



## UNMANNED TRAFFIC MANAGEMENT 4D PATH PLANNING TECHNOLOGIES FOR DRONE SWARM TO ENHANCE SAFETY AND SECURITY IN TRANSPORT

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<b>Abstract</b>	This document provides information on specific regulation related to different RPAS operating scenarios.



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## VERSIONING & CONTRIBUTION HISTORY

Version	Date	Modified by	Modification reason
1.0	01/02/2022	Rubén M. López Segovia	Document's creation and first version.
2.0	11/03/2022	Marc Abrines	Development of the document and translation.
3.0	12/05/2022	Rubén M. López Segovia	Clearing up doubts
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## Index

1. Executive summary.....	4
2. Description of task.....	4
3. Foreword.....	6
4. National regulations.....	8
5. Main regulatory framework. ....	15
6. Other regulations.....	17
6.1. Metrological regulatory framework.....	17
6.2. Airspace Usage requirements. ....	20
6.3. Liability insurance .....	26
6.4. Data Protection.....	28
6.5. Other binding and non-binding legal acts.....	29
7. Conclusions .....	30



## 1. EXECUTIVE SUMMARY

The present document is a Deliverable (9.4.) of the LABYRINTH project (Grant Agreement No.: 861696).

The purpose of this Deliverable is the **regulatory analysis of each case study** (waterborne, road, air, and emergency transport). This report provides an in-depth analysis of the applicable regulations, including a section of legal provisions that, although not directly related to drones, shall be taken into account, even if only indirectly.

## 2. DESCRIPTION OF TASK

**Objective:** Case study regulation approach.

### Description of task and role partners:

WP9 - Regulatory issues [Months: 1-36]

**Task 9.2:** Case Study Regulation Approach. (L: DGT; P: SAMUR, EXPACE, PONS, ADSPMLO).

### Description of Deliverable:

D9.4: Case Study Regulation Analysis.

Deliverable 9.4. provides an in-depth analysis of the specific regulations for each case study, as well as the regulations to be considered, even if only indirectly.

The case studies are:

- Waterborne Transport.
- Road Transport.
- Air Transport.
- Emergency.



<b>ABBREVIATIONS/ACRONYMS</b>	<b>DESCRIPTION</b>
<b>AESA</b>	Agencia Estatal de Seguridad Aérea (Spanish Aviation Safety Agency)
<b>MTOM</b>	Maximum take-off Mass
<b>ANS</b>	Air Navigation Services
<b>SERA</b>	Standardised European Rules of the Air
<b>ATR</b>	Air Traffic Regulations
<b>UAS</b>	Unmanned Aerial Systems
<b>UA</b>	Unmanned Aircraft



### 3. FOREWORD

The knowledge of the regulatory framework under which drone operations are undertaken is essential in order to ensure safety and optimization of the operations. This analysis will make constant reference to the regulations applicable in Spain, similar to the rest of the countries involved in this Labyrinth Project.

First of all, it is necessary to distinguish between civilian and military UAS operations; the latter, due to their nature and scope, are excluded from this analysis, although they will occasionally be referred to circumstantially.

Among civil operations, it is also necessary to differentiate between those involved in the provision of a customs service, police, search and rescue, firefighting, border control, coastal surveillance, road traffic surveillance or any other State operation, and the rest of the operations. While the first ones are subject to the control and responsibility of European Union Member States, the rest are regulated at European Union level through the Basic Regulation 2018/1139 on common rules in the field of civil aviation and its implementing regulations, in particular Regulation 2019/947 on rules and procedure for the operation of UAS. Likewise, in a supplementary manner, these operations are affected by national regulations, as it is explained below.

In order to establish how this regulatory framework is organized, a distinction is made among:

- National Regulations.
- International Conventions.
- European Community Legislation.

There are three sources of EU law: primary law, secondary law, and supplementary law.

#### **Primary law.**

The main sources of primary law are the treaties establishing the EU: the Treaty on the EU, the Treaty on the Functioning of the EU and the Treaty on the European Atomic Energy Community (Euratom). These treaties set out the distribution of competences between the EU and the EU Member States describing the powers of the European institutions. They therefore determine the legal framework in which the EU institutions are working to implement policies.

#### **Primary law also includes:**

- the amending EU Treaties;
- the protocols annexed to the founding treaties and to the amending treaties;
- the treaties on the accession of new countries to the EU;
- the Charter of Fundamental Rights (since the Treaty of Lisbon — December 2009);
- general principles of law established by the Court of Justice of the European Union.



## **Secondary law.**

Secondary law comprises unilateral acts, which can be divided into two categories:

- those listed in Article 288 TFEU: regulations, directives, decisions, opinions, and recommendations;
- those not listed in Article 288 TFEU, i.e., atypical acts such as communications and resolutions, and white and green papers.

### **A. Regulations.**

A "regulation" is a binding legislative act. It must be applied in its entirety across the EU. For example, Regulation (EU) 2019/947 of 24 May 2019 on the rules and procedures for the operation of unmanned aircraft or Regulation 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (GDPR).

### **B. Directives.**

A "directive" is a legislative act that sets out a goal that all EU countries must achieve. However, it is up to the individual countries to devise their own laws on how to reach these goals. For example, Directive 2009/103 relating to insurance against civil liability in respect of the use of motor vehicles, and the enforcement of the obligation to insure against such liability, or Directive 2014/32 on the harmonization of the laws of the Member States relating to the making available on the market of measuring instruments (recast).

### **C. Decisions.**

A "decision" is binding on those to whom it is addressed (e.g., an EU country or an individual company) and is directly applicable.

### **D. Recommendations.**

A "recommendation" is not binding. The Commission makes recommendations allowing the institutions to make their views known and to suggest a line of action without imposing any legal obligation on those to whom it is addressed.

### **E. Opinions.**

An "opinion" is an instrument that allows the institutions to make a statement in a non-binding fashion, in other words without imposing any legal obligation on those to whom it is addressed. For example, EASA Opinion 1/2020 High-level regulatory framework for the U-space.

**International agreements** with non-EU countries or with international organizations are also an integral part of EU law. They are separate from primary law and secondary legislation and form a sui generis category. According to some judgments of the CJEU, they can have direct effect and their legal force is superior to secondary legislation, which must therefore comply with them.



### **Supplementary sources of law**

Supplementary sources are elements of law not specifically mentioned in the treaties. This category includes:

- case-law of the Court of Justice of the EU (CJEU);
- international law — often a source of inspiration for the CJEU when developing its case-law. The CJEU cites written law, custom and usage;
- general principles of law — unwritten sources of law developed by the case-law of the CJEU. They have allowed the CJEU to implement rules in various areas that are not mentioned in the treaties.

## **4. NATIONAL REGULATIONS.**

National Regulations can be classified into Basic regulations (*normas básicas*) and Complementary regulations (*disposiciones complementarias*):

### **1.1. BASIC REGULATIONS.**

In Spain, when it comes to drones, basic regulations are:

- Air Navigation Law** (*Ley 48/1960, de 21 de julio, sobre Navegación Aérea*). This Law was amended in 1969 and in 2003 by Law 21/2003 on Aviation Safety.

This law establishes the general provisions applicable to air navigation, the administrative organization and the definition, classification, and nationality of aircraft. It also contains provisions on aircraft registration, as well as prototypes and airworthiness certificates.

A chapter is also dedicated to airports and aerodromes, as well as aircraft requisitions, seizures, and mobilization. It also regulates aeronautical easements, aeronautical personnel, and air traffic. In addition to the above, it also regulates contracts of carriage of passengers and goods and liability in case of accidents, as well as air insurance.

On the other hand, it also regulates the provisions applicable in case of accident, assistance, and rescue, as well as the findings. Likewise, it contains the rules of the air traffic police and flight discipline (binding for both civil and military aircraft). It also contains provisions relating to private transport, tourist navigation and flight schools, and, finally, it contains a chapter dedicated to penalties.

- Aviation Safety Law** (*Ley 21/2003, de 7 de julio, de Seguridad Aérea*).

The purpose of this law is to determine the competences of the bodies of the General State Administration in matters of civil aviation, to regulate the technical investigation of civil air accidents and incidents and to establish the legal regime of aeronautical inspection, the obligations due to air safety reasons and the regime of infractions and penalties in matters of civil aviation.





Its provisions are intended to preserve the safety, order and fluidity of air traffic and transport, in accordance with the principles and rules of international law governing civil aviation.

iii. **Law 209/1964 Criminal and Procedural Law on Air Navigation** (*Ley 209/1964, de 24 de diciembre, Penal y Procesal de la Navegación Aérea*).

Law 209/1964 regulates in its articles 13 to 75, Titles II and III, the crimes and misdemeanors against air navigation. However, the rules relating to jurisdiction, contained in the second book, were repealed by Organic Law 1/1986, and therefore the ordinary criminal jurisdiction is responsible for the application of Law 209/1964 and the prosecution of the offenses included therein in compliance with Organic Law 1/1986, which abolished the special criminal jurisdiction to hear such offenses.

By virtue of the above, it is also necessary to refer to the Spanish Criminal Code, specifically to article 616 ter, which regulates the crime against the safety of air navigation. However, it is possible that Articles 39 and 40 of the Criminal and Procedural Law on Air Navigation (relating to crimes against the law of nations) and Article 616 ter and others of the Criminal Code (crime of piracy) may be used.

*Article 616 ter*

*Whoever, by violence, intimidation or deceit, seizes, damages or destroys an aircraft, ship or another kind of vessel or platform in the sea, or attacks persons, cargo or property found on board thereof, shall be convicted of the criminal offence of piracy with a sentence of imprisonment from ten to fifteen years.*

*In all cases, the punishment foreseen in this Article shall be imposed without prejudice to the relevant ones for the criminal offences committed.*

Finally, it is necessary to consider the preferential application of the Criminal and Procedural Law of Air Navigation by virtue of the principle of specialty, as provided in article 8.1 of the Criminal Code and article 3 of the Criminal and Procedural Law of Air Navigation.

In short, the ordinary criminal jurisdiction will be competent, and the Spanish courts will be competent to judge these matters if the active subject is Spanish or if the aircraft has been registered in Spain, by virtue of article 23 of the Organic Law of the Judiciary (*Ley Orgánica del Poder Judicial*).

iv. **Law for the approval of urgent measures for growth, competitiveness and efficiency** (*Ley 18/2014 de 15 de octubre, de aprobación de medidas urgentes para el crecimiento, la competitividad y la eficiencia*).

This law repealed Royal Decree-Law 12/1978 on the establishment and delimitation of powers between the Ministries of Defense and of Transport and Communications in aviation matters, by virtue of its repealing provision 2.c).



Title Two (infrastructure and transportation) dedicates Chapter One to civil aviation. This regulation establishes the general provisions on airport regulation, airport charges, the sanctioning regime, as well as other applicable airport provisions. Finally, it also devotes a section to UAS and another section to legislative modifications in the field of navigation and air safety.

## 1.2.COMPLEMENTARY REGULATIONS.

- i. **Royal Decree 1036/2017 regulating the civilian use of remotely piloted aircraft** (*Real Decreto 1036/2017, de 15 de diciembre, por el que se regula la utilización civil de las aeronaves pilotadas por control remoto*).

This rule applies to drones falling outside the scope of Regulation (EC) 216/2018. Thus, it regulates all types of flights: experimental, recreational, and commercial.

In line with the above, it is also one of its purposes the performance of activities other than specialized air operations and experimental flights regulated in this Royal Decree, sports, recreational, competition or exhibition activities, as well as the recreational activities of toy aircraft, in accordance with the provisions of the applicable regulations, shall be subject to prior authorization by AESA through compliance with the requirements that, in accordance with the development of the technique, shall be established by regulation.

The provisions set out in this standard are to be understood without prejudice to the compliance of other requirements and the obtaining of the authorizations, permits or licenses that may be required in accordance with the regulations that may be applicable in each case, particularly in matters of public safety, due to the competencies of other administrations or the ownership of the land to be used for the operation.

Regarding the scope of application drones whose MTOM is less than 150 kg or, whatever their MTOM, when they are excluded from the application of Regulation 216/2008 due to any of the circumstances specified in its Annex II, performing specialized aerial operations or experimental flights.

It also applies to drones, regardless of their MTOM, performing customs, police, search and rescue, firefighting, coast guard or similar activities, as the case may be. However, to the police operations attributed to the Spanish Security Forces (*Fuerzas y Cuerpos de Seguridad*), to the customs operations, to the road traffic surveillance operations carried out directly by the General Directorate of Traffic (*Dirección General de Tráfico*), and to the operations carried out by the National Intelligence Center (*Centro Nacional de Inteligencia*), only the provisions of chapters I and II shall be applicable. Only the provisions of Chapters I and II shall be applicable to these operations.

It also applies to the elements that make up the UAS, to the operations carried out with them, to the personnel who fly them or assist the pilot in performing their functions, to the approved training organizations, as well as to their airworthiness and the organizations involved in it, to the operators of these systems and, where applicable, to the ANS providers and to the airport and aerodrome managers.



ii. **Royal Decree 1180/2018 implementing the air regulations and common operating provisions for air navigation services and procedures** (*Real Decreto 1180/2018, de 21 de septiembre, por el que se desarrolla el Reglamento del aire y disposiciones operativas comunes para los servicios y procedimientos de navegación aérea*).

Among the issues regulated by this royal Decree are the following: accidents, airports and aerodromes, aerostation, State agencies, certifications, Air Traffic Controller, airspace, air navigation, telecommunication networks, technical regulations, aeronautical easements, air transport, and unmanned vehicles.

Nevertheless, the provisions applicable to drones are laid down in Chapter XI. This chapter contains the rules applicable to UAS, conditions of use of airspace and equipment requirements.

Despite the fact that by means of this regulation Royal Decree 552/2014 is repealed, the provisions of its derogatory provision and its first final provision are maintained, insofar as they do not contradict the provisions of the first final provision of Royal Decree 1180/2018.

Moreover, this rule repeals the Order on prohibited and restricted areas (Orden de 18 de enero de 1993 sobre zonas prohibidas y restringidas al vuelo) and the Order of the Presidency of the Government of March 14<sup>th</sup>, 1957, on authorization to obtain aerial photographs.

iii. **Royal Decree 57/2002 approving the Air Traffic Regulations** (*Real Decreto 57/2002, de 18 de enero, por el que se aprueba el Reglamento de Circulación Aérea*).

Air traffic is understood as flights performed according to the rules and procedures established by the aviation authority and operating in accordance with the ATR.

Air traffic is divided into:

- General air traffic, regulated by the State Civil Aviation Authority and operating in accordance with the General Air Traffic Regulations.
- Operational air traffic, which is military air traffic governed by the Operational Air Traffic Regulations.



**iv. Royal Decree 98/2009 approving the aeronautical inspection regulations** (*Real Decreto 98/2009, de 6 de febrero, por el que se aprueba el Reglamento de inspección aeronáutica*).

The purpose of these regulations is the development of the aeronautical inspection regulation determined by Law 21/2003 on Aviation Safety.

It shall apply to aeronautical inspection actions carried out by the Spanish Aviation Safety and Security Agency (*Agencia Estatal de Seguridad Aérea -AESA-*).

Article 4 establishes the purpose of the aeronautical inspection, among which the following are highlighted:

- Verifying compliance by aeronautical personnel with the obligations inherent to the exercise of their duties.
- Undertaking the necessary verifications, inspections, tests, and reviews to verify and certify compliance with the conditions and requirements established for the issuance, maintenance, and renewal of airworthiness documents, as well as the operation of aircraft.
- Monitoring and controlling the procedures for the allocation of slots, their use or compliance with flight schedules.

**v. Royal Decree 384/2015 approving the Civil Aircraft Registration Regulations** (*Real Decreto 384/2015, de 22 de mayo, por el que se aprueba el Reglamento de matriculación de aeronaves civiles*).

The purpose of this rule is to regulate the requirements, procedure, and effects of the registration of civil aircraft in the Civil Aircraft Registration Registry (*Registro de Matrícula de Aeronaves Civiles*), as well as the acts and documents that may be registered.

This rule shall apply to all civil aircraft that are registrable in accordance with the provisions set in article 18 of Air Navigation Law.

According to aforementioned article, the following may be registered in the Spanish Aircraft Registration Register:

- 1) Those belonging to individuals or legal entities that are Spanish nationals or nationals of any of the European Economic Area (EEA) member countries.
- 2) At the request of the lessee, aircraft leased to those who hold Spanish nationality or nationality of an EEA member country.
- 3) Aircraft for private use belonging or leased to individuals or legal entities of third States that have, respectively, their habitual residence or a permanent establishment in Spain.



- vi. **Royal Decree 1088/2020, which completes the regime applicable to civil aviation occurrence reporting** (*Real Decreto 1088/2020, de 9 de diciembre, por el que se completa el régimen aplicable a la notificación de sucesos de la aviación civil*).

The purpose of this rule is to

- Maintain the civil aviation occurrence reporting system established in the Aviation Safety State Agency, specify its tasks in the management of this system, including the implementation of cooperation mechanisms that enable the collaboration of experts in the analysis of occurrences.
- To designate the body responsible for the protection of information sources and to specify its tasks.
- To extend the application of the Regulation (EU) No 376/2014 on the reporting, analysis, and follow-up of occurrences in civil aviation, to firefighting and search and rescue activities carried out by any civil aircraft, manned, or unmanned, included in the scope of application of the Air Navigation Law.

However, military aircraft, airport and air navigation systems and services, activities and facilities assigned to national defense, as well as their personnel, are excluded from the scope of application of this rule.

- vii. **Royal Decree 750/2014 regulating aerial firefighting and search and rescue activities and establishing airworthiness and licensing requirements for other aeronautical activities** (*Real Decreto 750/2014, de 5 de septiembre, por el que se regulan las actividades aéreas de lucha contra incendios y búsqueda y salvamento y se establecen los requisitos en materia de aeronavegabilidad y licencias para otras actividades aeronáuticas*).

The purpose of this regulation is to approve the rules governing aerial firefighting and search and rescue activities, and those applicable to airworthiness and flight personnel for customs, police, coast guard or other similar activities.

However, it only applies to essential airworthiness requirements and pilot licensing rules; since Annexes III and IV, on organizational rules for air operations and rules for air operations were repealed by Royal Decree 1088/2020, which completes the regime applicable to civil aviation occurrence reporting.

On the other side, according to the **Vienna Convention on the Law of Treaties 1969**, a “treaty” means an international agreement concluded between States in written form and governed by international law, whether embodied in a single instrument or in two or more related instruments and whatever its particular designation.

The following treaties are noteworthy:

- **Convention Relating to the Regulation of Aerial Navigation Signed at Paris, October 13, 1919** (Paris Convention).
- **Convention on International Civil Aviation** (ICAO Convention).

The ICAO Convention, also known as the Chicago Convention, was signed on December 7, 1944, by 52 States. Pending ratification of the Convention by 26 States, the Provisional International Civil Aviation Organization (ICAO) was established.



The Convention establishes the privileges and restrictions of all Contracting States (as of March 2019, there were 193 Member States), recognizing the principle that every State has full and exclusive sovereignty over the airspace above its territory and provides that no unscheduled international air service may operate over or within the territory of a Contracting State without its prior consent.

ICAO, as a global forum for cooperation among its Member States and the world aviation community, establishes standards and recommended methods for the safe and orderly development of international civil aviation.

In Spain, the provisions of article 96.1 of the **Spanish Constitution of 1978** and article 1.5 of the **Spanish Civil Code** must be considered.

Article 96 of the Spanish Constitution of 1978: "Validly concluded international treaties, once officially published in Spain, shall be part of the internal legal system. Their provisions may only be repealed, amended, or suspended in the manner provided for in the treaties themselves or in accordance with the general rules of international law".

*Artículo 96 de la Constitución española de 1978.*

*1. Los tratados internacionales válidamente celebrados, una vez publicados oficialmente en España, formarán parte del ordenamiento interno. Sus disposiciones sólo podrán ser derogadas, modificadas o suspendidas en la forma prevista en los propios tratados o de acuerdo con las normas generales del Derecho internacional.*

*2. Para la denuncia de los tratados y convenios internacionales se utilizará el mismo procedimiento previsto para su aprobación en el artículo 94.*

Article 1.5 Spanish Civil Code: "The legal norms contained in international treaties will not be directly applicable in Spain until they have become part of the domestic legal system through their full publication in the "Official State Gazette".

Artículo 1.5 del Código Civil español.

*"Las normas jurídicas contenidas en los tratados internacionales no serán de aplicación directa en España en tanto no hayan pasado a formar parte del ordenamiento interno mediante su publicación íntegra en el «Boletín Oficial del Estado».*

As a result, the effectiveness of international treaties in Spain is conditional upon their publication in the "Spanish Official State Gazette".

The general drone regulations in **Italy** are as follows:

**viii. UAS Regulations - IT Edition 1, 04/01/2021** (*Regolamento UAS - IT Edizione 1 del 04/01/2021*).

The purpose of this regulation is to:

- complete the legal framework of Regulation (EU) no. 2019/947 for the parties for which the mentioned Regulation refers to national provisions; and



- to define the requirements applicable to private or State UAS conducting activities foreseen in the provisions of article 2 paragraph 3 a) of Regulation (EU) 2018/1139 but for which the competent State Administrations has not issued special regulations referred to in article 748 of the Navigation Code.

## 5. MAIN REGULATORY FRAMEWORK.

The main regulatory framework that applies to drone operations in Spain is outlined below, depending on the type of operation:

First of all, it is necessary to differentiate between State operations and non-State operations. State operations are those carried out for a public service or by means of a State aircraft (Art. 14 of the Air Navigation Law -*Ley 48/1960 de Navegación Aérea* -).

As a general rule the EU (EASA) dissociates itself from State operations, indicating that State operations will be regulated at national level. This is stated in Article 1. 3) a) of Regulation 2018/1139 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency (EASA). Sometimes the national regulation "adopts" the European one.

### 5.1. STATE OPERATIONS.

State operations with UAS, including aircraft, personnel or organizations carrying out this activity:

- **Royal Decree 1036/2017 regulating the civilian use of remotely piloted aircraft** (*Real Decreto 1036/2017, de 15 de diciembre, por el que se regula la utilización civil de las aeronaves pilotadas por control remoto*).

The purpose and scope of application have been developed in the previous section. However, it should be emphasized that this standard covers the general requirements, as well as the aircraft systems and personnel requirements. It does not regulate UAS intended for transport of persons or goods.

- **Regulation (EU) 1178/2011 laying down technical requirements and administrative procedures related to civil aviation aircrew - Personnel requirements.**

Annexes VII and VIII cover the personnel requirements by distinguishing among the general personnel requirements (in section ORA.GEN.210), the personnel requirements of the approved training organizations (in section ORA.ATO.110) and the personnel from the aero-medical centers (ORA.AeMC.210).

- **Regulation (EU) No 923/2012 of 26 September 2012 laying down the common rules of the air and operational provisions regarding services and procedures in air navigation (airspace usage requirements).**



This Regulation establishes the common rules of the air and operational provisions regarding services and procedures in air navigation that shall be applicable to general air traffic. This Regulation applies, in particular, to airspace users and aircraft engaged in general air traffic:

- operating into, within or out of the Union; and bearing the nationality and registration marks of a Member State of the Union;
- operating in any airspace to the extent that they do not conflict with the rules published by the country having jurisdiction over the territory overflown.

It also applies to the competent authorities of the Member States, air navigation service providers, aerodrome operators and ground personnel engaged in aircraft operations. However, this Regulation does not apply to model aircraft and toy aircraft.

In Spain, this issue was also covered in the [Royal Decree 552/2014](#) (*Real Decreto 552/2014 por el que se desarrolla el Reglamento del aire y disposiciones operativas comunes para los servicios y procedimientos de navegación aérea*), which was repealed by the [Royal Decree 1180/2018](#) (implementing air regulations and common operating provisions for air navigation services and procedures). Moreover, [Royal Decree 57/2002](#) (approving Air Traffic Regulations) needs to be taken into consideration in this section as it also covers airspace usage requirements.

## 5.2. NON-STATE OPERATIONS.

Non-State operations with UAS, including aircraft, personnel, or organizations:

- **Regulation (EU) 2019/947 on the rules and procedures for the operation of UAS.**

This Regulation establishes three categories (Open, Specific and Certified), depending on the risk of the operation. The higher the risk, the higher the requirements applicable to the Operator, the UAS and the Remote Pilot. It also establishes direct remote electronic identification and mandatory electronic registration of operators and UAS. It also establishes that Member States must define and publish Geographic Zones for UAS. Member States may prohibit access or establish conditions for the operation of UAS in certain zones.

- **Regulation (EU) 1178/2011 laying down technical requirements and administrative procedures related to civil aviation aircrew (Personnel requirements).**

Este Reglamento también se aplica a las operaciones no de estado en lo que se refiere a los requisitos del personal, por lo que habrá que acudir a los (traducir) Annexes VII and VIII cover the personnel requirements by distinguishing among the general personnel requirements (in section ORA.GEN.210), the personnel requirements of the approved training organizations (in section ORA.ATO.110) and the personnel from the aero-medical centers (ORA.AeMC.210).





- **Regulation (EU) No 923/2012 of 26 September 2012 laying down the common rules of the air and operational provisions regarding services and procedures in air navigation (airspace usage requirements).**

This Regulation also applies to non-State operations as regards airspace usage requirements. The above mentioned in the section on State operations in Spain, therefore, is also applicable, so it will be necessary to refer also to the [Royal Decree 1180/2018](#) (implementing air regulations and common operating provisions for air navigation services and procedures), and the [Royal Decree 57/2002](#) (approving Air Traffic Regulations).

## 6. OTHER REGULATIONS

### 6.1. METROLOGICAL REGULATORY FRAMEWORK.

Metrology is the science of measurement, embracing both experimental and theoretical determinations at any level of uncertainty in any field of science and technology, as defined by the International Bureau of Weights and Measures (BIPM, 2004).

Metrology can be divided into three subfields: scientific metrology, applied metrology, and legal metrology. Legal metrology is the end of the line, concerning regulatory requirements of well-established measurements and measuring instruments for the protection of consumers and fair trade.

- **Directive 2004/22/EC of the European Parliament and of the Council of 31 March 2004 on measuring instruments (Text with EEA relevance).**

This Directive applied to the devices and systems with a measuring function defined in the instrument-specific annexes concerning water meters, gas meters and volume conversion devices, active electrical energy meters, heat meters, measuring systems for continuous and dynamic measurement of quantities of liquids other than water, automatic weighing instruments, taximeters, material measures, dimensional measuring instruments, and exhaust gas analyzers.

However, this Directive was **repealed** by Directive 2014/32 on the harmonization of the laws of the Member States relating to the making available on the market of measuring instruments.



- **Directive 2014/32/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to the making available on the market of measuring instruments (recast) (Text with EEA relevance).**

The scope of this Directive is to establish the requirements that measuring instruments have to satisfy with a view to their being made available on the market and/or put into use for the measuring tasks, where Member States consider it justified for reasons of public interest, public health, public safety, public order, protection of the environment, protection of consumers, levying of taxes and duties and fair trading.

- **Royal Decree 889/2006 which regulates the State metrological control of measuring instruments** (*Real Decreto 889/2006 por el que se regula el control metrológico del Estado sobre instrumentos de medida*).

In Spain, this Royal Decree was in line with Directive 2004/22. However, this Royal Decree was **repealed** by Royal Decree 244/2016, and Chapter IV of Law 32/2014 on Metrology.

- **Law 32/2014 on Metrology** (*Ley 32/2014, de 22 de diciembre, de Metrología*).

The purpose of this law is the establishment and application of the Legal System of Measurement Units, as well as the establishment of the principles and general rules to which the organization and legal regime of metrological activity in Spain must conform.

- **Royal Decree 244/2016, developing Law 32/2014 on Metrology** (*Real Decreto 244/2016, de 3 de junio, por el que se desarrolla la Ley 32/2014, de 22 de diciembre, de Metrología*).

The purpose of this Royal Decree is the development of Chapters II, III and V of Law 32/2014 on Metrology, which regulate, respectively, the Legal System of Measurement Units, the State metrological control and the organization of metrology.



- **Order ITC/3123/2010, which regulates the State metrological control of the instruments used to measure the circulation speed of motor vehicles** (*Orden ITC/3123/2010, de 26 de noviembre, por la que se regula el control metrológico del Estado de los instrumentos destinados a medir la velocidad de circulación de vehículos a motor*).

In accordance with the provisions of this Annex, the composition of an aircraft on-board cinemometer would be:

- a) Gyro-stabilized platform composed of the following elements:
  - i. Video cameras.
  - ii. GPS signal reception system.
  - iii. Automatic video tracking system (autotracker).
  - iv. Tracking system by geographic coordinates (geotracking).
  - v. Distance measurement system or laser range finder.
  - vi. Inertial measurement system (IMU).
- b) Calculation system or processing unit, which collects the information from the camera, processes it and calculates the speed of the identified vehicle.
- c) Other complementary devices, which integrate the system on the aircraft, display monitors and data recording and registration systems.
- d) Optionally, other devices can be incorporated, such as a mapping system with digital terrain model, to facilitate the tracking and operation of the system.

However, this Royal Decree was **repealed** by Order ITC/155/2020.

- **Order ITC/155/2020, of February 7, regulating the State metrological control of certain measuring instruments** (*Orden ICT/155/2020, de 7 de febrero, por la que se regula el control metrológico del Estado de determinados instrumentos de medida*).

The purpose of this Order is the regulation of the State metrological control in the conformity assessment phase and/or in the phases of metrological control of instruments in service, as appropriate, of the measuring instruments listed in the annexes and which are used for any of the purposes provided for in Article 8.1 of Law 32/2014. That is, the instruments, means, reference materials, measuring systems and computer programs that serve to measure or count and that are used for reasons of public interest, public health and safety, public order, protection of the environment, protection or information to consumers and users, collection of taxes, calculation of tariffs, fees, administrative sanctions, performance of judicial expertise, establishment of basic guarantees for fair trade, and all those that are determined by regulation, shall be subject to the metrological control of the State in the terms established in its specific regulations.

In particular, this Order dedicates **Annex XII** to the regulation of the instruments used to measure the circulation speed of motor vehicles.



The purpose of this annex is to regulate the State metrological control of instruments that measure the speed of motor vehicle traffic (cinemometers) both when they perform their basic function of measuring speed, and when they have other measurement options, such as the inter-vehicular distance, or the distance to the target necessary for the identification or determination of the traffic lane.

## 6.2. AIRSPACE USAGE REQUIREMENTS.

The analysis of the legally established conditions for the use of UAS airspace deserves a separate study.

**Regulation 923/2012** laying down the common rules of the air and operational provisions regarding services and procedures in air navigation (European Air Regulation) has several provisions that affect drone operation, including:

### A. Minimum heights:

**SERA.3105:** Except when necessary for take-off or landing, or except by permission from the competent authority, aircraft shall not be flown over the congested areas of cities, towns or settlements or over an open-air assembly of persons, unless at such a height as will permit, in the event of an emergency arising, a landing to be made without undue hazard to persons or property on the surface. The minimum heights for VFR flights shall be those specified in SERA.5005(f) and minimum levels for IFR flights shall be those specified in SERA.5015(b).

**SERA.5005** (Visual flight rules): Except when necessary for take-off or landing, or except by permission from the competent authority, a VFR flight shall not be flown:

- over the congested areas of cities, towns or settlements or over an open-air assembly of persons at a height less than 300 m (1 000 ft) above the highest obstacle within a radius of 600 m from the aircraft;
- elsewhere than as specified in (1), at a height less than 150 m (500 ft) above the ground or water, or 150 m (500 ft) above the highest obstacle within a radius of 150 m (500 ft) from the aircraft.

### B. Lights to be displayed by aircraft.

#### **SERA.3215:**

Except as provided by (e), at night all aircraft in flight shall display: (1) anti-collision lights intended to attract attention to the aircraft; and (2) except for balloons, navigation lights intended to indicate the relative path of the aircraft to an observer. Other lights shall not be displayed if they are likely to be mistaken for these lights.

- a) Except as provided by (e), at night: (1) all aircraft moving on the movement area of an aerodrome shall display navigation lights intended to indicate the



relative path of the aircraft to an observer and other lights shall not be displayed if they are likely to be mistaken for these lights; (2) unless stationary and otherwise adequately illuminated, all aircraft on the movement area of an aerodrome shall display lights intended to indicate the extremities of their structure, as far as practicable; (3) all aircraft taxiing or being towed on the movement area of an aerodrome shall display lights intended to attract attention to the aircraft; and (4) all aircraft on the movement area of an aerodrome whose engines are running shall display lights which indicate that fact.

- b) Except as provided by (e), all aircraft in flight and fitted with anti-collision lights to meet the requirement of (a)(1) shall display such lights also during day.
- c) Except as provided by (e), all aircraft (1) taxiing or being towed on the movement area of an aerodrome and fitted with anti-collision lights, to meet the requirement of (b)(3); or (2) on the movement area of an aerodrome and fitted with lights to meet the requirement of (b)(4); shall display such lights also during day.
- d) A pilot shall be permitted to switch off or reduce the intensity of any flashing lights fitted to meet the requirements of (a), (b), (c) and (d) if they do or are likely to: (1) adversely affect the satisfactory performance of duties; or (2) subject an outside observer to harmful dazzle.

### C. Submission of a flight plan.

SERA.4001: Information relative to an intended flight or portion of a flight, to be provided to air traffic services units, shall be in the form of a flight plan. The term 'flight plan' is used to mean variously, full information on all items comprised in the flight plan description, covering the whole route of a flight, or limited information required, inter alia, when the purpose is to obtain a clearance for a minor portion of a flight such as to cross an airway, to take off from, or to land at a controlled aerodrome.

A flight plan shall be submitted prior to operating:

- 1) any flight or portion thereof to be provided with air traffic control service;
- 2) any IFR (*Instrument Flight Rules*) flight within advisory airspace;
- 3) any flight within or into areas, or along routes designated by the competent authority, to facilitate the provision of flight information, alerting and search and rescue services;
- 4) any flight within or into areas or along routes designated by the competent authority, to facilitate coordination with appropriate military units or with air traffic services units in adjacent States in order to avoid the possible need for interception for the purpose of identification;
- 5) any flight across international borders, unless otherwise prescribed by the States concerned;
- 6) any flight planned to operate at night, if leaving the vicinity of an aerodrome.



A flight plan shall be submitted, before departure, to an air traffic service reporting office or, during flight, transmitted to the appropriate air traffic services unit or air-ground control radio station, unless arrangements have been made for submission of repetitive flight plans.

Unless a shorter period of time has been prescribed by the competent authority for domestic VFR (*Visual flight rules*) flights, a flight plan for any flight planned to operate across international borders or to be provided with air traffic control service or air traffic advisory service shall be submitted at least 60 minutes before departure, or, if submitted during flight, at a time which will ensure its receipt by the appropriate ATS unit at least 10 minutes before the aircraft is estimated to reach:

- 1) the intended point of entry into a control area or advisory area; or
- 2) the point of crossing an airway or advisory route.

**D. VMC (Visual meteorological conditions) visibility and distance from cloud minima.**

**SERA.5001:** VMC visibility and distance from cloud minima are contained in Table 1.

*Table 1: VMC visibility and distance from cloud minima<sup>1</sup>.*

ALTITUDE BAND	AIRSPACE CLASS	FLIGHT VISIBILITY	DISTANCE FROM CLOUD
At and above 3 050 m (10 000 ft) AMSL	A*, B, C, D, E, F, G	8 km	1500 m horizontally 300 m (1 000 ft) vertically
Below 3 050 m (10 000 ft) AMSL and above 900 m (3 000 ft) AMSL, or above 300 m (1 000 ft) above terrain, whichever is the higher	A*, B, C, D, E, F, G	5 km	1500 m horizontally 300 m (1 000 ft) vertically
At and below 900 m (3 000 ft) AMSL, or 300 m (1 000 ft) above terrain, whichever is the higher	A*, B, C, D, E	5 km	1500 m horizontally 300 m (1 000 ft) vertically
	F, G	5 km**	Clear of cloud and with the

<sup>1</sup> When the height of the transition altitude is lower than 3050 m (10.000 ft) AMSL (Above Mean Sea Level), FL 100 shall be used in lieu of 10 000 ft.

\* The VMC minima in Class A airspace are included for guidance to pilots and do not imply acceptance of VFR flights in Class A airspace.

\*\* When so prescribed by the competent authority.



			surface in sight
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*Source: Elaborated by the authors. Inspired by Regulation 923/2012.*

Moreover, flight visibilities reduced to not less than 1500 m may be permitted for flights operating:

- at speeds of 140 kts IAS (*Indicated Airspeed*) or less to give adequate opportunity to observe other traffic or any obstacles in time to avoid collision;  
or
- in circumstances in which the probability of encounters with other traffic would normally be low, e.g., in areas of low volume traffic and for aerial work at low levels;



**E. ATS airspace classes — services provided and flight requirements.**

**SERA.6001** and **SERA.5025(b)** refers:

CLASS	TYPE OF FLIGHT	SEPARATION PROVIDED	SERVICE PROVIDED	SPEED LIMITATION <sup>2</sup>	RADIO COMMUNICATION CAPABILITY REQUIREMENT	CONTINUOUS TWO-WAY AIR-GROUND VOICE COMMUNICATION REQUIRED	SUBJECT TO AN ATC CLEARANCE
<b>A</b>	IFR only	All aircraft	Air traffic control service	Not applicable	Yes	Yes	Yes
<b>B</b>	IFR	All aircraft	Air traffic control service	Not applicable	Yes	Yes	Yes
	VFR	All aircraft	Air traffic control service	Not applicable	Yes	Yes	Yes
<b>C</b>	IFR	IFR from IFR; IFR from VFR	Air traffic control service	Not applicable	Yes	Yes	Yes
	VFR	VFR from IFR	(1) Air traffic control service for separation from IFR; (2) Air traffic control service, VFR/VFR traffic information (and traffic avoidance advice on request)	250 kts IAS below  3 050 m (10 000 ft) AMSL	Yes	Yes	Yes
<b>D</b>	IFR	IFR from IFR	Air traffic control service, traffic information about VFR flights  (And traffic avoidance advice on request)	250 kts IAS below  3 050 m (10 000 ft) AMSL	Yes	Yes	Yes
	VFR	Nil	Air traffic control service, IFR/VFR and VFR/VFR traffic information (and traffic avoidance advice on request)	250 kts IAS below  3 050 m (10 000 ft) AMSL	Yes	Yes	Yes
<b>E</b>	IFR	IFR from IFR	Air traffic control service and, as far as practical, traffic	250 kts IAS below	Yes	Yes	Yes

<sup>2</sup> When the level of the transition altitude is lower than 3 050 m (10 000 ft) AMSL, FL 100 should be used in lieu of 10 000 ft. Competent authority may also exempt aircraft types, which for technical or safety reasons, cannot maintain this speed.

\* Pilots shall maintain continuous air-ground voice communication watch and establish two-way communication, as necessary, on the appropriate communication channel in RMZ.

\*\* Air-ground voice communications mandatory for flights participating in the advisory service. Pilots shall maintain continuous air-ground voice communication watch and establish two-way communication, as necessary, on the appropriate communication channel in RMZ.





CLASS	TYPE OF FLIGHT	SEPARATION PROVIDED	SERVICE PROVIDED	SPEED LIMITATION <sup>2</sup>	RADIO COMMUNICATION CAPABILITY REQUIREMENT	CONTINUOUS TWO-WAY AIR-GROUND VOICE COMMUNICATION REQUIRED	SUBJECT TO AN ATC CLEARANCE
			information about VFR flights	3 050 m (10 000 ft) AMSL			
	VFR	Nil	Traffic information as far as practical	250 kts IAS below 3 050 m (10 000 ft) AMSL	No *	No *	No
<b>F</b>	IFR	IFR from IFR as far as practical	Air traffic advisory service; flight information service if requested	250 kts IAS below 3 050 m (10 000 ft) AMSL	Yes **	No **	No
	VFR	Nil	Flight information service if requested	250 kts IAS below 3 050 m (10 000 ft) AMSL	No *	No *	No
<b>G</b>	IFR	Nil	Flight information service if requested	250 kts IAS below 3 050 m (10 000 ft) AMSL	Yes *	No *	No
	VFR	Nil	Flight information service if requested	250 kts IAS below 3 050 m (10 000 ft) AMSL	No *	No *	No



### 6.3. LIABILITY INSURANCE

The term liability insurance refers to an insurance product that provides an insured party with protection against claims resulting from injuries and damage to other people or property. Liability insurance policies cover any legal costs and pay-outs an insured party is responsible for if they are found legally liable. Intentional damage and contractual liabilities are generally not covered in liability insurance policies. Unlike other types of insurance, liability insurance policies pay third parties—not policyholders.

In the **European Union**, the following regulations are applicable:

**i. Regulation (EC) No 785/2004 of the European Parliament and of the Council of 21 April 2004 on insurance requirements for air carriers and aircraft operators:**

This Regulation mandates an insurance for model aircraft above 20 kg. However, it excludes model aircraft with MTOM < 20 kg; therefore, lighter UAS need to be covered by national regulation (Art. 2.2.b Regulation 785/2004 and art. 14 (d) Regulation 2019/947).

According to the European regulations in force, the operator shall have an insurance policy or other guarantee covering civil liability to third parties for damages that may occur during and because of the execution of air operations, according to the limits established in Regulation 785/2004, for aircraft with an MTOM of less than 500 kg, which is 750,000 SDR<sup>3</sup>, about 920.643,07 €.

**ii. Directive 2009/103/EC of the European Parliament and of the Council of 16 September 2009 relating to insurance against civil liability in respect of the use of motor vehicles, and the enforcement of the obligation to insure against such liability:**

It summarizes more than 40 years of converging activities, repealing 5 Directives, being the first one from 1972. It has been already transposed in the 28 Member States and it sets the rules to compensate victims when the party liable is not insured. It also limits the exclusions that can lead to deny the rights of victims to compensation and it foresees the creation of a compensation body in each member state together with the use of a guarantee fund.

**iii. The Rome Convention of 7 October 1952, on Damage Caused by Foreign Aircraft to Third Parties on the Surface.**

The Convention is applicable to all kinds of vehicles, including spacecraft, provided they are “usable for transport”.

Whenever the notion of aircraft is interpreted broadly, the set of articles contained in the Rome Convention – with the necessary adjustments - should apply to guarantee

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<sup>3</sup> Special Drawing Right.



protection for the victims of an incident caused by an UAS. Despite not being binding, it sets what can be seen as an operators' friendly liability regime, and there are many countries that apply it.

In **Spain**, different types of liability are distinguished:

- Liability arising from the improper use:
  - Administrative: overreaching in the use.
  - Civil: privacy.
  - Criminal: conduct typified in the Spanish Criminal Code (*Ley Orgánica 10/1995 del Código Penal*).
- Environmental liability:
  - Law 26/2007 on environmental liability (*Ley 26/2007, de 23 de octubre, de Responsabilidad Medioambiental*).
  - Law 42/2007 on natural heritage and biodiversity (*Ley 42/2007, de 13 de diciembre, del Patrimonio Natural y de la Biodiversidad*).
- Civil Liability of air operators against third parties:
  - Article 119 of the Air Navigation Act (*Ley 48/1960, de 21 de julio, sobre Navegación Aérea*) and the Rome Convention 1952.

In **Italy**, the article 27 of the *Regolamento UAS - IT Edizione 1 del 04/01/2021* establishes that:

- It is not permitted to conduct operations with a UAS unless it has been stipulated, and in the process of validity, an insurance concerning liability towards third parties, adequate for the purpose. Moreover, ceilings cannot be lower than the minimum parameters referred to in the table of art. 7 of Regulation 785/2004. In accordance with art. 743 of the Navigation Code also to the aircraft covered by this regulation is applied art. 1015 of the Code of Navigation.
- Model aircraft associations, where recognized in accordance with article 16 of Regulation 2019/947, may use cumulative policies, to cover damages caused to third parties during training, events or competitions, in compliance with the ceilings minimums indicated above.



## 6.4. DATA PROTECTION

Personal data is “any information relating to an identified or identifiable natural person”, operators of drones who register and/or process images, videos, sound, biometric data, geolocation, or telecommunication data related to an identified or identifiable person are subject to the General Data Protection Regulation (GDPR).

The regulation governing this matter is **Regulation (EU) 2016/679** of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (**GDPR**).

This Regulation lays down rules relating to the protection of natural persons with regard to the processing of personal data and rules relating to the free movement of personal data. It also protects fundamental rights and freedoms of natural persons and in particular their right to the protection of personal data.

This Regulation applies to the processing of personal data wholly or partly by automated means and to the processing other than by automated means of personal data which form part of a filing system or are intended to form part of a filing system.

Moreover, in Spain, the Organic Law 3/2018 on Data Protection and digital rights (*Ley Orgánica 3/2018, de 5 de diciembre, de Protección de Datos Personales y garantía de los derechos digitales*) must be taken into consideration. The purpose of this organic law is to adapt the Spanish legal system to the GDPR.



## 6.5. OTHER BINDING AND NON-BINDING LEGAL ACTS.

Binding and non-binding legal acts to be considered in the different use cases:

- Commission Implementing Regulation (EU) 2021/664 of 22 April 2021 on a regulatory framework for the U-space.
- Commission Implementing Regulation (EU) 2021/665 of 22 April 2021 amending Implementing Regulation (EU) 2017/373 as regards requirements for providers of air traffic management/air navigation services and other air traffic management network functions in the U-space airspace designated in controlled airspace.
- Commission Implementing Regulation (EU) 2021/666 of 22 April 2021 amending Regulation (EU) No 923/2012 as regards requirements for manned aviation operating in U-space airspace.
- EASA Opinion 1/2020 High-level regulatory framework for the U-space.
- ED Decision 2019/021/R: Introduction of a regulatory framework for the operation of UAS in the 'open' and 'specific' categories.
- ED Decision 2020/022/R: Regular update of the AMC and GM to Regulation (EU) 2019/947.
- Directive 2014/30/EU on the harmonization of the laws of the Member states relating to electromagnetic compatibility.
- Regulation (EC) No 549/2004 of the European Parliament and the Council of 10 March 2004 laying down the framework for the creation of the single European Sky (the framework regulation).
- Regulation (EU) No 965/2012 of 5 October 2012 laying down technical requirements and administrative procedures related to air operations.
- Regulation (EC) No 300/2008 of the European parliament and of the Council of 11 March 2008 on common rules in the field of civil aviation security.
- Council Framework Decision 2006/960/JHA of 18 December 2006 on simplifying the exchange of information and intelligence between law enforcement authorities of the Member States of the European Union.
- Commission IR (EU) 2015/1018 of 29 June 2015 laying down a list of classifying occurrences in civil aviation to be mandatorily reported according to Regulation (EU) No 376/2014.
- European legislation on the protection of the environment.
- EUROPEAN PLAN FOR AVIATION SAFETY 2021 -2025. EPAS constitutes the regional aviation safety plan (RASP) for EASA Member States, setting out the strategic priorities, strategic enables, main risks affecting the European aviation system and the necessary actions to mitigate those risks to further improve aviation safety (drones/unmanned included).
- Commission Delegated Regulation (EU) 2019/945 of 12 March 2019 on unmanned aircraft systems and on third-country operators of unmanned aircraft systems.
- Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency.



## 7. CONCLUSIONS

In conclusion, the regulations applicable to each use case are practically the same, since operations, subjects and aircraft are subject to compliance with certain requirements.

Those matters regulated by Regulation must be complied with according to their terms, while those aspects that fall within the competence of the Member States must comply with the provisions of national regulations. Therefore, when checking whether the requirements are complied with, the following regulations must be referred to:

### 1. General EU regulations.

These regulations set the framework for the safe operation of civil drones in the European skies:

- Regulation (EU) 2019/947 on the rules and procedures for the operation of UAS.
- Regulation (EU) 2019/945 of 12 March 2019 on unmanned aircraft systems and on third-country operators of unmanned aircraft systems.

Moreover, the basic regulation shall be considered: Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency.

When it comes to personnel requirements:

- Regulation (EU) 1178/2011 laying down technical requirements and administrative procedures related to civil aviation aircrew (*State operations*).
- Regulation (EU) 1178/2011 laying down technical requirements and administrative procedures related to civil aviation aircrew (*non-State operations*).

When it comes to airspace usage requirements:

- Regulation (EU) No 923/2012 of 26 September 2012 laying down the common rules of the air and operational provisions regarding services and procedures in air navigation.

### 1.1. General Spanish regulations.

When it comes to the most important general Spanish regulation:

- Royal Decree 1036/2017 regulating the civilian use of remotely piloted aircraft.

### 1.2. General Italian regulation:

When it comes to the most important general Italian regulation:

- UAS Regulations - IT Edition 1, 04/01/2021.



## 2. Metrology and Certification.

When it comes to Metrology and Certification, the following regulations at European level apply:

- Directive 2004/22/EC of the European Parliament and of the Council of 31 March 2004 on measuring instruments (Text with EEA relevance).
- Directive 2014/32/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to the making available on the market of measuring instruments (recast) (Text with EEA relevance).

When it comes to Metrology and Certification, the following regulations apply in Spain:

- Royal Decree 889/2006 which regulates the State metrological control of measuring instruments.
- Law 32/2014 on Metrology.
- Royal Decree 244/2016, developing Law 32/2014 on Metrology.
- Order ITC/3123/2010, which regulates the State metrological control of the instruments used to measure the circulation speed of motor vehicles.
- Order ITC/155/2020, of February 7, regulating the State metrological control of certain measuring instruments.

## 3. Liability Insurance.

When it comes to Liability Insurance, the following regulations, at European level, apply:

- Regulation (EC) No 785/2004 of the European Parliament and of the Council of 21 April 2004 on insurance requirements for air carriers and aircraft operators.
- Directive 2009/103/EC of the European Parliament and of the Council of 16 September 2009 relating to insurance against civil liability in respect of the use of motor vehicles, and the enforcement of the obligation to insure against such liability.
- The Rome Convention of 7 October 1952, on Damage Caused by Foreign Aircraft to Third Parties on the Surface.

When it comes to Liability Insurance, the following regulations apply in Spain:

- Spanish Constitution.
- Spanish Aviation Safety Law.
- Spanish Criminal Code.
- Law 1/1982 of civil protection of the right to honor, personal and family privacy and the right to own image.
- Law 26/2007 on environmental liability.
- Law 42/2007 on natural heritage and biodiversity.
- Spanish Air Navigation Act.

When it comes to Liability Insurance, the following regulations apply in Italy:



- Regolamento UAS - IT Edizione 1 del 04/01/2021.

#### 4. **Data Protection.**

When it comes to Data Protection the most important regulation is the GDPR.

However, in Spain there is also a national law, the Law 3/2018 on Data Protection and digital rights.