SPAIN

Law and Practice

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AUGUSTA ABOGADOS

Contents

AUGUSTA ABOGADOS is a business law firm specialising in corporate and commercial law, tax, restructuring, labour law, air and space law and procedural law, amongst other areas. The rapid development of space-related technologies, collaboration models between private and public actors, the increasing number of private projects, and the availability of private financing sources contribute to a novel scenario. The complexity of legal requirements and the approval of new regulatory measure are growing rapidly, driven also by the need to protect existing know-how and the value of investments. Building on its accredited experience in the areas of aviation and drones law, in 2021 AUGUSTA ABOGADOS made the strategic decision to develop a new space economy law department, to advise clients and public authorities on legal matters such as the financing of space assets and the launching of satellites, providing guidance on the regulation of satellites and associated frequencies, and monitoring space law legislation and regulation.

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1. Global Trends

1.1 The "NewSpace" and Space Tech Economy

The International Legal Framework (Corpus Iuris Spatialis) and Spain

International space law is historically based on the following five United Nations treaties, which establish fundamental principles such as freedom of exploration and peaceful use of space, non-appropriation and responsibility for space activities:

- the 1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (the "Outer Space Treaty", or OST);
- the 1968 Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space;
- the 1972 Convention on International Liability for Damage Caused by Space Objects;
- the 1974 Convention on Registration of Objects Launched into Outer Space; and
- the 1979 Agreement Governing the Activities of States on the Moon and Other Celestial Bodies.

Spain is a state party and has ratified all these treaties, except the 1979 Moon Treaty.

Other Relevant International Treaties

Spain has also ratified the following relevant international conventions:

- the 1963 Treaty Banning Nuclear Weapon Tests;
- the 1971 Agreement relating to the International Telecommunications Satellite Organization;
- the 1974 Convention Relating to the Distribution of Programme-Carrying Signals Transmitted by Satellite (signature only);the 1975 Convention for the Establishment of a European Space Agency (ESA);
- the 1976 Convention on the International Mobile Satellite Organization;
- the 1982 Convention Establishing the European Telecommunications Satellite Organization (EUTELSAT IGO);
- the 1983 Convention for the Establishment of a European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT); and
- the 1992 International Telecommunication Constitution and Convention.

The following instruments are also of importance.

- The Artemis Agreements were established in 2020 by the US Space Agency (NASA) and reinforce the commitment of signatory states (including Spain) to the norms of international space law, establishing a set of practical principles to guide co-operation in space exploration among nations, including those participating in NASA's Artemis Programme. Spain became a direct signatory to the Artemis Agreements through the Spanish Space Agency (*Agencia Espacial Española* – AEE).
- International Satellite Search and Rescue System (COSPAS-SARSAT): Spain is a participating state in the ground segment of the international distress alert system that uses satellites to locate and rescue people in distress on land, at sea or in the air.

Other International Instruments

The resolutions of the United Nations General Assembly (UNGA) and the guidelines of the Committee on the Peaceful Uses of Outer Space (COPUOS) are also part of the Spanish legal environment. Although UNGA resolutions do not have binding effects in the strict sense of treaties, they do form part of international custom ("soft law") recognised by state practice. The most relevant UNGA resolutions in the field of space include the following:

- UNGA Resolution 41/61 on "Principles Relating to Remote Sensing of the Earth from Outer Space";
- UNGA Resolution 47/68 on "Principles Relevant to the Use of Nuclear Power Sources in Outer Space";
- UNGA Resolutions 51/122 and 75/36 (of 2023, most recently): "Declaration on International Co-operation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States, Taking into Particular Account the Needs of Developing Countries"; and
- UNGA Resolutions 78/19 and 78/19 (2023) on "Prevention of an arms race in outer space".

Sustainability

In the area of sustainability, an area of growing concern, the Inter-Agency Space Debris Coordination Committee (IADC) and the United Nations Office for Outer Space Affairs (UNOOSA) established their "Space Debris Mitigation Guidelines", which the UNGA endorsed in its Resolution 62/217 for private operators, setting out "good practices" for the long-term sustainability of space activities. However, the latest UNGA Resolution (A/RES/778/72) about guidelines on long-term sustainability and space debris mitigation states that they are still under constant development and adapting to the new capabilities of the sector in practice, in co-operation with COPUOS and the IADC.

European Legal Framework

Spain is a member of the European Union (EU) and of the ESA). As such, a number of European rules and regulations on space matters form part of the Spanish legal system, with the most relevant being as follows:

- the Founding Convention of the European Space Agency of 30 May 1975: Spain ratified the Convention on 15 January 1979 and participates actively in its programmes;
- Directive 2007/2/EC establishing an Infrastructure for Spatial Information in the European Community (INSPIRE);
- Regulation (EU) 2021/696 of the European Parliament and of the Council of 28 April 2021 establishing the Union Space Programme and

the European Union Agency for the Space Programme;
- the Charter of the European Union Space Programme Agency (EUSPA), which establishes the legal and operational framework for EUSPA: Spain participates in EUSPA, which manages the European satellite navigation (Galileo and EGNOS) and Earth observation (Copernicus) programmes; and
- Regulation (EU) 2024/795 of the European Parliament and of the Council of 17 May 2024 establishing a Strategic Technology Platform for Europe (STEP).

2. Existing Legal and Regulatory Framework

2.1 Characteristics of the Space Industry

By 2020, the aerospace sector already represented 1.2% of Spain's GDP, with more than 150,000 direct and indirect jobs and more than EUR1.5 billion invested in research and development and innovation (R&D&I). In 2022, Spain was positioned as the fourth space power in the EU and the fifth in terms of contribution to the ESA, with EUR250 million.

The Spanish space industry in 2024 is characterised by a number of factors, as follows.

- Strong governmental impulse: the Spanish public authorities play a fundamental role in the development of the space sector through significant investments in R&D&I. Prominent examples include programmes such as the Strategic Project for Aerospace Economic Recovery and Transformation (PERTE), with EUR4.3 billion invested, and the Space Technology Programme (PTE), with EUR70 million in 2024. NextGeneration EU funds are also invested to foster innovation in the space sector.
- Strong private sector participation: in Spain, the sector has a number of companies that actively participate in projects of national and international relevance, especially in public-private collaboration, which is a key element for the promotion of the industry. Among these, Airbus Defence and Space España, GMV, Hisdesat, Satlantis and PLD Space all stand out, and are all actively involved in national and international projects, collaborating closely with the public sector. These companies are involved in the development of satellites, Earth observation systems and reusable space launchers.
- Public-private partnerships as an engine for development: synergy between the public and private sectors has been crucial to the success of the space sector in Spain. Programmes such as PAZ, Ingenio and SEOSAT-Ingenio are examples of collaboration that have driven the development of advanced technologies and generated high added-value solutions for society.
- Active collaboration and participation in international and European programmes.

Another characteristic of the private sector of the Spanish aerospace industry is its specialisation in Earth observation and satellite development segments.

In contrast, Spain lacks autonomy of access to space due to several factors and challenges involved in launch activities (economic, technological, strategic and also regulatory). In particular, the Spanish space sector still lacks a specific legal regime to provide legal certainty to private traffic operators, to gain independence of access to space and to encourage investment by foreign or national private entities. A body of

new regulations is expected to be published in the coming years. Meanwhile, companies such as PLD Space (www.pldspace.com) have committed to diversifying the industry despite the economic, technological, strategic and, above all, regulatory challenges of the sector.

2.2 Legal System and Sources of Space Law and Regulation

The Spanish Legal System and its System of Sources

The Spanish legal system is based on civil law, which is characterised by its emphasis on written law, codified in systematic legal bodies. The Spanish Constitution (1978) is the supreme rule of the internal legal system and establishes the system of sources of law of the Spanish legal system, in the following order of priority:

- the law, emanating both from the legislative power of the state, and from those provisions of lower rank such as decrees, regulations or ordinances of public law;
- custom; and
- the general principles of law in the absence of law.

Despite the order of precedence established in the Constitution, the general principles of law are present at all times, giving the other rules full meaning.

Jurisprudence (repeated pronouncements or judgments in the same interpretative sense on laws or principles of law issued by the Supreme Court and High Courts of Justice) is not a source of law in the Spanish legal system, strictly speaking, as it does not produce positive law. However, it has the function of complementing the legal system, interpreting laws in accordance with the uses, customs and constitutional and general principles of law in order to achieve unity of criteria.

Sources of Space Law in Spain

Spain has not yet developed a unified or comprehensive body of regulations on space matters. As explained in **1.1 The "NewSpace" and Space Tech Economy**, the sources of domestic law specific to space matters are currently limited to:

- Royal Decree 278/1995, which establishes and regulates the registration of objects launched into outer space;
- Law 11/2022 – the General Telecommunications Law;
- Royal Decree 123/2017, which approves the Regulation on the use of the public radioelectric domain;
- Law 17/2022, approving the creation of the Spanish Space Agency; and
- Royal Decree 158/2023, approving the by-laws of the Spanish Space Agency.

However, the configuration of the Spanish legal system allows for the application of more general provisions of the legal system in those matters not specifically regulated by special laws or regulations, as is the case in the following areas:

- civil liability of private operators, to which the provisions of the Civil Code and related laws apply;
- in the field of intellectual and industrial property, where the general laws and regulations become relevant;
- in the field of public law, in matters of contracts and concessions with the public administrations, where the general regime set out in the 2017 Public Sector Contracts Law and the 2015 Common Administrative Procedure Law applies; and

- the protection of personal data, an important topic for the new space industry, is regulated by the European General Data Protection Regulation (GDPR) and the 2018 Organic Law.

Works to approve a domestic Space Activities Act is under way, although the results are not expected to be published in the short term due to the recent creation of the AEE. Nevertheless, the government has set this as a priority since it feels that the enactment of a national body of laws and regulations will give private operators greater legal certainty in their economic activities, and that this will lead to greater autonomy in access to space.

Impact of the Fundamental Principles of International Space Law

The UNGA resolutions and Spain's commitment as a member of international law organisations (UN, COPUOS, ITU) on international co-operation, sustainability and the peaceful use of space are reflected in Spain's space policy, through the 2019-2023 Space Strategy, and are fully contemplated during the gradual development of a domestic legal framework, as follows.

- Protection of the space environment: Spain has focused much of its public funding on research into and the development of more sustainable technologies, more efficient propulsion systems, recoverable and reusable launchers and space debris mitigation technologies.
- Principle of freedom of exploration and peaceful use of outer space: Spain adheres to the UNGA resolutions on the prevention of an arms race in space and the peaceful use of outer space for exploration.
- International co-operation: Spain has participated in international space co-operation programmes, such as those of ESA and NASA (with the Artemis Agreements).
- Non-appropriation of outer space: as a permanent member of COPUOS, Spain supports UNGA Resolution 51/122 of 4 February 1997, the "Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States, Taking into Particular Account the Needs of Developing Countries".

In May 2024, the Socialist Party submitted a proposal to Parliament to update and develop the National Space Strategy to raise the current terms to a higher level. The proposal is presently under parliamentary review.

Judicial decisions by the Spanish courts on space law remain scarce. Spanish courts have ruled on issues such as liability for damage caused by space objects and the protection of intellectual property in space.

2.3 Role of the State in Space Law and Regulations

Spain's Role in Space Activities

With the advent of NewSpace, Spain intends to maintain its role as an important actor. To achieve this, the public administrations are acting as facilitators of an ecosystem that promotes the technological development of private operators through public funding.

Public-private collaboration is currently the model for boosting the sector. To this end, the role of the state will be essential not only in the area of financing, but also in providing a special legal regime for the industry's activities.

The Spanish Space Agency and Relevant Ministries

The AEE was created in 2022 and has its headquarters in Seville. It was constituted as a public body, attached to the Ministries of Science and Innovation and Defence, with an extensive range of administrative powers and competences to meet the objective of centralising inter-ministerial competences in a single agency.

The most important powers conferred on the AEE include the following.

- Representation before ESA and EUSPA, specifically by managing the payment and returns derived from the national contribution to the European intergovernmental organisation, as well as managing Spain's participation in ESA programmes (without prejudice to those attributed to other ministries).
- Promotion of bilateral or multinational co-operation agreements with other space agencies, as well as signing agreements or other legal instruments with public bodies or subjects of international law, or with private entities.
- Co-ordination of defence space programmes and supporting the priorities reflected in the National Security Strategy, the National Aerospace Security Strategy and the National Defence Directive within the framework of the Agency, given the dual character of the Agency and the criticality of space in security and defence aspects.
- Co-ordination, development and direction of plans, strategies and programmes related to research (creation of national space programmes), from both a management and funding point of view.
- Elaboration of a National Space Policy proposal, and design and co-ordination of a National Space Strategy.
- Encouraging the commercial use of space.
- The promotion of public-private partnerships in the space sector, with the AEE being understood not only as a financial partner for private operators but also as a preferred customer for capabilities, products and services.
- The financing and co-ordination of public funds, as well as the creation of economic-financial support lines applicable to programmes of scientific, technological and innovation activities. Previously, the CDTI (an entity attached to the Ministry of Science and Innovation) managed public funds from the EU earmarked for research and scientific activities, but the AEE will now take over this function.
- Support for safety oversight in space or space systems management, in collaboration with the relevant departments for the issuance of certifications, assurances, authorisations, reports or similar instruments once safety requirements have been verified. It should be noted that the granting of such safety-related licences will apply to launch activities, potential spaceports, sub-orbital flight operations, commercial access to space, space traffic, space debris and satellite constellations.
- Support for security monitoring, in co-ordination with the competent national bodies, against acts of unlawful interference in the field of national security and defence. Such monitoring will be aligned with the requirements set by the EU Security Accreditation Regulations, covering matters such as cyber-attacks, control and management of technology transfers or information protection.
- The most relevant power of the AEE will be the elaboration of a proposal for a Preliminary Draft Space Law, together with the relevant ministerial departments that make up ESA's organic composition. The Space Act will cre-

ate a regulatory framework for space activity in the context of NewSpace.
- Finally, promotion of the private investment ecosystem in the space sector through technology funds, venture capital, investors in emerging companies and support for Spanish companies in the sector by implementing measures to stimulate private investment.

In line with the ministries that make up its Governing Council (the Agency's collegiate governing body), the AEE is made up of representatives from the Ministries of:

- Science and Innovation;
- Defence;
- Transport, Mobility and Urban Agenda;
- Industry, Trade and Tourism;
- Foreign Affairs, European Union and Cooperation;
- Economic Affairs and Digital Transformation;
- the Presidency, Relations with the Courts and Democratic Memory;
- Finance and Public Function;
- the Interior;
- Agriculture, Fisheries and Food; and
- Ecological Transition and the Demographic Challenge.

However, the management of the spectrum orbit resource and the control and management of the Register of Space Objects fall outside the AEE's scope; the first is the exclusive responsibility of the Ministry of Economic Affairs and Digital Transformation, while the second is the responsibility of the Ministry of Industry, Trade and Tourism.

2.4 Role of the State in the Licensing Process for Space Activities

Under current laws, there is no specific authorisation regime for the various space activities that emerge from the NewSpace concept. Spain does not yet have a law on space activities that unifies the different types of activities in a catalogue, nor is there any specific regulation on authorisations and licences.

However, registration in the Register of Objects Launched into Outer Space (created by Royal Decree 278/1995) is an obligation for any operator intending to launch any type of satellite or other object into outer space (low or high orbit). This register is attached to the Ministry of Foreign Affairs and mainly serves the purpose of controlling launch activity, in compliance with the international treaties to which Spain is a party – namely the 1974 Convention on Registration of Objects Launched into Outer Space. The registration of objects allows liability for damage to be attributed to Spain in accordance with international law.

Space objects launched from the Spanish territory, those whose launch has been promoted by the Spanish state and those launched from Spanish installations in another territory must be registered in this register. If there are more than two launching states (as per the terms of the 1974 Convention), they must agree in which Register the object is to be registered and therefore determine the jurisdiction applicable to it, as well as the attribution of liability in the event of damage.

The registration of space objects shall contain the following data:

- the name(s) of the launching state(s);
- an appropriate designation of the space object or its registration number;
- the date and territory or place of launch;
- basic orbital parameters, including nodal period, inclination, apogee and perigee; and

• the general function of the spatial object.

The regulations of the Register may be amended in the near future, as some proposals have already been put forward to adapt them to the new economic trends.

2.5 Role of the State in Co-ordinating the Use of Radio Frequencies and Orbital Slots

Spanish Legal Regime for the Assignment and Use of Radio Frequencies

The Orbit-Spectrum Resource (OSR) is a public domain asset consisting of bands or bands and frequencies provided by electromagnetic waves located in low-Earth orbit that allow communication via satellite, among other things.

Due to its special relevance in space law, the use and allocation of the OSR is granted in co-ordination with the competent international authority for the management of bands and frequencies for telecommunications: the International Telecommunications Union (ITU). In Europe, the European Code of Conduct establishes the basic conditions for communications service providers, and Directive 2014/53/EU of 16 April 2014 harmonises the requirements that member states must meet in order to market radio equipment.

In this regulatory context, Spain has enacted the 2022 General Telecommunications Act (*Ley General de Telecomunicaciones* – LGT), approving the regulations on the use of the public radioelectric domain and establishing the internal legal regime for the use of radio frequencies by space operators. This Act repeals the previous 2014 Act and has been developed in some detail by Royal Decree 123/2017, which approves the regulations for the use of the public radioelectric domain.

Competent Governmental Entity in Spain for the Allocation and Supervision of the OSR

The LGT considers that the OSR is owned and administered by the state, as a public domain asset, and determines the Spanish sovereignty of the radio frequency bands when these involve use in the Spanish territory by state institutions or private individuals.

For the management of national OSR, the LGT created the Operators' Register, on which any operator intending to operate telecommunications networks must be registered. The requirements for the provision of networks and electronic communications services are regulated in Article 6.2 of the LGT. The Operator's Register is under the jurisdiction of the National Commission for Markets and Competition (*Comisión Nacional de Mercados y Competencia* – CNMC).

However, although the CNMC regulates and supervises compliance with the competition rules in the markets, including the regulated telecommunications market, it is not the competent authority to allocate frequencies or grant licences for the use of OSRs. This authority rests with the State Secretariat for Telecommunications and Digital Infrastructures (*Secretaría de Estado de Telecomunicaciones e Infraestructuras Digitales* – SETID), a government agency attached to the Ministry of Economic Affairs. SETID assigns the authorisations for the private use of OSR to space operators. The granting of the authorisation is conditional upon the following, among other requirements:

- providing a guarantee of EUR200,000;
- prior ITU authorisation for the use of the band requested; and
- proof of the financial solvency, technical ability and feasibility of the applicant's project.

SETID has six weeks from the date on which the ITU reserves the requested orbit-spectrum resource in favour of the Kingdom of Spain to decide on an application for the granting of licences. Once this period has elapsed without an express decision having been notified, the application for granting the licence shall be deemed to have been rejected.

It should be added that, in the event that the radiocommunications infrastructure includes a subordinate terrestrial network, the frequencies of this terrestrial network (other than the frequencies of space services) will not be included in the previous licence for the private use of the OSR, but it will be necessary to obtain another licence for their use in the "Terrestrial Segment", regulated by the LGT.

Management and Co-ordination of Radio Spectrum Frequencies and Slots

SETID works closely with international (ITU), intergovernmental (ESA) and national (CNMC) bodies to ensure compliance with international agreements and regulations on frequency and orbital slot allocation. To this end, SETID develops National Frequency Plans in which it allocates specific frequency bands for different telecommunication services (mobile, radio, television, emergency services) according to the needs identified, in which the technical and operational conditions for the use of each frequency band are defined, including the maximum powers, and sets technical standards to be met by the equipment and systems that use these allocated frequencies (or for which their allocation is foreseen).

SETID is also responsible for controlling the use of the assigned spectrum by means of technologically advanced monitoring systems that detect non-compliance with the assigned technical standards and conditions of use. This allows the detection of possible interferences. Non-compliance by operators with the technical standards and licence conditions that generate harmful interference leads to the application of the sanctioning regime provided for in the LGT (fines, suspension of licences, confiscation of the equipment causing the interference and issuing of corrective orders to prevent future infringements).

The CNMC supervises compliance with regulations in the telecommunications market from a free competition perspective. Its authorities include a sanctioning regime applicable to breaches or conduct that significantly affects competition or efficient use of the spectrum, and to anti-competitive practices or abuses of dominance in the sector. The seriousness of the non-compliance determines the application of sanctions (fines, cessation of activity of the offenders and publication of the sanctions).

Consultation and Conflict Resolution Mechanisms in Case of Interference

The LGT provides for a public consultation procedure on spectrum planning and assignment with the participation of relevant stakeholders, including telecommunications operators, government agencies and the general public. In relation to this mechanism, SETID announces the launch of a public consultation through its website and other communication channels, with detailed reference to studies, impact analysis of the plans and any other relevant information. Subsequently, SETID analyses the contributions of the participants and evaluates the comments received, concluding in a final report that is publicly accessible.

The LGT establishes SETID's mediation and arbitration procedures in the resolution of interference disputes:

- SETID and the CNMC can act as mediators in disputes between operators and between operators and end-users; and
- the parties can also call upon a neutral arbitrator appointed by SETID or an independent telecommunications expert, whose decision will be binding.

Finally, the LGT provides for a complaints procedures before the CNMC and SETID, respectively, in which operators and users must detail the nature of the interference and provide evidence. The CNMC or SETID, as appropriate, may initiate an investigation through technical inspections to assess the validity of the complaint. If the interference is confirmed, corrective measures are applied, which may include technical adjustments, fines or modifications to frequency allocation, and even orders forcing the responsible party to cease the activity causing the interference.

Management of Orbital Slots

Through Royal Decree 517/2024, the public enterprise ENAIRE was recently appointed as the sole service provider for Spanish U-Space areas. An Interministerial Commission is responsible for designating particular geographical zones such as U-Space, and the Spanish Aviation and Safety Agency (*Agencia Estatal de Seguridad Aérea* – AESA) is in charge of certifying and supervising U-Space service providers.

2.6 Role of the State in the Launching Process

The Spanish state acts mainly as a facilitator and user in the launch process. For the time being, Spain has no independent space access capability, so its role in launching objects into outer space depends on the services provided by international partners, mainly ESA, whose spaceport is located in Kourou (French Guiana).

Spain's launch capacity is lacking for the following reasons:

- the high cost of launch activity;
- a national policy to promote the development of activity and participation by private operators has been initiated only very recently;
- Spain has always operated under the umbrella of ESA, participating in many of its space programmes; and
- the lack of development of a national space legal framework has slowed down the development of the space industry, generating legal uncertainty in the traffic of private operations and making private investment unattractive.

A recent example of this dependence on launch capability, including at a European level, has been the need for ESA and Europe to contract the US launch service provider "SpaceX" for the launch of four Galileo satellites into space from US territory. This operation had to be carried out through a private contract with SpaceX and a bilateral EU-US agreement to establish procedures for the security of EU classified information during the satellite launch campaigns.

In early October 2023, Spain demonstrated its ability to design and produce an entirely Spanish rocket and launch it from national territory. This milestone was made possible by the public-private partnership between the company PLD Space and the public authorities. MIURA-1 was launched from the Arenosillo spaceport (Huelva) and performed a suborbital flight.

The second phase of the rocket's reintegration (it was to be reusable) could not be carried out successfully, but this did not prevent the mission from being classified as a Spanish and European milestone. MIURA-5 is currently under construction and is intended to be launched from French Guiana.

2.7 Commitment to International Treaties and Multilateral Discussions

Spain has signed and ratified four of the space treaties; see **1.1 The "NewSpace" and Space Tech Economy**.

COPUOS and the Conference on Disarmament

Spain has been a permanent member of COPUOS since 1994 and actively participates in the Conference on Disarmament.

In COPUOS, Spain plays a leading role in promoting the peaceful and sustainable use of space. It has actively participated in the development and adoption of space debris mitigation guidelines that seek to reduce the creation of new debris and manage existing debris to minimise the risk of collisions. Within COPUOS, Spain supports initiatives that promote international co-operation in space exploration.

Spain actively participates in the UN Group of Governmental Experts on Transparency and Confidence-Building Measures in Space Activities; these measures include the disclosure of information on space launches and the promotion of transparent practices among nations. It should be stressed that Spain has implemented a Registry of Space Objects that complies with the 1974 Convention on Registration of Objects Launched into Outer Space, ensuring that all satellites and objects launched by Spain are properly registered and notified.

In the Conference on Disarmament, Spain normally takes a stand against the militarisation of space and supports the prohibition of weapons of mass destruction in outer space, promoting the adoption of international treaties and agreements to strengthen space security and prevent an arms race in space.

Spain actively participates in groups of governmental experts that study and propose measures for the prevention of an arms race in space. It contributes with research and proposals based on international law and best practices.

Incorporation of International Instruments in the Spanish Legal System

Spain has a historic track record of compliance with the international treaties to which it is a party. Furthermore, from the moment of their entry into force, international treaties have a higher hierarchy in the Spanish legal system than domestic laws and regulations, which must be interpreted and applied in accordance with such international instruments. Spanish courts and authorities also regularly apply the provisions of international treaties.

Liability Rules

The Treaty on International Liability for Damage Caused by Space Objects has been directly applicable in Spain since its ratification in 1980. Articles VI and VII of the Treaty attribute the liability for damage caused to third parties by space objects either to the states themselves, or jointly and severally to the states and their private operators.

Civil liability for damages on the part of states consists of the action for recovery by states against private entities within their own jurisdiction. In this matter, the Spanish legal system lacks a specific civil liability regime for space

activities. However, the usual practice is based on practices developed at the international level, customs and procedures, and certain provisions of the 1980 Insurance Contracts Act.

The future Spanish Space Act is expected to provide some detailed provisions on this matter.

Application of the "Due Regard" Principle

Article IX of the OST provides for the duty of due regard for state parties during their conduct of space activities, according to which the corresponding interests of all other state parties shall be considered, and appropriate measures for avoiding harmful interference shall be taken.

2.8 Insurance and State Measures on Liability for Damages

Space Insurance in Spain and Insurance Requirements for Space Operators

Spanish legislation does not yet regulate or establish the mandatory requirement of insuring a space object prior to its launch and once it has been placed in orbit by its owners. However, the high participation of the private sector in space activities means that the same practice defines an international framework of customs and practices in the field of space insurance. An alternative, often used in practice, is that the operator of the space object adheres to the insurance policy of the provider of the launching service.

Risk Assessment and Determination of Insurance Premiums

In Spain, the lack of a national space law causes legal uncertainty for insurers who, not being sufficiently familiar with this new industry and its practices, are hesitant to develop the necessary insurance products. Until a proper regulatory framework is in place, insurers will continue to assess the risks and determine insurance premiums in accordance with general market practice throughout the world (ie, using the "Probable Maximum Loss" method originated in the USA or the "Modelled Insurance Requirement" of the UK space regulation).

Under ESA's public-private contracting system with private operators, such operators can benefit from the agreement between ESA and its insurance companies in the framework of collaboration in European space programmes.

3. Rules Applicable to Space Operators' Activities

3.1 General Rules on Space Activities

Subject to the provisions of international conventions to which Spain is a party, and due to the lack of specific space regulation in Spain, activities to be carried out in space (healthcare, life sciences, agri-food, data processing, etc) are currently subject to and governed by the same rules and regulations as if such activities were to be carried out on Spanish territory.

3.2 Principles of Non-interference and Prevention of Harmful Interference

No specific regulations relating to non-interference with other spacecraft, space missions or space-faring entities have yet been approved. Therefore, these issues would have to be analysed and solved in accordance with the applicable international conventions and international customary law.

3.3 Operators' Responsibilities

Obligations of Operators in Outer Space and in Launch and Re-entry Activities on Earth

Since Spain has not developed a specific law on space, the behaviour of operators in space is based on the obligations derived from international treaties and customary law, as well as

the general obligations applicable to Spanish enterprises.

ESG Guidelines for Space Activities

In the field of space debris mitigation, operators under Spanish jurisdiction should follow the COPUOS Space Debris Mitigation Guidelines and ESA's European Code of Conduct on Space Debris Mitigation, which, among other issues, oblige launch service operators and developers to plan the re-entry of their space objects in a safe manner and to implement follow-up and subsequent recovery measures if such objects must remain in orbit. These guidelines are not an obligation for private operators in Spain; they are recommendations issued by international or intergovernmental organisations of which Spain is a member.

Specific Intellectual Property Rules Applicable to Space Activities and Assets

In Spain, intellectual property protection is regulated by the Intellectual Property Act, approved by Royal Legislative Decree 1/1996. Industrial property is regulated by the Patent Act (Law 24/2015), the Trademark Act (Law 17/2001) and the Law on the Legal Protection of Industrial Design (Law 20/2003), together with their respective regulations.

None of these laws provides for their specific application in outer space or to outer space activities. At the European level, there is also no unitary regulation for the protection of industrial property in outer space, although there are Community regulations applicable in the European territorial scope, such as Regulations (EU) 1257/2012, on protection by means of unitary patents, and 2015/2424, on the European trade mark.

On the International Space Station (ISS), on the other hand, there is a regime of jurisdictional distribution over inventions under development on the ISS. Article 21 of the Intergovernmental Agreement on the International Space Station provides that any invention activity on the ISS is deemed to take place in the territory of the partner state where the flight element is registered. Thus, the applicable jurisdiction is the state of registration, although the inventor may apply for a patent in several countries.

4. Ownership of Extraterrestrial Resources

4.1 Nature of Space Resource Rights

Spatial Resources

One of the characteristics of NewSpace is the regulation of the exploitation of resources on the Moon and other celestial bodies. The US and Luxembourg are leading this initiative with national laws that allow the appropriation of resources extracted by their citizens.

Spain has not adopted a national law on space activities and is therefore governed by the Space Treaties, with the exception of the Moon Agreement, which Spain has not ratified.

Space Resource Rights and the Principle of Non-appropriation

Until a domestic Space Act is approved, the issue surrounding the principle of non-appropriation could be debatable in Spain.

On the one hand, the Moon Agreement states that the Moon's resources are the common heritage of mankind, and requires an international regime for their orderly and equitable exploitation. Non-ratification or non-accession to the Moon Agreement is sometimes understood as

a refusal to consider the Moon as the common heritage of mankind and to depart from international law by regulating commercial resource exploitation activities on the Moon and other celestial bodies themselves. On the other hand, the Artemis Agreements (13 October 2020), to which Spain has been a party since 2023, allow the extraction and use of resources on the Moon and Mars, promoting safe and transparent activities through the creation of "safe zones".

The Space Treaty, ratified by Spain, does not establish the nature of the Moon, its resources and those of other celestial bodies as the "common heritage of mankind", but rather as the "concern of all mankind". However, the wording of Article II of the Space Treaty establishes the principle of "non-appropriation" of outer space and celestial bodies. It could thus be argued that Spain is bound by this provision.

4.2 Granting of Rights to Space Resources

No administrative authority has yet been designated in connection with resource rights in outer space, although the AEE is expected to be named as such. Potential overlaps with other states will have to be solved in accordance with the principles and procedures contemplated in international instruments.

5. Environmental Protection and Impact on Climate Change

5.1 Environmental Protection in Space

The duty to protect sustainable access to space is enshrined in Article IX of the Space Treaty. However, the international community has only recently shown concern for the mitigation of space rights, and the current regulatory framework is outdated and insufficient for today's reality of space debris.

In this regard, international organisations such as COPUOS and ESA have promulgated their own Space Debris Mitigation Guidelines (see **2.7 Commitment to International Treaties and Multilateral Discussions**). As a member state of the European Union, a founding state of ESA and a member of COPUOS, Spain has adopted all the guidelines and recommendations that constitute customary law.

Currently, there are also no specific regulations in Spain or the EU on critical space minerals.

5.2 Climate Change and Space Activities

At the 2023 Seville Space Summit, the Zero Debris Charter was published and opened, which is aligned with the space sustainability goals for 2030. At the same summit, the "Space for a Green Future" initiative was also presented, with the intention of reducing CO2 in large cities and favouring sustainable mobility.

In November 2023, the Council of Ministers in Spain approved an agreement increasing the budget line for space debris monitoring expenditure through the AEE by EUR4 million.

In this way, Spain aims to comply with the Code of Conduct on Space Sustainability, fulfilling four particularly important practices contained therein:

- mitigating the risk of collision in orbit;
- minimising the threat of non-transportable debris;
- preserving human life in space; and
- limiting the impact on optical astronomy.

Finally, from an EU point of view, space debris mitigation is sought through Space Traffic Management by the Global Satellite and Operators Association, defined as "the means and standards for accessing, operating in and returning from outer space in a safe, sustainable and secure manner".

Furthermore, in February 2022, a proposal for a Regulation on secure space connectivity from the European Union was presented, resulting in the "Conclusions of the EU Competitiveness Council on Space Traffic Management".

6. Taxation of Space Activities

6.1 Tax System for Space Activities

Spain does not yet have a special tax regime for space activities. Therefore, the general provisions of the 2014 Corporate Income Tax Act, the 1992 Value Added Tax Act, etc, are relevant.

6.2 Tax Incentives for Space Investors

Spanish provisions on corporate income tax establish certain tax deductions for research, development and technological innovation activities, subject to a binding assessment by the State Tax Authority (AEAT). Operators must apply to the AEAT for a prior assessment of R&D expenses before they are incurred. These deductions vary between 25% and 42% of the R&D expenditure. Tax deductions are also available for technological innovation – ie, expenses invested in the materialisation of new products, schemes and designs, the creation of non-marketable prototypes and pilot projects.

These regulations provide a favourable fiscal framework that encourages the development of advanced technology and space projects in Spain, thus supporting growth and innovation in the aerospace sector.

6.3 Taxation on Sale or Transfer of Space Assets

Given the international nature of most space assets and players, the tax implications relating to the transfer or sale of space assets need to be analysed on a case-by-case basis. In general terms, VAT exemptions may be applicable, although this needs to be verified in accordance with the specific transaction structure.

7. Investment and Financing in Space Activities

7.1 Impact of "NewSpace"

NewSpace in Spain is growing, driven by innovative start-ups and supportive government policies. There is increasing interest from investment funds and financiers, which see opportunities in the space sector. The evolution in fundraising is positive, with an increase in investments and the creation of specialised incubators and accelerators. Initiatives such as the ESA Business Incubation Centre (BIC) programme in Spain facilitate access to funding and technical support, promoting a dynamic and attractive ecosystem for new space companies.

Venture capital funds in Spain currently investing in space activities include:

- K Fund;
- Samaipata Ventures;
- Adara Ventures;
- Bullnet Capital;
- Inveready; and
- Caixa Capital Risc.

7.2 Finance Sources for Space Activities

The main source of funding for space activities in Spain still comes from public funds, especially subsidies.

On 15 May 2024, the Ministry of Science, Innovation and Universities (MICIU) published the 2024 call for the Space Technology Programme (PTE), managed by the CDTI with the collaboration of the AEE. Endowed with EUR70 million from the PERTE, the call will finance – with up to EUR30 million – projects for the development of space products and processes, as well as technologies with high disruptive potential. The remaining EUR40 million will be earmarked for advanced projects that boost the maturity level of space technologies; of this budget, EUR16 million are earmarked for small projects.

Secondly, the funding channels of private companies in the framework of space projects with ESA and other public-private partnerships between government and private companies also account for a high percentage of funding in the Spanish space industry.

Financing through venture capital firms, crowdfunding and private investment rounds is also on the rise. For example, PLD Space, which started as a start-up, has raised EUR78 million from private investors and EUR42 million from the PERTE programme.

7.3 Attracting Investment for Space Activities

The main fundraising initiative in Spain is the creation of specialised incubators and accelerators, such as ESA BIC in Spain, located specifically in the cities of Barcelona and Madrid. Since the seat of the AEE is in Seville, similar initiatives can be expected to take place there. In addition, the tax incentives discussed in **6.2 Tax Incentives for Space Investors** and the support from the central and regional governments through proactive policies intend to encourage industry growth and investment in space technology.

7.4 Foreign Investment in Space Activities

Two main aspects should be considered when it comes to foreign investments in Spain.

- Foreign investment regulations: in line with European regulations, the 2023 Foreign Investments Act contemplates certain restrictions on foreign investments in Spanish critical technologies or infrastructure (including space technologies and infrastructures) due to national security concerns. This type of investment requires prior governmental approval.
- Export controls on dual-use products and technologies: similarly, the export of products and technologies that are classified as dual-use products is subject to strict export controls and, under certain circumstances, international sanctions. Space assets and technology certainly fall under this category, so the relevant regulations need to be taken into account.

7.5 Role of Securities Markets in Space Financing

Unlike in other countries, the Spanish securities markets are not a huge source of financing, except for a limited number of companies. Stock exchanges from other countries (USA, the UK, the Netherlands, etc) play a larger role in this respect.

Trends and Developments

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AUGUSTA ABOGADOS

AUGUSTA ABOGADOS is a business law firm specialising in corporate and commercial law, tax, restructuring, labour law, air and space law and procedural law, amongst other areas. The rapid development of space-related technologies, collaboration models between private and public actors, the increasing number of private projects, and the availability of private financing sources contribute to a novel scenario. The complexity of legal requirements and the approval of new regulatory measure are growing rapidly, driven also by the need to protect existing know-how and the value of investments. Building on its accredited experience in the areas of aviation and drones law, in 2021 AUGUSTA ABOGADOS made the strategic decision to develop a new space economy law department, to advise clients and public authorities on legal matters such as the financing of space assets and the launching of satellites, providing guidance on the regulation of satellites and associated frequencies, and monitoring space law legislation and regulation.

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Space Law in Spain: an Introduction

Spain's historical commitment to the development of space activities

Spain has made political and economic efforts to be seen as a reliable player in the field of outer space since the very early days of the space age, in the 1960s. For instance, Spain entered into a close collaboration with the United States of America through programmes such as the Mercury project and the Apollo programme. This long-standing co-operation has been maintained over decades and can be visualised through the operation of the Deep Space Communications Complex or the Space Centre at the National Institute of Aeronautic Technology (*Instituto Nacional de Técnica Aeronáutica*, or INTA) facilities in Madrid.

Since the creation of the European Space Agency (ESA) in 1975, Spain has also actively participated as a founding partner in European initiatives, including the launch of the first Spanish telecommunications satellite, "HISPASAT 1A", in 1992 and projects of such importance as Galileo and Copernicus. The essential contribution of the Spanish company GTD, which has developed the software that controls the Ariane 6 rocket, is well known in the space community.

Today, the Spanish space sector is mature, with a turnover of almost EUR1 billion and investment of EUR180 million in R&D&I alone. In the European aerospace industry, Spanish companies are among the few with the capacity to lead complete space systems due to the solid structure of the private sector, made up of medium-sized independent companies that have developed important technologies and components that are successfully used in the commercial and institutional markets.

Creation of the Spanish Space Agency in 2022

As part of the Spanish government's efforts to recover from the economic downfall caused by the COVID-19 pandemic and within a wider European effort to develop the green economy and hi-tech projects, in March 2022 the Strategic Project for Aerospace Economic Recovery and Transformation (PERTE) was approved to mobilise nearly EUR4.5 billion to boost R&D&I in the aerospace sector. In June 2022, the Spanish Council of Ministers approved the creation of the Space Council (*Consejo del Espacio*), an interministerial group in charge of drawing up the by-laws and initial plan of a Spanish space agency, to be created with the main objective of ensuring the development and implementation of a coherent national space policy, as well as optimising

the management of economic resources dedicated by Spain to space activities.

Through Act 17/2022, the Spanish Space Agency (*Agencia Espacial Española*, or AEE) was created in September 2022, based in Seville. This newly created entity will be the primary actor in co-ordinating and promoting Spain's public and private space activities, thereby solving the historical handicap created by having different governmental agencies with overlapping functions. It should be noted that the AEE has a dual nature, as it takes care of fostering technological development as well as handling national security concerns. Therefore, the AEE has been given authorities corresponding to different governmental bodies – more specifically, to the Ministry of Science and Innovation and the Ministry of Defence.

With an initial budget of EUR500 million, the AEE has been given broad powers to co-ordinate and promote space activity in Spain, within the framework of the European project led by the European Space Agency (ESA). The new AEE should promote space activities in terms of technological development and the use of space in areas such as security, Earth observation, geolocation and communications.

With the setting up of the AEE, Spain is on a par with neighbouring countries with similar organisations. Due to the size of its economy, Spain cannot aspire to reach the investment levels of the major players, but it must try to compete – and collaborate – with those of the closest countries that already have similar agencies, such as Germany, the United Kingdom, France, Sweden and Italy.

The AEE's first actions have been aimed at representing the Spanish position within ESA and NASA, including signing the Artemis Agreements. The AEE is currently working on a strategic space plan to define the particular commitment of the Spanish space industry and the ways in which Spanish players can make scientific and economic use of space.

From the legal perspective, one of the most important tasks allocated to the AEE and the one that will define a fundamental legal framework is the authority to elaborate a proposal for a National Space Policy and a preliminary draft of a National Space Act. Therefore, the next milestones that the AEE has set for itself are to draw up a specific and appropriate regulatory framework for space activity in Spain. At this point in time, no preliminary draft has yet been published, so development in this respect will need to be monitored closely.

The second important development relates to Spain joining the Artemis Accords.

Spain joins the Artemis program

With the creation of the AEE, Spain committed itself to develop space sector opportunities and to join NASA's Artemis Agreements. This took effect in a solemn ceremony on 30 May 2023 and positions Spain among the contributing states in the exploration of outer space, the Moon and other celestial bodies, beyond its participation in the ESA. Spain became the 25th country to sign the Artemis Accords.

The specific scope of Spain's participation will be geared towards promoting scientific co-operation within the framework of the Artemis program, with various initiatives for advanced research and the exchange of expertise in fields such as quantum research or neutrino experimentation. Spain will also play a role in the

construction of the rovers for the exploration of Mars.

The PLD Space MIURA Programme

Spain recently showed that it is capable of launching objects into space on its own. Spanish company PLD Space has successfully developed a micro satellite launcher with the MIURA-1 suborbital rocket, which was successfully launched from the Huelva spaceport in October 2023. As a next step, PLD Space is working on launching the MIURA-5 reusable rocket from Kourou in Frech Guiana. This project has a strategic nature not just for Spain but also for ESA, because the European space industry is currently dependent on launchers controlled by non-European nations. The public support for this project is therefore significant.

The next step – towards a national space act

The situation outlined above shows the progress made in Spain and the commitment towards further development of the space industry. However, like many other countries, Spain still lacks a proper legal framework that assists all stakeholders (government, private industry, citizens) in achieving this goal. As explained, one of the very first tasks that the AEE must tackle is the promotion of a national space act that addresses the current needs and challenges, while fully respecting Spain's obligations towards the international community under the international conventions.

A preliminary draft was submitted back in 2014, and may well be used as a starting point. However, the situation has changed in many respects since then, and it would not be prudent to anticipate expectations on that basis. It is likely that we will still have to wait for a while until the draft of the new Space Act sees the light. What seems certain, though, is that the Spanish legal community is currently eager to support in overcoming these challenges.