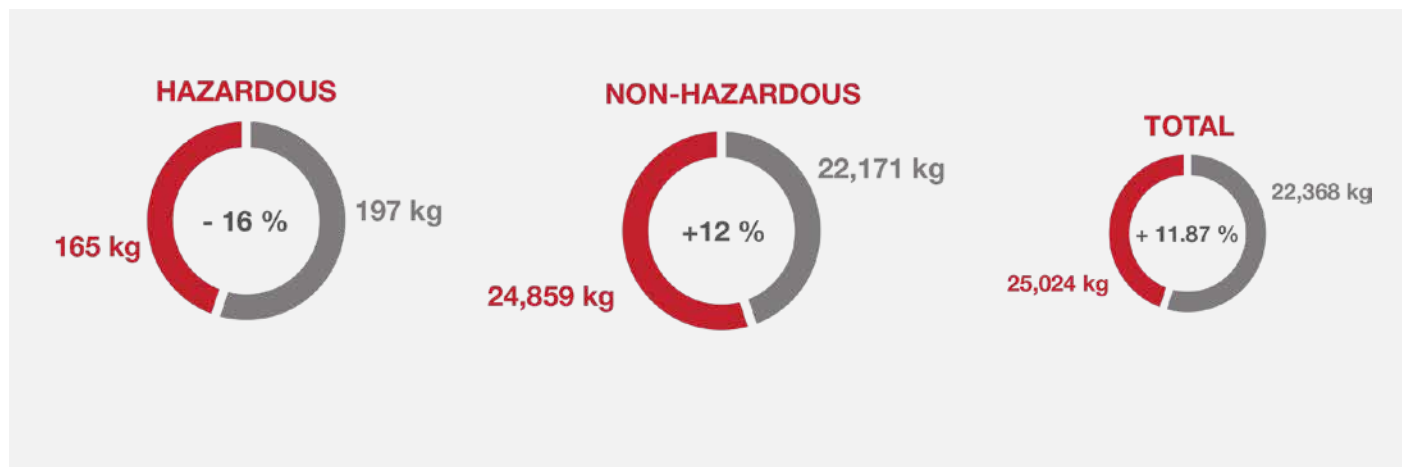




# Waste Management

Isdefe has a plan for separating waste at source, using specific containers for each type of waste.

At our HQ there is a general clean point which enables us to record the correct separation of waste, the amount generated, the correct labelling and suitable transport for the waste to then be treated by an authorised handler.



Hazardous waste	2019	2018
Fluorescents	80	0
Contaminated packaging	40	22
Sharp and cutting objects	24	24
Oil filters	18	6
Thermal oil	3	60
Absorb. Contaminated	0	6
Aerosols	0	18
Accumulators	0	61

Non-hazardous waste	2019	2018
Organic	11,080	10,532
Paper	7,206	6,619
Cardboard	2,548	1,494
WEEE	1,515	358
Plastic	882	1,602
Glass	405	239
Scrap	353	207
Plastic cups	294	466
Biodegradable cups	281	
Wood	83	168
Batteries	80	80
Hygiene products	55	55
CD/DVD/Hard Drives	30	54
Toner	29	107
Air Filters	18	190



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## Sustainable use of resources: water, raw materials, energy

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In line with our Environmental Policy and the objectives set for the year in our EMS, we pursue the responsible use and minimisation of natural resource consumption (electricity, gas, water, paper). This is evaluated by controlling and analysing the performance and functionality of equipment and facilities requiring these resources, optimising them and giving priority to those that use renewable energies.

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**In 2019 we reduced both energy turnover and water and paper consumption.**

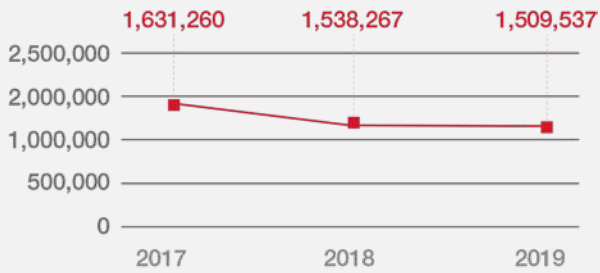
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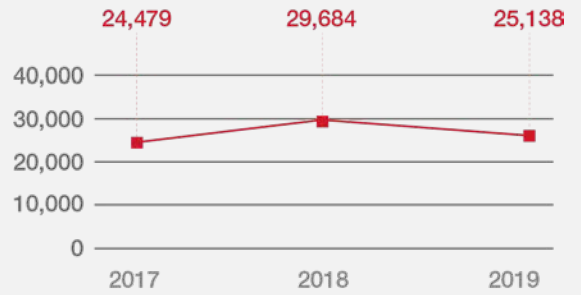
The evolution in resource consumption over the last three financial years shows a downward trend, the result of performance analysis and control policies and the functionality of equipment and installations requiring electricity, gas, water and paper resources. It is also the outcome of prioritising consumption optimisation of energy from renewable sources.

**Electricity consumption (kWh)**



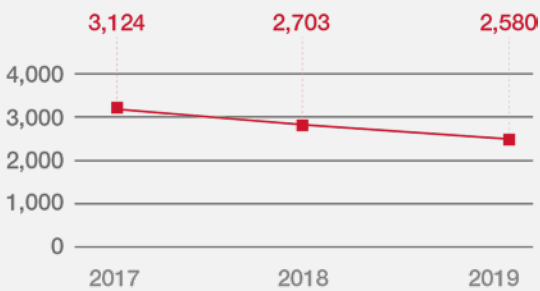
**-1.87%**

**Natural gas consumption (m³)**



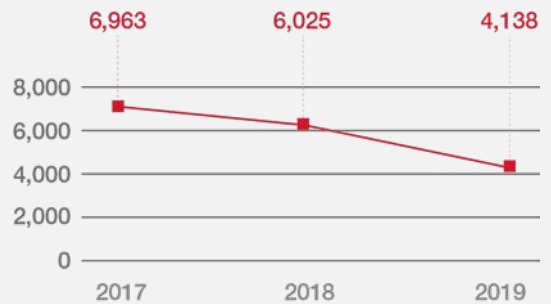
**-15.31%**

**Sanitary water consumption (m³)**



**-4.55%**

**Paper consumption (kg)**



**-31.3%**





# 2019 environmental objectives and performance

In our drive for continuous improvement in environmental performance, we have taken measures to better leverage raw materials and uptick energy efficiency, increasing the use of renewable energies.



## ENVIRONMENTAL OBJECTIVES



## OUTCOMES OBTAINED

Provide at least 4 electric vehicle charging points to the BdB3 garage as a way to encourage the use of low-emission means of transport in the organisation.

A mathematical model was obtained for calculating primary energy consumption (Energy Baseline).

Eliminate procurement of single-use plastic utensils for coffee machines, rest rooms, meeting rooms etc., such as spoons, cups, water bottles and so on and, where applicable, replace them with biodegradable or reusable materials (glass, china, etc.); eliminate bottled water consumption by replacing it with tap water in jars, Thermoses, etc., to reduce the amount of plastic packaging waste.

The procurement of single-use plastic utensils was replaced with biodegradable or reusable materials such as glass bottles for all Isdefe staff.

Ensure that office paper (100% of photocopier supplies) is at least partially recycled or based on virgin fibre partially from sustainable forestry holdings, with a minimum of 30% wood fibres from certified sustainable forestry holdings (FSC, PEFC or equivalent and/or recycled fibres). Paper must be at least elemental chlorine free (ECF).

Consumption of recycled paper was 77.8%, exceeding the initial target by 12.8%.



# Carbon Footprint

We calculate our carbon footprint each year in order to quantify our impact on climate change and identify corrective actions for its reduction. For this purpose, we use the Carbon Footprint Calculator devised by the Ministry of Agriculture, Food and Environment<sup>3</sup>. This tool calculates greenhouse gas (GHG) emissions associated with the organisation’s activities, considering both direct emissions (Scope 1) and indirect emissions (Scope 2) from electricity consumption.

The data is normally published from April onwards and is for the previous financial year. Due to the use of 100% renewable energy sources and self-consumption, the emissions that Isdefe emitted into the air in 2018 came to 648,338 kg CO<sub>2</sub>/kWh.

The latest study of the analysis and assessment of the Energy Efficiency rating of the building and its facilities, carried out during 2017, determined that the energy rating rate achieved by the BdB3 building based on real energy consumption and demand data was 0.437 within type “B” class.

	2016	2017	2018
Fixed facilities	51.2088	55.0001	64.6816
Journeys by vehicles	4.9031	5.0048	3.9149
Cooling/air conditioning	125.2500	62.6250	20.8750
Scope	1 181.3618	122.6299	89.4715
Scope	2 583.6443	590.5247	0.0000
<b>Total Scope 1+2</b>	<b>765.0062</b>	<b>713.1546</b>	<b>89.4715</b>

## Carbon Footprint Evolution (t CO<sub>2</sub> eq)

Electricity consumption was pivoted to 100% renewable energy sources in 2018 as a measure to reduce our carbon footprint.

**100% renewable electricity in 2019**



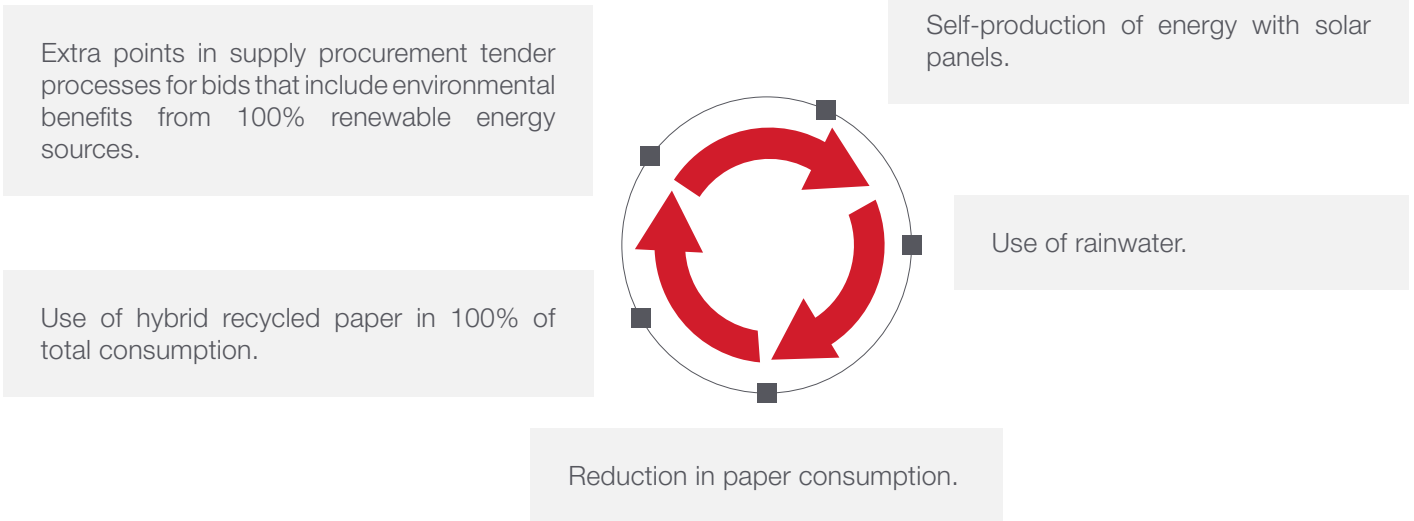
3. Data for the previous financial year are published each April, so the calculations for the 2019 financial year were not available at the date of this document.



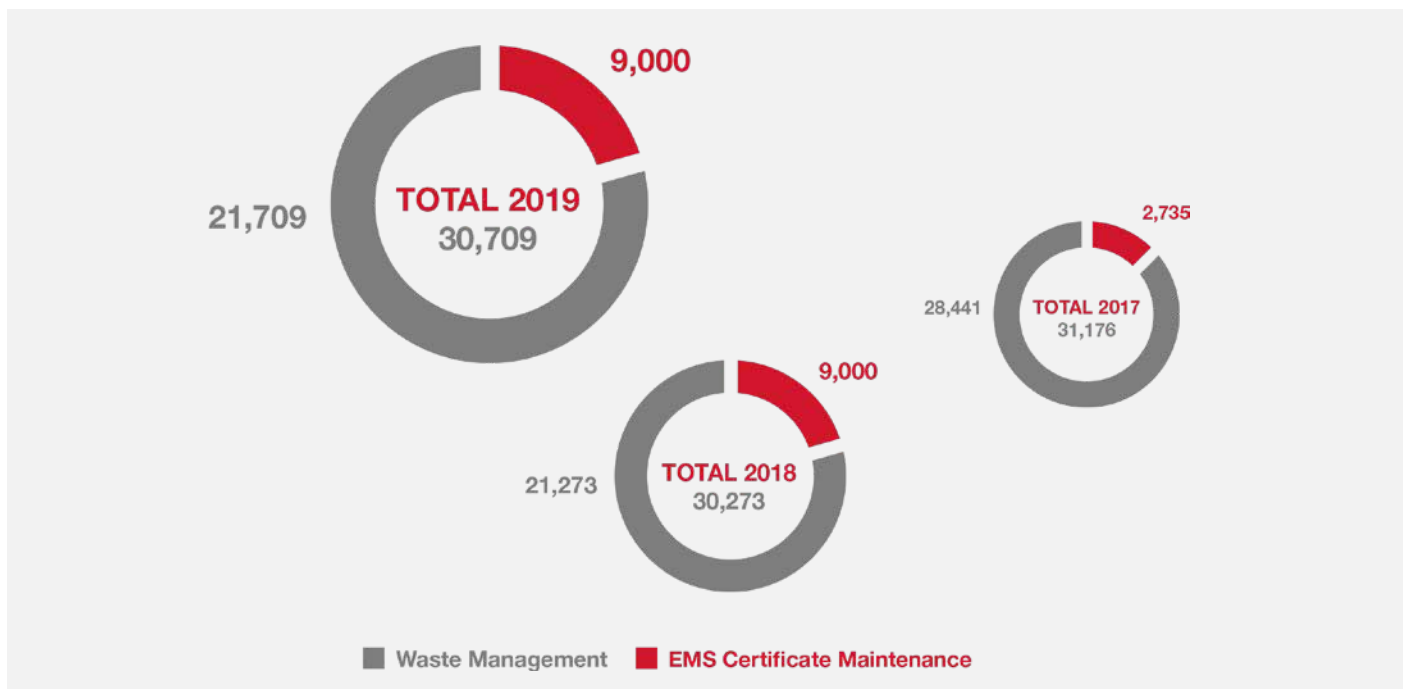


# Isdefe's contribution to the Circular Economy

Isdefe implements prevention, recycling, reuse and other forms of waste recovery and disposal and actions to combat food waste. This contribution is realised through:



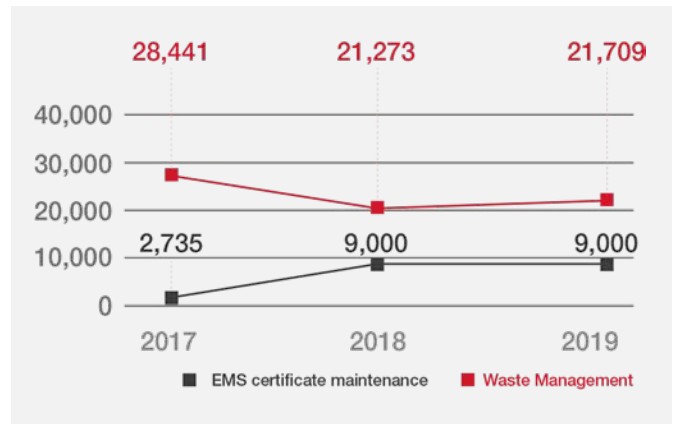
## Resources allocated (€) for waste management and maintenance of the EMS Certificate





## Environmental Investment

In 2019, €30,709 was invested in environmental outlays, while the amount spent on waste management decreased because less waste was generated.





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## Challenges for 2020

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For next year and in order to keep working on constantly improving our environmental performance, we have set the following goals:

- 1. Installation, certification and commissioning** of light vehicle and motorcycle charging stations at BdB3 headquarters.
- 2. Optimisation** of the performance of the cooling and climate control systems at BdB3 headquarters to reduce electricity consumption. Aim to be implemented across two years (2020 and 2021): 2020 period: study and evaluation of the different proposals made by specialist companies..
- 3. 2021 period:** implementation of selected measures that are feasible in both their technical and economic aspects. No formal consumption or waste reduction targets have been set for 2020 as a result of COVID 19, since the data would be distorted due to non-occupancy of the building for a period that is currently uncertain. However, we are still implementing containment and reduction measures. (FSC, PEFC or equivalent) and elemental chlorine free (ECF).



# 5. GOVERNANCE





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## Legal nature and regulatory framework

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Ingeniería de Sistemas para la Defensa de España, S.A., S.M.E., M.P.<sup>4</sup> (Isdefe, S.A., S.M.E., M.P.), is a State-owned commercial company pertaining to the State institutional public sector pursuant to Act 40/2015 of 1 October on the Legal Framework of the Public Sector, Articles 2 and 84, and which was incorporated in Madrid on 17 October 1985 by approval at the Cabinet Meeting of 18 September of the same year.

Isdefe is attached to the Ministry of Defence. The National Institute of Aerospace Technology (INTA) is the sole owner of the entirety of its share capital.

**The Company is governed by its articles of association, by mercantile, civil, labour and criminal law regulations and in matters applicable to it by:**

**Act 33/2003 of 3 November 2003** on the Assets of Public Authorities.

**Act 47/2003 of 26 November 2003** on General Budgets.

**Act 4/2007 of 3 April 2007** on Transparency in financial relations between public authorities and public companies, and the financial transparency of certain public companies.

**Organic Law 2/2012 of 27 April 2012** on Budgetary Stability and Financial Sustainability.

**Act 19/2013 of 9 December 2013** on Transparency, Access to Public Information and Good Governance.

**Act 3/2015 of 30 March 2015** regulating the exercise of high office in the Central Government.

**Act 40/2015 of 1 October 2015** on the Legal Framework of the Public Sector.

**Act 9/2017 of 8 November 2017** on Public Sector Procurement.

**Act 11/2018 of 28 December** on Non-Financial Information and Diversity.

**Organic Law 3/2018 of 5 December** on Data Protection and Guarantee of Digital Rights and Regulation (EU) of 27 April 2016 on the Protection of natural persons with regard to the processing of personal data.

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4. S.A.: Sociedad Anónima; S.M.E.: Sociedad Mercantil Estatal; M.P.: In-house Service Provider



## Our corporate purpose

In line with our legal and business nature, the object of our company is:

Provision of engineering, consulting and technical assistance services, particularly those concerning Defence and Security.

Preparation, development and implementation of projects and programmes concerning contracts for works, supply and services related to the areas stated in the previous section.

Support, assistance and advice to the national industry at the request of the Ministry of Defence.

Provision of advice and assistance services on Industrial Cooperation Agreements related to programmes for material procurement and Defence contracts, as well as support in negotiation, execution and follow-up of international Defence programmes that Spain takes part in and Defence Projects abroad, including humanitarian aid and peacekeeping missions.



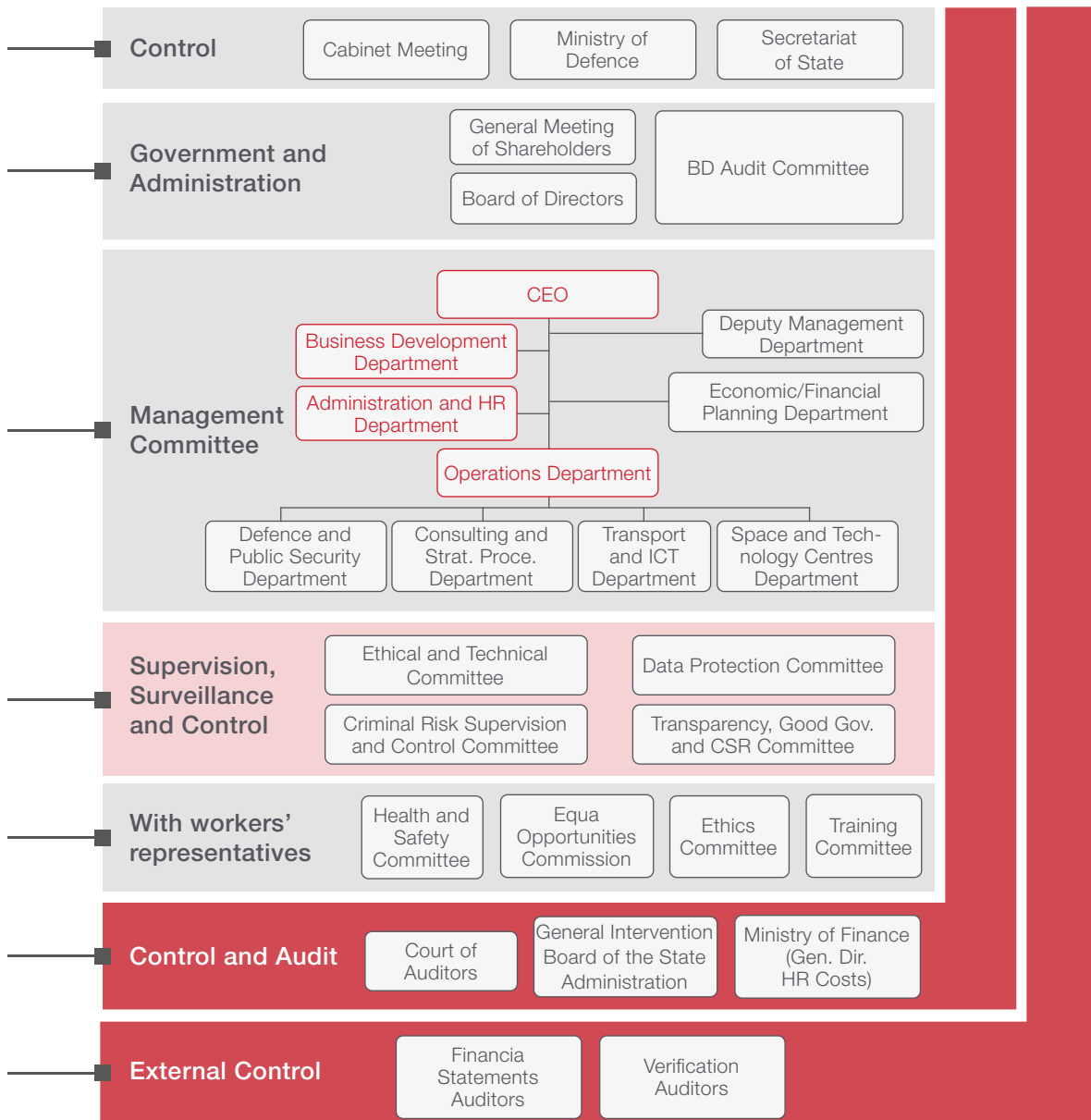
Specialist technical support in the fields of cutting-edge technologies such as:

- Stations for monitoring and collection of data from space vehicles.
- Launch and landing sites.
- Equipment calibration, testing and certification facilities for aerospace projects.
- Experimental facilities for new aerospace projects.
- Aeronautical and space reporting and documentation centres, and processing centres for the analysis, processing and distribution of information from satellites.
- Other activities linked to aeronautical and space engineering.



# Governance, administration, management, supervision and control structure

Isdefe, as a State-owned commercial company, is attached to the Ministry of Defence. The company is run by the Secretariat of State for Defence, which in turn holds the Presidency of Isdefe, the General Meetings and the Board of Directors.







## Governing and Administrative Bodies

### General Meeting of Shareholders

The General Meeting of Shareholders is formed according to the provisions set out in Act 33/2003 of 3 November on the Assets of Public Authorities, stipulating provisions on the representation and control of business assets of the Central Government and special provisions for State-owned commercial companies, under the form of a public limited company whose capital is fully held, directly or indirectly, by the government or its public agencies. In the case of Isdefe, ownership is fully allocated to the Autonomous Body of the Esteban Terradas National Institute of Aerospace Technology (INTA).

#### Duties of the General Meeting

- Matters within its remit.
- Appointment of Accounts Auditors.
- Approval of company management, accounts for the previous period and decision on distribution of profits.
- Definitive appointment of Board Directors, office renewal and revocation.
- Modification of Articles of Association.

#### Mechanism for adoption of agreements

At first call, the shareholders present or proxies must hold at least 50% of the subscribed share capital with voting rights.

At second call, 25% of said capital will suffice: and, in any case, provisions in Article 194 of the Capital Companies Act will always be applicable. Agreements will always be adopted by a majority of votes cast and in the event of a tie, the vote of the Chair will be decisive.

### Functioning

It will be called and constituted to address any issue, provided that all the share capital is present and the attendees unanimously agree to hold the Meeting.

### Types of Meetings

- Ordinary General Meeting (Art. 18 of the Articles of Association): Call by the Board of Directors. Meeting required within the first six months of every year.
- Extraordinary General Meeting: Call by the Board of Directors. Any meeting not provided for in Art. 18 of the Articles of Association will be considered extraordinary.

### Composition

The chair and secretary of the Meetings is the chair of the Board of Directors, as provided in Art. 181 of the Act on the Assets of Public Authorities and in the Isdefe Articles of Association. The chair of the General Meeting is therefore the Secretary of State at the Ministry of Defence.

### Meetings during 2019:

- Ordinary General Meeting: 1
- Extraordinary General Meeting: 6





### Board of Directors

Isdefe is administered and governed by the Board of Directors, which represents the company and therefore has full powers<sup>5</sup>. The Board of Directors elects its Chair, the Chief Executive Officer (who chairs the Board if the former cannot attend) and the Secretary of the Board, who is not a Director.

#### Duties of the Board of Directors

- Corporate representation with full powers.
- Defines company strategy.
- Exercises company control activity.

#### Mechanism for adoption of agreements

Agreements are adopted by an absolute majority of votes by Directors present at the meeting.

In the event of a tie, the Chair decides.



<sup>5</sup> Art. 28 of the Isdefe Articles of Association



### Members with voting rights

Chair	Other positions	Appointment
Ángel Olivares Ramírez	Secretary of State for Defence	22/06/2018

CEO	Other positions	Appointment
Francisco Quereda Rubio	CEO	13/03/2012 Re-elected on 29/05/2017

Directors	Other positions	Nombramiento
Rosa María Alonso Díaz	Admiral, Second Chief of Staff of the Navy Headquarters	13/03/2019
Carlos Martínez-Merello Díaz de Miranda	Admiral, General Director, General Directorate for Armament and Material	31/10/2019
Camino Arce Blanco	Deputy General Director for Resources, Claims and Relations with the Justice Administration	27/09/2018
Santiago Ramón González Gómez	Lt. Gen., Second Chief of the Gen. Staff of the Army, SEJEME	27/04/2018
Carmen Blanco Gaztañaga	Lt. Genl, Chief of the Air Force Logistic Support Command	27/09/2018
Miguel Martín Bernardi	Air Mshl., Second Chief of Staff of the Air Force, SEJEMA	27/09/2018
Miguel Angel Martín Pérez	Lt. Gen., Chief of the Army Logistics Support Command	27/09/2018
Francisco Javier Fernández Sánchez	Major General, Gen. Dir. Economic Affairs	27/09/2018
Ramón Pardo de Santayana y Gómez-Olea	Lt. Gen., General Director INTA	04/06/2018
José Luis Ruiz Sumalla	Admiral, Chief of the Joint Gen. Staff, JEMACON	27/02/2017
José María Salom Piqueres	Tte. Gral. Director General del INTA	25/01/2018
Francisco Javier González-Huix Fernández	Almte. Jefe del Estado Mayor Conjunto de la Defensa, JEMACON	27/04/2018

### Non-voting members

Secretary and Legal Counsel	Other positions	Appointment
Isabel Torres Fernández	State Attorney	06/02/2012

Composition of the Board of Directors at 31 December 2019.



## 5. GOVERNANCE

	Women	Men	Total
Directors (includes Chair and CEO)	3	11	14
Secretary of the Board (non-director)	1	0	1
<b>Total</b>	<b>4</b>	<b>11</b>	<b>15</b>

Members of the Board of Directors receive remuneration only for meeting attendance, with the exception of the Chief Executive Officer<sup>6</sup>.

### Isdefe appointments during 2019:

- **Rosa María Alonso Díaz** was appointed Deputy General Director for Centralised Technology Procurement on 13 March 2019.
- **Carlos Martínez-Merello Díaz de Miranda** was appointed Admiral-Second Chief of Staff on 31 October 2019.

### Dismissals from Isdefe during 2019:

- **Carmen Gandarillas Rodríguez** was dismissed on 25 January 2019.
- **José Luiz Urcelay Verdugo** was dismissed on 24 July 2019.

### Audit and Control Committee

The Audit and Control Committee reports to the Board of Directors and comprises a minimum of three and a maximum of five Directors, the majority of whom must be Non-Executive Directors.

#### Duties of the Audit and Control Committee

- Oversight of economic and financial information to be provided by the company
- Oversight of information provided to the General Meeting and the Board of Directors on its actions.
- Oversight of every relevant issue it should be informed on. Modification of Articles of Association.

#### Mechanism for adoption of agreements

Regulations on calls, formation and adoption of agreements set out in the Articles of Association shall be applied to the operation of the Audit and Control Committee.

6. Remuneration of Governing Bodies may be checked on the Isdefe Financial Information Statement, available on our corporate website.



### Composition of the Audit Committee at 31 December 2019:



Meetings during 2019: 1

### Supervision and control committees

In addition to the bodies described above, Isdefe has various supervisory, surveillance and control bodies. Moreover, as a public company, it is subject to controls and audits by the Court of Auditors, the General Intervention Board of the State Administration, the Ministry of Finance and independent audits of its Financial Statements, as well as to independent verifications of the Non-Financial Information Statement. The most important are outlined below:

## Administration and Management Bodies

### Management Committee

Its mission is to coordinate the implementation of the strategy and monitor the company's evolution.

#### Roles of the Management Committee

- Give advice to the Chief Executive Officer.
- Coordinate the implementation of the strategy.
- Monitor the company's evolution.

#### Mechanism for adoption of agreements

The Management Committee meets when convened by the chief executive officer and also upon the request of the Directors and after consultation with the CEO.

Decisions are made by consensus after deliberation of the matters stipulated in the agenda.



## Supervisory, Surveillance and Control Bodies

In addition to the bodies described above, Isdefe has various supervisory, surveillance and control bodies. Moreover, as a public company, it is subject to controls and audits by the Court of Auditors, the General Intervention Board of the State Administration, the Ministry of Finance and independent audits of its Financial Statements, as well as to independent verifications of the Non-Financial Information Statement. The most important are outlined below:

### Other internal management bodies

#### Ethical and Technical Committee

Promote the internal Code of Ethics and ensure compliance.

#### Criminal Risk Supervision and Control Committee

Regular supervision on systems for controlling and preventing Criminal Risk established by the Company.

#### Data Protection Committee

Guarantee personal data protection (rights and freedoms).

#### Transparency, Good Governance and CSR Committee

Promote transparency in Isdefe's public activity, ensure compliance of publicity obligations, safeguard the right to access public information and guarantee compliance with good governance and CSR provisions.





**Other committees**

There are other committees, such as the management coordination and advisory committee, workers' representation committees and the Works Council.

**Age Pyramid of Governing and Management Bodies**



	<30	30-50	>50
Board of Directors	-	2	1
Management Advisory Committee	0	1	1



	<30	30-50	>50
Board of Directors	-	1	10
Management Advisory Committee	0	2	6

**TOTAL // Board of Directors 14 / Management Advisory Committee 10**



## Risks, policies and action lines

Our policies, objectives and action lines are determined on the one hand by our status as a public company and on the other hand by how we carry out our own activity. They are all in line with commitments based on our values and action principles which contribute to making our mission and vision a reality.







## Commitment to effective risk management

At Isdefe we entrust the achievement of our strategic objectives to an adequate management of identified risks, complying with legal requirements and setting out the necessary internal rules for this purpose. This is stated in our Employee Portal for the proper conduct of our business.

As a preliminary step to the implementation of actions leading to risk eradication and/or minimisation, we have identified those linked to Isdefe's activity, including:

### Changes in rules:

May impact in-house technical services and budgetary restrictions.

### Lack and suitability of resources:

Restrictions on hiring staff in the public sector and loss of resources due to external market conditions.

### Capacity to face changes:

Transformations and technology obsolescence.

### Risks in the business context:

Related to external factors having an impact on the context in which Isdefe operates and where it does not have -or has very limited- power to act.

### Strategic risks:

Related to changes in the orientation and activities of the Company that modify its structure and size and to which it cannot give an effective and efficient response.

### Risks of the digital society:

Arising from the company's inability to pivot to changes driven by evolving information technologies.

### Compliance risks:

Related to noncompliance with current legal regulations or mismanaged relationships.

Project management and execution risks:

Related to inadequate implementation or poor follow-up of project development.

### Procurement risks:

Related to potential deficiencies in the procurement process and contract implementation.

### IT risks:

Related to information security, cyber-attacks, availability and obsolescence of IT systems and affecting the development and continuity of the Company's operations.

### Human Resources risks:

Related to restrictions and management of resources and/or misconduct by individuals.

### Financial and economic risks:

Related to economic and financial sustainability weakening the financial or corporate balance.

### Information reporting risks:

Related to any type of communication or information generated within the Company with the ultimate purpose of making decisions in its general interest.

At the top of our risk management system is Isdefe's **Senior Management**, who are involved in the overall supervision of risk management through their active participation in both the acceptance and follow-up of risk. Management is developed through specific mechanisms defined for each area.

In terms of **Information Security** risks, we establish the highest level of Classified Information Security principles, used to define rules, procedures, practices and the technical, organisational and technology security measures required to achieve the suitable, proportionate and reasonable degree of security of classified information required by our commissioning bodies and clients.



Within Personal Data Security, we manage risk through a Committee that informs, advises and supervises compliance with measures the Company needs to take in order to guarantee that data processing complies with the LOPDGDD (Organic Law on Data Protection and Guarantee of Digital Rights) and with the GDPR (General Data Protection Regulation), and personal data protection (rights and freedoms), and ensures security and the correct processing of data.

### Criminal Risk Prevention Programme

Isdefe's Criminal Risk Prevention (PEP) programme manages and prevents criminal risks that could affect the company, according to its activity and business sector.

The programme includes other instruments that strengthen the governance model, such as outreach and training of the entire workforce, the existence of a **Criminal Risk Supervision and Control Committee** and the establishment of a **Reporting Channel** for potential irregularities in this area.

In 2019, the Criminal Risk Prevention Manual, which forms part of the programme, was updated as a result of the entry into force on 13 March 2019 of Organic Law 1/2019 amending the Criminal Code. This amendment directly affects various offences provided for in the Manual such as business corruption, tax fraud against the European Treasury, subsidy fraud, bribery, embezzlement and the fight against terrorism. The use of an app for the management of criminal risks was also implemented at the end of 2019 to streamline control and oversight management.

### Commitments to responsible action

The Code of Ethics is an integral part of Isdefe's governance model and is based on the guiding principles of integrity, professionalism and respect which set the standards for the behaviour of its professionals.

Over the last few years, an ethical culture has been consolidated thanks to ongoing training and promotion of the values stated in the **Code, the management of the Ethics Mailbox and the existence of a Technical/Ethics Committee for management and monitoring.**

#### Staff trained in Criminal Risk Prevention

2019 98 %

2018 92 %





It also includes the non-mandatory principles laid down by international reference guides such as the **Universal Declaration of Human Rights, UN Global Compact and the OECD Principles of Corporate Governance** that determine international values related to human rights, labour relations, the environment and the fight against corruption.

In recent years, we have actively consolidated an ethical culture throughout the organisation through the training, outreach and promotion of the values set out in the Code of Ethics, which is incorporated into the employment contracts of our employees. The Code is public and can be consulted on our corporate website:

**Code of Ethics (<https://www.isdefe.es/sites/default/files/CodigoEtico-Isdefe2013.pdf>)**



These ethical principles are also passed on to our customers and suppliers. Since 2015, the supplier registration form has included a paragraph explaining that the company's activity is governed by the Code of Ethics and expressing the desire to extend its principles to all its stakeholders.

In 2019, a further step was taken in this regard, incorporating into Specifications a clause asking bidders who submit tenders to accept and be familiar with the Isdefe Code of Ethics. A clause of commitment to comply with the Code was also included in contracts.

Our employees must show decent and considerate treatment to every person with whom they have a professional relationship, must not abuse their power and must acknowledge the value of people and their performance. They must act at all times in accordance with the laws in force in Spain and in the countries where they operate and act in accordance with internationally accepted fundamental human rights and public freedoms. They must also treat people with dignity and respect and avoid any action that may cause discrimination.

Some of the most outstanding action principles guiding the activity of our entire team of professionals are:



- Decent, honest and honourable behaviour with people, organisations and in relations with clients.
- Compliance with current legislation and the commitments contained in the code of ethics.
- In relations with suppliers and collaborating companies, ensure that this relationship is governed by the principles of publicity, competition, equal treatment, nondiscrimination, transparency, proportionality and integrity.
- Isdefe employees may not directly or indirectly accept gifts, donations, invitations, favours or compensation of any kind.
- Fight against money laundering: avoid economic transactions of an unusual nature or amount, both collections and payments, and making payments to tax havens
- Application of transparency at all levels as far as internal and external communication is concerned and the correct use of information.
- Be aware that Isdefe's reputation depends on the actions and decisions of every member of staff.
- Loyalty to the company and conflicts of interest. Corporate image and reputation.
- Cooperation and dedication. Health and safety.
- Management of company resources. Confidentiality and knowledge.



## 5. GOVERNANCE

For an adequate understanding and the internalisation of all these principles, our staff take a course on “Awareness Raising on the Code of Ethics”, during which fundamental aspects of human rights are addressed, such as current law, public freedoms, respect and decency in treating people, equal opportunity and nondiscrimination and protection of the environment.

**96.8% of the workforce completed the course on Awareness Raising on the Code of Ethics in 2019**, either in person or online (through the Isdefe Virtual Campus).

### Commitment to transparency

Act 19/2013 of 9 December on Transparency, Access to Public Information and Good Governance, states in the preamble: *“Countries with greater levels of transparency and good governance rules have stronger institutions promoting economic growth and social development.”*

In this regard, Isdefe contributes to the attainment of this general principle by complying with obligations set forth in the Act on the publication of institutional, organisational and planning information, as well as information on its Transparency Portal.

### Commitment to maximum quality

Furthermore, we have in place a **Quality Management System based on the ISO 9001 standard**, ensuring quality in services, as well as an **Environmental Management System according to the ISO 14001 standard**, aiming to minimise potential environmental risks associated with the company’s activity.

### Commitment to sustainable development: 2030 Agenda

September 2019 marks four years since the approval by the UN of the 2030 Agenda for Sustainable Development, and with it the 17 Sustainable Development Goals (SDGs) to transform the world.

Isdefe is committed to the 2030 Agenda and leveraged the anniversary to undertake various actions throughout the year in line with this commitment such as, for example, joining the #aliadosdelosODS disclosure campaign coordinated by the Spanish chapter of UN Global Compact. The activities carried out included:



#### Outreach over communication channels:

- **Internal:** News stories on the Employee Portal and broadcasts on TV screens at Isdefe headquarters.
- **External:** Publication of the news story “The Governance Model at Isdefe” in the News section of the corporate website and incorporation of the 2030 Agenda logo in the website footer.
- **Information day for all staff:** Aula Argos explaining the meaning and implications of the SDGs, as well as Isdefe’s contribution to them, from a corporate and operational point of view.
- Delivery of a glass bottle marked with the 2030 Agenda and Isdefe logos, with a double objective - ending single-use plastics and promoting the 2030 Agenda throughout the workforce.





### Isdefe's contribution to the SDGs

As a public service company, Isdefe has a roadmap for the effective integration of the SDGs into its business strategy. Priority SDGs have been identified in three areas of action: Economic, Environmental and Social.

Regarding the **social area**:



#### SDG 16: "PEACE, JUSTICE AND STRONG INSTITUTIONS"

Isdefe develops its activity strategy in two areas:

- Strengthening of its role as a benchmark inhouse technical service provider to the Central Government in the field of Defence and Security.
- Promotion of the definition of new concepts to develop the National Security Strategy.

#### Best Practices

- The Governance Model at Isdefe.

In the "Opinion Platform" section of the Spanish chapter of the UN Global Compact website, the director of Transparency and Quality Governance explains Isdefe's commitment to a governance model based on ethics, compliance and transparency.

- Effective Open Data Strategy.

This good practice describes how Isdefe proactively contributes to building effective, responsible and transparent institutions at all levels.

The two good practices were published on the UN Global Compact platform.



#### SDG 8: "DECENT WORK AND ECONOMIC GROWTH"

- Job Creation: 1,650 jobs at 31 December 2019.
- Human resources development, training, motivation, recognition and talent retention within the Public Sector framework.
- Talent Acquisition Programme.



### SDG 9: "INDUSTRY, INNOVATION AND INFRASTRUCTURE"

- Fostering innovation: Horizons Network 2020. Analysis and forecasting of future challenges facing the Central Government.
- R&D projects: R&D ideas-gathering and management programme.
- Promotion of the modernisation of corporate services, incorporating new technologies into processes and following the lines set in the Digital Transformation Plan of the Central Government and its public agencies.
- Alignment of public procurement with the SDGs.

#### Good Practices

- R&D Ideas Gathering and Management Programme

The R&D Ideas Gathering and Management Programme was published in 2019, consisting of an "ideas contest" in which employees can participate by presenting their ideas for R&D projects. Isdefe is committed to rewarding ideas that contribute to the SDGs and thus also favour SDG 9. The programme was included in the presentation of the 4th Anniversary of the 2030 Agenda Report published by UN Global Compact.



### SDG 17: "PARTNERSHIPS FOR THE GOALS"

- Agreements with Universities: CITIUS Scholarship Program; Extracurricular Internship Program for Undergraduate and Master Students, Awards for Best Research Work.
- Partnerships with organisations working for sustainable development: UN Global Compact, Forética, Foundations and Associations.

Regarding the **environment**:



### SDG 7: "AFFORDABLE AND CLEAN ENERGY"

- Commitment to renewable energy: Consumption of energy from renewable energy sources.
- Circular economy: in-house energy production using solar panels.
- Incorporation of environmental clauses in award criteria and public tender processes for the supply of electricity at Isdefe facilities.



### SDG 13: "CLIMATE ACTION"

- Environmental Management System promoting the efficient use of available natural resources, pollution prevention and more environmentally friendly management of generated waste.
- Commitment to optimising the performance of the cooling and climate control systems at the Isdefe headquarters to reduce their electricity consumption.
- Carbon Footprint Measurement (Scopes 1 and 2).
- Circular economy: sustainable use of resources, non-use of single-use plastics, reduced paper consumption, use of rainwater.

#### Good Practices

- Commitment to renewable energy

In 2018 Isdefe made a commitment to renewable energy that was endorsed by the CNMC (National Markets and Competition Commission) through the issuance of an accreditation certificate.

Awarding a contract to a supplier who delivered 100% renewable electricity, together with the self-consumption energies of the systems at Isdefe headquarters enabled us to obtain the "type B" building energy rating. Both events had a significant impact on the carbon footprint, affirming Isdefe as a company committed to climate change mitigation and sustainable development.

Publication on the UN Global Compact platform to mark World Environment Day.



### SDG 11: "SUSTAINABLE CITIES AND COMMUNITIES"

- Committed to sustainable mobility: Implementation of electric vehicle charging points at the Isdefe headquarters.
- Committed to teleworking: Teleworking pilot programme
- Support for online meetings, video conferences, webinars, digital signatures, online training plan, etc.
- Environmental Management System: Selective waste separation at source plan and a General Clean Point.



Regarding the **social area**:



**SDG 3: "GOOD HEALTH AND WELL-BEING"**

- Healthy Company Policy: Creation of a Healthy Company Committee.
- Provision of vaccinations and health improvement campaigns for all employees.
- Creation of a Nursing Room.
- Initiatives aimed at improving staff health and safety conditions.

**Good Practices**

- Healthy Company Policy:

Isdefe made its Healthy Company Policy, launched in 2018, visible on the "Share Platform", based on a preventive culture and continuous improvement of employee health and safety.

Publication on the UN Global Compact platform.



**SDG 4: "QUALITY EDUCATION"**

- Training Plan.
- Social Action Programme.
  - Promotion of STEM subjects among young students.
  - Promotion of education through the donation of obsolete computer material.







5 IGUALDAD DE GÉNERO



## SDG 5: "GENDER EQUALITY"

- Promotion of the Equal Opportunities Plan.
- Promotion of work/life balance measures.

1 FIN DE LA POBREZA



## SDG 1: "NO POVERTY"

- Social Action Programme: Solidarity Campaigns to alleviate food emergencies.

10 REDUCCIÓN DE LAS DESIGUALDADES



## SDG 10: "REDUCED INEQUALITIES"

- Social Action Programme: Corporate volunteering project through the organisation of leisure activities for people with disabilities, with a dual objective: to promote the comprehensive development of people with disabilities and rest for their families and to offer Isdefe employees the possibility of developing their role as volunteers.

**Good Practices**

- Corporate Volunteering with Masnatur:

The "Share Platform" highlighted the corporate volunteering project to promote the comprehensive development of people with disabilities undertaken by Isdefe for more than a decade.

Publication on the UN Global Compact platform.

A close-up photograph of a hand holding a pen, positioned over a calculator and a spiral-bound notebook. The background is dark, and the foreground elements are in sharp focus. A red vertical bar is on the left side of the image.

## 6. ECONOMIC PERFORMANCE



**Balance sheet at 31 December 2019**

<b>ASSETS</b>	<b>2019</b>	<b>2018* (restated)</b>
<b>A) NON-CURRENT ASSETS</b>	<b>121,430,821.79</b>	<b>123,407,143.36</b>
<b>I. Intangible fixed assets</b>	<b>234,614.70</b>	<b>478,694.66</b>
3. Patents, licences, trademarks and the like	0.00	0.00
5. IT applications	234,614.7	478,694.66
<b>II. Tangible fixed assets</b>	<b>86,238,259.75</b>	<b>87,636,002.56</b>
1. Land and buildings	84,643,985.63	85,723,975.66
2. Technical facilities and other tangible fixed assets	1,594,274.12	1,912,026.90
3. Fixed assets under construction and advances	0.00	0.00
<b>III. Investment in real estate</b>	<b>1,034,255.55</b>	<b>1,066,820.79</b>
1. Land	389,170.24	389,170.24
2. Buildings	645,085.31	677,650.55
<b>IV. Long-term investment in group and associated companies</b>	<b>32,454,000.00</b>	<b>32,454,000.00</b>
1. Equity instruments	32,454,000.00	32,454,000.00
<b>V. Long-term financial investments</b>	<b>37,803.64</b>	<b>70,776.91</b>
2. Credits to third parties	25,392.62	59,835.43
5. Other financial assets	12,411.02	10,941.48
<b>VI. Deferred tax assets</b>	<b>1,431,888.15</b>	<b>1,700,848.44</b>
<b>B) CURRENT ASSETS</b>	<b>60,316,132.17</b>	<b>55,159,068.52</b>
<b>II. Inventory</b>	<b>0.00</b>	<b>0.00</b>
6. Advances to suppliers	0.00	0.00
<b>III. Trade and other receivables</b>	<b>26,658,041.91</b>	<b>25,545,358.40</b>
1. Clients from sales and service provisions	2,818,341.91	6,394,587.45
2. Clients, group and associated companies	23,184,577.64	18,957,619.07
3. Misc. debtors	9,884.47	9,833.09
4. Staff	43,148.59	30,899.04
5. Current tax assets	472,865.04	2,015.88
6. Other credits with Public Administrations	129,224.26	150,403.87
<b>V. Short-term financial investments</b>	<b>44,171.91</b>	<b>45,432.66</b>
2. Credits to companies	31,032.40	32,293.15
5. Other financial assets	13,139.51	13,139.51
<b>VI. Short-term accruals</b>	<b>319,220.19</b>	<b>98,947.67</b>
<b>VII. Cash and other equivalent liquid assets</b>	<b>33,294,698.16</b>	<b>29,469,329.79</b>
1. Cash	33,264,737.12	29,466,591.60
2. Other equivalent liquid assets	29,961.04	2,738.19
<b>TOTAL ASSETS (A+B)</b>	<b>181,746,953.96</b>	<b>178,566,211.88</b>

\* 2018 restated section III. Clients, group and associated companies



## Equity and liabilities

<b>EQUITY AND LIABILITIES</b>	<b>2019</b>	<b>2018*</b> <b>(restated)</b>
<b>A) EQUITY</b>	<b>154,255,855.08</b>	<b>149,509,578.23</b>
<b>A-1) OWN FUNDS</b>	<b>154,255,855.08</b>	<b>149,509,578.23</b>
<b>I. Capital</b>	<b>41,372,100.00</b>	<b>41,372,100.00</b>
1. Subscribed capital	41,372,100.00	41,372,100.00
<b>III. Reserves</b>	<b>106,137,478.23</b>	<b>101,971,788.41</b>
1. Legal and statutory	4,786,267.88	4,169,698.90
2. Other reserves	101,351,210.35	97,802,089.51
<b>VII. Year result</b>	<b>6,746,276.85</b>	<b>6,165,689.82</b>
<b>A) NON-CURRENT LIABILITIES</b>	<b>474,000.70</b>	<b>663,520.28</b>
<b>II. Long-term debts</b>	<b>474,000.70</b>	<b>663,520.28</b>
5. Other financial liabilities	474,000.70	663,520.28
<b>C) CURRENT LIABILITIES</b>	<b>27,017,098.18</b>	<b>28,393,113.37</b>
<b>I. Liabilities linked to non-current assets held for sale</b>	<b>0.00</b>	<b>0.00</b>
<b>II. Short-term provisions</b>	<b>3,275,985.34</b>	<b>4,789,514.54</b>
<b>III. Short-term debts</b>	<b>1,158,544.89</b>	<b>924,838.00</b>
5. Other financial liabilities	1,158,544.89	924,838.00
<b>V. Trade and other payables</b>	<b>22,582,567.95</b>	<b>22,678,760.83</b>
1. Suppliers	5,990,634.92	7,484,760.20
3. Misc. payables	286.96	-210.79
4. Staff (pending remuneration)	8,069,194.01	6,836,709.97
5. Current tax liabilities	0.00	462,668.96
6. Other debts with Public Administrations	4,968,164.72	4,501,405.83
7. Client advances	3,554,287.34	3,393,426.66
<b>TOTAL EQUITY AND LIABILITIES (A+B+C)</b>	<b>181,746,953.96</b>	<b>178,566,211.88</b>

\* 2018 restated section III. Clients, group and associated companies

**Profit and loss account for the year ended 31 December 2019**

<b>PROFIT AND LOSS ACCOUNT</b>	<b>2019</b>	<b>2018</b>
<b>A) CONTINUING OPERATIONS</b>		
<b>1. Turnover net amount</b>	<b>150,756,900.16</b>	<b>146,575,279.88</b>
b) Service provisions	150,756,900.16	146,575,279.88
<b>4. Supplies</b>	<b>-27,332,039.13</b>	<b>-27,507,022.23</b>
a) Consumption of goods	-1,630,003.58	-1,988,081.58
c) Work performed by other companies	-25,702,035.55	-25,518,940.65
<b>5. Other operating revenues</b>	<b>989,803.21</b>	<b>803,953.90</b>
a) Non-core and other current operating revenues	326,264.50	103,247.89
b) Operating aids integrated to year result	663,538.71	700,706.01
<b>6. Staff expenses</b>	<b>-105,354,934.98</b>	<b>-99,967,976.20</b>
a) Wages, salaries and the like	-77,827,967.70	-74,590,460.45
b) Social security contributions	-27,526,967.28	-25,377,515.75
<b>7. Other operating expenses</b>	<b>-8,896,190.63</b>	<b>-9,335,806.32</b>
a) External services	-7,684,460.05	-7,686,948.99
b) Taxes	-439,012.99	-405,996.33
c) Losses, impairment and changes in commercial operations	-772,717.59	-1,242,861.00
<b>8. Amortisation of fixed assets</b>	<b>-2,360,625.82</b>	<b>-2,393,585.45</b>
<b>10. Surplus of provisions</b>	<b>1,174,205.39</b>	<b>70,620.65</b>
<b>11. Impairment and result from disposals of fixed assets</b>	<b>-482.95</b>	<b>-3,000.56</b>
a) Impairments and losses	31.56	6.63
b) Results through disposals and others	-514.51	-3,007.19



<b>A-1) OPERATING RESULT (1+2+3+4+5+6+7+8+9+10+11)</b>	<b>8,976,635.25</b>	<b>8,242,463.67</b>
<b>12. Financial revenues</b>	<b>2,660.50</b>	<b>260.06</b>
b) From tradable securities and other financial instruments	2,660.50	260.06
b2) From third parties	2,660.50	260.06
<b>13. Financial expenses</b>	<b>-11,016.85</b>	<b>-3,562.79</b>
b) Debts with third parties	-11,016.85	-3,562.79
<b>14. Change in fair value of financial instruments</b>	<b>0.00</b>	<b>0.00</b>
<b>15. Exchange differences</b>	<b>-6,320.92</b>	<b>3,725.22</b>
<b>16. Impairment and result from disposals of financial instruments</b>	<b>0.00</b>	<b>0.00</b>
<b>A-2) FINANCIAL RESULT (12+13+14+15+16)</b>	<b>-14,877.27</b>	<b>422.49</b>
<b>A-3) RESULT BEFORE TAXES (A-1+A-2)</b>	<b>8,961,957.98</b>	<b>8,242,886.16</b>
<b>17. Tax on profits</b>	<b>-2,215,681.13</b>	<b>-2,077,196.34</b>
<b>A-4) RESULT FOR THE YEAR FROM CONTINUING OPERATIONS (A-3+17)</b>	<b>6,746,276.85</b>	<b>6,165,689.82</b>
<b>B) DISCONTINUED OPERATIONS</b>		
18. Profit/loss for the year from discontinued operations net of tax	0.00	0.00
<b>RESULT FOR THE YEAR (A-4+18)</b>	<b>6,746,276.85</b>	<b>6,165,689.82</b>



## Informe de Auditoría de Cuentas Anuales emitido por un Auditor Independiente

**Al Accionista Unico de INGENIERÍA DE SISTEMAS PARA LA DEFENSA DE ESPAÑA, S.A.,  
S.M.E., M.P.:**

### *Opinión*

Hemos auditado las cuentas anuales de **INGENIERÍA DE SISTEMAS PARA LA DEFENSA DE ESPAÑA, S.A.U., S.M.E., M.P.** (la Sociedad), que comprenden el balance a 31 de diciembre de 2019, la cuenta de pérdidas y ganancias, el estado de cambios en el patrimonio neto, el estado de flujos de efectivo y la memoria correspondientes al ejercicio terminado en dicha fecha.

En nuestra opinión, las cuentas anuales adjuntas expresan, en todos los aspectos significativos, la imagen fiel del patrimonio y de la situación financiera de la Entidad a 31 de diciembre de 2019, así como de sus resultados y flujos de efectivo correspondientes al ejercicio terminado en dicha fecha, de conformidad con el marco normativo de información financiera que resulta de aplicación (que se identifica en la nota 2 de la memoria) y, en particular, con los principios y criterios contables contenidos en el mismo.

### *Fundamento de la opinión*

Hemos llevado a cabo nuestra auditoría de conformidad con la normativa reguladora de la actividad de auditoría de cuentas vigente en España. Nuestras responsabilidades de acuerdo con dichas normas se describen más adelante en la sección *Responsabilidades del auditor en relación con la auditoría de las cuentas anuales* de nuestro informe.

Somos independientes de la Sociedad de conformidad con los requerimientos de ética, incluidos los de independencia, que son aplicables a nuestra auditoría de las cuentas anuales en España según lo exigido por la normativa reguladora de la actividad de auditoría de cuentas. En este sentido, no hemos prestado servicios distintos a los de la auditoría de cuentas ni han concurrido situaciones o circunstancias que, de acuerdo con lo establecido en la citada normativa reguladora, hayan afectado a la necesaria independencia de modo que se haya visto comprometida.

Consideramos que la evidencia de auditoría que hemos obtenido proporciona una base suficiente y adecuada para nuestra opinión.

### *Aspectos más relevantes de la auditoría*

Los aspectos más relevantes de la auditoría son aquellos que, según nuestro juicio profesional, han sido considerados como los riesgos de incorrección material más significativos en nuestra auditoría de las cuentas anuales del periodo actual. Estos riesgos han sido tratados en el contexto de nuestra auditoría de las cuentas anuales en su conjunto, y en la formación de nuestra opinión sobre éstas, y no expresamos una opinión por separado sobre esos riesgos.

C/ Alcalá, 63, 28014 Madrid Teléfono: + 34 915 624 030 Fax: + 34 915 610 224 e-mail: auditoria@mazars.es  
Oficinas en: Alicante, Barcelona, Bilbao, Madrid, Málaga, Valencia, Vigo

MAZARS Auditores, S.L.P. Domicilio Social: Calle Diputació, 260, 08007 Barcelona  
Registro Mercantil de Barcelona, Tomo 30.734, Folio 212, Hoja B-180111, Inscripción 1ª, N.I.F. B-61622262  
Inscrita con el número S1189 en el Registro Oficial de Auditores de Cuentas (ROAC)





#### *Reconocimiento de ingresos*

La cuenta de pérdidas y ganancias adjunta del ejercicio 2019 incluye en el epígrafe “Importe neto de la cifra de negocios” los ingresos de encargos recibidos por la Sociedad, por importe de 137 millones de euros, debido a su consideración como medio propio y servicio técnico de la Administración General del Estado y de los entes, entidades y organismos vinculados o dependientes de ella. Los encargos se ejecutan de acuerdo con las instrucciones fijadas por la entidad que lo efectúa y su retribución se fija en función de las tarifas debidamente aprobadas. Estos ingresos se reconocen cuando el resultado de la transacción puede ser estimado con fiabilidad y teniendo en cuenta el porcentaje de realización del servicio a la fecha de cierre del ejercicio, en función de las horas incurridas. No existen estimaciones o juicios de valor significativos en relación al reconocimiento de estos ingresos por parte de la Sociedad, sin embargo, debido al importe significativo de estos ingresos, hemos considerado este aspecto como relevante en nuestra auditoría.

Nuestros procedimientos de auditoría han incluido, entre otros, (i) entendimiento y revisión en detalle de una muestra de los encargos recibidos en el ejercicio 2019 para comprobar si las cantidades facturadas se corresponden con los importes acordados y cobrados, (ii) comprobación de la integridad de estos ingresos con la relación de los encargos, (iii) la confirmación externa y el análisis de la recuperabilidad de los saldos deudores a 31 de diciembre de 2019, (iv) análisis del registro contable y razonabilidad de estos ingresos, y (v) la revisión de que la memoria adjunta en las notas 1.c, 4.i y 22 incluye los desgloses de información que requiere el marco de información financiera aplicable.

#### *Otra información: Informe de gestión*

La otra información comprende exclusivamente el informe de gestión del ejercicio 2019, cuya formulación es responsabilidad de los Administradores de la Sociedad y no forma parte integrante de las cuentas anuales.

Nuestra opinión de auditoría sobre las cuentas anuales no cubre el informe de gestión. Nuestra responsabilidad sobre la información contenida en el informe de gestión se encuentra definida en la normativa reguladora de la actividad de auditoría de cuentas, que establece dos niveles diferenciados sobre la misma:

- a) Un nivel específico que resulta de aplicación al estado de la información no financiera, que consiste en comprobar únicamente que la citada información se ha facilitado en el informe de gestión, o en su caso, que se ha incorporado en éste la referencia correspondiente al informe separado sobre la información no financiera en la forma prevista en la normativa, y en caso contrario, a informar sobre ello.
- b) Un nivel general aplicable al resto de la información incluida en el informe de gestión, que consiste en evaluar e informar sobre la concordancia de la citada información con las cuentas anuales, a partir del conocimiento de la entidad obtenido en la realización de la auditoría de las citadas cuentas y sin incluir información distinta de la obtenida como evidencia durante la misma, así como evaluar e informar de si el contenido y presentación de esta parte del informe de gestión son conformes a la normativa que resulta de aplicación. Si, basándonos en el trabajo que hemos realizado, concluimos que existen incorrecciones materiales, estamos obligados a informar de ello.



Sobre la base del trabajo realizado, según lo descrito anteriormente, hemos comprobado que la información no financiera mencionada en el apartado a) anterior se presenta en el informe separado, "Estado de la información no financiera" al cual se incluye referencia en el informe de gestión, y que el resto de la información que contiene el informe de gestión concuerda con la de las cuentas anuales del ejercicio 2019 y su contenido y presentación son conformes a la normativa que resulta de aplicación.

### *Responsabilidad de los Administradores y la Comisión de Auditoría en relación con las cuentas anuales*

Los Administradores son responsables de formular las cuentas anuales adjuntas, de forma que expresen la imagen fiel del patrimonio, de la situación financiera y de los resultados de la Entidad, de conformidad con el marco normativo de información financiera aplicable a la Entidad en España, y del control interno que consideren necesario para permitir la preparación de cuentas anuales libres de incorrección material, debida a fraude o error.

En la preparación de las cuentas anuales, los Administradores son responsables de la valoración de la capacidad de la Entidad para continuar como empresa en funcionamiento, revelando, según corresponda, las cuestiones relacionadas con la empresa en funcionamiento y utilizando el principio contable de empresa en funcionamiento excepto si los Administradores tienen intención de liquidar la Entidad o de cesar sus operaciones, o bien no exista otra alternativa realista.

La Comisión de Auditoría es responsable de la supervisión del proceso de elaboración y presentación de las cuentas anuales.

### *Responsabilidades del auditor en relación con la auditoría de las cuentas anuales*

Nuestros objetivos son obtener una seguridad razonable de que las cuentas anuales en su conjunto están libres de incorrección material, debida a fraude o error, y emitir un informe de auditoría que contiene nuestra opinión. Seguridad razonable es un alto grado de seguridad pero no garantiza que una auditoría realizada de conformidad con la normativa reguladora de la actividad de auditoría de cuentas vigente en España siempre detecte una incorrección material cuando existe. Las incorrecciones pueden deberse a fraude o error y se consideran materiales si, individualmente o de forma agregada, puede preverse razonablemente que influyan en las decisiones económicas que los usuarios toman basándose en las cuentas anuales.

Como parte de una auditoría de conformidad con la normativa reguladora de la actividad de auditoría de cuentas vigente en España, aplicamos nuestro juicio profesional y mantenemos una actitud de escepticismo profesional durante toda la auditoría. También:

- Identificamos y valoramos los riesgos de incorrección material en las cuentas anuales, debida a fraude o error, diseñamos y aplicamos procedimientos de auditoría para responder a dichos riesgos y obtenemos evidencia de auditoría suficiente y adecuada para proporcionar una base para nuestra opinión. El riesgo de no detectar una incorrección material debida a fraude es más elevado que en el caso de una incorrección material debida a error, ya que el fraude puede implicar colusión, falsificación, omisiones deliberadas, manifestaciones intencionadamente erróneas, o la elusión del control interno.
- Obtenemos conocimiento del control interno relevante para la auditoría con el fin de diseñar procedimientos de auditoría que sean adecuados en función de las circunstancias, y no con la finalidad de expresar una opinión sobre la eficacia del control interno de la Entidad.



- Evaluamos si las políticas contables aplicadas son adecuadas y la razonabilidad de las estimaciones contables y la correspondiente información revelada por los Administradores.
- Concluimos sobre si es adecuada la utilización, por los Administradores, del principio contable de empresa en funcionamiento y, basándonos en la evidencia de auditoría obtenida, concluimos sobre si existe o no una incertidumbre material relacionada con hechos o con condiciones que pueden generar dudas significativas sobre la capacidad de la Entidad para continuar como empresa en funcionamiento. Si concluimos que existe una incertidumbre material, se requiere que llamemos la atención en nuestro informe de auditoría sobre la correspondiente información revelada en las cuentas anuales o, si dichas revelaciones no son adecuadas, que expresemos una opinión modificada. Nuestras conclusiones se basan en la evidencia de auditoría obtenida hasta la fecha de nuestro informe de auditoría. Sin embargo, los hechos o condiciones futuros pueden ser la causa de que la Entidad deje de ser una empresa en funcionamiento.
- Evaluamos la presentación global, la estructura y el contenido de las cuentas anuales, incluida la información revelada, y si las cuentas anuales representan las transacciones y hechos subyacentes de un modo que logran expresar la imagen fiel.

Nos comunicamos con los Administradores de la Entidad en relación con, entre otras cuestiones, el alcance y el momento de realización de la auditoría planificados y los hallazgos significativos de la auditoría, así como cualquier deficiencia significativa del control interno que identificamos en el transcurso de la auditoría.

Entre los riesgos significativos que han sido objeto de comunicación a los Administradores de la Entidad, determinamos los que han sido de la mayor significatividad en la auditoría de las cuentas anuales del periodo actual y que son, en consecuencia, los riesgos considerados más significativos.

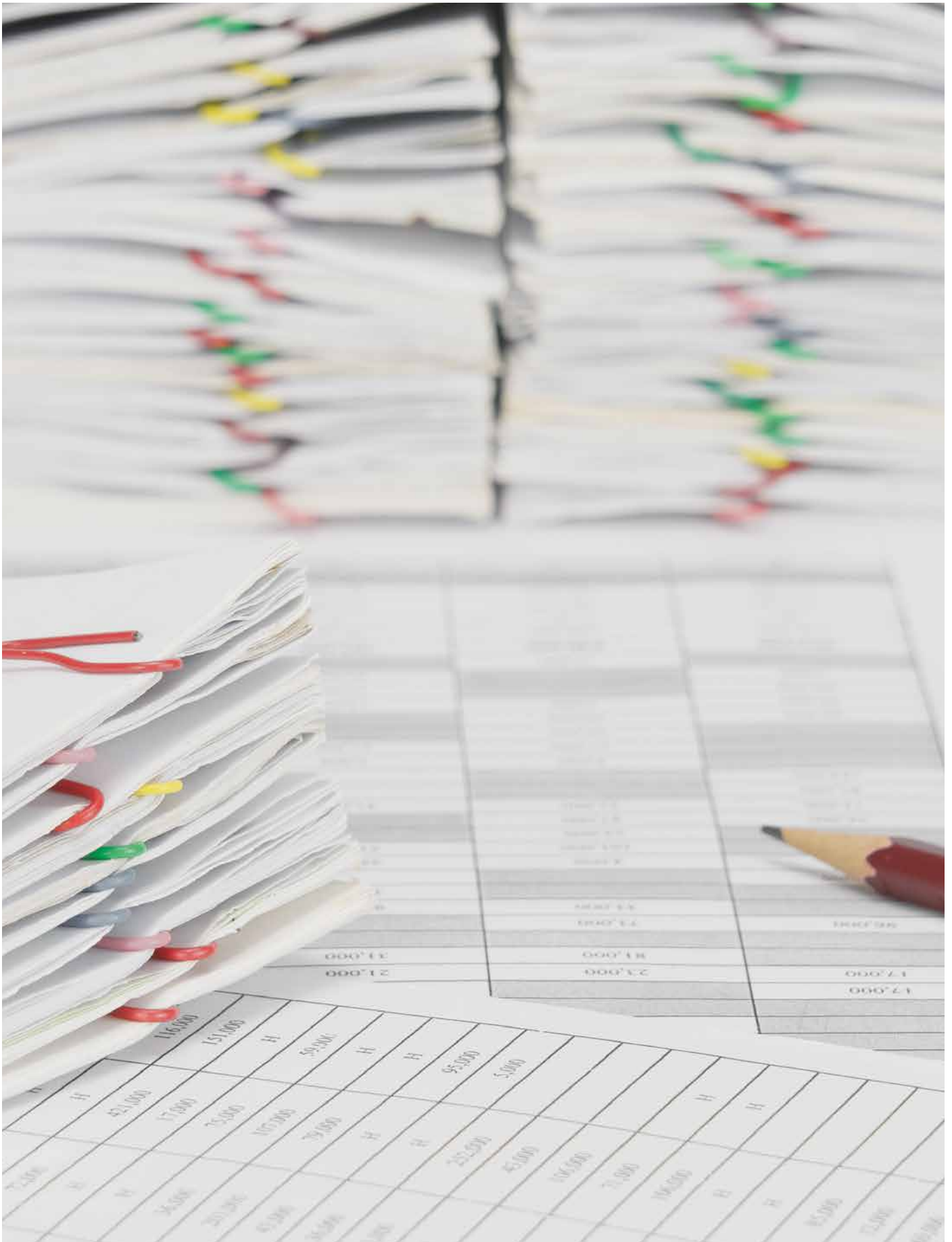
Describimos esos riesgos en nuestro informe de auditoría salvo que las disposiciones legales o reglamentarias prohíban revelar públicamente la cuestión.

Madrid, 6 de mayo de 2020

MAZARS AUDITORES, S.L.P.  
ROAC N° S1189

Juan Antonio Giménez Miró  
ROAC N° 15.588





## 7. ANNEXES







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## ANNEX I. Methodology

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This Annual Report 2019 uses as a reference framework the Global Reporting Initiative (GRI) standards, which represent best practices at a global level to publicly disclose information on economic, environmental, and social impacts generated by the organisation and how they are tackled. The preparation of sustainability reports based on these standards provides information on the positive and negative contributions of organisations to sustainable development.

Additionally, the Annual Report meets the organisation's commitment to the UN Global Compact principles as stated in the GRI table of contents included at the end of the present Annex. Thanks to this, this report also represents the progress report required by UN Global Compact which is published every year on the website of this organisation (<https://www.unglobalcompact.org>).

This report refers to activities developed by Isdefe in 2019. Isdefe does not have a parent company or subsidiaries. Although the Annual Report 2019 has not been subject to a specific external review, it should be noted that Isdefe conducts an audit on the financial statements every year and that its Non-Financial Information Statement 2019 was verified by an independent expert according to the provisions set out in Act 11/2018 on Non-Financial Information and Diversity.

### Materiality analysis

For the preparation of last year's Annual Report 2018, Isdefe carried out the determination of material aspects to be included in the Annual Report. The results of this process have been used again as guidance for this Annual Report 2019, and according to GRI guidelines.

#### Identification of relevant issues, through the analysis and assessment of::

- **Internal sources:** Isdefe's Strategic Plan 2017-2021 and corporate plans arising from this; the Financial Statements; the Criminal Risk Prevention Plan; the Marketing and CSR Plan; Management Coordination and Advisory Committees, and Workers' Representation Committees and conclusions drawn from ongoing dialogue with stakeholders through the different communication channels available.
- **External sources:** legislation in force, public policies applicable to the company, the media and different external studies published at national level concerning CSR.

#### Prioritisation:

Bearing in mind assessments and decisions made by stakeholders and the importance of the economic, social and environmental impacts generated by the company, we prioritised and evaluated aspects that have a direct impact when managing the organisation, due to both their external and internal repercussions.



Relevant Topics	Impact
Economic performance	Internal
Market presence	Internal
Indirect economic impacts	Internal+External
Anti-corruption	Internal
Materials	Internal+External
Energy	Internal+External
Water	Internal+External
Emissions	Internal+External
Effluents and waste	Internal+External
Supplier environmental assessment	Internal+External
Employment	Internal
Labour/Management relations	Internal
Occupational health and safety	Internal
Training and education	Internal
Diversity and equal opportunity	Internal
Non-discrimination	Internal
Human rights assessment	Internal+External
Supplier social assessment	Internal+External

## Principles for report preparation

Compilation of the information included in this report and the wording of it have been carried out according to the preparation principles of GRI reports:

### Balance

The Annual Report presents positive and negative aspects of Isdefe's performance and includes the level of compliance compared to the previous year's commitments, making it possible to make a fair assessment of corporate social responsibility management.

### Accuracy

All the information described is accurate and is presented in sufficient detail for stakeholders to adequately assess the company's performance.

### Clarity

The information provided is stated in an understandable, accessible and useful way.

### Comparability

The information included in this Annual Report states, wherever possible, information from previous years.

### Timeliness

Isdefe publishes the report on an annual basis as a tangible demonstration of its commitment to CSR.

### Reliability

The data contained in this Report is backed by the management systems from the different areas in charge of the data. These systems are managed accurately and transparently.





## ANNEX II. Table of Contents *GRI Standards*

GRI Standard	Disclosure	Page Number and/or URL
<b>GRI 102: General Disclosures 2016</b>		
<b>1. Organisational profile</b>		
102-1	Name of the organisation	Cover
102-2	Activities, brands, products and services	Page 9
102-3	Location of headquarters	Page 16
102-4	Location of operations	Pages 17 and 18
102-5	Ownership and legal form	Page 150
102-6	Markets served	Pages 18 and 22
102-7	Scale of the organisation	Pages 20 and 172 to 175
102-8	Information on employees and other workers	Pages 120 and 123
102-9	Supply chain	Page 130
102-10	Significant changes to the organisation and its supply chain	Pages 152 and 153
102-11	Precautionary principle or approach	Page 138
102-12	External initiatives	Pages 133 and 134
102-13	Memberships of associations	Page 135
<b>2. Strategy</b>		
102-14	Statement from senior decision-makers	Pages 4 and 5
102-15	Key impacts, risks and opportunities	Pages 160 and 161
<b>3. Ethics and integrity</b>		
102-16	Values, principles, standards and norms of behaviour	Page 8
102-17	Mechanisms for advice and ethical concerns	Pages 160-163
<b>4. Governance</b>		
102-18	Governance structure	Page 152
102-19	Delegating authority	Page 152
102-20	Executive-level responsibility for economic, environmental and social issues	Pages 154-155
102-21	Consulting stakeholders on economic, environmental and social issues	Page 116
102-22	Composition of the highest governance body and its committees	Pages 154-155



GRI Standard	Disclosure	Page Number and/or URL
102-23	Chair of the highest governing body	Page 155
102-24	Nominating and selecting the highest governing body	Page 154
102-25	Conflicts of interest	Page 163
102-26	Role of the highest governing body in setting purpose, values and strategy	Pages 154-155
102-30	Effectiveness of risk management processes	Page 161
102-31	Assessment of economic, environmental and social issues	Pages 153-156
102-32	Role of the highest governing body in sustainability reporting	Pages 153-154
102-35	Remuneration policies	Page 156
<b>5. Stakeholder engagement</b>		
102-40	List of stakeholders	Page 155
102-41	Collective bargaining agreements	Page 127
102-42	Identifying and selecting stakeholders	Page 116
102-43	Approach to stakeholder engagement	Page 116
102-44	Key topics and concerns raised	Page 185
<b>6. Reporting practice</b>		
102-45	Entities included in the consolidated financial statements	Page 176
102-46	Defining report content and subject boundaries	Page 185
102-47	List of material topics	Page 185
102-48	Restatements of information	No relevant changes
102-49	Changes in reporting	No relevant changes
102-50	Reporting period	Page 184
102-51	Date of most recent report	September 2019
102-52	Reporting cycle	Page 184
102-53	Contact point for questions on the report	See <a href="http://www.isdefe.es">www.isdefe.es</a>
102-54	Statement of reporting in accordance with the GRI Standards	Page 184
102-55	Table of contents GRI	This report has been prepared in accordance with the core option of the GRI Standards
102-56	External verification	Pages 186-190



GRI Standard	Disclosure	Page Number and/or URL
<b>GRI 103: Management Approach 2016</b>		
103-1	Explanation of the material topic and its boundary	Page 185
103-2	The management approach and its components	Economic topics: pp. 10, 123, 143, 133, 160 Environmental topics: p. 109 Social topics: p. 138
103-3	Evaluation of the management approach	Economic topics: pp. 123, 126, 129, 130,133, 160, 172, 175 Environmental topics: pp. 143-147 Social topics:
<b>GRI 201: Economic Performance 2016</b>		
201-1	Direct economic value generated and distributed	Pages 174, 175
201-2	Financial implications and other risks and opportunities due to climate change	Page 144
201-3	Defined benefit plan obligations and other retirement plans	Pages 127, 128
<b>GRI 202: 2016 Market Presence</b>		
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	Page 35
<b>GRI 203: Indirect Economic Impacts 2016</b>		
203-1	Infrastructure investments and services supported	Pages 133, 134 (see also Non-Financial Information Statement)
<b>GRI 205: Anti-corruption 2016</b>		
105-2	Communication and training about anti-corruption policies and procedures	Page 163
<b>GRI 301: Materials 2016</b>		
301-1	Materials used by weight or volume	Page 141
301-2	Recycled input materials used	Page 145
<b>GRI 302: Energy 2016</b>		
302-1	Energy consumption within the organisation	Page 141
302-3	Energy intensity*	Page 141
302-4	Reduction of energy consumption	Page 141

\*Information on energy consumption per employee is provided.



GRI Standard	Disclosure	Page Number and/or URL
<b>GRI 303: Water and Effluents 2016</b>		
303-1	Water consumption	Page 141
<b>GRI 305: Emissions 2016</b>		
305-1	Direct (Scope 1) GHG emissions	Page 144
305-2	Energy indirect (Scope 2) GHG emissions	Page 144
305-5	Reduction of GHG emissions	Page 144
<b>GRI 306: Effluents and Waste 2016</b>		
306-2	Waste by type and disposal method	Page 139
306-4	Transport of hazardous waste	See Non-Financial Information Statement 2019
<b>GRI 306: Effluents and Waste 2016</b>		
308-1	New suppliers that were screened using environmental criteria	Page 130
<b>GRI 401: Employment 2016</b>		
401-1	New employee hires and employee turnover	Page 123
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Pages 127-128
401-3	Parental leave	Page 126
<b>GRI 402: Labor/Management Relations 2016</b>		
402-1	Minimum notice periods regarding operational changes	Page 127
<b>GRI 403: Occupational Health and Safety 2016</b>		
403-1	Occupational health and safety management team	Page 127
403-2	Hazard identification, risk assessment, and incident investigation	Page 126
403-3	Occupational health services	Page 126
403-4	Worker participation, consultation, and communication on occupational health and safety	Pages 125-127
403-5	Worker training on occupational health and safety	Page 125
403-6	Promotion of worker health	Pages 125-126
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Pages 126-127
403-8	Workers covered by an occupational health and safety management system	Page 126



<b>GRI Standard</b>	<b>Disclosure</b>	<b>Page Number and/ or URL</b>
<b>GRI 404: Training and Education 2016</b>		
404-1	Average hours of training per year per employee	Page 124
404-2	Programs for upgrading employee skills and transition assistance programs	Page 125
<b>GRI 405: Diversity and Equal Opportunity 2016</b>		
405-1	Diversity of governance bodies and employees	Pages 123, 153
405-2	Ratio of basic salary and remuneration of women to men	Page 127 (See Non-Financial Information Statement)
<b>GRI 406: Non-Discrimination 2016</b>		
406-1	Incidents of discrimination and corrective action taken	Page 129
<b>GRI 412: Human Rights Assessment 2016</b>		
412-2	Employee training on human rights policies or procedures	Pages 162, 163 (see also Non-Financial Information Statement)
<b>GRI 414: Supplier Social Assessment</b>		
414-1	New suppliers that were screened using social criteria	Page 130



## ANNEX III. Social action and participation in associations and foundations

### Social investment

Isdefe has a Social Action Programme that every year fosters social initiatives in collaboration with foundations and NGOs, always focusing on charities linked to the Defence and Security field. The activities carried out in 2019 were:

- **Participation in the ‘Sustainability and CSR in Public Companies’ Action Group led by Forética.**
- **Association with the Spanish chapter of UN Global Compact.**
- **Collaboration with the Civil Guard Solidarity Association.**
- **Participation in the Sixth Naval Race.**
- **Collaboration with the Madrina Foundation.**
- **Collaboration with the Reyes Magos de Verdad Association.**
- **Collaboration with the Masnatur Foundation.**
- **Participation in the Seur Foundation’s “Plugs for a New Life” Campaign.**
- **Collaboration with the Cine para Educar Foundation.**

### Associations and Foundations

In the framework of its institutional relations, Isdefe maintains links with a small selection of associations and foundations related to defence and security, as well as the rest of its sectors of activity, in order to establish partnerships for developing activities and outreach in the field of science and technology in general, and engineering in particular.

### UN Global Compact

In 2019, we celebrated 10 years of our commitment to the United Nations Global Compact, an international initiative promoting corporate social responsibility for sustainable development. By committing to the Compact, Isdefe onboarded the 10 Universal Principles advocated by the United Nations in areas of Human Rights, Labour, the Environment and Anti-Corruption into its business strategy.



Esta es nuestra **Comunicación sobre el Progreso** en la aplicación de los principios del **Pacto Mundial de las Naciones Unidas**.

Agradecemos cualquier comentario sobre su contenido.



Association / Foundation	Isdefe Involvement
<b>Academy and Foundation of Military Sciences and Arts (ACAMI and FUNDCAMI).</b> Nonprofit association and foundation aimed at promoting military culture in the sphere of Spanish society and literary, artistic and scientific activities.	Sponsor
<b>Spanish Association of Systems Engineering INCOSE Chapter Spain (AEIS-INCOSE).</b> Spanish division of the International Council on Systems Engineering.	Member of Corporate
<b>Spanish Association for Maintenance Works (AEM).</b> A non-profit to promote knowledge around industrial and building maintenance, providing cross-cutting support and representing the group of companies and practitioners within the maintenance sector.	Member
<b>Association for the Scientific Development of ATM in Europe (ASDA).</b> Independent research organisations and universities with R&D activities in the area of air traffic management.	Member
<b>Spanish Association for the Promotion of Information Security (ISMS Forum Spain).</b> Forum promoting the development, knowledge and culture of Information Security in Spain to act for the benefit of the entire community involved in the sector.	Member
<b>Association of Spanish Graduates in Security and Defence (ADESyD).</b> A non-profit, plural and inclusive association whose interest lies in the development and promotion of activities in the fields of security and defence.	Associate
<b>Spanish Association for Quality (AEC).</b> An association that brings together professionals and companies around quality management as a strategic element by preparing materials, holding conferences and sectoral committees and delivering training both to support companies and to certify professionals.	Member
<b>Association for Management Development (APD).</b> onprofit that fosters and promotes executive training.	Collective member



Association / Foundation	Isdefe Involvement
<p><b>European Organization for Civil Aviation Equipment (EUROCAE).</b> A non-profit founded in Lucerne, Switzerland, in 1963, that is the European forum on electronic equipment for air transport. It works exclusively on the standardisation of airborne and land systems and aviation equipment.</p>	Member
<p><b>Forética.</b> Spanish non-profit promoting a culture of ethical and socially responsible management in organisations.</p>	Member
<p><b>Spanish Aeronautics and Astronautics Foundation (FAAE).</b> An organisation that promotes outreach around aerospace science and technology by partnering with bodies such as the Air Force.</p>	Sponsor
<p><b>Defence and Security Technologies Circle Foundation.</b> Meeting place and discussion forum for individuals and entities related to the Defence and Security Technologies sector.</p>	Founding member
<p><b>International Council on System Engineering (INCOSE).</b> Non-profit focused on developing systems engineering and dedicated to increasing vocational skills among systems engineers.</p>	Member of the Corporate Advisory Board
<p><b>Navy League of the United States Madrid Council.</b> Forum connecting institutions in the defence industries in Spain and the USA.</p>	Business Associate Sponsors
<p><b>Spanish chapter of UN Global Compact.</b> An international initiative promoting corporate social responsibility under UN principles and fostering the achievement of the Sustainable Development Goals (SDGs). UN Global Compact operates in Spain through its Spanish chapter.</p>	Member





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## ANNEX IV. Participation in trade shows, seminars and events

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### **7th National Congress on Defence and Security R&D (DESEi+d 2019).**

Collaboration and participation in the 7th National Congress on Defence and Security R&D (DESEi+d 2019) which took place at the Navy School for Non-Commissioned Officers in San Fernando (Cadiz) on 19, 20 and 21 November 2019. The event was organised by the Deputy General Directorate for Planning, Technology and Innovation (SDGPLATIN) at the General Directorate for Armament and Material (DGAM) in collaboration with the General Directorate for Military Recruitment and Education.

Isdefe chief executive Mr. Francisco Quereda and chief business development officer Mr. Jesus Alonso, together with the Secretary of State for Defence, Mr. Ángel Olivares, presented the Antonio Torres R&D award to Mr. Antonio J. Conesa Torres of the National Institute of Aerospace Technology (INTA).

### **University of Granada / Army Training and Doctrine Command Congress.**

Collaboration at the congress entitled “Army, Business and Knowledge: a Strategic Alliance for the 2035 Horizon”, held in Granada from 22 to 24 October. The congress was jointly organised by the Army’s Training and Doctrine Command (MADOC), the University of Granada and its Social Council.

Chief business development officer Mr. Jesús Alonso took part, outlining Isdefe’s commitment to innovation by seeking solutions to the challenges facing public administrations and the innovative model of the Isdefe Horizons Network.

### **6th ADESyD Congress.**

Engagement in the sixth edition of the Association of Spanish Graduates in Security and Defence (ADESyD) congress entitled “Sharing (visions of) Security”, an event that called partners, experts, VIPs, institutions and the public at large to take part in this forum where they debate, reflect and analyse, and where they can share their views and knowledge on defence and security issues.

The head of the GNSS and Remote Sensing Office in the Isdefe Space and Technology Centres Department, Mr. José María Cruz Gómez, contributed with a presentation on “The Galileo Public Regulated Service (PRS) as a Tool for Security and Defence”.

### **13th National Congress on Composite Materials.**

Held from 3 to 5 July in the city of Vigo, the 13th National Congress on Composite Materials (MATCOM) promoted by the Spanish Association of Composite Materials (AEMAC) is the most important event in the scientific, academic and business community on composite and high-performance materials in Spain.

It involved the participation of engineer Mr. Luis Miguel Requejo Morcillo from the Consulting and Strategic Management Processes department, who delivered the conference entitled: “The Future of Composite Materials in the Defence Industry”.



## **CYBERWALL: First Digital Security and Cybercrime Congress.**

CYBERWALL 2019 was held at the National Police School in Ávila from 17 to 20 June.

Isdefe conducted a workshop entitled “Security Audits in Classified Systems”, led by the head of the Cyber Defence Area, Benito Fernández, together with engineers Cristina Moreno and Pamela Lopes from Isdefe’s Defence and Security department.

This first conference was jointly organised by the Ávila National Police Force and the Institute of Forensic and Security Sciences at the Autonomous University of Madrid, and involved 4,000 people, Interpol, Europol and police from different countries who showed a very strong interest in issues around Digital Security and Cybercrime.

## **2019 World ATM Congress.**

Isdefe was present at the 2019 World ATM Congress (WAC), one of the most important international congresses on air traffic management. The event, held at the IFEMA venue at Campo de las Naciones, opened on 12 March and ended on 14 March.

The 7th WAC featured representatives from 136 countries and territories, 238 exhibitors in 21,000 square metres and 260 speakers attracting over 8,500 people.

## **Maintenance Reliability Workshops.**

Estas primeras Jornadas sobre Fiabilidad en el Mantenimiento, fueron organizadas en Madrid por la Asociación Española de Mantenimiento durante los días 27 y 28 de noviembre, contaron con la participación de D. Gonzalo Santamaria Freire, Jefe de área de Sostentamiento del Ejército de Tierra de la dirección de Consultoría y Procesos Estratégicos de Gestión de Isdefe. Expuso el trabajo realizado por él y el ingeniero de Isdefe D. Ernesto Palomar Moreno sobre Fiabilidad y Mantenimiento en el Diseño del hosting para el Galileo Security Monitoring Centre (GSMC) de Galileo.

## **Workshop on “China’s Role in the New World Order”.**

Isdefe engaged in the workshop held at the Isdefe headquarters on 14 November and organised by the Association of Graduates in Senior Studies of National Defence (ADALEDE), the Spanish Association of Military Writers (AEME) and the European Institute of International Studies (IEEI).

## **Academy of Military Arts and Sciences Congress: “The Technologies of the Future and their Application in the Military.”**

The academic session, organised by the Military Technology Forecasting section with the support of the Military Arts and Sciences Foundation, took place on 3 October in the conference hall of the Higher Technical School of Naval Weapons Engineers.

The session was led by Vice Admiral Jesus Manrique Braojos, president of the organising section, while the opening was tasked to the president of the Academy, Army General Jaime Domínguez Buj.

Isdefe participated in the event with a conference by Daniel Mosquera, head of the R&D area of the Business Development department, who spoke about “In-house Technical Service Providers and Universities as a Linchpin of National Innovation”.



### **Operational Military Psychology Seminar.**

The seminar, organised by the Military Health School of the Central Defence Academy (ACD), took place on 20 June at the ACD facilities, under the title “20 years of Psychology in Military Health”. It was held with the aim of raising the profile of psychology in situations of crisis, disaster or civil/military conflict.

The keynote speech was given by doctor of psychology Lieutenant General (R) Juan Manuel García Montaña, entitled “Operational Civil-Military Psychology”.

### **Conference on Artificial Intelligence Applied to Public Policies on Innovation Science and Entrepreneurship.**

The Secretariat of State for Digital Advancement (SEAD), in the framework of the Plan for the Promotion of Language Technologies (Plan TL) and in collaboration with the Spanish Foundation for Science and Technology, organised a conference on 26 June on Artificial Intelligence applied to public policies on science, innovation and entrepreneurship.

### **First Workshop to Welcome Isdefe Trainees.**

On 9 May, the first workshop to welcome trainees who are doing their internships at the company was held at the assembly hall at Isdefe headquarters.

The workshop, organised by the Isdefe Internship Programme Management Committee, was created to welcome the interns, improve their knowledge of the company and exchange impressions and experiences in an informal setting. These interns could someday become part of the company's staff.

### **Conference on Combating Organised Crime.**

An event was held at Isdefe headquarters on 12 June entitled “Civil Guard and Interpol: A Strategic Alliance in the Fight against Organised Crime Worldwide”, put together by the Interpol Civil Guard Detachment in collaboration with the International Cooperation Department of the Judicial Police Technical Unit, the University Research Institute on Internal Security (IUSI) and Isdefe.

The Isdefe chief executive welcomed attendees, who included the Director General of International Relations and Foreign Affairs at the Secretariat of State for Security, Ms. Elena Garzón Otamendi, among other personalities, and the head of the Interpol National Central Bureau.

### **6th Conference on Security and Cyber Defence: CIBERSEG19.**

The Isdefe chair and the Polytechnic University of Alcalá organised the conference on 23 and 24 January at the Conference Hall of the Higher Polytechnic School of the University of Alcalá de Henares. The 6th Security and Cyber Defence Conference of the University of Alcalá (CIBERSEG19), organised by the Telematic Services Group of the Department of Automatics and the ISDEFE Cybersecurity Chair, featured professors from the Department of Computer Science, along with contingents of students from the School.

### **2nd Public Procurement Seminars: Analysis of In-house Service Providers in the Current Legal System.**

Isdefe chief executive Mr. Francisco Quereda and the director of planning and economic/financial affairs, Mr. Víctor Díaz, took part in the “2nd Public Procurement Seminars: Analysis of In-house Service Providers in the Current Legal System”, organised on 25 April by the National Audit Office of the General Intervention Board of the State Administration (IGAE) and the Institute of Fiscal Studies, both part of the Ministry of Finance.



## **Fifth Defence Maintenance and Modernisation Workshops, SYMDEX.**

With the title “Universe 4.0: the Digital Transformation in Defence”, the fifth edition of the Defence Maintenance and Modernisation Workshops (SYMDEX) was held from 2 to 4 April at the Army’s Higher Polytechnic School in Madrid.

Isdefe deputy chief executive, Lieutenant General (R) Juan Manuel García Montaña, moderated the panel entitled: “How do Public and Private Institutions Enable the Digital Transformation of the Armed Forces?” and Isdefe chief operating officer Mr. José Manuel Hesse Martín moderated the table: “Technological Project for the Army Logistics Base: a Unique Opportunity for Innovation”.

## **2019 International Security Workshops: Technology Solutions for Security.**

On 5 March, the Ministry of the Home Office’s Centre for Security Technologies (CETSE) hosted the “International Security Workshops”, organised by the Spanish Association of Technology Defence, Security, Aerospace and Space Companies (TEDAE) in partnership with the Civil Guard and National Police.

The Head of Public Intelligence and Security at Isdefe’s Defence and Security department, Mr. Jesús Alcázar, participated in the panel entitled “The Control of External and Internal EU Borders and their Importance in the Fight against International Terrorism”. The aim of the workshops was to share the security challenges facing the State LEAs and the technological responses of industry to overcome them.

## **Seminar: Strategies and Operational Action to Combat Drug Trafficking.**

The Institute of Policy and Governance at the Carlos III University of Madrid (UC3M) organised the seminar “Strategies and Operational Action to Combat Drug Trafficking”, in which J. Antonio Díaz Bermúdez, head of the Border Protection Area at Isdefe, gave the presentation “Spanish Experiences in Technologies and Surveillance Systems for Border Control” and Mariano Gómez Plaza, consultant in surveillance technologies for public security at Isdefe, spoke on “Technologies Applied to Intelligence-Led Policing against Organised Crime”.

## **12th SATCOM Seminar.**

Isdefe participated in the 12th Satcom Seminar entitled “Satellites as a Key Element for Security and Defence and Government Applications”, held at the European Atlantic University in Santander from 4 to 6 September.

The seminar brought together prominent stakeholders from government satellite services, including the Ministry of Defence, Armed Forces, State Law Enforcement Agencies and institutions and companies in the Spanish space industry.

Isdefe participated with the conference: “The Positioning of Spanish Industry in the Face of the Challenges of the European Space Policy”, given by chief business development officer Mr. Jesús Alonso, and with the conference: “Isdefe’s Technological Prospects in Optical Communications for Future Use at the Maspalomas Space Station”, given by Rosa Pulido, Space Manager, and Antonio Juan González from the space infrastructure area at Maspalomas.



### **Practical Workshop on European Funds Management.**

Isdefe organised and hosted the “Practical Workshop on European Funds Management: Present and Future” at its headquarters on 8 and 9 April attended by representatives of the European Institute of Public Administration (EIPA).

### **European Defence Research Conference.**

Isdefe participated in the “Capability Driven Defence Research and Innovation Conference” which, in cooperation with the European Defence Agency (EDA), was organised by the Romanian Presidency of the Council of the European Union and Romania’s National Defence Ministry.

Mr. Guillermo González Muñoz de Morales, head of the Technology Forecasting Office at the Isdefe Consulting and Strategic Management Processes department, took part in the roundtable on “Presentation of Flagship R&D Collaborative Defence Research Projects”.

The conference brought together more than 500 high-level officials from European Union institutions, defence ministries, research bodies, industry and academia.

### **6th Annual Airborne ISR & C2 Battle Management Conference.**

Now in its sixth year, the international Airborne ISR & C2 Battle Management Conference was held in London.

Mr. César Pérez, Head of Command and Control Networks and Critical Information Systems at Isdefe’s Defence and Security department, delivered a presentation on “Cyber and Digital Transformation: Management Aspects” and took part in the panel on “Building Network Resilience, Cyberspace Manoeuvrability & Situational Awareness”.

The purpose of the event is to strengthen alliances, share strategic objectives and generate trust to improve global intelligence and the command and control infrastructures for air, space and cybernetic systems.

### **Technical Conference on the Aerospace Sector at UC3.**

Isdefe’s Space Director, from the Space and Technology Centres department, Ms. Rosa Pulido, took part in a series of technical conferences at the Higher Polytechnic School of the Carlos III University of Madrid (UC3M), titled “ISDEFE in the Aerospace Sector”.

### **First Meeting of the National Defence Industry.**

The Ministry of Defence, through the Deputy General Directorate for Inspection, Regulation and Industrial Strategy, with the AEC Defence Industries and Services Committee, organised the First Meeting of the National Defence Industry at the Isdefe headquarters on 3 December.

### **“Air Force Environmental Excellence in Maintenance Award”.**

Isdefe chief operating officer Mr. Jose Manuel Hesse presented the “Air Force Environmental Excellence Maintenance Award” to Captain Iván González López at the 12th Air Force Excellence in Maintenance Awards.

This year saw Isdefe partner yet again with these awards and the presentation ceremony was held at the Air Force Assembly Hall.



### **“Antonio de Oquendo” Prize at the 2019 Navy Awards.**

The Minister of Defence, Ms. Margarita Robles, presided over the presentation of the 2019 Navy Awards, in which the Isdefe chief business development officer, Mr. Jesús Alonso, had the honour of presenting the “Antonio de Oquendo” Award to Marine Infantry Lieutenant Colonel Mr. Samuel Morales, for the importance and timeliness of the issues raised in his article “Quo Vadis Martín Álvarez?”.

### **57th Edition of Prizes at the 2019 Army Awards Gala.**

The awards ceremony for the 57th edition of the Army Awards took place at Buenavista Palace at Army Headquarters on 27 June.

Chief operating officer Mr. José Manuel Hesse presented the painting award to the School Teaching Centre.

The first Army Awards were held in 1945, making them the oldest awards in Spain’s cultural environment with a wide range of modalities - more than twenty throughout their history. The Army presented its awards for Painting, Research, Photography, Miniatures and School Teaching, and on this occasion there was a special mention of the Civil Guard.

### **2019 Air Force Awards.**

The 41st edition of the Air Force Awards was this year held in the Courtyard of Honour at Air Force Headquarters and was organised under the theme: “The Air Family”.

Ms. María Jesús Olmedo, head of marketing at the Isdefe Business Development department, was a juror in the diorama model aircraft competition. Isdefe once again contributed to the event, presenting one of the awards.

These awards, which have become a benchmark and the most important cultural act organised by the Air Force, are aimed at boosting outreach about the Force and fostering aeronautical culture, artistic creation and the values of the Armed Forces. They have been held since 1978.

### **11th Edition of the Air Force Excellence in Maintenance Awards.**

The 11th edition of the Air Force Excellence In Maintenance Awards was held at the Air Force Headquarters on 24 January.

The ceremony was presided by Lieutenant General Miguel Ángel Martín Pérez, accompanied by the generals on the Air Force High Council, their Army and Navy counterparts, and other civilian and military officials, along with representatives from the Spanish aerospace companies that the Air Force works closely with.

Isdefe chief operating officer Mr. José Manuel Hesse Martín, together with General Moisés Fernández Álvaro, Director of the Engineering and Infrastructure Directorate of the Air Force Logistics Support Command (MALOG), presented the award in the “Engineering” category.

Isdefe engineer Silvia Marcos Blasco, stationed at MALOG, received the “Procurement” award from Airbus Group.



### **4th Call for R&D Ideas Gathering.**

Isdefe hosted the 4th Call of its Internal R&D Ideas Gathering and Management Programme on 21 March.

The programme calls on Isdefe staff to get involved by presenting innovative ideas and proposals in order to encourage a corporate culture of R&D and to highlight the entrepreneurial spirit and commitment of the staff in this area..

### **Isdefe Receives Honorary Silver Medal from Alcalá University.**

Isdefe chief executive Mr. Francisco Quereda was awarded the Honorary Silver Medal from Alcalá University by the rector of the university, Mr. José Vicente Saz Pérez.

The distinction is given to organisations that have distinguished themselves in teaching, research and collaboration with the University. The award is agreed on by the favourable vote of a majority of members present at the university's Governing Board.

### **International Defence and Security Fair (FEINDEF).**

Defence Minister Ms. Margarita Robles and Secretary of State for Defence, Mr. Ángel Olivares, visited the Isdefe delegation at the space reserved for the company at the Ministry of Defence stand at the International Defence and Security Fair (FEINDEF). During the fair, Mr. César Pérez Vázquez, manager of Command and Control Networks and Critical Information Systems, moderated the Edefa meeting on Cyber War entitled "Threats in a Highly Connected World".

Ms. Cristina Hernández, director of Consulting and Strategic Management Processes, moderated the panel discussion "Dual Technology: New Technologies Applied to the World of Logistics".

### **SATELEC 2019 Employment and Technology Forum.**

Isdefe was present at the 45th edition of the SATELEC 2019 Employment and Technology Forum held on 6 and 7 March.

Organised by the Society of Telecommunications Students ETSIT-UPM (Higher Technical School of Telecommunications Engineers – Polytechnic University of Madrid), it enjoyed wide support from the public and participating companies.

### **University Employment Fair, FOROEMPLEO 2019.**

Isdefe engaged in Foroempleo 2019 at the Leganés campus of the Carlos III University of Madrid. 120 large companies from a wide range of industries and students or recent university graduates looking for a job (or internship) took part in the fair on 2 and 3 October.

### **"Impact of Artificial Intelligence on Defence and Security" Summer Course.**

The summer course entitled "Impact of Artificial Intelligence on Defence and Security", organised by the Polytechnic University of Madrid and CESEDEN with the collaboration of Isdefe, was held from 2 to 4 July.

The course was opened by Guillermo Cisneros, Rector of the UPM. Lt Gen Rafael Sánchez, CESDEN Director, General Director Francisco Javier Abajo Merino, attached to the DGAM, Brig Gen Francisco José Dacoba, Director of the Spanish Institute of Strategic Studies, and Gonzalo León, Delegate of the Rector for Partnerships in Innovation, were also in attendance.



Mr. Daniel Mosquera, Head of the Isdefe Innovation Area, spoke about innovation in Defence and Security and preparatory action in defence research.

### **First National Cyberleague.**

Isdefe engaged in the First Cyberleague, held at the Civil Guard's University Centre in Aranjuez, in the Final Phase of the First Inter-University League of Challenges in Cyberspace, "First National Cyberleague" that Isdefe partners on.

Organised by the Civil Guard as part of the 175th anniversary of the founding of the Armed Institute, the aim of this championship is to recruit cybersecurity talent. At the local phase, the competition was held at 15 university sites and drew more than 500 students.

### **Meeting at Isdefe of the 3rd NGWS/FCAS Steering Committee.**

The 3rd Steering Committee of the international NGWS/FCAS programme (Next Generation Weapon System/ Future Combat Air System (FCAS)) was held at the Isdefe facilities on 5 and 6 November to finalise the definition of Spain's entry in the programme.

### **Creation of the Academy of Military Arts and Sciences.**

The formal presentation of the Academy of Military Arts and Sciences (ACAMI) took place on 5 June in the Conference Hall of the Centre for Defence Studies (CEDESEN).

Isdefe chief executive Mr. Francisco Quereda, chief business development officer Mr. Jesús Alonso and deputy director Mr. Juan Manuel García-Montaña attended the presentation event supporting this initiative, aimed at promoting all the literary, artistic and scientific activities performed to provide outreach on military culture.

### **Meeting of the Council of Presidents of EURODEFENSE.**

Isdefe partnered with the "Council of Presidents of the fourteen countries in the EuroDefense network" at its annual meeting, organised by EuroDefense Spain and held in Madrid from 23 to 25 May.

This event brought together the presidents of the EuroDefense Associations of the 14 member countries, Austria, Belgium, Czech Republic, France, Germany, Greece, Hungary, Italy, Luxembourg, Netherlands, Portugal, Romania, Spain and United Kingdom and assembled leading personalities in their associations formed by civil and military professionals.

### **Isdefe presents the ARES-UTM project results at the 14th annual Systems Engineering conference in Anchorage, Alaska.**

The 14th annual Systems Engineering Conference, organised by the IEEE System, Man, Cybernetics Society and the IEEE Reliability Society, in concert with the International Council on Systems Engineering (INCOSE), of whose Corporate Advisory Board (CAB) Isdefe has been a member since 2017, was held in Anchorage, Alaska from 19 to 22 May.





### **Plenary Meeting of the Isdefe Horizons Network.**

The heads of the Isdefe Horizons Network met at Isdefe on 14 May to take stock of the 2018 financial year and discuss the lines of activity launched in 2019.

The meeting was opened by Isdefe chief business development officer Mr. Jesús Alonso, who began by welcoming attendees and stressing the Network's importance as a cornerstone of Isdefe's and the European Commission's R&D strategy.

### **Working Breakfast Organised by the Association of Public Administration Contractors (AESMIDE).**

Isdefe chief executive Mr. Francisco Quereda Rubio, together with chief business development officer Mr. Jesús Alonso Martín and deputy CBDO Mr. Juan M. García Montaña, participated in the working breakfast organised by the Association of Public Administration Contractors (AESMIDE).

### **Presentation of the 2019 DESEI+D Congress and Isdefe Book Award.**

The 8th National Defence and Security R&D Congress (DESEI+d 2019) began at the Isdefe conference hall on 25 March at 12.30 pm. The ISDEFE R&D Award was also presented at the event, showcasing the 10 articles short-listed for the award at the previous Congress.

### **NATO S4PR25 Group Meeting and Training Sessions.**

The 25th meeting of the S4 Group (SG/2 Shareable Software Suite) Programme Review was held at the Isdefe headquarters from 21 to 27 February 2019.

The meeting involved a total of 65 attendees from 18 countries: Australia, Canada, Germany, Denmark, Spain, Estonia, Finland, France, Great Britain, Greece, Croatia, Italy, Netherlands, Norway, Poland, Sweden, Turkey and the United States.

### **Consultation Forum on Sustainable Energy in the Defence and Security Sector.**

David Martín Borreguero, Consulting and Management Processes engineer at Isdefe, participated in the 3rd Conference, entitled: "Consultation Forum For Sustainable Energy In The Defence and Security Sector, Phase II", as moderator of the Sub-WG2 working group: Energy Efficiency.

The event, a European Commission initiative managed by the European Defence Agency (EDA), was held in Nicosia on 26 and 27 February.

### **"Spain in the Universe" week.**

The Universidad Popular Carmen de Michelena, in collaboration with Tres Cantos City Council, organised the "Spain in the Universe" week from 8 to 27 February, commemorating the 50th anniversary of the Apollo 11 mission, the first manned flight to the moon. Isdefe contributed to the events and stationary exhibition.



**Isdefe**  
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[www.isdefe.es](http://www.isdefe.es)  
[marketing@isdefe.es](mailto:marketing@isdefe.es)