

From EU Soil to Outer Space: Regulation as an enabler for Spaceports

AEAAS REPORT ON WORLDWIDE REGULATORY PRACTICES, TRENDS AND CHALLENGES OF REGULATING SPACEPORTS

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Identification, mapping and comparison of approaches to spaceport regulation
across 48 jurisdictions and 31 regulatory items

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Abstract

Europe's strategic autonomy in access to space depends on a coherent regulatory environment that enables safe, sustainable, and commercially viable spaceport operations. The findings of this Report, funded by the European Union under the Alliance for European Autonomous Access to Space (the "AEAAS") initiative, span 48 jurisdictions worldwide and more than 31 regulatory items, from licensing and safety requirements to liability, insurance, and export control, among others. Through systematic data collection, trend analysis, and to the furthest extent possible expert validation, the assessment identifies where global regulatory approaches converge, where they diverge, and where critical gaps and bottlenecks persist. The findings provide the analytical foundation for subsequent AEAAS work packages, which will assess best practices and develop a proposal for a European regulatory framework, one that balances safety, sustainability, and operational flexibility while strengthening the EU's position in the global space economy.



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Introduction

This Report is part of the deliverable portfolio of the Alliance for European Autonomous Access to Space ("AEAAS" or "Consortium"), an initiative directed at enhancing the European Union's autonomy and competitiveness in access to space through fit-for-purpose regulatory practices (the "Project"). It presents the findings of a review of 48 jurisdictions worldwide, mapping regulatory practices, trends and challenges, setting the foundation for the Project's subsequent work packages, building up to the final deliverable: a proposal for a common regulatory framework for the European Union.

This Report is not intended to be relied upon as comprehensive and extensive research of the subtleties of each jurisdiction reviewed. Instead, the goal was to identify a broad cross-section of individual regulatory practices, informing the mapping of practices per regulatory item, macro trends and challenges to be built upon later in the Project. Accordingly, the Report is structured in three Parts, supplemented by technical Annexes, and preceded by an overview of the methodology employed by the Consortium to collect data.

Part I summarises the data collected, and lists the practices found in relation to each spaceport key regulatory item.

Part II presents trends identified in spaceport regulatory key items, particularly the most significant patterns of regulatory convergence (where multiple jurisdictions adopt similar approaches) and divergence (where jurisdictions adopt fundamentally different solutions to the same regulatory challenge), as well as cases of regulatory outliers (jurisdiction-specific approaches with limited precedent elsewhere).

Part III addresses immediately identifiable technical and regulatory challenges, feeding initial strategic recommendations to inform subsequent Project deliverables and EU-level policy discussion.

The technical Annexes include a glossary of terms, a list of jurisdictions surveyed, the individual jurisdiction survey template, a list of regulatory items surveyed, and a glossary of regulatory terms.



Analytical methodology overview

As a foundation to identifying best regulatory practices for European spaceports the Consortium selected jurisdictions for review and practice mapping.

To ensure comprehensive coverage and that no viable practice was overlooked, the Consortium deliberately cast a wide and hypothesis-neutral net to find a broad range of jurisdictions with existing space regulations and experience of, or interest in, launching from their territory. This approach enabled an objective assessment of alternatives while avoiding preconceived assumptions or biases.



Figure 1: The selected jurisdictions.

The jurisdictions selected ensure balanced representation across major regional groupings. The European Union and European Economic Area are well represented, given the Project's focus on EU autonomy in access to space. North America, home to the most mature commercial space sector, is duly considered. Rapid growth of national space programmes in Asia Pacific justifies inclusion for emerging national and commercial launch capabilities, and a transition from state-owned and state-operated launch capabilities to the private sector. Jurisdictions from Latin America have significant equatorial launch advantages, and some were



therefore included. The Middle East and Africa were considered for emerging spaceport initiatives and regional policy developments; and, lastly, jurisdictions in Oceania were included for proximity to low-Earth orbit trajectories and established commercial launch operations.

In addition to national jurisdictions, the review also addressed the European Union as a distinct regulatory layer¹, and considered bilateral and multilateral arrangements relevant to spaceport regulation, where existent, relevant and accessible.

Three jurisdictions (the “**Pilot Jurisdictions**”) were selected to serve as references to build a Regulatory Survey template (the “**Survey**”) that guided the data collection:

- **France**, using the Centre Spatial Guyanais (CSG) in French Guiana as the reference site;
- **United States**, using Kennedy Space Centre as the reference site; and,
- **New Zealand**, using Rocket Lab Launch Complex 1 on the Māhia Peninsula as the reference site.

Factors motivating this selection include diverging regulatory approaches that mirror the range of jurisdictions within the European Union (the ultimate beneficiary of the Project): their diversity in legal traditions (civil law and common law approaches are both present), regulatory maturity (varying degrees of established and emerging frameworks), and operational contexts (governmental and commercial launch activities, expendable and reusable vehicles, vertical and horizontal launch configurations).

The assessment intended, likewise, to encompass the full spectrum of regulatory instruments. It targeted primary legislation enacted by parliaments or other legislative bodies and non-statutory regulation, including secondary legislation, ministerial orders, agency rules, and administrative regulations. It also covered soft law instruments, such as guidelines, codes of

¹ While space activities within the EU are primarily regulated at the Member State level, the EU exercises regulatory competence over matters affecting the internal market, competition, environmental protection, dual-use and export controls, cybersecurity, radio and spectrum management as well as several matters of resilience and security, each of which intersects with spaceport licensing and operation. Moreover, the assessment considered the regulatory practices in the EU Space Act where the draft provisions addressed or impact spaceports or launch services.

Since the EU Space Act is still under discussion and part of the beginning Trialogue, spaceport-related topics were included on the basis of both the original draft of the EU Space Act as published on 25 June 2025 (European Commission Proposal COM(2025)335 final) and the so-called revised Compromise Paper of the Presidency of the EU Council, published 30 March 2026. This enables analysis of the interaction between EU and national-level requirements, both current and prospective. A summary of these results was inserted, for readers' convenience and comparison of practices identified in Part 1 and the EU Space Act, under Part 2, dedicated to trends and divergences.



practice, policy statements, and recommended practices issued by regulatory authorities. Finally, the Consortium considered industrial standards, including technical standards enacted by recognised standard-setting bodies² and, crucially, incentive programmes, comprising grants, tax incentives, public-private partnership frameworks, and regulatory sandboxes designed to encourage space sector development.

Based on the Pilot Jurisdictions the Consortium assembled a set of 31 regulatory items, as listed in Annex B, which were categorised into thematic clusters and transposed to the Survey, ensuring consistency across the data collection.

The 48 jurisdictions were then organised into two tiers reflecting proportional analytical effort. A tiered structure was adopted to balance comprehensiveness with resource constraints, ensuring that jurisdictions with the most developed and influential regulatory frameworks received the most detailed analysis, while still capturing the regulatory landscape in emerging and / or less-documented markets.

First-tier jurisdictions (17) as well as a draft iteration of the EU Space Act were subject to in-depth assessment across the full range of 31 regulatory items, with detailed source citations, regulatory text extracts, and expert commentary where available. **Second-tier jurisdictions (31)** received a focused review of main regulatory instruments, key structural features, and any distinctive approaches.

The first-tier jurisdictions were selected based on the following criteria:

- (a) stage of development of space activities – whether the jurisdiction hosts active launch operations, planned spaceport infrastructure, or is in advanced regulatory development;
- (b) status as a spacefaring nation – whether the jurisdiction has conducted orbital launches or is a member of international space cooperation frameworks;
- (c) number of launches conducted – reflecting operational experience and regulatory maturity;

² Such as ISO - International Organization for Standardization, ECSS - European Cooperation for Space Standardisation, CENELEC - European Committee for Electrotechnical Standardisation, the reference standards promoted by BNAE - Bureau de Normalisation de l'Aéronautique et de l'Espace, and national aerospace standards organisations.



- (d) maturity and comprehensiveness of regulatory frameworks – whether the jurisdiction has dedicated space legislation, secondary regulations, and regulatory guidance;
- (e) maturity of the broader ecosystem supporting space access – including aerospace industry presence, research institutions, and trained workforce;
- (f) diversity in spaceport activities – covering governmental, commercial, expendable, reusable, vertical, and horizontal launch operations;
- (g) presence of innovative or distinctive regulatory approaches – including streamlined licensing pathways; and,
- (h) regulatory complexity – how simple or intricate the applicable regulatory framework is.

Additional weight was given to jurisdictions whose placements under the above criteria contrasted with those of the rest of the group, to ensure comprehensive coverage of approaches. One example is criterion (h), where both highly regulated environments and de-regulatory approaches were considered to maximise the range of input.

Based on the criteria above, the Consortium selected the following jurisdictions as **Tier 1**: Australia, Canada, France, Germany, Japan, Norway, New Zealand, Oman, Portugal, Russian Federation, South Africa, United Kingdom, United States of America, China, India, Republic of Korea and Sweden.

For transparency, brief motivation statements for the selection of each jurisdiction are organised below:

<i>Australia</i>	Hosts operational spaceport for which re-entry licences have been issued. Lower levels of maturity are contrasted by high levels of administrative complexity. Direct experience within the Consortium.
<i>Brazil</i>	Hosts operational spaceport with successful launches and dedicated regulation enacted. Direct experience found within the external network of the Consortium.



<i>China</i>	Second largest number of launches in the world after the USA. Distinct political and regulatory environment.
<i>Canada</i>	Push to develop space access and capability. An official draft guidance document detailing application requirements for obtaining authorisation to launch uncrewed orbital and suborbital rockets has been recently issued. Direct experience within the Consortium.
<i>France</i>	Overarching jurisdiction for launch site at French Guiana. Primary location for launch of European vehicles. Direct experience within the Consortium.
<i>Germany</i>	Relevant access to space value chain with commercial entities developing offshore launch platforms to facilitate launching, despite no terrestrial launch sites for sub-orbital or orbital rockets. Highly regulated environment. Strong regulatory expertise within the Consortium.
<i>India</i>	High cadence of launches, emerging private launch capabilities, and an ambitious space programme. Direct experience found within the external network of the Consortium.
<i>Japan</i>	Private and government launch sites with semi regular launches, alongside dedicated regulation. Direct experience found within the external network of the Consortium.
<i>Norway</i>	Andøya spaceport host. High regulatory interest. Direct experience within the Consortium.
<i>New Zealand</i>	Recent regulatory framework and agencies setup. Strong expertise within the Consortium.
<i>Oman</i>	Recent regulatory framework to support sounding rocket flight. Lower levels of administrative complexity. Strong expertise within the Consortium.
<i>Portugal</i>	Malbusca spaceport host. Comprehensive and competitive legal framework in force and tested. A re-entry licence has been granted for the Azores coast. Strong regulatory expertise within the Consortium.
<i>Republic of Korea</i>	National spaceport infrastructure with an extensive regulatory environment. Geography limits launch azimuths. cursory inspection indicates considerable regulatory oversight.
<i>Russian Federation</i>	Previously high launch cadence and one of the oldest launch programmes in the world. Launch seems to be government controlled with no real private commercial industry developed or seeming to develop. Located indirect experience within the Consortium.



<i>Sweden</i>	Espace Space Centre host. Interesting challenges with polar launch corridors. Direct experience found within the external network of the Consortium.
<i>United Kingdom</i>	Spaceport 1 used as a reference site relying on direct consortium experience. Multiple launch sites, horizontal or vertical for orbital and sub-orbital launches. Strong regulatory expertise within the Consortium.
<i>United States of America</i>	Highest number of launches and one of the oldest launch programmes in the world. Private, government and military launch sites covering orbital, sub-orbital, re-entry, testing and other activities. Direct experience within the Consortium.

For Tier 2 the Consortium reserved all other jurisdictions which, although less promising, could still potentially assist in the identification of regulatory trends or the design of a regulatory proposal for spaceports.³

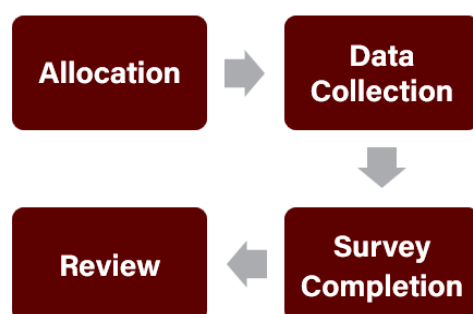
A jurisdiction's placement in the second tier does not imply lesser quality or interest, but rather pragmatic allocation of research resources within the Project's timeframe. Where data may be incomplete or inaccurate, the findings retain value as a source of further perspectives for regulatory approaches and concepts.

The task of research and data collection for the review of 48 jurisdictions was performed by the WP2 Co-Leaders (**Commercial Space Technologies** and **Stellar Kinetics**), with support from **Abreu Advogados** and **Heuking**. Additional jurisdiction-specific expertise was provided by **Impulso Space** (concerning the United States of America and Italy); **ASC** team (for Kourou/French Guiana); **ASTech**, **Alpha Impulsion** and **Borie** (for France); **Hy-Impulse** (concerning Australia and United Kingdom); **ISAR Aerospace** (for Canada and Norway); **PT Space** (for Portugal); and **Reflect Solutions** (for United Kingdom). Where Consortium members possessed relevant operational experience or direct stakeholder relationships, these were leveraged to validate findings and contextualise practical compliance considerations.

³ For clarity, the following jurisdictions were allocated to Tier 2: Argentina, Austria, Azerbaijan, Algeria, Belgium, Belarus, Colombia, Djibouti, Denmark, Ecuador, Finland, Israel, Italy, Kazakhstan, Kenya, Liechtenstein, Luxembourg, Namibia, Nigeria, Netherlands, Pakistan, Peru, Philippines, Poland, Republic of Ireland, Spain, South Africa, Slovakia, Slovenia, Uzbekistan and Turkey.



The survey application workflow comprised the following phases:



1. Allocation: jurisdictions were assigned to Consortium Members based on jurisdiction-specific expertise, language capabilities, and existing professional networks;
2. Data collection: a regulatory spreadsheet was circulated to all Consortium Members to collect inputs, observations, and supplementary information concerning regulations applicable in their respective jurisdictions, with the scope refined iteratively.
3. Survey completion: assigned Consortium Members populated the Survey Template for each allocated jurisdiction, drawing on primary sources (legislation, regulations, official guidance), secondary sources (academic literature, industry publications), and first-hand accounts (stakeholder consultations, operator interviews);
4. Review: completed survey responses were reviewed by the WP2 coordination team for consistency, completeness, and adherence to the methodological framework.

For jurisdictions not falling within the direct knowledge of Consortium members, a supplementary methodology was applied.⁴

Following the application of the jurisdiction Surveys, a harmonisation task began, where validated data of the jurisdictions listed as most relevant⁵ was transposed onto tables enabling comparative analysis across all surveyed jurisdictions.

Advisory Board members with relevant technical or geographic expertise were invited to review these harmonised tables and provide practical insights based on their operational experience and professional networks. They were further asked to identify trends that would accelerate or enable their workflows and those that would hinder their business case, together with the practical impacts of these trends and challenges on their activities, with oriented and guiding queries.

⁴ Consortium members leveraged their networks according to the following steps: (1) identification and translation of relevant statutes, regulations, and guidance into English or another widely spoken language within the Consortium; (2) cross-check for consistency by qualified legal and technical practitioners with experience in comparative regulatory analysis; and (3) targeted outreach to local experts, including legal practitioners, regulatory officials, industry participants, and academic specialists, to review and clarify substantive aspects. Experience and contacts in the Consortium's external network were consulted to complement or confirm input where the Consortium does not have direct experience.

⁵ Including all Tier 1 jurisdictions plus those deemed most relevant from Tier 2, namely Djibouti, Israel, Italy, Kazakhstan, Pakistan, Philippines, Peru, South Africa, Turkey.



PART I – Identified spaceport regulatory practices

1. Scope

The regulatory practices identified throughout the analytical process described above are outlined herein.

A regulatory practice shall be understood for the purpose of this Report as a specific, identifiable legal mechanism through which a regulator prescribes a particular aspect of spaceport establishment, licensing, or operation, as one of alternative approaches that different jurisdictions adopt to address the same regulatory function.

The term “spaceport” is rarely used or defined as such in legislation or regulation. Notwithstanding, **functional equivalents** exist in almost every jurisdiction reviewed⁶. Such term is hereunder deemed to refer to the fixed or moveable place or infrastructure from which launch vehicles (which may carry payloads) depart to outer space⁷, alongside its supporting infrastructure, or any functionally equivalent definition. As such, mission control is not covered (i.e., the definition does not necessarily entail any exercise of control over space vehicles in orbit or space objects from the moment of disengagement with launch vehicle).

Below we list the main regulatory practices for spaceports identified in our review, organised thematically.

⁶ Australia, India, and New Zealand employ the concept of “Launch Facility” to refer to the infrastructural element of the spaceport, including the launch pad and supporting buildings, whereas Canada, China, Japan, Norway, and the U.S.A. employ the term “Launch Site”, emphasising the location component of a spaceport, on ground and land considerations. On its turns, Brazil uses the term “Launch Site” to indicate the place, within the broader infrastructure of a “Launch Centre”, where the launch activity occurs. Jurisdictions influenced by the USSR legal framework tend towards the concept of “Ground Station” (or cosmodrome), emphasising, in turn, the purposes of a spaceport which lie beyond mere launch (supporting infrastructure, mission control, spacecraft mechanics).

Portugal uses only the term “Launch Centre” to refer to spaceports, while the U.K. was the only jurisdiction identified which refers to “Spaceports”. The EUSA-Draft (currently under legislative procedure and subject to further changes) used a “launch site” framing first and switched to a more detailed definition of “ground segment” as the ground-based part of “space infrastructure” in a later draft-iteration.

⁷ Necessarily capturing suborbital ranges.



2.1 Licensing and authorisation

This section presents the comparative findings for all regulatory items within licensing and authorisation⁸, whereby “licence” is deemed as any **administrative permission** without which a commercial spaceport may not operate, regardless of its technical qualification as a licence, permit or authorisation.

First and foremost, it must be regarded whether a private entity may install and/or operate a spaceport and, if so, how it is authorised in each jurisdiction, in relation to which the following alternative regulatory practices were identified:

- Practice 1.1.** Private operators are required to obtain autonomous licence to operate spaceport through a dedicated spaceport licensing regime
- Practice 1.2.** Private operators are not required to obtain an autonomous spaceport licence, but must obtain a licence for launch operations/space activities, in general (which *de facto* requires authorisation to undertake the typical operations of a spaceport)
- Practice 1.3.** Private operators are not subject to dedicated spaceport licensing regimes, but must obtain a licence to operate a spaceport through applications which are assessed on a case-by-case basis
- Practice 1.4.** Private operators cannot obtain a licence to operate spaceports because the infrastructure is state owned or under state control

Closely related to the need to obtain a licence are **timing considerations**. The time required for a spaceport operator to establish their activity is a key consideration for investment and return.

In this context, the Consortium encountered two sets of practices, addressing (a) whether there is a prescribed time limit for issuance of a licence and (b) the expected time required for its issuance:

⁸ Review of the documentation received by the Granting Authority, its assessment, the making of a decision (of grant or refusal) and license issuance have not been included as autonomous practices since they are inherent to a licensing procedure. Their comparative interest is, therefore, limited, although they exist in all jurisdictions which have implemented licensing for space operations, and, specifically, spaceports.



- Practice 2.1.** No statutory maximum time for issuance of the licence to operate a spaceport is prescribed
- Practice 2.2.** No statutory maximum time for issuance of the licence to operate a spaceport is prescribed, but soft law indicates the timeframe
- Practice 2.3.** The deadline for issuance of the licence to operate a spaceport is set statutorily
- Practice 2.4.** The expected time required for obtaining issuance of a licence/permit is lower than 6 months
- Practice 2.5.** The expected time required for obtaining issuance of a licence/permit is between 6 and 9 months
- Practice 2.6.** The expected time required for obtaining issuance of a licence/permit is between 9 months and 12 months
- Practice 2.7.** The expected time required for obtaining issuance of a licence/permit is over 12 months

One-stop-shop mechanisms are intended to significantly influence the process, its efficiency and redundancies. The following alternative approaches were identified:

- Practice 3.1.** There is no formal one-stop shop mechanism for the licensing process
- Practice 3.2.** A formal one-stop shop mechanism is provided for in regulation (information and documentation required for such authorisations may be submitted in the application)
- Practice 3.3.** The one-stop shop mechanism for the licensing process is elective (operator may obtain other opinions / licences autonomously and inform and prove during application)
- Practice 3.4.** The one-stop shop mechanism for the licensing process is mandatory (operator must proceed through one-stop shop)

Prior qualification mechanisms, in turn, enable operators to obtain full or partial completion of an application in advance of any specific envisaged operations, and therefore may be reused for more than one circumstance or operation⁹. These differ from **Pre-applications**, since they

⁹ In Japan it was found that under prior qualification mechanisms the time for licence issuance was reduced by up to three-quarters (75%), from 4-6 months to 1-3 months.



enable the operator to perform multiple similar operations under the same licensing process, whereas the latter simply allows the operator to pre-fill licensing requirements in advance instead of making a single-shot submission, thereby anticipating application shortcomings.

In this regard, the following practices were identified in connection with circumstances in which operators are not obliged to resubmit documentation whenever it was already filed in precedent licensing procedures:

- Practice 4.1.** Mechanisms enabling submission of information in the context of a pre-application procedure which waives (re)submission of pre-qualified information for the effective application are available (not mandatory)
- Practice 4.2.** Launch facility conformity certification can be obtained in advance to simplify future applications for launches
- Practice 4.3.** Critical systems and subsystems employed in space technology may be required to be certified by competent authorities for later employment
- Practice 4.4.** Safety approvals/certificates may be obtained to avoid need to submit safety information for each individual operation
- Practice 4.5.** *Ad hoc* waiver of requirements for ulterior licensing procedures may be issued by competent authorities following request by the operator
- Practice 4.6.** Application of criteria in ulterior licensing procedures that, if met, create a regulatory presumption that the application is compliant

Under the licensing set-up, the actual **procedural steps** required vary significantly across jurisdictions. Accordingly, the following paragraphs aim to map procedural complexity, including streamlined licensing schemes, the number of steps, stakeholder consultations, and the agencies involved.

In this regard the following practices, some cumulative, some alternative, were identified:

- Practice 5.1.** Operator must apply for a pre-application process (which is mandatory)
- Practice 5.2.** Operator may choose to submit to a prior qualification process (not mandatory)
- Practice 5.3.** Mandatory prior contact or meeting with administrative entity is required before the application for a spaceport licence
- Practice 5.4.** Process includes a stage for a formal application for obtaining a spaceport licence



- Practice 5.5.** The formal application for obtaining a spaceport licence is submitted to the body which ultimately grants the licence (the “Granting Authority”)
- Practice 5.6.** The formal application for obtaining a spaceport licence is submitted to another administrative entity or body (which is different from the Granting Authority)
- Practice 5.7.** The preparation of the administrative file for the issuance of the spaceport licence is entrusted to a body or entity other than the Granting Authority
- Practice 5.8.** The spaceport licence process entails consultation of other bodies / governmental agencies¹⁰
- Practice 5.9.** The spaceport licence process requires pre-approvals from other bodies or governmental agencies (e.g., governmental pre-approval)
- Practice 5.10.** The Granting Authority is involved in the preparation of the pre-approvals it is required to sanction under the spaceport licence process.
- Practice 5.11.** Statute does not specify which pre-approvals/consultations are required for licensing a spaceport; which entities must be heard is defined on a case-by-case basis
- Practice 5.12.** The spaceport licence process requires obtaining additional licences (e.g., telecoms)
- Practice 5.13.** Approval or authorisation is not prepared by the Granting Authority but rather by another administrative body
- Practice 5.14.** The spaceport licence process contains modular licensing schemes, whereby information related to each aspect of the spaceport is submitted separately to streamline review
- Practice 5.15.** The spaceport licence process entails stakeholder consultation

A phase worth emphasising is the **Stakeholder consultation**, whenever required. This process of engaging people, groups, or organisations that have an interest in, or are affected by, a project, policy, or decision often appears as a standalone regulatory practice, affecting the licensing process significantly and in different ways depending on the stakeholders envisaged, such as:

¹⁰ The practices and entities consulted are expanded below, including its binding or consultative nature.



Practice 6.1. Binding consultation of civil society or ethnic groups is required for land access rights, typically lasting several months to years¹¹

Practice 6.2. Non-binding consultation of civil society or ethnic group is required for land use, typically lasting some weeks to a few months

Moreover, the regulation of spaceports must also consider the **need to obtain opinions, pre-approvals or otherwise consultations** of administrative entities and authorities responsible for areas adjacent to a spaceport's regulation or operation.

The following alternative regulatory practices were identified in connection with the questions: "How many administrative entities must be consulted during the spaceport licensing process? How many issue a binding decision and how many issue non-binding opinions?"

Practice 7.1. No administrative entities are heard during the licensing process

Practice 7.2. The national space agency issues a binding opinion

Practice 7.3. The member/department of government issues a binding opinion

Practice 7.4. The national Aviation Authority issues a binding opinion

Practice 7.5. The member/department of government issues binding opinion; national security, health and safety, and environmental authorities issue non-binding opinions; maritime and telecommunications authorities are heard when relevant

Practice 7.6. The Environmental Authority issues binding opinion; national security authority, foreign affairs member of government, Space Agency, maritime and telecommunications authorities issue non-binding opinions

Practice 7.7. The Government, municipal and regional authorities issue binding opinions; Space Agency, defence member of government, foreign affairs member of government, internal affairs member of government, and infrastructure, health and environment member of government issue non-binding opinions; maritime authority is heard when relevant

Practice 7.8. The Defence member of government, foreign affairs member of government, and education and development member of government issue binding opinions; nuclear regulatory authority is heard when relevant

¹¹ An example worth mentioning is the Atakani Space Centre, which has been involved for nearly six years of Indigenous and community consultation.



- Practice 7.9.** The Aviation Authority, Environmental Agency, Telecommunications Authority and Defence member of government issue binding opinions
- Practice 7.10.** Aviation Authority, Environmental Agency, Telecommunications Authority and Export Control Authority issue binding opinions
- Practice 7.11.** Aviation Authority, Environmental Agency, Maritime Authority, Telecommunications Authority, Hazardous materials and export control Authority issue binding opinions
- Practice 7.12.** None issues opinions with binding effects; the Space Agency and Defence member of government are heard when relevant
- Practice 7.13.** None issues opinions with binding effects; the national security authority, defence member of government and foreign affairs member of government issue non-binding opinions
- Practice 7.14.** None issues opinions with binding effects; telecommunications authority, environmental authority, infrastructure member of government and national security authority issue non-binding opinions
- Practice 7.15.** Defence member of government, internal affairs member of government, intelligence services, health member of government and environmental agency issue non-binding opinions; aviation authority is heard when relevant
- Practice 7.16.** Case-by-case basis

Licensing schemes may also include **exemptions and light regimes** which reduce the expected time of issuance or number of procedural steps for obtaining a licence. In this regard the following practices were identified:

- Practice 8.1.** No licence exemption or light regime exist
- Practice 8.2.** Light regimes exist but only for missions conducted by public bodies or agencies, or ordered or requested by those bodies or agencies
- Practice 8.3.** Spaceport operation by governmental agencies / bodies is subject to simplified licensing procedure
- Practice 8.4.** Whenever the launch is directly conducted by the operator of the spaceport (dual service provision) the launch will be subject to simplified licensing procedure
- Practice 8.5.** Tests, experimental operations, prototypes and similar operations are excluded from typical commercial spaceport licensing regimes



- Practice 8.6.** Requirements to obtain certification acting as easement / replacement of administrative reviews for approvals (reduction of time for issuance from application up to three quarters)
- Practice 8.7.** Case-by-case basis licensing enabling adjustment, exemptions, easements and ad hoc light regimes
- Practice 8.8.** Possibility of submitting ad hoc request for easement / light regime / exemption / waiver
- Practice 8.9.** Amateur rocket operations do not require a site operator licence
- Practice 8.10.** Possibility to complete on the application and licensing process in a progressive manner (modular submission process)
- Practice 8.11.** Easements for experienced operators using proven vehicles from established sites

In addition to procedural considerations, jurisdictions impose **organisational requirements** that applicants must satisfy before a licence may be granted. These requirements fall into several categories, including operator fitness, technical competence, and site-specific considerations. In most jurisdictions under review, these requirements apply both for initial issuance¹² and for ongoing compliance.

The following subsections address the features and qualifications that natural or legal persons applying for a spaceport licence must satisfy. They contain practices identified in connection with the question: "*Who can obtain a spaceport licence?*"

- From a legal/financial fitness perspective:

- Practice 9.1.** The applicant must be fit and proper (proven, e.g., through submission of resumes of decision-making bodies and criminal records)

¹² Site-related requirements constitute a distinct category of *ex ante* conditions, focusing on the physical characteristics, safety assessments, and security measures applicable to the proposed spaceport location.



Practice 9.2. The applicant must demonstrate financial capacity, responsibility and adequate financial arrangements (e.g., through submission of sources of financing, IRS filings, expected revenues and financial return)

Practice 9.3. The applicant must have legal representative / headquarters in the jurisdiction

Practice 9.4. The applicant must submit evidence of regular tax status

Practice 9.5. Strictness of legal/financial fitness requirements is proportional to the risks and the size of the company (otherwise undefined)

- From a technical standpoint:

Practice 9.6. The applicant must demonstrate technical capability/competence (terms not defined)

Practice 9.7. Applicant must demonstrate technical parameters, mission planning and readiness assessment

Practice 9.8. The applicant must demonstrate qualified personnel (through description of human resources, resumes, or certifications)

Practice 9.9. The applicant must demonstrate adequacy of operational procedures

Practice 9.10. The applicant must submit description of company activities over prior three years and/or business plan for near future

Practice 9.11. The applicant's technical competence is implied through certification requirements (certifications of space technology)

Practice 9.12. Evidence of the applicant's technical competence is not an autonomous requirement, but is instead included as part of the safety component

Practice 9.13. The applicant must demonstrate aptitude and a qualified technical team

- As miscellaneous:

Practice 9.14. Insurance/financial requirements must be satisfied by the applicant before licence is issued

Practice 9.15. The applicant must enter into a compensation contract for damages with the State before the licence is issued

Practice 9.16. The applicant must submit a sworn statement confirming the absence of suspensions of activities, domestically or abroad

Practice 9.17. The applicant must disclose foreign ownership



Practice 9.18. The applicant must describe the organisational structure (organisation chart) highlighting specific responsibilities

Practice 9.19. The applicant must submit proof of rights to facilities and equipment

Practice 9.20. There are no general spaceport operator requirements; the licence is instead subject to conditions set by the Granting Authority on a case-by-case basis as appropriate

Multiple jurisdictions require submission, during the application process, of **documentation evidencing the concept and implementation of operations** at the planned spaceport, including the implementation of communication protocols and coordination with emergency and air traffic agencies. Several practices were identified in this regard:

Practice 10.1. Applicant must demonstrate “sufficient ground safety” (use of indeterminate concept)

Practice 10.2. Applicant must submit flight safety assessment

Practice 10.3. Applicant must submit evidence of compliance with specific norms or safety standards (e.g., ISO standards)

Practice 10.4. Applicant must submit evidence that the risks of the operation are ALARP (as low as reasonably practicable)

Practice 10.5. Applicant must submit safety/risk assessment of the spaceport operation

Practice 10.6. Applicant must submit precautionary measures to protect public safety and order

Practice 10.7. Rocket design must meet launch vehicle safety standards

Practice 10.8. Applicant must submit indication of safety buffers

Practice 10.9. Applicant must submit hazard identification plan

Practice 10.10. Applicant must submit report demonstrating compliance with safety standards

Practice 10.11. Applicant must submit plan for safety audits

Practice 10.12. Applicant must submit safety management plan and key personnel

Practice 10.13. An explicit requirement exists not to compromise national security matters (e.g., through prohibition or subjection to security assessment by public authorities)

Practice 10.14. An explicit requirement exists to protect state secrets/commercial secrets

Practice 10.15. Applicant must submit security risk assessment

Practice 10.16. Applicant must submit security plan/programme

Practice 10.17. Applicants must submit cybersecurity measures planned



- Practice 10.18.** Applicants are responsible for planning and ensuring control of public access to the facilities
- Practice 10.19.** Applicants must have a video surveillance system installed and submit a map of its location during the application
- Practice 10.20.** Applicant must submit proposed methods of archiving confidential and secure documents and data
- Practice 10.21.** Applicant must demonstrate sufficient physical security of the centre's facilities and operations (including against natural phenomena and man-made disasters)
- Practice 10.22.** Applicants must submit an environmental protection plan during application
- Practice 10.23.** Applicants must undertake Environmental Impact Assessment before construction
- Practice 10.24.** Applicants must obtain approval from the environmental authority before construction.
- Practice 10.25.** Applicants must demonstrate compliance with COPUOS, or other, debris mitigation guidelines
- Practice 10.26.** Applicants must show their activities do not cause disproportionate damage to the environment
- Practice 10.27.** Applicants must submit evidence of environmental safety in space, including measures for clean-up in the event of an environmental accident
- Practice 10.28.** Subjection to dedicated EIA for infrastructure presenting major risks or severe potential nuisances to health, safety, or the environment
- Practice 10.29.** Submission of waste management procedures and location/storage and handling of hazardous substance storage
- Practice 10.30.** Statutory waivers to bypass duplicative multi-agency environmental reviews/licences
- Practice 10.31.** Applicants must submit emergency plan / response procedures as standard licence condition
- Practice 10.32.** Applicants must submit Incident Report template
- Practice 10.33.** Applicant must demonstrate technical compatibility with launch site infrastructure
- Practice 10.34.** Applicant must submit a quality management system
- Practice 10.35.** Applicant must demonstrate suitable vehicle interface (through certification)
- Practice 10.36.** Applicants must anticipate measures for orderly termination of activities



- Practice 10.37.** Applicants must submit launch plan showing flight path and flight termination measures
- Practice 10.38.** Applicant must demonstrate protection against lightning and submit a plan for handling explosive siting requirements
- Practice 10.39.** Applicants must report on the maximum expected launch frequency by vehicle type per launch point and activity schedule
- Practice 10.40.** Applicants must submit an operations and maintenance manual for the centre and its obsolescence plan
- Practice 10.41.** Applicants must identify potential users of the services
- Practice 10.42.** Applicants must conduct an Export Control Assessment and FDI screening as part of the licensing process
- Practice 10.43.** Applicants must obtain a spectrum authorisation prior to initiating their spaceport activity
- Practice 10.44.** Applicants must demonstrate compliance with COSPAR Planetary Protection Policy for missions to other celestial bodies
- Practice 10.45.** Applicants must submit the terms and conditions they intend to apply for the provision of infrastructure and services to launch / mission control operators
- Practice 10.46.** If applicable, applicants must submit systems and processes implemented for mission control
- Practice 10.47.** Applicants must submit a space operations communication plan, including notification of the launch and/or re-entry schedule
- Practice 10.48.** Applicant must submit description of the types of vehicles that can be launched and/or returned to the spaceport
- Practice 10.49.** Applicant must demonstrate that at least one type of launch vehicle can be safely flown from each proposed launch point
- Practice 10.50.** Mandatory joint exercises with emergency management services
- Practice 10.51.** Corrective actions may be imposed by competent authority
- Practice 10.52.** Zero-defect analysis before resuming launch operations after failures
- Practice 10.53.** Undertaking of safety drills at facilities
- Practice 10.54.** Coordination of emergency plans with local government, fire and disaster authorities
- Practice 10.55.** Coordination arrangements with emergency authorities during launches
- Practice 10.56.** The licensee must preserve all records related to mishaps or occurrences having an impact on safety



Practice 10.57. Compliance with hazardous substance control, and propellant handling

Moreover, individually **adjustable requirements**, and their determination **on a case-by-case basis** for spaceport licensing, can likewise greatly influence the design and intricacy of the spaceport licensing process. The following alternative regulatory practices were identified in connection with the question: *"Can the granting authority impose additional requirements?"*

Practice 11.1. Yes, the granting authority may impose additional requirements;

Practice 11.2. No, the granting authority may not impose additional requirements.

It must also be considered whether the licensee is entitled to transfer its authorisation to another party and, if so, under which terms. The following alternative regulatory practices were identified:

Practice 12.1. Operators may not transfer their licence to other operators¹³

Practice 12.2. Licence transfer is permitted subject to prior approval by the competent authority, and the transferee is required to demonstrate compliance with the applicable licensing requirements

Cross-border market access mechanisms, such as equivalence decisions and mutual recognition, also merit consideration. As mechanisms for the acknowledgement of compliance beyond the jurisdiction where compliance is first assessed, two sets of practices were identified.

- From an equivalence standpoint:

Practice 13.1. No formal mutual-recognition or equivalence mechanism in place

Practice 13.2. Foreign authorisation may be recognised based on equivalent assessment criteria

¹³ This practice includes circumstances where transfer of the licence is statutorily possible, but the transfer requires a new licensing or authorisation process for the new holder (rather than the transfer of the existing licence).



- Practice 13.3.** Foreign certification of a technical element may be accepted where the foreign certification system is deemed equivalent
- Practice 13.4.** Foreign authorisation may justify simplified procedures or exemption from domestic licensing requirements
- Practice 13.5.** Foreign assessments or authorisations may be considered without constituting formal equivalence or recognition
- Practice 13.6.** Treaty-based bilateral agreement allowing for the recognition of foreign authorisation

- From a mutual recognition standpoint:

- Practice 14.1.** Automatic mutual recognition of foreign authorisations pursuant to an international agreement
- Practice 14.2.** Recognition of certification by foreign actors (state authorities or standardisation organisations) when these actors have been unilaterally sanctioned by the domestic competent authorities
- Practice 14.3.** Domestic competent authorities are authorised by statute to consider foreign licences / authorisations and/or certifications (although waiver is not automatic)
- Practice 14.4.** Operators licensed by foreign authorities may benefit from waiver or streamlined processes if they are able to bring evidence of equivalence of the foreign requirements to applicable international obligations
- Practice 14.5.** No mutual recognition mechanisms are available – national licence is required regardless of foreign authorisations held

Licence duration, term and termination are also an essential feature for all stakeholders. The following practices were identified in relation to expiry, revocation, surrender and other termination of the licences:

- Practice 15.1.** The spaceport operator licence expires at the end of a fixed licence term
- Practice 15.2.** The spaceport operator licence expires upon completion of the authorised mission or operation
- Practice 15.3.** The spaceport operator licence lapses if the authorised activity does not commence within a specified period



- Practice 15.4.** The spaceport operator licence does not automatically expire and may be granted for an indefinite period
- Practice 15.5.** The spaceport operator licence may be revoked for breach of licence conditions or applicable legal requirements
- Practice 15.6.** Prior notice and a right to be heard are required before revocation of the spaceport operator licence
- Practice 15.7.** The spaceport operator licence revocation may entail restrictions on future applications
- Practice 15.8.** Voluntary surrender / renunciation of the spaceport operator licence is expressly permitted
- Practice 15.9.** Change of control requires prior approval or a new authorisation / licensing process for spaceport operator
- Practice 15.10.** Change of control may trigger reassessment of the licensee's eligibility to act as spaceport operator
- Practice 15.11.** National security, national interest or international obligations may justify refusal, suspension, revocation or restriction of the licensed activities, as well as exemption from any licensing rules
- Practice 15.12.** Competent authorities may impose additional measures to ensure regulatory compliance, operational continuity or the safe cessation of licensed activities

Moreover, the following alternative and complementary regulatory practices were identified in connection with the question: "Are **fees** required for applying for a spaceport licence, obtaining a spaceport licence, or renewing a spaceport licence and in what format?"

- Practice 16.1.** No fees are required for applying for a spaceport licence, for issuance of the licence, or for renewal
- Practice 16.2.** Specific fees in connection with spaceport licence are prescribed by law or regulation
- Practice 16.3.** Fees in connection with spaceport licence are due at the time of application
- Practice 16.4.** Fees in connection with spaceport licence are due upon issuance of licence
- Practice 16.5.** Fees in connection with spaceport licence are due annually
- Practice 16.6.** Fees in connection with spaceport licence are due for renewal of licence



Practice 16.7. Amount of fees in connection with spaceport licence is proportional to investment in space technology and infrastructure

In summary, the licensing and authorisation framework for spaceports encompasses diverse practices across jurisdictions, ranging from mandatory licensing requirements to flexible exemptions, with significant variations in timing, procedural steps, and substantive requirements for operators.

2.2 Safety, environmental and technical standards

The following cumulative regulatory practices were identified as addressing the operational requirements necessary to protect personnel, infrastructure, environment, property external to the spaceport, and the public:

- Practice 17.1.** Operators must organise and participate in mandatory joint exercises with local administrative emergency management services
- Practice 17.2.** Corrective actions may be imposed by competent authority following inspection or incident
- Practice 17.3.** Operators must conduct zero-defect analysis before resuming launch operations after failures
- Practice 17.4.** Operators must undertake safety drills at facilities regularly
- Practice 17.5.** Operators must coordinate emergency plans with local government, fire and disaster authorities
- Practice 17.6.** Operators must coordinate with emergency authorities during launches
- Practice 17.7.** A government representative at the scene oversees guiding the safety protocols of the spaceport
- Practice 17.8.** Operators must preserve all records related to mishaps or occurrences having an impact on safety
- Practice 17.9.** Operators must implement procedures to ensure compliance with hazardous substance control, and propellant handling
- Practice 17.10.** Handling of toxic and acutely hazardous propellants is regulated through safety plans in launch service agreements and payload user manuals
- Practice 17.11.** Certain toxic and acutely hazardous materials are banned



Practice 17.12. Certification of safety critical equipment is required

In essence, safety, environment and technical standards consistently require coordination with emergency services, incident reporting, and compliance with hazardous materials handling protocols, though the specificity of requirements varies between jurisdictions.

2.3 Compliance, liability and insurance

The regulatory framework for compliance, liability, and insurance represents another essential pillar of spaceport governance.

These provisions allocate responsibility among stakeholders, define liability regimes applicable to space activities, and establish insurance requirements designed to ensure adequate financial coverage for potential claims.

Legal certainty and implementation of risk management systems by operators also partially depend on the consideration of the allocation of **responsibility for compliance** among players and stakeholders.

The following cumulative and alternative regulatory practices were identified in connection with the question: *"Who is primarily responsible for ensuring compliance of the operations of a spaceport?"*

Practice 18.1. The licensed operator is responsible for facility safety, environmental compliance, security, coordination with authorities, licence conditions and activities requirements

Practice 18.2. Land access and planning compliance rest with the landowner or leaseholder

Practice 18.3. The property safety lies with landowner/leaseholder

Practice 18.4. The site owner is not separately liable under space legislation but is subject to general liability

Practice 18.5. Responsibility for handling propellant lies with the site operator

Practice 18.6. There is no liability for operational failures expressly foreseen

Practice 18.7. Where multiple entities are involved, the allocation of responsibilities is determined by licence conditions



Under the applicable international framework for outer space, **liability** for damages caused by space objects rests with the launching state. The following practices were identified as regulating the relationship between the launching state and the space operator(s) involved in placing the damaging object in orbit:

- Practice 19.1.** The State has a right of recourse against the operator for damages incurred under international law
- Practice 19.2.** The State's right of recourse is capped, either by statute or through a licence (the State assumes liability beyond the cap of recourse)
- Practice 19.3.** Operator must compensate State for liability claims
- Practice 19.4.** Government bodies are responsible for accident clean-up
- Practice 19.5.** Scope of liability and limits are specified by statute

Insurance regulations are typically found in contexts presenting a high likelihood of high-impact events, such as launch operations for space vehicles. In this regard, the following practices were identified:

- Practice 20.1.** Insurance covering third-party liability is required for the operation or use of spaceports / performance of the relevant space activities
- Practice 20.2.** Insurance covering the lives and health of cosmonauts and employees of space infrastructure is required
- Practice 20.3.** Insurance for damages caused on government property is required for the operation or use of spaceports / performance of the relevant space activities
- Practice 20.4.** Insurance is not required for the operation or use of spaceports / performance of the relevant space activities
- Practice 20.5.** Insurance requirements for the operation or use of spaceports / performance of the relevant space activities may be waived or reduced
- Practice 20.6.** Insurance requirements for the operation or use of spaceports / performance of the relevant space activities may be satisfied through an alternative financial guarantee for certain operations
- Practice 20.7.** The State must be a named beneficiary under the insurance scheme



Furthermore, the following complementary and alternative regulatory practices were identified in connection with the question: *"What are the maximum amounts payable by insurers following accidents connected with the operation of a spaceport?"*

- Practice 21.1.** Insurance required for the operation of a spaceport must cover maximum probable loss to third parties
- Practice 21.2.** Insured amounts are specified in the spaceport licence on a case-by-case basis
- Practice 21.3.** Insurance coverage requirements are fixed amounts per type of operation envisaged at the spaceport
- Practice 21.4.** Insurance coverage requirements are fixed amounts proportional to the mass of the object insured to be launched from the spaceport
- Practice 21.5.** The lowest amount of insurance coverage identified in connection with spaceport activity was EUR 2,000,000 (two million euros) in damages
- Practice 21.6.** The mid-range amount of insurance coverage identified in connection with spaceport activity was EUR 70,000,000 (seventy million euros) in damages
- Practice 21.7.** The highest amount of insurance coverage identified in connection with spaceport activity was EUR 500,000,000 (five hundred million euros) in damages

2.5 Standardisation and interoperability requirements

As spaceport activities increasingly involve cross-border coordination and the integration of diverse launch systems, standardisation and interoperability requirements have emerged as a distinct regulatory category. In this regard, the following practices were identified:

- Practice 22.1.** Operators are only subject to compliance with space management, product assurance, engineering technology, operation service, space application and space science standards
- Practice 22.2.** Regulation contains standards that de facto reference IADC/ECSS/ISO/COPUOS guidelines
- Practice 22.3.** IADC/ECSS/ISO/COPUOS guidelines are specifically incorporated in regulation
- Practice 22.4.** Certification of all space technology employed required



Standardisation¹⁴ and interoperability requirements are increasingly aligned with internationally recognised frameworks, including ISO standards, ECSS specifications, IADC debris-mitigation guidelines and COPUOS principles. Such convergence reflects the transnational character of spaceport operations and promotes technical harmonisation, safety assurance, regulatory coherence and international cooperation.

2.6 Operational requirements

Spaceport activities are subject, first and foremost, to the technical limitations of the operation and, secondly, to the rights and obligations imposed by the legal system. The ongoing conduct of spaceport activities is prescribed through operational requirements.

From the perspective of **types of launch**, two different approaches were identified:

Practice 23.1. The spaceport operator licence specifies permitted types of launch (e.g., vertical/horizontal or by weight class)

Practice 23.2. The spaceport operator licence does not limit types of launch

The following **rights** are among those granted with the licence to operate a spaceport:

Practice 24.1. The spaceport operator is entitled to install the infrastructure and operate the spaceport

Practice 24.2. The spaceport operator is only entitled to operate the spaceport¹⁵

Practice 24.3. The operator is entitled to operate the spaceport on an exclusive basis

Practice 24.4. The spaceport operator is granted with access rights (when infrastructure is owned or operated by public entities)

¹⁴ The Consortium identified multiple international standards reporting to sound management and safe operation of spaceport activities, which are described under Annex E.

¹⁵ The authorisation for installation, development and construction comes from a territorial public planning local authority's consent, not the spaceport licence, which authorises only the operation of space activities *stricto sensu*.



Practice 24.5. The spaceport operator is entitled to transfer the licence (as an explicit right, although subject to authorisation)

While the following **duties** are worth mentioning:

Practice 25.1. The spaceport operator is obliged to update the Granting Authority on an ongoing basis

Practice 25.2. The spaceport operator is obliged to follow incident and accident reporting procedures (see the section below)

Practice 25.3. The spaceport operator is obliged to cooperate with investigations by competent authorities

Practice 25.4. The spaceport operator is obliged to adhere to best practices and to employ best efforts

Practice 25.5. The spaceport operator is obliged to provide or enable access by competent authorities to facilities, documents and information

Practice 25.6. The spaceport operator is obliged to facilitate compliance monitoring

Practice 25.7. The spaceport operator is obliged to submit an annual report to the authorities

Practice 25.8. The spaceport operator is obliged to retain records of activities for entire duration of the licence and a determined number of years post-licence term

Practice 25.9. The spaceport operator is obliged to implement cybersecurity measures for spaceport

Practice 25.10. The spaceport operator is obliged to register with the cybersecurity authority

Practice 25.11. The spaceport operator is obliged to maintain a Critical Infrastructure Risk Management Programme (CIRMP) covering cyber, personnel, supply chain and physical hazards for relevant spaceport systems

Moreover, the following practices were identified in connection with **reporting incidents**:

Practice 26.1. Accidents and malfunctions must be notified within 24 hours

Practice 26.2. Cyber incidents must be reported within 12 hours (critical incidents) or 72 hours (other incidents)

Practice 26.3. Events affecting the validity or continuance of the authorisation must be communicated within 30 days

Practice 26.4. Mitigation details must be submitted within 7 working days



- Practice 26.5.** Changes in management and control positions or shareholding must be notified within 48 hours
- Practice 26.6.** Applicant must submit plan for monitoring and sustainability reporting
- Practice 26.7.** Applicant must demonstrate how it will implement processes to notify competent authorities, within 72 hours, of any event likely to give rise to an insurance claim or of any other occurrence with a severe impact on safety or on operations
- Practice 26.8.** Licensee must control public access, schedule operations to prevent mishaps, implement mishap plans, comply with explosive siting and lightning protection

Considering the above, it is likely that operational requirements encompass both technical limitations and legal obligations.

2.7 Infrastructure and land use

Infrastructure and land use considerations address the physical dimensions of spaceport development, including site suitability assessments, zoning requirements, and land access arrangements.

These provisions reflect the intersection with broader planning and property law frameworks, and the following practices were identified:

- Practice 27.1.** Site suitability (undefined) is assessed during application
- Practice 27.2.** Defined aspects of site suitability, such as launch trajectory or orbital access, population density, proximity to infrastructure, flight corridor analysis, risk analysis, explosive siting are assessed during application
- Practice 27.3.** Type-specific site safety standards are required for compliance certification
- Practice 27.4.** The applicants must submit map of the facilities envisaged for the spaceport
- Practice 27.5.** The applicants must submit description of transportation, power, and communications networks, including redundancies envisaged for the spaceport
- Practice 27.6.** The applicants must submit identification of suppliers connected with the envisaged spaceport activity
- Practice 27.7.** The applicants must submit dedicated construction plan (if applicable) for the spaceport



Practice 27.8. The site's compatibility with suborbital operations, including airspace, infrastructure and supply chain, is assessed

2.8 Export controls and customs

Export controls, including ITAR (International Traffic in Arms Regulations) and EAR (Export Administration Regulations) regimes, where applicable, represent a distinct category of regulatory requirements that intersect with spaceport operations. Given the dual-use nature of many space technologies, these controls impose additional compliance obligations on operators.

The following alternative regulatory practices were identified in connection with the question: *"How does export control affect the development and operation of spaceports?"*

Practice 28.1. Maintenance of a national Defence and Strategic Goods List (DSGL) for the control of dual-use technology exports

Practice 28.2. Government approval is required for the export of launch vehicle components, satellite parts and related dual-use technology

Practice 28.3. Launch vehicles are categorised as 'weapons equipment' (in several jurisdictions this is specifically per the MTCR regime)

Practice 28.4. Space-related manufacture (rocket development) and relevant software development are classified as "core designated business sectors."

Practice 28.5. Foreign trade act controls export of strategic goods including space technology, satellite components, and missile-related items

Practice 28.6. General monitoring, with the possibility of the government imposing conditions on, or blocking, transactions and exports of dual-use goods for national security reasons

Practice 28.7. Direct application of ITAR/EAR

Practice 28.8. Extraterritorial compliance with ITAR/EAR due to bilateral agreements necessary for use of US-origin technology

Practice 28.9. Jurisdiction specific equivalent to ITAR/EAR

Practice 28.10. Functional equivalent in the form of statute

Practice 28.11. No functional equivalent in the form of statute



Export-control requirements and foreign-investment screening may both affect market access, but they are legally and operationally distinct regimes. As such, from a foreign-investment screening perspective, the following practices were identified:

Practice 29.1. Dedicated screening of foreign investment in space technology

Practice 29.2. Cap on foreign direct investment

Practice 29.3. No space technology specific FDI caps apply



PART II – Identified spaceport regulatory trends

1. Scope

For purposes of this Report, a “trend” is defined as a pattern observed across multiple jurisdictions or over time, distinguishable from isolated regulatory choices.

The following sections present the analytical framework for trend identification, including convergence/divergence analysis, confidence thresholds, and how identified trends will inform subsequent project phases, by moving beyond the descriptive presentation of regulatory frameworks towards the identification of broader regulatory trends.

Whereas Part I listed the regulatory approaches adopted by each jurisdiction across individual regulatory items, this Part expands on recurring patterns observable, contrasting isolated regulatory solutions with more consistent regulatory developments. The objective is not to assess the merits of any individual regulatory model, but rather to identify common trajectories, persistent divergences and emerging practices capable of informing future regulatory design.

The insight provided for in this Part is based on the comparative assessment of the jurisdictions surveyed and the harmonised comparative tables prepared following completion of the regulatory survey.

The analytical framework adopted distinguishes between several categories of regulatory developments. These include areas of regulatory convergence, where multiple jurisdictions have adopted substantially similar approaches; areas of regulatory divergence, where different regulatory models continue to coexist without a clear tendency towards alignment; regulatory outliers that depart significantly from prevailing practice; changes in the scope of regulation; differing legislative drafting techniques, particularly the distinction between prescriptive and principle-oriented regulatory models; and regulatory developments that either facilitate or hinder industry workflows and commercial viability.



2. Regulatory trends

2.1 Areas of strong convergence

The comparative assessment reveals strong convergence patterns.

Requirements for the submission of proof of **safety, security and risk assessment** and, specifically, **range safety assessments** as a core element of spaceport licensing frameworks are solid examples.

Regarding **safety**, although the methodologies employed may differ between jurisdictions, the underlying regulatory objective of demonstrating that space activities can be conducted safely is consistently reflected across mature regulatory regimes. The chart below illustrates in how many jurisdictions, among those listed as the most relevant under this assessment¹⁶, safety outputs were required as part of the licensing process:

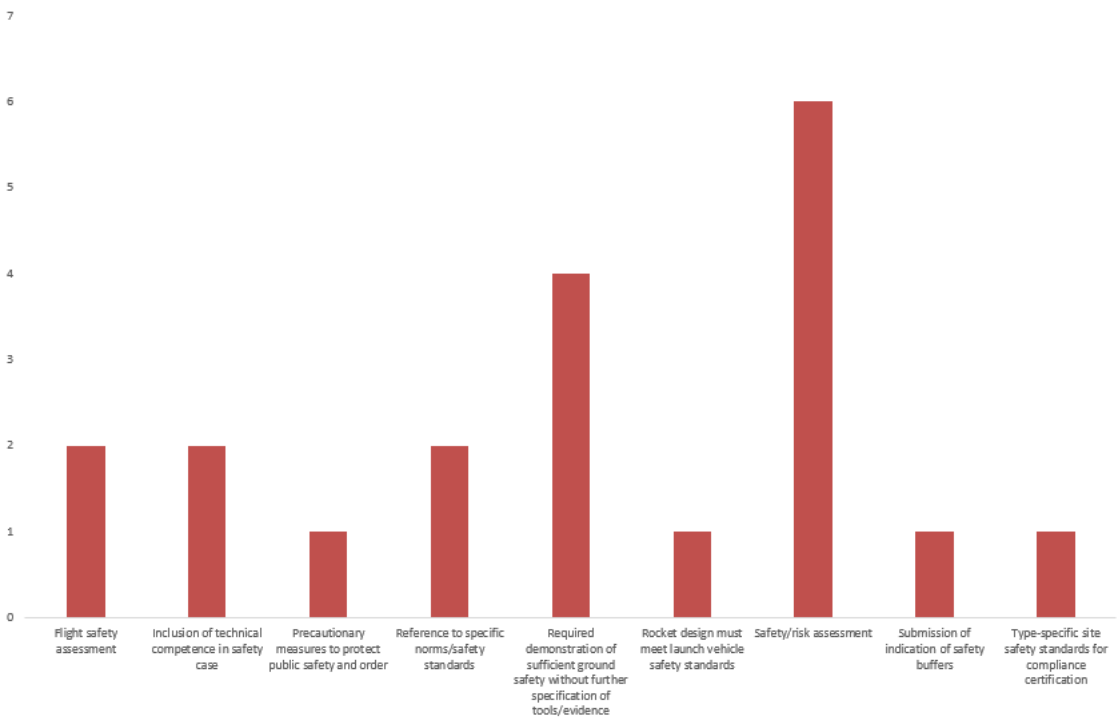


Figure 2: Illustration of the safety outputs required as part of the licensing process, in jurisdictions per requirements.

¹⁶ A total of 26 jurisdictions, which include all Tier 1 jurisdictions and those deemed most relevant from Tier 2, namely Djibouti, Israel, Italy, Kazakhstan, Pakistan, Philippines, Peru, South Africa, Turkey.



Nevertheless, convergence exists primarily in relation to the requirement to demonstrate safety, rather than the specific assessment methodologies adopted, as demonstrated through the pivot chart above. Different jurisdictions apply varying safety frameworks, ranging from established national methodologies to performance-based approaches.

A common approach has been to adopt¹⁷ or adapt¹⁸ the safety analysis methodology published by the FAA (Federal Aviation Administration of the United States of America).

The comparative assessment likewise revealed a strong convergence regarding the imposition of requirements for comprehensive **security planning** as a core component of spaceport regulatory frameworks. The following chart illustrates, among the jurisdictions listed as the most relevant under this assessment¹⁹, how many required security details be submitted for licensing:

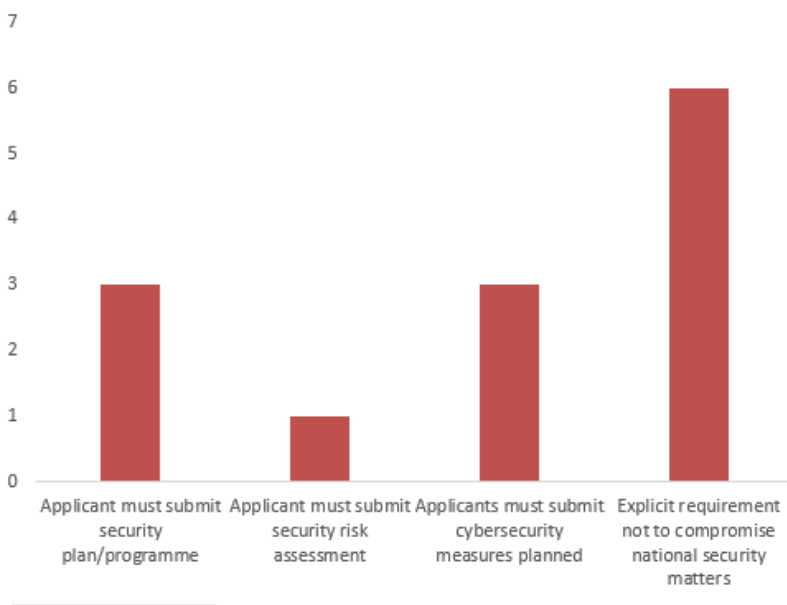


Figure 3: Illustration of the security outputs required as part of the licensing process, in jurisdictions per requirements.

¹⁷ In Brazil, for example.
¹⁸ In cases such as the UK and Australia.
¹⁹ A total of 26 jurisdictions, which include all Tier 1 jurisdictions and those deemed most relevant from Tier 2, namely Djibouti, Israel, Italy, Kazakhstan, Pakistan, Philippines, Peru, South Africa, Turkey.



This reflects the increasing recognition of spaceports as interconnected and strategically significant infrastructures requiring integrated security measures.

The increasing integration of cybersecurity, supply-chain resilience and emerging operational threats, including interference from unmanned aerial systems (e.g., drones), was consistently identified as an important evolution of contemporary spaceport security frameworks.

Across mature launch jurisdictions, regulatory frameworks commonly require the identification and management of hazard areas, airspace restrictions, maritime exclusion zones, flight safety systems, tracking and telemetry, flight termination and debris mitigation measures. These requirements reflect the common regulatory objective of **protecting the public and other third parties from risks associated** with launch and re-entry operations.

Range safety, in turn, is inherently a multi-stakeholder requirement, calling for coordination between launch operators, range or spaceport operators and the competent aviation, maritime, space, defence and other relevant authorities.

However, the degree to which such requirements are expressly incorporated into national regulatory frameworks remains uneven.

Convergence towards the inclusion of **emergency preparedness and incident-response** arrangements within spaceport and launch regulatory frameworks was also frequently encountered. Around 35% include emergency response and public-safety planning, incident or mishap reporting and accident-investigation procedures under their licencing processes²⁰.

The most robust and widespread trend is the requirement for an environmental impact assessment as a condition for the implementation of spaceport infrastructure. Based on the survey, most jurisdictions require some form or another of *ex ante* environmental assessment.

The critical point, however, is that classification of spaceports under EIA regimes is typically not expressed in statute but rather achieved by analogy with adjacent categories (airports,

²⁰ Nine out of a total of twenty-six jurisdictions, which include all Tier 1 jurisdictions and those deemed most relevant from Tier 2, namely Djibouti, Israel, Italy, Kazakhstan, Pakistan, Philippines, Peru, South Africa, Turkey.



industrial infrastructure, large-scale infrastructure projects) or through general clauses regarding environmental significance²¹.

The comparative assessment also revealed a strong convergence towards **placing primary responsibility for regulatory compliance on the licensed operator**. Spaceport operations frequently involve multiple actors, including spaceport operators, launch operators, range providers, payload customers, infrastructure operators and public authorities, and the practical implementation of operational requirements may therefore depend on the allocation and coordination of responsibilities between them. Clear allocation of responsibilities is particularly relevant in environments where responsibilities may change during different phases of a launch campaign.

A strong convergence was also identified regarding the requirement for third-party liability insurance, **financial guarantees** or equivalent financial coverage to address potential liabilities arising from licensed operations. Around 35% identified **financial capacity** as an explicit requirement for licensing²².

Contributors to this Report emphasised the importance of ensuring that insurance and financial-responsibility requirements remain proportionate to the relevant risk profile, particularly for smaller commercial operators and test activities. Different approaches to determining the required level of coverage, including fixed liability caps and risk-based or modelled insurance requirements illustrate the continuing variation in the implementation of this otherwise common regulatory requirement.

In conclusion, proof of safety, security, financial capacity, and guarantees for assurance of protection against harm are firmly embedded as worldwide regulatory practices.

Although these requirements are articulated differently across national regulatory frameworks,

²¹ With some honorable exceptions, such as the UK (the only instance where a dedicated, sector-specific environmental assessment tool exists, the Assessment of Environmental Effects (AEE), created by the Space Industry Act 2018 and further elaborated by CAP2215 and CAP2991), France (which has developed an integrated sector-specific regime for the Centre Spatial de Guyane, including a specific PPRT approved in 2013, the ICPE regime, and exemptions for protected species) and, to a lesser extent, the United States (where NEPA is consistently applied by the FAA to all space licensing), the prevailing trend is the absence of specific sectoral environmental regulations for the space industry.

²² Nine out of a total of twenty-six jurisdictions, which include all Tier 1 jurisdictions and those deemed most relevant from Tier 2, namely Djibouti, Israel, Italy, Kazakhstan, Pakistan, Philippines, Peru, South Africa, Turkey.



they reveal a common regulatory objective of ensuring that only operators with **adequate organisational, technical and financial capacity are authorised to conduct space activities**.

2.2 Areas of emerging convergence

The comparative assessment indicates an emerging convergence towards the **designation of a lead authority** responsible for coordinating the issuance of an authorisation to operate a spaceport, although spaceport operations continue to depend on the **involvement of multiple sectoral regulators**.

The practical effectiveness of a lead authority depends on its statutory powers and ability to coordinate the interfaces between the multiple sectoral regulators involved in spaceport operations, since spectrum authorisations, export-control requirements, environmental permits, construction approvals and mission-specific obligations often form part of the broader regulatory framework applicable to space activities alongside the primary licence. Accordingly, effective regulatory compliance requires operators to consider the complete package of applicable authorisations rather than focusing exclusively on the primary licence. Guidance from competent authorities was also identified as particularly valuable for new entrants navigating these parallel regulatory requirements²³.

Another emerging trend is allowing competent authorities to impose **licence-specific conditions** tailored to the characteristics of individual space activities, having regard to the specific mission, launch site, launch vehicle, payload or broader public-interest considerations.

Although the prevailing landscape is still one of a regulatory vacuum regarding *space debris*, there are clear signs of an expansion of the regulatory scope in this area at the national level:

- France: technical requirement for deactivation, deorbiting within 25 years, and controlled reentry, integrated into the operating authorization.
- New Zealand (OSHAA, § 17): debris mitigation plan as a licensing condition.

²³ Sometimes functionally equivalent but not overlapping.



- Brazil (Law No. 14,946/2024): requirement to plan and carry out space activities in a manner that mitigates the generation of debris and reduces the risk of collision; the AEB is responsible for issuing specific civil regulations.
- Italy (Law No. 89/2025): incorporation of debris mitigation obligations into national space legislation.

This pattern suggests a **trend toward expanding the regulatory scope** from the terrestrial to the orbital domain, albeit in a fragmented and non-harmonized manner.

Although automatic mutual recognition or portability of space licences remains limited, the comparative assessment also indicates an emerging convergence towards **mechanisms allowing regulatory authorities to consider equivalent foreign authorisations and previously completed technical assessments**, thereby avoiding duplication of licensing procedures. The AEAAS observes that the emerging approach appears to favour equivalence and regulatory reuse rather than full cross-border recognition of licences.

Contributors identified partial examples in France, Portugal, Italy and the United States involving the reuse or recognition of safety cases, technical assessments, prior qualifications or equivalent foreign authorisations. Brazil was also identified as developing an approach towards the acceptance of vehicles licensed under the US regulatory framework, facilitated by the close alignment of its requirements with FAA standards.

2.3. Diverging regulatory approaches and outliers

With greatest impact for regulatory design, the comparative assessment indicates that **fully integrated one-stop-shop licensing models remain the exception rather than the rule**. Spaceport authorisation generally continues to require separate approvals from multiple competent authorities, even where a lead authority has been designated to coordinate space activities. Rather than converging towards institutional centralisation, the emerging regulatory trend appears to favour coordinated licensing procedures.

Some regulatory frameworks have likewise shifted traditional focus away from rigid design-based rules toward performance-based standards. The assessment demonstrated that an overwhelming majority of jurisdictions impose proof of *ex ante* compliance with requirements,



including operation requirements (i.e., even before the licence is granted). The new approach separates the administrative requirements of applying for a licence from the ongoing operational obligations of holding one.

None from a total of 26 jurisdictions establish in their specific space legislation, requirements for life-cycle assessment, carbon footprint, sustainability reporting, or environmental compliance for suppliers (*supply chain sustainability*)²⁴. Australia and the U.S. explicitly state this absence. Germany and Sweden point to the EU Space Act as the instrument that is expected to introduce these obligations.

This is a trend that is currently contracting but is expected to expand: the current framework is minimalist in this regard, but European regulatory signals point toward a significant expansion²⁵.

The comparative assessment lastly revealed significant divergence regarding the architecture of licensing frameworks applicable to spaceport and launch activities. While some regulatory regimes provide for integrated or portfolio-based authorisations, others distinguish between site or facility licences, launch or return authorisations, operator licences and other activity-specific approvals. No single licensing architecture appears to have emerged as the prevailing model across the reviewed jurisdictions.

These differences reflect, among other factors, the allocation of regulatory responsibility between the spaceport, launch operator and other actors involved in launch activities. Mature regulatory regimes frequently distinguish between infrastructure-related and operational authorisations, while other approaches place greater emphasis on the launch authorisation as the main regulatory instrument.

²⁴ Which include all Tier 1 jurisdictions and those deemed most relevant from Tier 2, namely Djibouti, Israel, Italy, Kazakhstan, Pakistan, Philippines, Peru, South Africa, Turkey.

²⁵ The United Kingdom is the only identified case where environmental regulation imposes an annual cap on launches (environmental budget) for environmental reasons - specifically, to manage cumulative effects. This is a potentially restrictive solution for operators' business, with no parallel in other jurisdictions; Kazakhstan - impact zones. It is the only jurisdiction that expressly regulates the impact areas of the separate stages of launch vehicles; China - emerging scientific basis. The Chinese entry cites a peer-reviewed study (Xue et al., *Ecological Indicators* 127:107751, 2021) documenting significant reductions in the diversity and abundance of insect species in tropical plantations within a radius of approximately 5 km of the Wenchang Launch Center following a launch.



No single licensing architecture currently appears to constitute a clearly predominant model across jurisdictions, although the comparative assessment indicates that more mature commercial spaceflight regimes tend to adopt multi-licence architectures.

Concerning safety and risk assessment methodologies, while the requirement to demonstrate safety constitutes an area of strong convergence, the methodologies used to assess and demonstrate acceptable levels of risk vary significantly across jurisdictions.

Regulatory approaches range from established national methodologies and adaptations of the US FAA framework to performance-based approaches, with differing risk thresholds and assessment criteria. These differences may create practical obstacles to cross-border recognition, particularly where one jurisdiction considers another jurisdiction's safety methodology or risk threshold insufficiently rigorous.

The United Kingdom's use of the ALARP (*as low as reasonably practicable*) principle was also identified as a distinctive approach among the jurisdictions reviewed. Oman's regulatory framework is being established on the model of the UK's ALARP principle.

Environmental requirements applicable to spaceports are in turn predominantly addressed through general environmental, planning and hazardous-material regimes rather than through dedicated space-sector regulation. However, some jurisdictions incorporate environmental requirements more directly into their space regulatory frameworks, resulting in different degrees of integration between environmental assessment and space licensing.

France represents a more sector-specific approach, while the United Kingdom partially integrates environmental assessment into its space legislation. These differences may affect the coordination of environmental and space licensing procedures and the extent to which environmental requirements are assessed within the primary space authorisation process.

The comparative assessment also revealed divergent approaches to exemptions and lighter regulatory regimes for certain categories of space activities. While some jurisdictions provide exemptions or simplified pathways for activities such as national-interest or national-security missions and amateur rocketry, the scope, eligibility criteria and regulatory treatment of such activities vary significantly.



The United States provides a notable example through licensing exemptions for amateur rockets operating within defined performance thresholds, while the United Kingdom provides a lighter pathway for certain activities under its Air Navigation Order (ANO) regime, albeit subject to significant limitations. These differences illustrate the absence of a common approach to determining when the full licensing framework should apply and when proportionate exemptions or simplified regimes may be appropriate.

Overall, the comparative assessment indicates greater convergence in relation to the core regulatory objectives applicable to spaceport and launch activities than in relation to the mechanisms through which those objectives are implemented.

While jurisdictions broadly converge on the need to address safety, security, regulatory oversight and other fundamental operational requirements, greater divergence remains in the design of licensing architectures, assessment methodologies and procedural arrangements.

This distinction between convergence of regulatory objectives and divergence of implementation approaches should be considered in the development of the common regulatory framework.



PART III – Identified technical and regulatory challenges

1. Scope

Building on the trends identified in Part II, this section addresses immediately identifiable risks and challenges, which are understood herein as technical and regulatory in nature, representing practices creating difficulties, delays or obstacles that require significant effort or skill to overcome. Some present as imminent or current obstacles, whereas others describe the consequences of certain regulatory trajectories.

2. Technical and regulatory challenges

2.1. Structural dependencies

Structural dependencies exist in every spaceport regulation assessed. A range of regulatory authorities are inevitably involved due to the multidisciplinary nature of a spaceport. As described above, whilst many of the reviewed jurisdictions have an identifiable lead authority for licensing activities, very few have enforced structured inter-agency coordination or what could be referred to as a 'one-stop shop'.

There are clear complexities that stem from requiring spaceports and launch operators to coordinate with several agencies. A lack of inter-agency coordination is likely to result in much longer timelines and in dependencies on agencies whose primary priorities, interests or expertise do not lie in space activities²⁶.

As an operational example, hazard areas must be agreed with authorities that operate on their own timelines and notification lead times, which constrains how late a launch window can be confirmed and ultimately places programmatic pressures on satellite end users. Enforcement at sea and in the air depends on cooperation rather than control, and compliance by third

²⁶ An example of this is the Marine Scotland licence in the UK, which currently frames a launch operation as the deployment of infrastructure at sea. This characterisation is not closely related to the operations of a space operator (other than in very specific scenarios involving offshore or floating launch platforms), leading to difficulties in reaching a common understanding with the regulator, which rightly follows its own framework.



parties cannot be guaranteed. Therefore, coordination becomes considerably harder where the affected areas are international or cross-national boundaries.

A single agency must still consult other agencies, as it does not have in-house the expertise held by the other regulators. As such, while the one-stop shop approach appears to be the generally accepted optimal solution for applicants it entails increased challenges from the regulators' perspective. It also requires the other authorities to accept that their assessment is channelled through another body, which is difficult where each has its own statutory duties and liabilities.

The outcome may be that the single-entry point becomes only a "post-box", adding a step without removing any process. It also requires the lead regulator to have sufficient staff and technical competence to hold a meaningful discussion with each sectoral authority. Hence, effective implementation may pose a significant effort and associated cost barrier, warranting an analysis of the commercial and sovereign up-sides compared to the cost involved.

Regardless of the level of coordination adopted, most jurisdictions appear to lack centralised visibility of the parallel requirements across the various authorities. This could be a particular challenge for early entrants, as unforeseen requirements lead to unforeseen costs and delays undermining business cases.

Across the jurisdictions reviewed, there is also no commonality of approach to the space regulatory authority (e.g. it might be under transport, aviation, science ministry, or the Prime Minister's office directly). This suggests that countries have determined the priorities and benefits of this industry differently.

A harmonised set of regulations will have to appropriately manage the expected outcomes of each ministry type that might be encountered. For example, aviation authorities may be more safety conscious, a science ministry may prioritise commercial innovation, whereas a prime minister might be more mission success focused. This may not always be practical as these priorities and their direct operational implementation conflict.

Moreover, having a multitude of different types of licences without clarity of which would apply may be a challenge for new entrants. A lack of clear regulatory structure around what is considered site-specific versus the mission means a heavy reliance on government goodwill to determine which it will enforce.



The main challenge stemming from this issue is duplication: several of the studies requested at spaceport level are requested again from the launch operator. This means that the resources involved (time and money) are doubled without any additional safety, environmental or security benefit.

For an emerging spaceport this is a barrier at the critical pre-revenue stage, while established sites may already be licensed or exempt. A secondary challenge is scheduling, which stems from the absence of a clear regulatory structure: it is often unclear which approvals can run in parallel, which have gated dependencies, and which authorities can impose conditions late in the campaign. This can cause long mission delays, which in turn carry significant commercial risk for new entrants, for whom every delay is disproportionately costly. A possible solution is the one-stop shop mechanism, considering the challenges described above.

Access to space is fundamental to a nation's sovereignty and national interests. While the Consortium acknowledges that exemptions for reasons of national security and national interest must be safeguarded, the involvement of the private sector in defence programmes and cooperations with the armed forces should be closely monitored in order to avoid circumventions to regimes that would, by default, apply to those private actors causing market disruptions. On the other hand, a harmonised shared set of regulations faces several challenges arising from interaction between alternate layers of regulations.

Frequently overlooked is export control regulation, which is almost always a direct regulatory dependency. This applies not only to the physical shipment of hardware, but also to remote access, cloud-based collaboration, software delivery, technical-data exchanges and technical assistance, each of which may require an export-control assessment before international teams can collaborate. While the tracking of physical hardware exports is highly mature, navigating modern cloud-based remote engineering support across international payloads introduces a significant compliance bottleneck.

In cases of closer and ongoing collaboration, national FDI legislation in all EU Member States may also be triggered, since space and spaceport hardware and software must be considered part of critical infrastructure within the meaning of the corresponding EU Directive and national laws.



Launch service providers face heavy administrative burdens in clearing foreign-national technicians for secure, remote server access to monitor payload telemetry during the pre-integration and simulation phases. The impact is most severe at spaceports operated by the military, while civil sites are generally more flexible on permits and on the movement of foreign personnel around the site.

This intangible transfer friction operates completely independently of spaceport pad readiness but routinely threatens tight integration windows.

Export controls on space industry intellectual property are frequently considered a strategic matter and part of a critical infrastructure and hence governed also as a sovereignty issue and a possible FDI topic. As such, it is difficult to envision nations relaxing these requirements, so even with a central space-licensing route, separate export-control and even FDI and further security procedures will still apply. If their scope, supporting documents and decision timelines are not identified at project start, a launch campaign may be technically authorised but unable to receive equipment, software, data or technical support on schedule. This clearly constitutes a challenge that would benefit from transparency and timeline reliability.

An alternative angle of structural dependency occurs in jurisdictions whose spaceport regulation was built around, and remains structurally shaped by, the circumstances of a specific national spaceport, especially when regulators are entrusted with the daily oversight and management of the operations of that spaceport. The result is a licensing framework in which the body most familiar with an operator's activities, because it is itself embedded in, or historically responsible for, those activities, is also the body providing the technical assessment on which authorisation depends.

Whatever efficiencies this proximity may generate, it stands in tension with the principle of maintaining a clear separation between the regulator and the subject of regulation, a separation that is generally considered necessary to preserve the independence, impartiality, and public credibility of a licensing regime. Accordingly, a regulatory architecture calibrated to a single, historically embedded operator-regulator relationship would likely not translate into a workable or appropriate model for jurisdictions seeking to establish spaceport licensing frameworks to encourage diverse commercial activity.



2.2. Regulatory bottlenecks

An inevitable challenge when it comes to launch is the regulatory burden for the operators and specifically the time and resources associated.

A challenge with setting a formal timeline is that it does not necessarily capture real authorisation time. This is because the processing time may be much longer due to pre-application discussion, multi-agency co-ordination, and environmental reviews or additional information demands during the process, interrupting stated timelines. However, not specifying a maximum response time is also problematic for business and operational planning.

The determination of a strict schedule adherence also does not recognise the reality that many lead regulators are at the whim of consultations with authorities that have a wide-ranging set of priorities and processing times. Additionally, government agencies are often resource constrained. This can cause problems as a reasonable timeline is tightly linked to the complexity of the technology being licensed. New entrants conducting lower risk activities should, for the purposes of fostering commercial innovation, be associated with shorter timeframes.

Licence durations vary significantly across jurisdictions, with some following per-launch authorisation schemes, and others issuing multi-year or non-expiring licences. All approaches come with unique challenges.

Fixed-duration or single-use licences create a challenge in attracting external infrastructure investment or financing, because the expected ROI (Return on Investment) on an asset does not match the regulatory horizon.

This regulatory approach also weakens the negotiating position of the spaceport with its customers. However, licences without expiry may require continuous oversight capacity, which may not be available or relevant dependent on the level of activity occurring.

All in all, licensing timelines are less an administrative challenge than a commercial one, because the operator cannot commit to customers or investors on a date it cannot forecast.

The US approach deploys a pre-application process, which ensures that the application is complete, so that the 120-day FAA review period is not interrupted by further requests for



information. However, there is a risk of duplicative efforts with a phased pre-engagement approach.

A noteworthy example is Portugal, which sets out a “Global Licence” scheme whereby several launches are licensed at once, requiring only formal notifications thereafter.

Several jurisdictions impose or trigger requirements that sit outside the core space licence, including for example export-control checks, FDI screening, spectrum authorisations, local construction permits, environmental permits, safety and civil protection, and customer-interface rules.

These adjacent requirements can become decisive for operators and their business case, even where the space authorisation itself appears manageable.

Another challenge here is that the timelines and dependencies are not clear and hence operational predictability is low. The main difficulty for a new entrant is simply identifying which additional permissions apply, since these sit across several bodies and are rarely collected in one place.

Guidance is often not published, and the regulators themselves may be discovering the space application of their own framework for the first time. This creates delays that are not visible in the formal licensing timeline.

Maintaining the standards presented in an application is easy to state and difficult to measure, as there is rarely an agreed metric or reporting format.

Notification duties are spread across several authorities with different thresholds and deadlines, which is a heavy administrative burden for a small organisation to carry. Continuous compliance therefore consumes personnel time out of proportion to the size of the operation.

The requirement to secure opinions, clearances or approvals from a multiplicity of agencies, bodies and authorities before a spaceport operation authorisation is granted gives rise to two distinct but related regulatory process challenges.



2.3. Regulatory adaptability

A new entrant to the space ecosystem may encounter regulatory inflexibility where it is developing emerging technologies that are not yet accommodated in existing regulations.

Reusable launchers, return-to-launch-site operations and controlled recovery are not addressed with the same level of maturity across jurisdictions. This creates a regulatory challenge for future European operators, because reusability affects flight safety, range safety, environmental assessment, insurance, maritime/airspace coordination and infrastructure requirements at the same time.

Treating these novel technologies as special cases with 'experimental' licences or sign-off from a senior state official is an option some nations take, but this often requires a lengthy bespoke process and a technically astute regulator.

Mission-control systems are assessed within launch-centre or operator authorisation but are not consistently treated as a portable element of evidence. The challenge is that the same ground systems may need to be re-assessed at each site even where the technology is unchanged. As such, an efficient framework should allow mission-control evidence to be reused where the system, communication links and their respective safety and security profile remain comparable.

Where the range is operated by a third party, the allocation of responsibility during flight is not always clear, particularly for termination decisions and hazard area enforcement. Interfaces between the vehicle, the range and the site must be defined case by case, which is slow and does not transfer to another site.

Retaining the range within the spaceport improves consistency but concentrates cost and liability on the site operator.

Storage and handling of propellants fall under hazardous substances and industrial safety regimes that are not designed for launch activity and can take a long time to resolve. This can be particularly challenging for new entrants with novel propulsion systems.

The regulatory environment differs substantially between liquid and solid propellant options, as liquids are stored separately, whereas solid motors arrive as loaded units and are subject to explosives handling requirements.



Managing the regulations for the storage and handling of the wide variety of goods on site is a significant challenge for spaceports and can carry a high administrative burden.

Payload processing and storage are often regulated through site rules, hazardous-material permits, payload review, export controls and security screening rather than through a clear standalone authorisation layer. This can create uncertainty for international customers and service providers, especially when payload integration involves foreign technology, sensitive data or controlled materials. Specifically, export control obligations can be costly for a site with low initial throughputs as it requires controlled areas.

On a multi-user site, payload customers, which may be competitors, require assurance that their hardware and data are properly segregated. Cleanroom and integration capability is a significant capital investment that must be committed before customers are secured. The cumulative uncertainty, administrative and capital requirements are a considerable challenge associated with payload integration at spaceports.

Regulatory proportionality issues are particularly apparent where new entrants seek experimental permits for lower-risk operations. Orbital operations and vertical launch trigger the most demanding safety documentation, debris-mitigation processes, environmental impact assessments, spectrum rights, security requirements, and international-responsibility and insurance obligations.

The challenge is that these requirements accumulate and create the most demanding compliance stack for operators wishing to conduct activities that may not warrant such scrutiny, especially lower-altitude campaigns or horizontal flights.

This is compounded by Europe's geographical challenge, where these activities have strict isolation requirements and suitable sites with sufficient uninhabited ground and sea sectors are limited.

Third-party risk management can then drive the size of the hazard areas and therefore the cost and the availability of launch windows. This can especially stifle launch innovation activity when requirements are not proportional to the activity.

Suborbital launch is an example where this challenge is apparent. If a characteristic of a suborbital launch operation pushes it into a legislative regime designed for much more complex



operations, the launch licensing process may be disproportionately onerous. For example, in the UK the transition from aviation legislation to the more onerous space legislation is triggered by a flight apogee above the top of the stratosphere (taken to be 48 km altitude), which is not representative of commercially relevant activities. Those activities then become subject to the same licensing process as orbital vehicles, even though the cost of suborbital operations is an order of magnitude lower and the margins far narrower.

With the costs of clearing regulatory hurdles being disproportionate, this not only inhibits commercial activities but also limits the other benefits suborbital launch offers, including research, training, R&D and pre-orbital qualification. This causes operators to seek out more favourable licensing regimes and redistributes both suborbital and orbital activities to other jurisdictions.

Beyond vehicle category, other factors that distinguish proportional regulatory response include comparing high-energy/high-risk to lower-risk experimental operations, vehicle risk to infrastructure, first-of-a-kind to repeated operations, as well as considerations whether infrastructure is mobile or fixed.

On the other hand, regulatory flexibility must also be treated with caution. It should allow for adaptation to regulate new technologies or unusual mission profiles, while still offering the transparency and predictable criteria that an operator requires when planning a campaign and committing to suppliers and customers.

There is a risk that flexibility imposes an excessive bureaucratic burden prior to operations, since it may simply shift a legal requirement to the operational phase of the activity, at which point the requirements are harder to challenge and more disruptive to resolve. Too much flexibility risks harming industry confidence. Finding the right balance is itself a challenge that must be addressed carefully.

2.4. Gaps and inconsistencies

Gaps in the legal provision of current regulations entail uncertainty for operators and change the risk profile of investments, hence becoming a barrier to such activities.



The trends showed that there is a distinct split between jurisdictions. One of the biggest gaps is that there are many jurisdictions with dedicated spaceport or facility licences and jurisdictions where spaceport activity is regulated indirectly through launch authorisations, general space activity authorisations, site certification, environmental permits or government project approvals.

This divergence is important for European operators, because it affects whether a spaceport can be treated as stable infrastructure or only as a case-by-case launch context.

The alternative perspective is that agile, low-risk activities may not have a strict need for permanent spaceport infrastructure and should be able to operate with mobile and removable elements that are not subject to the same criteria as a long-term asset. This is relevant given the increasing development, use and potential of offshore launch platforms.

An interesting element is that emerging launch nations seem to have a spaceport licensing requirement, whereas established orbital launch nations do not. There is a risk that this is stifling development of such infrastructure with potentially onerous bureaucratic processes.

Some countries treat launch and spaceport licensing as entirely discrete and bespoke activities, despite the potential overlaps that exist. There is a risk of inviting duplicative efforts between spaceport and launch operators. For example, a launch operator may wish to license an activity that falls entirely within the licensed scope of a spaceport but must submit an application that ignores the spaceport's licence and the data already submitted. This duplication is onerous and expensive for operators, and potentially stifling for spaceports that wish to serve multiple customers with substantially overlapping safety, environmental and security plans.

There is a distinct gap in that location is not an explicit requirement of a spaceport licence for many jurisdictions. However, this is likely commercially addressed, given that location is an implicit requirement for safety distances, flight corridors, and keep-out areas. A location that is not sufficiently remote will not be able to attract customers, as it will not satisfy the other regulatory thresholds.

Another concept lacking explicit coverage is the requirement for a Concept of Operations (ConOps). These are narrative documents that demonstrate to a regulator that the applicant understands the scale and scope of the activities for which they are seeking a licence, thereby



building confidence. In reality, most jurisdictions will likely cover most of the contents of a ConOps plan in Safe Operating Procedures, site plans, and detailed system explanations.

The distinction between civil and defence activities appears blurred in some jurisdictions, especially where there is a dedicated lead authority such as ISRO (India) or Roscosmos (Russia). This can result in restrictions on operators and payload providers that are not clear until well into a commercial or regulatory process.

When spaceport licensing exists, the core rights are usually limited to installation and operation; they typically lack coverage of broader commercial management or third-party access. This may be relevant for hosted-service and multi-user models.

There also appears to be no clear trend for the approval to build a spaceport. This will overlap with regulatory mechanisms and instruments that are very nation-specific, may be part of national security and so may not suit a consensual approach.

Another inconsistency identified as having a deep impact on the design and construction of spaceport regulation is the existence of one or more layers of regulators and interferences.

This is due to the proliferation of regulatory requirements issued through different administrative bodies, technical agencies, and licensing authorities operating with considerable rule-making discretion. These layers of regulation²⁷ sometimes follow different orienting values and interests.

In practice, this can produce a compounding effect: operators must comply not only with the framework legislation governing space activities, but also with an expanding and frequently not easily grasped body of secondary requirements layered on top of it. The more complex and intricate those layers and requirements are, the harder it becomes to establish operations efficiently.

²⁷ Which are often expressed through technical guidelines, licensing conditions, operational directives, and standards.



2.4.1 In particular, spaceport regulation under the proposed EU Space Act

The proposed EU Space Act (COM(2025) 335 final) represents the Commission's first attempt to establish a harmonised framework for the authorisation and supervision of space operations across the Union. The proposal is currently before the Council, where successive presidency texts (Danish Presidency, 5 December 2025, and Cypriot Presidency, 30 March 2026, with a progress report issued on 8 May 2026) have shaped the negotiating position. No final Council position has been adopted, and the Parliament has yet to fix its first-reading stance. This summary of the current position is based primarily on the latest compromise draft.

On the other hand, the European Union Agency for the Space Programme (EUSPA) currently exercises coordination, security-accreditation and technical-assessment functions pursuant to Regulation (EU) 2021/696.

Under the draft EU Space Act, EUSPA's mandate would expand to encompass technical assessments for certification, registry management (the URSA or URSO²⁸, depending on draft version), e-certificate issuance and coordination of the Union Space Resilience Network. That said, Member States have pushed back against centralised oversight; the compromise texts favour governance arrangements in which national competent authorities retain primacy, with EUSPA playing a supporting rather than supervisory role, except where the Commission is competent for Union-owned assets and third-country operators.

There is, at present, no EU-level spaceport licensing regime. No Union-owned spaceport exists, nor does any single EU authority serve as a consolidated gateway for launch approvals. The authorisation of spaceport projects remains a matter for individual Member States, each operating under its own national framework.

A threshold point for any spaceport regulatory proposal is that the draft EU Space Act does not create a standalone spaceport licence. Launch-site operators, whether characterised as "launch site operators" (Commission draft) or "Union launch site or Union spaceport operators" / "ground segment of space infrastructure" (revised Compromise), would instead fall within the general EU Space Act certification regime applicable to space operators, unless such an

²⁸ Capitalized terms and acronyms used in this section shall have the meaning attributed to them by the EU Space Act (COM(2025) 335 final).



operator also performs a covered space activity or is otherwise assigned a specific obligation under the text.

That certification generally addresses safety, resilience and environmental sustainability, but it is not a comprehensive all-in-one authorisation. It does not, for instance, cover insurance, third-party liability, land-use planning or spectrum allocation. As regards spaceports, the revised compromise text is even more reserved regarding the application of environmental requirements and, in general, the application of cybersecurity requirements.

The certifying authority would be the national competent authority of the Member State from whose territory the launch is conducted (Revised Compromise Article 6(1b)(a)).

Once granted, EU Space Act certification would be recognised across the Union under a mutual recognition regime: Member States must not restrict, for reasons related to safety, resilience and environmental sustainability as covered by the EUSA, space-based data or space operation services stemming from activities entered in URSA, and national competent authorities shall in principle accept and recognise other Member States' authorisations.

This may represent a significant facilitation mechanism, enabling operators to conduct activities in multiple Member States without duplicating the full certification process in each jurisdiction.

The mutual recognition principle as it stands would not, however, be absolute. Other Member States may still apply national authorisation processes or requirements concerning matters outside the harmonised EU Space Act certification, provided they do not call into question the EU Space Act certification for the safety, resilience and environmental sustainability aspects covered by the Regulation.

There is no single cross-border authorisation foreseen that displaces this layered arrangement. Member States may continue to exercise jurisdiction, for instance based on territory, nationality or facility used for the service. The practical effect could be that operators conducting cross-border activities will still need to engage with authorities in more than one State for non-harmonised national requirements, even where their EU Space Act certification has already been issued elsewhere and certified by the competent authority designated under the Regulation.



The draft also contemplates mechanisms for third-country operators. A Commission-led equivalence-decision procedure would allow the regulatory frameworks of non-EU States to be assessed for equivalence with the EU Space Act regime, examining the adequacy of their authorisation and supervision arrangements, the comparability of their substantive rules, and whether reciprocal recognition is available.

Where equivalence is established, third-country operators may benefit from streamlined access to the EU market. Treaty-based mutual recognition arrangements are also envisaged, permitting bilateral or multilateral agreements that formalise mutual recognition of certifications between the EU and partner jurisdictions.

The EU Space Act certification would not consolidate all necessary approvals but would be limited to the assessment of the EUSA-harmonised aspects of safety, resilience and environmental footprint. Operators would still need to navigate a suite of adjacent regimes: EIA and SEA (Strategic Environmental Assessment), Habitats assessments, Seveso III major-accident requirements, Single European Sky and EASA airspace coordination, maritime exclusion zones, spectrum licensing, customs and dual-use export controls, and cybersecurity obligations under NIS2 and the Cyber Resilience Act, as well as further potential national authorisation requirements.

This is not altered by the proposed “Information Portal” in the Revised Compromise or by the permission for Member States to designate a single point of contact. Neither amounts to a genuine one-stop shop, whether for the topics covered by the EU Space Act scope or, still less, for matters required for authorisation in a Member State outside that scope. In practice, any consolidation of approvals would occur at Member State level, not through a Union-wide filing.

Neither the Commission draft nor the Revised Compromise prescribes an EU-level application fee, though the proposed EUSPA Regulation contemplates fee-charging powers while the latest Council progress report records that Agency fees were deleted. It does, however, set process timing: the certifying authority must issue or reject EUSA certification within 12 months from receipt of the application, or within six months for a mission extension request, subject to suspension where the application is incomplete or requires clarification.

Moreover, the draft EU Space Act is organised around the three pillars of Safety, Resilience and Sustainability.



On safety, operators may become required to prepare a Launch Safety Plan addressing air and maritime coordination, conduct LCOLA (Launch Collision Avoidance Analysis) risk assessments with defined launch-closure windows, calculate casualty risk against Commission-set thresholds, and maintain tracking and telemetry capability, and flight-termination capability. Debris-mitigation plans would be mandatory.

EU-level requirements would govern range safety analysis, flight termination systems, casualty-risk calculation, real-time tracking and telemetry, mitigation measures, exclusion zones and debris control-planning, though the draft stops short of a comprehensive terrestrial range-safety code – road and rail closures, evacuation protocols and public notices remain under national or other EU regimes.

The resilience chapter might impose all-hazards risk management across the mission lifecycle, with specific provisions on access control and physical security, detection, cryptography and backup systems, business continuity planning for ground-segment scenarios, and supply-chain risk management.

As regards resilience, however, it remains unclear to what extent the EU Space Act would put forward its own concepts rather than rely on the NIS2 and CER directive implementing measures at Member State level. Incident reporting would follow a mandatory cascade: early warning within 12 hours for Union-owned assets or 24 hours otherwise, notification within 72 hours, and a final report within one month. Cross-mapping suggests that 13 of the 15 core NIS2/CER obligation clusters are aligned with, or exceeded by, the draft EU Space Act requirements. The revised compromise aligns the EU Space Act reporting architecture more closely with NIS2, preserving applicable NIS2 and CER reporting requirements for operators that qualify under those regimes.

On sustainability, operators may become obliged to calculate and document their Environmental Footprint (EF) over the full lifecycle, submit an EF study, and transmit aggregated and disaggregated datasets to a centralised Commission EF database. Debris-mitigation limits and “dark and quiet sky” provisions would, under the initial EU Space Act draft, also apply under the technical rules, although they are principally addressed through the safety chapter rather than the EF obligations. Based on the compromise text, the intention is initially



to harmonise only Environmental Footprint evaluation, and not sustainability requirements for operations.

SME and research exemptions are built in, but they are limited rather than full exemptions. IOD/IOV (In-Orbit Demonstration / In-Orbit Validation) space activities carried out by Union spacecraft operators that are research and education institutions or SMEs are exempted from the environmental sustainability rules in Title IV, Chapter III, while other space activities carried out by research and education institutions or small-sized enterprises are exempted from those environmental sustainability rules until 31 December 2031 under the initial draft EUSA; research and education space activities, including IOD/IOV, also benefit from specified safety exemptions assessed case by case.

Recital 93 confirms that only the EF methodology is harmonised; Member States remain free to set their own substantive sustainability standards.

On the other hand, several material matters fall outside the harmonised framework. No EU-level insurance or financial-responsibility requirement for spaceport operations was identified in the Commission's original draft; insurance, minimum capital, guarantees and bonds remain a matter for Member State law.

The establishment and construction phase of a spaceport is likewise not addressed. EUSA certification concerns the operational phase, leaving EIA, Seveso III and building-permit requirements to national regimes. EU Space Act certification confers no property-law entitlements: no rights to install, modify or decommission, no exclusivity, no third-party access and no open-access obligation.

Member States retain latitude to impose requirements stricter than the harmonised standards (Revised Compromise Article 3(2)).

The national-security carve-out pursuant to Article 4(2) TEU permits specific operations to proceed outside the framework where security considerations so require.

What emerges from the EU experience is instructive. The decision to fold spaceport licensing into a general space-operator certification, rather than creating a bespoke regime, reflects a functional logic, though it demands careful coordination with adjacent approvals.



The retention of certification authority at Member State level for non-Union-owned assets, notwithstanding harmonisation of substantive standards and the Commission's role for Union-owned assets, confirms that even highly integrated systems preserve national competence over strategically sensitive infrastructure. Mutual recognition offers a path to cross-border facilitation while respecting territorial jurisdiction.

The exclusion of insurance and financial responsibility from the harmonised scope illustrates the limits of what Member States have been prepared to cede. The same applies to the construction and establishment phase, which remains anchored in national planning and environmental law. Any spaceport regulatory proposal must therefore anticipate a layered architecture: operational licensing at one level, and project-development approvals (land use, environment, construction) at another.

As the legislative process advances, the final text of the EU Space Act will serve as a reference point for the proposal to be considered, developed and put forward by AEAAS.

Its treatment of safety, resilience and environmental sustainability as distinct pillars, its reliance on mutual recognition, and its allocation of certification authority to national bodies, with the Commission responsible for Union-owned assets, represent design choices that warrant close attention in any spaceport regulatory approach to be considered.

2.5. Safety and environmental regulatory challenges

Safety standard requirements are common across all jurisdictions; however, in detail they represent one of the most divergent areas.

Whilst a number of countries apply FAA criteria, which are well tested in the US, some commercial players and jurisdictions consider these too harsh. For example, the US levels of accepted casualty risk ($EC < 1 \times 10^{-4}$ (collective) and individual risk $< 1 \times 10^{-6}$ per mission) are significantly more stringent than those deemed tolerable under health and safety legislation in the UK (10^{-3} to 10^{-6} /year) as per the ALARP range.

The clear consequence of diverging specific methodology is that a nation that is more rigorous is unlikely to accept the less stringent nation's approach. Then, the most rigorous approach would need to be recommended to satisfy every nation.



However, overly onerous approaches have significant negative consequences for competitiveness. As such, it can be expected that nations that take a more tailored approach to assessing the hazards of a launch operation (in an extreme example, avoiding the use of regulations to assess both 'Cape Canaveral' and a model rocket) will reject these approaches.

There is also a clear challenge in aligning jurisdictions that adopt prescriptive safety requirements with those that use more general descriptions, as illustrated by the same example: the FAA regulation in the USA compared with the ALARP (as low as reasonably practicable) approach in the UK.

While the former runs the risk of imposing onerous requirements on new entrants, novel activities or lower-impact projects, the latter creates a challenge where the applicant depends on the willingness and resources of the regulator to engage and provide guidance in less mature markets. Both approaches can present a challenge for competitiveness.

The safety of a spaceport is closely interlinked with a launch provider's operations and with the spaceport's location relative to people and property. Regardless of the assessment approach adopted, there will be a challenge in ensuring that the regulations are aligned for operational compatibility between the different entities. Oversight of spaceport safety is often shared between the space regulator, general workplace safety authorities and, for security matters, defence and police bodies. In the event of an incident, the question of who takes the lead is not always clear. There is a challenge in the operational integration of the command-response structure, compounded by the spaceport's remote location.

Environmental Impact Assessments are not consistently required by the legislation assessed. They can extend across hazardous material controls, propellant handling and waste management regulations. ESA and some sites, such as Esrange, have suggested bans or restrictions on certain toxic propellants, such as hydrazine.

This may not be practical for launch provider competitiveness, as prohibiting the use of certain propellants will affect a vehicle's performance, storability and/or operational flexibility. However, human spaceflight launch activities may limit the use of certain propellants for safety reasons. As with the safety assessments, applying the same regulation to institutionally managed launch bases and to small-scale testing by start-ups represents a significant limit on the innovation capacity of the EU.



Where environmental impact assessments are required for spaceport development, the majority of jurisdictions do not explicitly classify spaceports in their instruments. Spaceports are mostly regulated by analogy to airports, industrial facilities or large infrastructure projects, or through general environmental significance clauses, entailing legal uncertainty. This may be identified as a “classification” gap in environmental impact regimes.

This creates inconsistent treatment across European spaceports and reinforces the challenge launch providers face when switching launch site locations.

As the competence for environmental matters normally sits with authorities that have no or limited familiarity with launch activities, even a light permit can become a lengthy process. Setting long-term environmental limits is difficult when the future cadence, vehicle mix and propellant types are not yet known.

There is also the risk that a permit progressively grows to cover operational matters, which can duplicate efforts between the safety cases of the spaceport and the launch provider. The UK’s AEE (*Assessment of Environmental Effects*) under the Space Industry Act 2018 and urban planning regimes are expressly acknowledged as duplicative.

Additionally, the expiry conditions of environmental or land permissions are held under other frameworks and are therefore on different administrative cycles. Maintaining alignment of the various permissions is an administrative burden and poses a risk of losing the ability to operate for reasons unrelated to safety.

Amendment processes are not always faster than a new application, so they are not necessarily a mitigation once the up-front cost has been borne.

An emerging area of environmental impact assessment across the legislation reviewed is space debris regulation. The absence of binding EU-level debris regulation creates a responsibility gap and a long-term sustainability risk.

Operator requirements increasingly combine financial fitness, technical competence, safety cases, environmental assessments, insurance, security, national-interest review and reporting duties. While these requirements are justified on grounds of safety and the public interest, they may become disproportionate for SMEs, micro-launch providers and innovative entrants if no scalable or risk-based pathway is available.



Competent personnel in space licensing and range operations are scarce, especially in emerging markets, so demonstrating competency is a real constraint rather than a formality.

Amateur rockets launching within certain performance thresholds are exempt from licensing in the US. This encourages grassroots rocketry skills and builds talent pipelines and vehicle R&D (research and development), with international teams, including universities (especially from the EU), taking advantage of it.

Accordingly, while the absence of such grassroots activity in Europe is itself a competitive risk, achieving equivalence may be challenging given the differing geographies, as there are more expansive remote land areas in the USA.

Another example of a regime is the Air Navigation Order in the UK, which allows a quicker path to launch for small rockets but suffers from limited applicability, as the constraints are significant.

The primary challenge with exemptions lies in other regulatory frameworks connected with the launch, as these are usually handled by regulators unfamiliar with space operations, who are more likely to place very stringent requirements.

Cybersecurity and resilience obligations are expanding, but they are not equally spaceport-specific across jurisdictions. Operators may therefore need to translate general cyber, critical-infrastructure or national-security rules into concrete requirements for TT&C (Telemetry, Tracking and Command) systems, mission-control interfaces, supplier access, telemetry, operational technology and incident reporting. In the EU, for example, such obligations already apply to spaceports and ground stations of any kind through the non-specific NIS2 and CER directives. Being based on directives, however, their transposition into national law differs between Member States.

A spaceport is a multi-operator environment where the security of the whole depends on the weakest connected system, including those brought on site by visiting operators and suppliers. Operational technology at remote sites is not easily updated, and specialist personnel are hard to recruit and retain.

Incident reporting obligations may arrive from several frameworks at once, with different definitions and deadlines. This makes security capability expensive to establish and maintain,



particularly for a new site and for a visiting operator that cannot replicate its own arrangements abroad. Requirements calibrated on large established operators risk excluding smaller entrants without any gain in security.

2.6. Liability and insurance regulatory challenges

Liability and insurance are key regulatory items that a spaceport operator and launch providers must navigate.

Several regimes allocate formal responsibility to the licensee while operational responsibility is shared across the spaceport operator, launch operator, range provider, payload customer, site owner and public authorities.

Harmonising liability and compliance responsibility will be challenging as these are generally agreed in contractual agreements between the spaceport, operators, and service providers. The contractual arrangements can vary widely depending on who provides the infrastructure and range. Additionally, these arrangements are not visible to the regulator, who generally only deals with the licence holder.

This will become particularly challenging in a multi-user site, where the activities and associated liabilities become a complex map and may not be distinctly clear at the moment an incident occurs. Cross-waivers between operators are not available in all countries, presenting another challenge for interoperability.

The market for launch third-party liability is limited, and cover for a new operator or vehicle is prohibitively expensive. There are often significant difficulties in placing cover, as there are generally very strict national regulations on which entities may provide insurance and in what format. It is a tightly regulated market.

This is particularly challenging in an industry that is novel in many jurisdictions and continuously seeks to insure new activities. Liability caps set without modelling can be disproportionate for smaller vehicles or lower-risk activities and act as an effective barrier to entry.



There are also gaps, such as cyber security, which are not covered by conventional third-party liability, creating uncertainty for operators and legislators alike.

2.7. Cross-border and international coordination challenges

Cross-border coordination is not engaged only when the nominal trajectory crosses foreign land territory. A launch may create legal and operational interfaces through sovereign airspace, territorial seas, stage- and debris-fall zones, non-nominal risk corridors, radio-frequency use or reliance on assessments completed elsewhere. These dependencies sit alongside the host State's launch authorisation and should be identified early, as they may determine whether a technically ready operation can use its intended launch window.

The practical issue is therefore one of sequencing as much as substantive compliance. A launch operator may be authorised by the launch State yet remain unable to proceed until aviation, maritime, spectrum or foreign-territory interfaces have been resolved, often by authorities whose mandates are not directed principally to space activity.

Launch operations commonly require coordination with air-traffic services, temporary restricted or danger areas and the publication of aeronautical information such as NOTAMS (Notices to Airmen). The relevant permissions remain with national authorities and air navigation service providers. EUROCONTROL supports network coordination and operates the European AIS (*aeronautical information services*) Database, but it is not a single European authority granting permission for every launch²⁹.

Launch activities may require consultation with several States and sectoral authorities even where the nominal flight path is designed to avoid foreign land territory. The relevant cross-border interfaces are not limited to passage through another State's airspace; they may include territorial seas, stage- and debris-fall zones and non-nominal risk corridors. French technical regulation illustrates this distinction: the fall zone associated with a probability of 99.999% for

²⁹ EUROCONTROL, "Integrating space launches within the international airspace ecosystem", 20 October 2021, <https://www.eurocontrol.int/article/integrating-space-launches-within-international-airspace-ecosystem>; EUROCONTROL, "European AIS Database (EAD)", <https://www.eurocontrol.int/service/european-ais-database>.



detached launcher elements must not interfere with the territory, including the territorial sea, of another State without that State's agreement.

The operator's arrangements must also enable CNES, in coordination with the relevant launch- or return-site authorities, to inform air and maritime control authorities and, in non-nominal situations, the States concerned. These dependencies can constrain launch windows and introduce lead times that are difficult to compress when a window shifts because of weather or technical issues³⁰.

The Esrange and Andøya Special Project (EASP) provides a useful contrast. This multilateral arrangement involving France, Germany, Norway, Sweden and Switzerland supports sounding-rocket and stratospheric-balloon activities at Esrange and Andøya, including access to facilities, scientific support and contributions to basic operating costs. Norway renewed its participation for 2026-2030. Although ESA provides administrative and programme coordination, EASP is not itself an ESA agreement and does not authorise orbital launch or overflight³¹.

The potential orbital trajectory from Esrange exposes the limit of that framework. The Norwegian Civil Aviation Authority's 2025 assessment confirmed that spaceflight activities passing through Norwegian airspace require Norwegian permission and found that the actual risks could not be assessed without a dedicated Flight Safety Analysis. It also identified possible consequences for the population, Sami interests, the environment and protected areas. Norway's current procedure requires an application for each launch, normally at least six months in advance, including the planned trajectory, a risk analysis covering Norwegian land and sea areas, mitigation measures and evidence of third-party liability insurance. Consent may also be required where the vehicle does not enter Norwegian airspace but

³⁰ Arrêté du 31 mars 2011 relatif à la réglementation technique des opérations spatiales, Article 23(1), (3)-(4), consolidated version in force since 30 June 2024, https://www.legifrance.gouv.fr/codes/article_lc/LEGIARTI000045268576.

³¹ Andøya Space, "Scientific cooperation across borders", 2 August 2023, <https://andoyaspace.no/news-articles/easp/>; Norwegian Ministry of Trade, Industry and Fisheries, revised Letter of Allocation to the Norwegian Space Agency, 4 July 2025 (recording Storting consent to Norwegian participation in EASP for 2026-2030), <https://www.regjeringen.no/contentassets/036ffda0c81e4b3f99456a78ec31df0e/nrs-revidert-tildelingsbrev-2025.pdf>; Andøya Space, "Science gathering in Trondheim", 11 February 2026, <https://andoyaspace.no/news-articles/science-gathering-in-trondheim/>.



creates a risk to Norwegian airspace or territory. EASP therefore facilitates cooperation but does not replace the affected State's assessment of a new orbital risk profile³².

The Guiana Space Centre (CSG) illustrates layered institutional governance rather than joint ESA-CNES sovereignty. It is located on French territory; CNES owns the land, coordinates launch operations and the functioning of the base, and is responsible for the protection of persons, property and the environment. Under Article L.331-6 of the French Research Code, the President of CNES exercises special police powers at the CSG on behalf of the French State and coordinates security measures within the site³³.

ESA's role derives from intergovernmental and programme arrangements concerning access, infrastructure, funding and use of the spaceport. In July 2025, ESA announced a new France-ESA agreement covering the period up to 2035. Its published summary provides for a Launcher Operators Committee organised by CNES with ESA and launch service providers, an ESA-CNES strategic committee, criteria for resolving schedule conflicts and arrangements for new launch systems and access by European companies³⁴.

The full operative text of that agreement has not been identified in the official public sources reviewed, so further rights or obligations should not be inferred. The separate ESA-CNES contract signed in April 2026 concerns operation, maintenance, funding and modernisation and is addressed under the financial challenges in section 2.8; it is not the source of French regulatory authority at the site³⁵.

The CSG model therefore shows that an international agreement can formalise governance, access and institutional coordination without displacing host-State law. The roles of the French

³² Norwegian Civil Aviation Authority, "Report on the investigation of orbital launches from Kiruna over Norway", 7 March 2025, ; Norwegian Civil Aviation Authority, "Overflight - space activities", , referring to the Act of 22 December 2025 No. 128 on activities in outer space and the Regulations of 24 June 2026 No. 1327 on rocket launches in Norwegian airspace.

³³ French Research Code, Article L.331-6, version in force since 3 August 2023, ; Centre Spatial Guyanais/CNES, "Les acteurs du Centre spatial guyanais", .

³⁴ European Space Agency, "New agreements for next decade of launches at Europe's Spaceport in French Guiana", 10 July 2025, https://www.esa.int/Enabling_Support/Space_Transportation/Europe_s_Spaceport/New_agreements_for_next_decade_of_launches_at_Europe_s_Spaceport_in_French_Guiana.

³⁵ European Space Agency, "ESA and CNES renew their commitment to Europe's Spaceport", 18 May 2026, https://www.esa.int/Enabling_Support/Space_Transportation/Europe_s_Spaceport/ESA_and_CNES_renew_their_commitment_to_Europe_s_Spaceport; Centre Spatial Guyanais/CNES, "ESA x CNES: nouvel accord de financement signé", 13 May 2026, <https://centrespatialguyanais.cnes.fr/fr/signature-contrat-esa-cnes>.



State, CNES, ESA and individual launch service providers should not be merged into a single description of who “governs” the site.

Launch campaigns also depend on radio-frequency access for telemetry, tracking, command and range-safety functions. These requirements are handled through national spectrum authorities and, where applicable, the ITU (International Telecommunication Union) Radio Regulations. The relevant procedure depends on the radio service, frequency band and assignment; it is not automatically a new international filing for every launch. Nevertheless, national or campaign-specific assignments must be secured early enough to support the full launch window. Planning should identify the responsible administration, required frequencies and ground stations, and possible coordination with existing users before the campaign reaches operational readiness³⁶.

Full licence portability is unlikely to resolve these interfaces because the affected State retains responsibility for risks arising in its territory, territorial sea and sovereign airspace. A more practical objective is the structured reuse of safety cases, technical assessments, vehicle qualifications and prior findings where their methodology, scope and data are considered equivalent. As discussed in section 2.4.1, any mutual-recognition mechanism under the proposed EU Space Act should therefore identify the lead authority, the States and sectoral authorities to be consulted, the evidence that can be reused, the matters requiring a fresh territorial assessment and the minimum lead times for each interface. Evidence reuse can reduce duplication without preventing the affected authority from assessing local airspace, maritime, emergency-response, environmental and security conditions.

Cross-border coordination should therefore be treated as a front-loaded authorisation dependency, not as a notification step undertaken after the main launch licence has been obtained.

The preceding discussion treats external State consent and sectoral clearance as dependencies that condition the practical exercise of launch authorisation. A distinct question concerns the structural arrangements through which States collaborate to host launch

³⁶ International Telecommunication Union, “Regulatory Procedures for Small Satellites”, August 2018, <https://www.itu.int/en/ITU-R/space/Documents/RegulatoryProceduresSmallSats.pdf>; ITU, “Small Satellites Support”, <https://www.itu.int/en/ITU-R/space/support/smallsat/Pages/default.aspx>.



activities in the first place: bilateral technology-safeguarding treaties, multilateral facility-sharing agreements, and joint ventures blending governmental and commercial interests. These frameworks differ in objective, restrictiveness, governance intensity and capacity to accommodate technological change, and those differences matter for any jurisdiction contemplating new international partnerships or benchmarking its own emerging regulatory architecture.

The Technology Safeguards Agreements (TSAs) concluded by the United States are one prominent model. These bilateral treaties establish legal and technical safeguards for the handling of sensitive US spaceflight technology when US-licensed launch vehicles, spacecraft, equipment or technical data are used in launch activities from a partner State. They facilitate such activities by establishing the conditions under which relevant US technology may be licensed for export and protected in the host State, but do not themselves constitute export authorisations or replace applicable US export-control requirements. Individual transfers and launch activities remain subject to the licences and authorisations required by the competent US and host-State authorities, including under ITAR and, where applicable, EAR. TSAs also support non-proliferation objectives consistent with the Missile Technology Control Regime (MTCR)³⁷.

Agreements have been concluded with New Zealand (2016), Brazil (2019), the United Kingdom (2020), Australia (2023), and Sweden and Norway (2025). Their terms vary with the maturity of the partner's domestic space sector and the breadth of its ambitions.

New Zealand's 2016 agreement, the first of its kind, is generally regarded as the most restrictive for a partner wishing to develop indigenous launch capability or host non-US vehicles, although New Zealand's space sector was then small enough that the constraints had limited practical effect. The arrangement³⁸ was designed to enable Rocket Lab to operate from New Zealand as well as the United States, supporting local industry while securing access to US government

³⁷ U.S. Department of State, "U.S.-Australia Technology Safeguards Agreement (TSA)", Fact Sheet, 26 October 2023; Agreement between the Government of the United Kingdom and the Government of the United States of America on Technology Safeguards associated with United States Participation in Space Launches from the United Kingdom, 16 June 2020, Articles I-IV; UK Government, "UK-US Technology Safeguards Agreement (TSA) for Spaceflight Activities: Understanding the TSA", January 2021.

³⁸ The full text of the New Zealand TSA is publicly accessible through the New Zealand Ministry of Foreign Affairs and Trade treaty database.



contracts. It responded to a specific commercial relationship rather than a broad national launch strategy, and New Zealand accepted corresponding limits on diversification.

Later agreements are less restrictive. Although several were prompted by the needs of particular US providers³⁹ the partner States were already in advanced discussions about hosting non-US providers and supporting domestic launch developers, and required greater flexibility to avoid foreclosing those opportunities.

Australia's 2023 TSA, implemented principally through the Space (Launches and Returns) Act 2018, illustrates this calibration. During TSA-related activities the Australian Government assumes responsibility for compliance with the technology-safeguarding conditions, and those obligations pass to companies through licence and permit requirements under the Act. The TSA confers no blanket approval: each operation still requires authorisation from both governments. It records a governmental intention to approve activities where the conditions are satisfied, establishing the institutional predicate for cooperation without displacing the controls applicable to individual missions.

The United Kingdom's 2020 TSA adds operational detail relevant to States designing spaceport security regimes. It requires controlled areas at spaceport sites, broadly comparable to security-controlled zones at airports, which may in practice cover most or all of a site. Within those areas, segregated areas form smaller restricted precincts protecting US launch technology. UK spaceports may nevertheless host launch vehicles and technologies from other countries provided appropriate spaceflight controls protect US-origin technology. The agreement therefore accommodates multi-national use of shared infrastructure, a significant consideration where a State wishes to position a spaceport as a commercial hub rather than a single-customer facility.

Segregated areas are treated as such only when US technology is present at the spaceport and US launch activity is taking place, preserving operational flexibility during non-US campaigns. The UK Government implements these obligations principally through the Space Industry Regulations and through licence conditions under the Space Industry Act 2018.

³⁹ Virgin Orbit in the United Kingdom and Firefly Aerospace in Sweden, for instance



These instruments present a clear design trade-off: they unlock access to advanced US launch systems and, in some cases, to US government contracts, but impose constraints whose severity depends on the negotiated terms. The question for a prospective partner is whether the framework leaves sufficient room for alternative providers, domestic development and technological diversification over time. The movement from New Zealand's restrictive model to the United Kingdom's multi-user architecture shows that these agreements are negotiable instruments rather than fixed templates, and that their terms reward a partner entering discussions with defined strategic objectives and credible alternatives.

Ukraine's engagement with international launch partnerships followed a different model. Having inherited a world-leading launch vehicle design and manufacturing industry from the Soviet Union but no spaceport infrastructure, Ukraine made several attempts to partner with States that could supply that capability.

The most ambitious was a 2003 treaty with Brazil permitting flights of Ukraine's Cyclone-4 launch vehicle from the Alcântara launch site. The joint venture Alcântara Cyclone-Space was established in August 2006 and construction proceeded, but the project met financial difficulties and was terminated by the Brazilian government in 2015. Infrastructure-intensive partnerships are vulnerable to funding shortfalls and shifting governmental priorities.

Ukraine signed a memorandum of understanding with Canada in 2017 supporting several joint projects, including a launch site in Nova Scotia for the Cyclone-4. That initiative lost momentum after Russia's attempted invasion of Ukraine in 2022. Frameworks dependent on sustained governmental cooperation remain exposed to geopolitical disruption.

Commercial arrangements proved equally susceptible. The Sea Launch Company, an international consortium established in 1995 as a joint venture between Boeing (40 per cent), RSC Energia of Russia (25 per cent), Kvaerner AS of Norway (20 per cent) and NPO Yuzhnoe of Ukraine (15 per cent), provided commercial launch services using the Zenit-3SL40 from a converted Norwegian oil platform in the Pacific Ocean.

Sea Launch conducted 36 launches, the last in May 2014, but did not survive financial difficulties and the breakdown in Russian-Ukrainian collaboration following Russia's

⁴⁰ A vehicle manufactured predominantly in Ukraine with some Russian components.



annexation of Crimea. Partnership structures involving geopolitically proximate but politically divergent States carry an embedded fragility that may not be apparent when the agreement is negotiated.

The third model is the multilateral facility-sharing arrangement, exemplified by the Esrange-Andøya Special Project (EASP) introduced above. EASP links the suborbital launch facilities at Esrange in Sweden and Andøya in Norway with other European States pursuing primarily scientific objectives. Five ESA Member States are parties – France, Germany, Norway, Sweden and Switzerland – although other participants, including the United Kingdom, have taken part at various times. Funding is refreshed on a five-year cycle.

EASP has proved durable because it aligns a limited group of States around defined scientific activities – sounding rockets and stratospheric balloons – rather than a broader commercial launch industry⁴¹. A multilateral facility-sharing arrangement can thus generate wider sectoral benefits where it is embedded in a supportive national ecosystem.

The model has limits. EASP is not an ESA agreement, notwithstanding ESA's administrative and programme coordination, and it does not authorise orbital launch or overflight. That distinction became significant as Sweden explored orbital launch from Esrange on trajectories passing through Norwegian airspace, where, as set out above, Norwegian permission is required and the risks cannot be assessed without a dedicated Flight Safety Analysis. EASP is well suited to collaborative scientific activity within its defined scope, but it is not a template for the deeper regulatory integration that orbital launch or cross-border commercial spaceport operations may require.

These three models – bilateral technology-safeguarding treaties, infrastructure-access joint ventures and multilateral facility-sharing arrangements – support several conclusions from a spaceports standpoint.

⁴¹ Regular users include JAXA, NASA, CSA, ESA, CNES and DLR, and the facility supports student programmes with ESA and DLR sponsorship for microgravity and other missions. The Luleå University of Technology Space Campus is based at Kiruna alongside the Swedish Institute of Space Physics, with links to Umeå University and the Ångström Space Technology Centre at Uppsala University. Sweden has also benefited from an ESA Business Incubation Centre, opened in 2015 with branches at Uppsala and Umeå, which has spun out several space companies.



The objectives of an international partnership should be defined at the outset: a framework designed to secure access to a particular technology supplier will impose different constraints from one aimed at building domestic capability, attracting diverse providers or pooling resources for scientific research. Restrictiveness is negotiable, and a partner State's position is strengthened by sectoral maturity, alternative options and a coherent strategic vision.

It is noted that partnerships involving infrastructure construction or joint-venture equity carry funding and political risks that may materialise over long project timelines, and geopolitical exposure should be assessed not only at the date of agreement but as a stress test against plausible future scenarios.

Nevertheless, multilateral arrangements can prove durable where they align a defined group of States around specific activities, but may require renegotiation or supplementary instruments when the scope of activity expands, as orbital launch at Esrange has shown. Like the CSG arrangements mentioned above, they complement rather than replace the domestic regulatory architecture that authorises, supervises and takes responsibility for launch activities.

On the other hand, the comparative assessment finally indicates an emerging convergence regarding the importance of export-control and foreign investment screening requirements as regulatory interfaces affecting access to spaceport operations.

Although these requirements generally arise outside space-specific licensing frameworks, they may directly affect the participation of foreign operators and suppliers, payload integration, access to controlled hardware, software and technical data, technical assistance and cross-border industrial cooperation.

The AEAAS further observes that compliance with export-control and investment-screening requirements may therefore constitute an important market-access condition alongside the primary spaceport or launch authorisation. Contributors highlighted that international spaceport operations may be subject to multiple national and extraterritorial export-control regimes, particularly where controlled technologies, payloads or technical data are transferred between jurisdictions.

Predictable procedures and the early identification of applicable requirements were identified as important factors in reducing regulatory uncertainty and facilitating international industrial cooperation.



2.8. Financial challenges (incentives, grants, and subsidies)

Formal licence fees do not capture the real cost of access, where launch-pad pricing and the cost of producing the documentation occur entirely before any revenue is generated.

Specialist support is often required because the expertise is limited in-house for many new entrants. This cost is also difficult to forecast, since the volume of evidence expected is not fully defined at the outset. This translates into a business-case challenge because operators cannot compare European spaceports reliably without visibility on the commercial and legislative cost stack.

Although public funding in the space sector is substantial, it is often directed at launch vehicles, satellites and applications rather than shared ground infrastructure. Spaceports may therefore fall between space, transport and regional-development funding lines and may not be fully covered by any of them.

Europe's Spaceport in French Guiana provides a contrasting institutional funding model. On 30 April 2026, ESA and CNES signed a new contract covering the operation, maintenance and modernisation of the Guiana Space Centre. The contract has a fixed term of three years, with two additional years proposed as an option subject to confirmation at the ESA Ministerial Council in 2028. Its total funding envelope exceeds €1 billion, including €635 million provided by ESA through its 23 Member States and the remainder contributed by CNES. The funding covers day-to-day operations, maintenance, security, launch-campaign coordination and continuous upgrades to technical and shared infrastructure. It also establishes funding rules and provides for fair access to ESA and CNES facilities for new operators, including micro- and mini-launchers.⁴²

This example shows that multi-year institutional funding can support shared infrastructure with a long and uncertain commercial payback, while linking public investment to operational capacity, modernisation and access for new providers. Where comparable support is unavailable, site development may remain dependent on private capital. A common European

⁴² European Space Agency, "ESA and CNES renew their commitment to Europe's Spaceport", 18 May 2026; Centre Spatial Guyanais/CNES, "ESA and the French space agency: new funding agreement signed", 13 May 2026.



approach to incentives nevertheless remains difficult because infrastructure funding and support measures are still largely determined through national and intergovernmental decisions.

The demand for launch, both to build commercial value and to develop strategic capability, is high. The reality is that Europe does not currently have a launch provider able to compete with the United States of America.

The volume, cadence, national demand and associated commercial benefits are vastly different. The fundamental problem for launch providers and spaceports is that they must become commercially relevant. Where such programmes exist only by virtue of governmental support, they have historically become overly bureaucratic and bloated programmes that cannot compete. However, some level of national demand ("government as a customer"), particularly at an early stage while commercial customers may be unwilling to take the risk, has helped launch providers gain a commercial footing.

Where a provider lacks the ability to move quickly in early development and to fly often to gain experience, and where vast resources are spent reaching a first orbital launch, the business case is undermined from the outset.

VAT or Goods and Services Tax can be prohibitive when it comes to the export and import of launch vehicles and satellites. They are high-value items but are destined to exit the country. An example of this is where India has instated an exemption of customs duties for satellites and ground support equipment that is due to exit the country after a launch campaign, in order to maintain the competitiveness of Indian launch. Additionally, cross-border movement can become a bottleneck, as payloads, launch vehicles and ground equipment need to arrive on time and are as such central to launch-campaign timing.

Simultaneously, we did not identify any spaceport Project qualified as an Important Project of Common European Interest ("IPCEI"), under the applicable framework and article 107(3)(b) TFEU (Treaty on the Functioning of the European Union) and Commission Communication 2021/C 528/02. Nonetheless, this instrument may prove applicable and carries considerable potential, subject to meeting all requirements and, among others, involving the construction of infrastructure, open and non-discriminatory access, non-discriminatory pricing, and non-discriminatory network operation.



Final remarks

1. Limitations and caveats

The Consortium transparently documents all limitations of the data collection exercise and caveats relevant to interpretation of the findings.

Notwithstanding the rigorous quality assurance measures applied, data for certain jurisdictions may be incomplete, partially outdated, not fully verified, or subject to partial inaccuracy. Limited sources introduce additional considerations regarding data accuracy.

The Consortium is confident that these limitations do not undermine the utility or validity of the Report's findings given its comparative and conceptual purpose, the objective is to identify the range of regulatory solutions adopted globally and extract lessons for European framework development, not to provide a definitive legal account of each jurisdiction.

The subject matter of this Report involves numerous intersections of potentially relevant laws, regulations, and policy frameworks across multiple jurisdictions and legal systems, making exhaustive coverage impractical within any single document.

Certain topics addressed herein - in particular, incentive programmes and grants - are inherently broad and conceptually diffuse, engaging intersecting legal regimes (including competition law, state aid, public procurement, tax, and sector-specific regulatory frameworks) that are too numerous and jurisdiction-specific to be addressed comprehensively.

Accordingly, this Report does not purport to provide an exhaustive treatment of any subject matter, and readers should be aware that additional legal areas, regulatory instruments, and compliance obligations may be relevant depending on specific circumstances.

1.1 Data completeness limitations

For certain jurisdictions, data collection was incomplete due to: limited availability of primary sources; absence of accurate English-language translations; rapidly evolving regulatory frameworks subject to ongoing reform; and varying levels of engagement achieved through outreach to local experts.



An assessment of local expert input quality was conducted for first-tier and second-tier jurisdictions, with each jurisdiction's data assigned a reliability qualification informing the comparative weighting. Three levels of reliability were established:

(a) **Level 3 (High Reliability)**: Surveys reviewed fully and in detail by humans with relevant experience in the jurisdiction; answers may be relied upon as reflecting verified human knowledge;

(b) **Level 2 (Moderate Reliability)**: Surveys only partially reviewed in detail, or reviewed by humans without direct experience in the jurisdiction; answers may be relied upon to a limited extent;

(c) **Level 1 (Limited Reliability)**: Surveys not reviewed by humans with experience in the jurisdiction; answers have limited reliability and should be treated as indicative only.

Based on the reliability assessment conducted, the following first-tier jurisdictions were assigned **Level 3 (High Reliability)**: France, Germany, India, New Zealand, Oman, Portugal, Sweden, United Kingdom, Japan, and United States. The following were assigned **Level 2 (Moderate Reliability)**: Australia, Norway and the Russian Federation. The following were assigned **Level 1 (Limited Reliability)**: Canada, China, South Africa, and the Republic of Korea.

For second-tier jurisdictions, the following were assigned **Level 3**: Italy and Ecuador; **Level 2**: Brazil; and **Level 1**: all the remaining.

In particular, the following first-tier jurisdictions present data completeness limitations: Canada, Norway, South Africa, and South Korea - each of which was assigned Level 1 (Limited Reliability) due to unsuccessful or incomplete expert contact and review.

Where data is less complete or less certain, this is reflected in the reliability qualification assigned and the weighting applied in comparative analysis. The surveys that may be heavily relied upon (Level 3) include: France, Germany, India, New Zealand, Oman, Portugal, Sweden, United Kingdom, United States, Italy, and Ecuador.

Cross-jurisdictional comparison proved difficult in some instances due to definitional or structural differences in how jurisdictions conceptualise and regulate spaceport activities.

The Consortium acknowledges that AI research tools were employed to assist in the research for this Report, subject to stringent quality assurance, human review, and whenever possible



expert validation. The use of such tools allowed the Consortium to extend the breadth of the research effort across more than 40 jurisdictions with varying data availability, where outputs were treated as preliminary inputs requiring verification and informed common sense – and whenever possible professional – judgement.

1.2. Challenges encountered during Survey application

In addition to those mentioned above on section 1.1., challenges encountered during survey application included difficulties of obtaining primary legal sources; data availability limitations, particularly in jurisdictions with limited publicly available information; ambiguous regulatory frameworks, especially where spaceport regulation is addressed through general aviation, environmental, or land-use frameworks rather than dedicated space legislation; jurisdictions lacking dedicated spaceport regulation; geopolitical challenges affecting access to certain regulatory information (notably in respect of Russia); and varying levels of responsiveness from local experts and Consortium partners.

Each challenge was addressed through the supplementary methodology described above, with transparency regarding remaining data gaps. Geopolitical factors, including restrictions on access to regulatory information from certain jurisdictions (notably where regulatory transparency is limited or where relations with international partners have been disrupted), required adaptive approaches to data collection, including reliance on secondary sources, academic publications, and historical regulatory archives.

In certain cases, multiple versions of jurisdiction surveys were prepared and consolidated to ensure consistency across the assessment team.

Expert input and validation requests were systematically tracked and cleared prior to processing the data collected. Where local expert contact was unsuccessful or expert review was incomplete within the project timeframe, this is reflected in the reliability qualification assigned to the jurisdiction.

The Consortium endeavoured to disclose all material limitations affecting the completeness or reliability of survey responses, enabling readers to contextualise findings appropriately.



1.3 Heterogeneity of legal backgrounds

The surveyed jurisdictions differ considerably in terms of regulatory maturity, operational experience, legal tradition, institutional organisation and commercial development of their space sectors. Consequently, not every regulatory item reveals a clear trend or dominant approach. Some areas remain characterised by significant regulatory heterogeneity, reflecting legitimate national policy choices, geographical constraints, differing levels of industrial development, and sovereignty considerations.

Accordingly, the degree of confidence associated with each identified trend varies depending on the consistency of the comparative findings, the number of jurisdictions exhibiting similar approaches, and the practical experience contributed by Consortium members and Advisory Board participants.

Furthermore, the trends identified in this Part provide the analytical bridge between the comparative mapping undertaken in Part I and the qualitative assessment to be carried out under Work Package 3.

They are intended to assist in identifying regulatory practices that may contribute to the development of a coherent and operationally effective European framework for spaceport regulation, whilst recognising that no single regulatory model is universally applicable across all jurisdictions.

1.4 Regulatory dynamism

Regulatory landscapes evolve continuously. Several surveyed jurisdictions were undergoing active reform at the time of writing, including the EU Space Act, which intends to govern central matters in the scope of this assessment.

The survey establishes a cut-off date of 31 July 2026 for inclusion of regulatory developments; developments after this date are not reflected in the findings.

However, the Consortium will continue to monitor relevant developments and may incorporate significant changes in future iterations. The treatment of enacted but not-yet-in-force regulations is documented where applicable.



1.5 Operational experiences

There is an inherent limitation in the study of spaceport regulation in that there are only a limited number of jurisdictions which combine active launch operations with a mature and specific spaceport regulatory framework.

Even fewer that have a commercially or strategically relevant launch cadence. This creates a significant challenge for this project as a whole as best-practice models may be drawn from highly specific national contexts, such as federal ranges, overseas territories, or long-established launch sites, which may not be directly transferable to new commercial spaceport projects.

Geography is the binding constraint. Launch latitude and population density directly limit the available orbits that can be reached. Hence, there are limited locations for commercially or strategically viable European spaceports, often in remote areas, which raises the cost of every launch campaign in terms of logistics, personnel, and infrastructure.

1.6 Scope exclusions

This Report does not constitute, and shall not be construed as, legal or professional advice of any kind. Neither the Consortium nor any of its members, partners, employees, or agents assumes any responsibility or liability whatsoever for the accuracy, completeness, timeliness, or reliability of the information contained herein, or for any actions taken or not taken in reliance thereon.

Its purpose is comparative and analytical: to identify regulatory approaches, draw lessons from diverse global experiences, and inform policy discussion within the broader AEAAS project. Readers requiring advice on the application of law in any jurisdiction should engage qualified local counsel.

The Report is provided on an "as is" basis for informational and comparative purposes only, to identify regulatory approaches, draw lessons from diverse global experiences, and inform policy discussion within the broader AEAAS project.



The Consortium expressly disclaims all liability arising from or in connection with the use of, or reliance on, any information contained in this Report.

The boundaries of the analysis are clearly documented to ensure readers understand the scope of the comparative findings.

The Consortium actively encourages members of the space community, including regulators, operators, legal practitioners, and researchers, to bring to its attention any relevant information, corrections, or updates that may assist in improving the accuracy and completeness of the findings put-forward through this Report. Such contributions will be considered for incorporation into future iterations and will support ongoing refinement of the comparative analysis.

The Consortium is committed to full transparency regarding the challenges encountered and the mitigation measures adopted throughout the preparation of this Report. The candid disclosure of limitations reflects our commitment to intellectual honesty and the highest standards of professional practice.

Readers are encouraged to approach the comparative findings with an understanding of these limitations, and to engage critically with the Report's conclusions in light of the acknowledged constraints.



ANNEXES



Annex A: Glossary of terms and abbreviations

This Annex provides definitions for all technical, legal, and regulatory terms used throughout this Report, as well as abbreviations for relevant organisations, regulatory concepts, and project-specific terminology, presented in alphabetical order.

Term / Abbreviation	Definition
AEAAS	Alliance for European Autonomous Access to Space, the Consortium undertaking this Project.
Pilot Jurisdiction	A jurisdiction selected for in-depth baseline review to derive the comparative assessment framework. Three pilot jurisdictions were selected: France (Centre Spatial Guyanais, French Guiana), the United States (Kennedy Space Centre), and New Zealand (Rocket Lab Launch Complex 1, Māhia Peninsula).
ASC	The Atlantic Spaceport Consortium team, a member of AEAAS.
ASTech	AeroSpace Technologies cluster of Île-de-France region, a member of AEAAS.
CNES	Centre National d'Études Spatiales, the French national space agency.
Consortium	The Alliance for European Autonomous Access to Space (AEAAS), comprising the partner organisations undertaking this Project.
CST	Commercial Space Technologies, a member of AEAAS.
D.2.	Deliverable D.2.; this Report, constituting the deliverable of Work Package 2.
DLR	Deutsches Zentrum für Luft- und Raumfahrt, German Aerospace Centre.
EIA	Environmental Impact Assessment.
EU	European Union.



FDI	Foreign Direct Investment.
Tier 1 Jurisdiction	Jurisdictions selected for in-depth comparative assessment across the full range of regulatory items.
Heuking	Heuking Kühn Lüer Wojtek, a member of AEAAS.
HyImpulse	Consortium partner contributing expertise on Australia and the United Kingdom.
Impulso	Impulso Space, a member of AEAAS.
ISAR	Isar Aerospace, a member of AEAAS.
Project	The implementation of the proposal submitted by the Alliance for European Autonomous Access to Space initiative, of which this Report forms part as Deliverable D.2.
PTSpace	Agência Espacial Portuguesa, the Portuguese Space Agency
Reflect	Reflect Solutions, a member of AEAAS.
Re-entry Permit	Authorisation granted by a competent authority permitting the conduct of re-entry operations. Terminology varies by jurisdiction.
Report	This document; the Deliverable 2 (D.2.) report constituting the deliverable under Work Package 2.
Tier 2 Jurisdiction	Jurisdictions selected for focused review of main regulatory instruments and key structural features.
ROI	Return on Investment.
SK	Stellar Kinetics, a member of AEAAS.



Survey	The regulatory survey instrument prepared based on the pilot jurisdictions analysis, and used as guidance for the review and assessment of each jurisdiction to collect data for comparative analysis.
WP	A component of the Project structure, composed of specific members of the Consortium and responsible for performing the tasks assigned thereto.



Annex B: List of regulatory items surveyed

This Annex lists the regulatory items assessed across all surveyed jurisdictions. The items are organised by category and correspond to the spaceport lifecycle (planning, licensing, construction, operation, decommissioning). This list serves as a reference key for the data presented throughout Parts I through III.

Category A: Definitional and conceptual framework

A.1 Definition of "spaceport" or equivalent term; A.2 Definition of "launch" and "launch vehicle"; A.3 Definition of "re-entry" and "re-entry vehicle"; A.4 Definition of "space object"; A.5 Distinction between commercial and governmental activities; A.6 Distinction between orbital and suborbital activities.

Category B: Institutional framework and competent authority

B.1 Identification of competent authority for spaceport regulation; B.2 Allocation of regulatory authority among governmental bodies; B.3 Role of national space agency; B.4 Interagency coordination mechanisms; B.5 Regulatory independence and governance structure.

Category C: Licensing and authorisation

C.1 Spaceport operator licence requirements; C.2 Launch licence requirements; C.3 Re-entry licence requirements; C.4 Licence application procedures; C.5 Licence duration and renewal; C.6 Licence transfer and modification; C.7 Licence suspension and revocation; C.8 Foreign operator access provisions.

Category D: Safety and technical requirements

D.1 Safety standards and technical specifications; D.2 Range safety requirements; D.3 Flight termination system requirements; D.4 Hazard analysis and risk assessment; D.5 Emergency response planning; D.6 Security requirements; D.7 Airspace and maritime coordination.

Category E: Environmental protection

E.1 Environmental impact assessment requirements; E.2 Noise and emissions standards; E.3 Debris mitigation requirements; E.4 Sustainability provisions; E.5 Decommissioning and site restoration.



Category F: Liability and insurance

F.1 Third-party liability regime; F.2 Insurance requirements (minimum coverage); F.3 Government indemnification provisions; F.4 Cross-waiver of liability arrangements; F.5 Liability caps and limitations.

Category G: International obligations

G.1 Implementation of Outer Space Treaty; G.2 Implementation of Liability Convention; G.3 Implementation of Registration Convention; G.4 Compliance with ITU Radio Regulations; G.5 Adherence to debris mitigation guidelines.

Category H: Operational requirements

H.1 Pre-launch notification requirements; H.2 Launch window coordination; H.3 Payload review requirements; H.4 Export control compliance; H.5 Technology transfer restrictions; H.6 Post-launch reporting requirements.



Annex C: Glossary of regulatory terms by jurisdiction

This Annex provides a jurisdiction-specific glossary of regulatory terms, illustrating how key concepts are defined and applied differently across the 48 surveyed jurisdictions. It supplements the main Glossary (Annex A) by showing how the same functional concept may be defined or named differently in different legal systems. This is critical for cross-jurisdictional comparison and for avoiding false equivalences in the comparative analysis.

1. “Spaceport” or equivalent term

Australia: “launch facility” (Space (Launches and Returns) Act 2018); **France:** “base de lancement” / “centre spatial” (Loi relative aux opérations spatiales); **Germany:** “Startplatz” / “Raumfahrtanlage”; **United Kingdom:** “spaceport” (Space Industry Act 2018); **United States:** “launch site” (51 U.S.C. § 50902).

2. “Launch licence” or equivalent term

Australia: “launch permit” (Space (Launches and Returns) Act 2018); **France:** “autorisation de lancement” (Loi relative aux opérations spatiales); **Germany:** “Startgenehmigung”; **New Zealand:** “launch licence” (Outer Space and High-altitude Activities Act 2017); **United Kingdom:** “launch operator licence” (Space Industry Act 2018); **United States:** “launch licence” (14 CFR Part 450).

3. “Spaceport operator” or equivalent term

Australia: “launch facility operator”; **France:** “exploitant de base de lancement”; **United Kingdom:** “spaceport licensee” (Space Industry Act 2018); **United States:** “launch site operator” (14 CFR Part 420).

4. “Third-party liability” or equivalent term

Australia: “liability for damage to third parties”; **France:** “responsabilité civile envers les tiers”; **Germany:** “Drittschadenshaftung”; **United Kingdom:** “third party liability” (Space Industry Act 2018); **United States:** “third party liability” (51 U.S.C. § 50914).



Annex D: Research sources used for the completion of the jurisdiction surveys

Tier 1 jurisdictions

I. Australia

The completion of the Australia Jurisdiction Survey relied on 17 sources covering the legal, regulatory and policy framework, as well as related matters, applicable to space activities and, in particular, the establishment and operation of spaceports. The research encompassed space-specific legislation, government strategies and guidance, publications issued by the Australian Space Agency, and legislation addressing related areas, including environmental protection, civil aviation, telecommunications, radiocommunications, customs, work health and safety, critical infrastructure protection, dangerous goods, and land development.

Sources consulted

- *Space (Launches and Returns) (General) Rules 2019.*
- *Australia's Civil Space Strategy 2019–2028.*
- *Space (Launches and Returns) Act 2018 (replacing the Space Activities Act 1998).*
- *Australian Space Agency (official publications and guidance).*
- *Defence Trade Controls Act 2012.*
- *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).*
- *Telecommunications Act 1997.*
- *Radiocommunications Act 1992.*
- *Civil Aviation Act 1988.*
- *Customs Act 1901 (as amended).*
- *Space (Launches and Returns) Act 2018 — Second Tranche Reforms (2025).*
- *Work Health and Safety Act 2011.*
- *Security of Critical Infrastructure Act 2018 (as amended).*
- *Dangerous Goods (Storage and Handling) Regulations (various States).*
- *State Development and Public Works Organisation Act 1971.*
- *Launch Permit Application Guidelines.*



- *Radiocommunications Act 1992 (Compilation No. 82, July 2025, incorporating amendments up to Act No. 113 of 2024).*

II. Canada

The completion of the Canada Jurisdiction Survey relied on **13 sources** covering the legal, regulatory and policy framework, as well as related matters, applicable to space activities and, in particular, the establishment and operation of spaceports. The research encompassed space-specific legislation, proposed legislation, international agreements, regulatory instruments, administrative guidance, and legislation governing related areas, including environmental assessment, aeronautics, telecommunications, radiocommunications, and export controls.

Sources consulted

- *Bill C-28 — An Act to amend the Aeronautics Act and other Acts / Canadian Space Launch Act (tabled on 21 April 2026; not yet enacted).*
- *Canada–U.S. Technology Safeguards Agreement (TSA) (negotiations completed in August 2024; not yet ratified).*
- *CPC 2-6-02 — Licensing of Space Stations / Circulaire des procédures du client — Délivrance de licences de stations spatiales.*
- *Remote Sensing Space Systems Regulations (SOR/2007-66) / Règlement sur les systèmes de télédétection spatiale.*
- *Remote Sensing Space Systems Act (S.C. 2005, c. 45) / Loi sur les systèmes de télédétection spatiale.*
- *Canadian Space Agency Act (S.C. 1990, c. 13) / Loi sur l'Agence spatiale canadienne.*
- *Impact Assessment Act (S.C. 2019, c. 28, s. 1) / Loi sur l'évaluation d'impact.*
- *Telecommunications Act (S.C. 1993, c. 38) / Loi sur les télécommunications.*
- *Aeronautics Act (R.S.C., 1985, c. A-2) / Loi sur l'aéronautique.*
- *Radiocommunication Act (R.S.C., 1985, c. R-2) / Loi sur la radiocommunication.*
- *Export and Import Permits Act (R.S.C., 1985, c. E-19).*



- *Bill C-28 — An Act to amend the Aeronautics Act and other Acts / Canadian Space Launch Act (legislative status update: first reading completed on 21 April 2026; currently at second reading in the House of Commons).*
- *Canada–U.S. Technology Safeguards Agreement (TSA) (status update: Bill C-28 provides the proposed enforcement mechanism).*

III. China

The completion of the China Jurisdiction Survey relied on 28 national sources covering the legal and regulatory framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed the national legal, regulatory and institutional framework governing space activities, including the China National Space Administration (CNSA) and the State Administration of Science, Technology and Industry for National Defence (SASTIND), the licensing of civil space launch projects, the regulation of civil space launch sites, the registration of space objects, civil aviation and airspace management, telecommunications and radio spectrum management, cybersecurity and data protection, environmental protection and environmental impact assessment, work safety, hazardous chemicals, national defence and national security, foreign investment screening and export controls, as well as national space policy, commercial space strategies, standardisation frameworks and the proposed Space Law of the People's Republic of China.

Sources consulted

- *Interim Measures for the Administration of Civil Space Launch Projects / 中华人民共和国民用航天发射项目许可证管理暂行办法.*
- *Measures for the Administration of Registration of Objects Launched into Outer Space / 中华人民共和国空间物体登记管理办法.*
- *Regulations on the Administration of Civil Space Launch Sites / 中华人民共和国民用航天发射场管理条例.*
- *Notice on Strengthening Licence Management for Civil Space Launch Projects / 关于加强民用航天发射项目许可证管理有关事项的通知.*



- Notice on Strengthening the Quality Supervision and Management of Commercial Space Projects / 关于加强商业航天项目质量监督管理的通知.
- Notice on Promoting the Standardised and Orderly Development of Commercial Launch Vehicles / 关于促进商业运载火箭规范有序发展的通知.
- Interim Measures on Space Debris Management / 空间碎片暂行管理办法.
- Civil Aviation Law of the People's Republic of China / 中华人民共和国民用航空法.
- Environmental Impact Assessment Law of the People's Republic of China / 中华人民共和国环境影响评价法.
- Export Control Law of the People's Republic of China / 中华人民共和国出口管制法.
- Telecommunications Regulations of the People's Republic of China / 中华人民共和国电信条例.
- Radio Management Regulations of the People's Republic of China / 中华人民共和国无线电管理条例.
- Cybersecurity Law of the People's Republic of China / 中华人民共和国网络安全法.
- Data Security Law of the People's Republic of China / 中华人民共和国数据安全法.
- Work Safety Law of the People's Republic of China / 中华人民共和国安全生产法.
- Environmental Protection Law of the People's Republic of China / 中华人民共和国环境保护法.
- Regulations on the Safety Management of Hazardous Chemicals / 危险化学品安全管理条例.
- National Security Law of the People's Republic of China / 中华人民共和国国家安全法.
- National Defence Law of the People's Republic of China / 中华人民共和国国防法.
- Law on the Protection of State Secrets / 中华人民共和国保守国家秘密法.



- *Foreign Investment Law of the People's Republic of China / 中华人民共和国外商投资法.*
- *China's Space Program: A 2021 Perspective (White Paper) / 《2021中国的航天》白皮书.*
- *CNSA Action Plan to Promote the High-Quality and Safe Development of Commercial Spaceflight (2025–2027) / 国家航天局推进商业航天高质量安全发展行动计划 (2025–2027年) .*
- *China's First Space Science Plan / 中国空间科学中长期发展规划.*
- *Commercial Space Standards Framework (Version 1.0) / 商业航天标准体系 (1.0版) .*
- *China Space Standard System (Version 1.0) / 中国航天标准体系 (V1.0).*
- *Draft Space Law of the People's Republic of China / 中华人民共和国航天法 (草案).*
- *Direct-to-Device (D2D) Satellite Communications Guidelines / 直连终端卫星通信指导意见.*

IV. France

The completion of the France Jurisdiction Survey relied on 53 sources covering the legal, regulatory and policy framework, as well as related matters, applicable to space activities and, in particular, the establishment and operation of spaceports. The research encompassed national and European legislation, implementing decrees, ministerial orders, government strategies, official guidance and compliance tools, public inquiry documentation, environmental and planning documentation, technical standards, and publications issued by the French authorities and the Centre National d'Études Spatiales (CNES).

Sources consulted

- *Arrêté du 28 juin 2024 relatif à la réglementation technique (FSOA).*
- *Loi n° 2023-703 du 1er août 2023 relative à la programmation militaire pour les années 2024 à 2030.*
- *Loi n° 2008-518 du 3 juin 2008 relative aux opérations spatiales (LOS/FSOA).*



- *Décret n° 2009-643 du 9 juin 2009 relatif aux autorisations délivrées en application de la FSOA.*
- *Code de la défense – Titre II relatif à l'espace.*
- *Code des postes et des communications électroniques.*
- *Code de l'environnement.*
- *Code de l'aviation civile.*
- *Loi n° 61-775 du 19 juillet 1961 portant création du Centre National d'Études Spatiales (CNES).*
- *Décret n° 2009-644 du 9 juin 2009 relatif au registre national des objets spatiaux.*
- *Stratégie spatiale de défense (2019).*
- *Code de la défense – Titre V relatif au contrôle des matériels de guerre, armes et munitions.*
- *Décret n° 2024-625 du 28 juin 2024 modifiant les dispositions relatives aux autorisations d'opérations spatiales.*
- *Arrêté du 28 juin 2024 modifiant l'arrêté du 31 mars 2011 relatif à la réglementation technique.*
- *Arrêté du 28 juin 2024 modifiant l'arrêté du 23 février 2022 relatif à la composition des dossiers d'autorisation.*
- *Arrêté du 23 février 2022 relatif à la composition des trois parties du dossier mentionné à l'article 1er du décret n° 2009-643.*
- *Arrêté du 23 février 2022 modifiant l'arrêté du 31 mars 2011 relatif à la réglementation technique.*
- *Textes de loi – LOS (official documentation portal).*
- *Loi relative aux Opérations Spatiales – CNES project page.*
- *Guide des bonnes pratiques – LOS compliance.*
- *Outils LOS – compliance verification tools.*
- *Code de la recherche – CNES provisions (Articles R331-1 to R331-26).*
- *Code de la recherche – Article R331-10.*
- *Décret n° 2009-644 du 9 juin 2009 relatif au registre national des objets spatiaux.*
- *Arrêté du 12 août 2011 fixant les informations nécessaires à l'identification d'un objet spatial.*



- *Décret n° 2017-1619 du 27 novembre 2017 publishing the France–ESA agreement on the Guiana Space Centre.*
- *New agreements for next decade of launches at Europe's Spaceport (10 July 2025).*
- *Arrêté CNES/P n° 2010-1 du 9 décembre 2010 – Règlement de l'Exploitation des Installations du CSG (REI).*
- *Arrêté du 11 juillet 2022 modifiant l'arrêté CNES/P n° 2010-1 relatif au REI.*
- *REI-NG consultation page.*
- *REI-NG draft (15 July 2024).*
- *PPRT du Centre Spatial Guyanais.*
- *PPRT CSG – Arrêté d'approbation du 18 novembre 2013.*
- *PPRT CSG – Règlement approuvé.*
- *Protection du Centre Spatial Guyanais.*
- *ARCEP Decision n° 2013-1494 assigning frequencies to CNES.*
- *Code de l'environnement – ICPE framework (Articles L511-1, L512-1 and L181-10).*
- *Code de l'environnement – Article L515-15.*
- *Code de l'environnement – Article L411-2.*
- *Arrêté du 19 février 2007 on protected species derogation requests.*
- *Enquête publique Ariane 6 ELA4.*
- *DDAE ELA4 – Volume 1: Renseignements administratifs et description des installations.*
- *DDAE ELA4 – Volume 3.1: Étude de dangers.*
- *DDAE ELA4 – Volume 4: Notice hygiène et sécurité.*
- *EFF/BSB Ariane 6 public inquiry report and conclusions.*
- *ELM1 public inquiry – future multi-launcher launch complex.*
- *ELM-Kourou digital public inquiry register.*
- *CNCE ELM procedure record.*
- *Décret n° 2022-234 du 24 février 2022.*
- *Décret n° 2022-233 du 24 février 2022.*
- *Décret n° 2009-640 du 9 juin 2009.*
- *Arrêté du 13 décembre 2001 on dual-use goods and technology exports.*
- *Arrêté du 8 février 2024 modifying the 2001 dual-use export order.*



V. Germany

The completion of the Germany Jurisdiction Survey relied on 15 sources covering the legal, regulatory and policy framework, as well as related matters, applicable to space activities and, in particular, the establishment and operation of spaceports. The research encompassed proposed space legislation, legislation governing satellite data security, telecommunications, foreign trade and export controls, environmental protection, aviation, explosives, product safety, cybersecurity, and other regulatory areas relevant to space activities.

Sources consulted

- *Eckpunkte für ein Weltraumgesetz (WRG) / Key Points for a draft German Space Act.*
- *Verordnung zum Satellitendatensicherheitsgesetz (SatDSiV) / Ordinance on the Satellite Data Security Act.*
- *Satellitendatensicherheitsgesetz (SatDSiG) / Satellite Data Security Act.*
- *Telekommunikationsgesetz (TKG 2021) / Telecommunications Act.*
- *Außenwirtschaftsgesetz (AWG) / Foreign Trade and Payments Act.*
- *Außenwirtschaftsverordnung (AWV) / Foreign Trade and Payments Ordinance.*
- *Sicherheitsüberprüfungsgesetz (SÜG) / Security Clearance Act.*
- *Gesetz über die Umweltverträglichkeitsprüfung (UVP) / Environmental Impact Assessment Act.*
- *Luftverkehrsgesetz (LuftVG) / Air Traffic Act.*
- *Bundes-Immissionsschutzgesetz (BImSchG) / Federal Immission Control Act.*
- *Sprengstoffgesetz (SprengG) / Explosives Act.*
- *Produktsicherheitsgesetz (ProdSG) / Product Safety Act.*
- *NIS-2-Umsetzungs- und Cybersicherheitsstärkungsgesetz (NIS2UmsuCG) / NIS 2 Implementation Act.*
- *Eckpunkte für ein Weltraumgesetz (WRG) / Key Points for a German Space Act (updated legislative status following the February 2025 change of government).*
- *NIS-2-Umsetzungs- und Cybersicherheitsstärkungsgesetz (NIS2UmsuCG) / NIS 2 Implementation Act (transposition status as of June 2026).*



VI. India

The completion of the India Jurisdiction Survey relied on 16 sources covering the legal, regulatory and policy framework, as well as related matters, applicable to space activities and, in particular, the establishment and operation of spaceports. The research encompassed national space policy, draft space legislation, institutional and regulatory frameworks, satellite communications and remote sensing policies, and legislation governing foreign trade, environmental protection, telecommunications, wireless communications, aviation, weapons of mass destruction, and coastal regulation.

Sources consulted

- *Indian Space Policy 2023.*
- *Indian Space Activities Bill (draft).*
- *IN-SPACe (Indian National Space Promotion and Authorisation Centre) Establishment Order.*
- *Satellite Communication Policy 2000 (SatCom Policy).*
- *Remote Sensing Data Policy 2011 (RSDP 2011).*
- *Foreign Trade (Development and Regulation) Act 1992.*
- *Environment (Protection) Act 1986.*
- *Indian Telegraph Act 1885 (as amended).*
- *Indian Wireless Telegraphy Act 1933.*
- *Aircraft Act 1934.*
- *Weapons of Mass Destruction and their Delivery Systems (Prohibition of Unlawful Activities) Act 2005.*
- *Coastal Regulation Zone Notification 2019.*
- *Indian Telegraph Act 1885 — repealed by the Telecommunications Act, 2023 (No. 44 of 2023).*
- *Indian Wireless Telegraphy Act 1933 — repealed by the Telecommunications Act, 2023 (No. 44 of 2023).*
- *Satellite Communication Policy 2000 (SatCom Policy) — potentially superseded by the Indian Space Policy 2023.*
- *Remote Sensing Data Policy 2011 (RSDP 2011) — potentially superseded by the Indian Space Policy 2023.*



VII. Japan

The completion of the Japan Jurisdiction Survey relied on 24 national sources covering the legal and regulatory framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed the national legal, regulatory and institutional framework governing space activities, including the Cabinet Office, the National Space Policy Secretariat and the Japan Aerospace Exploration Agency (JAXA), the licensing of launches, launch sites and spacecraft operations, satellite remote sensing and space resources, space debris mitigation, civil aviation and airspace management, telecommunications and radio spectrum management, environmental protection and environmental impact assessment, cybersecurity, economic security, foreign investment screening and export controls, hazardous substances, occupational health and safety, maritime safety, national defence, as well as national space policy, technology strategy, cybersecurity guidance and the proposed amendments to the Space Activities Act.

Sources consulted

- *Basic Space Act (Act No. 43 of 2008) / 宇宙基本法.*
- *Act on Launching of Spacecraft, etc. and Control of Spacecraft (Act No. 76 of 2016) / 人工衛星等の打上げ及び人工衛星の管理に関する法律.*
- *Act on Ensuring Appropriate Handling of Satellite Remote Sensing Data (Act No. 77 of 2016) / 衛星リモートセンシング記録の適正な取扱いの確保に関する法律.*
- *Act on the Promotion of Business Activities for the Exploration and Development of Space Resources (Act No. 83 of 2021) / 宇宙資源の探査及び開発に関する事業活動の促進に関する法律.*
- *Act on the Japan Aerospace Exploration Agency (JAXA Act) (Act No. 161 of 2002) / 国立研究開発法人宇宙航空研究開発機構法.*
- *Bill for Partial Amendment of the Space Activities Act / 人工衛星等の打上げ及び人工衛星の管理に関する法律の一部を改正する法律案.*
- *Civil Aeronautics Act (Act No. 231 of 1952) / 航空法.*
- *Radio Act (Act No. 131 of 1950) / 電波法.*
- *Foreign Exchange and Foreign Trade Act (Act No. 228 of 1949) / 外国為替及び外国貿易法.*



- *Environmental Impact Assessment Act (Act No. 81 of 1997)* / 環境影響評価法.
- *Fire Service Act* / 消防法.
- *Explosives Control Act* / 火薬類取締法.
- *Industrial Safety and Health Act (Act No. 57 of 1972)* / 労働安全衛生法.
- *Port and Harbor Act* / 港湾法.
- *Act on Maritime Traffic Safety* / 海上交通安全法.
- *Economic Security Promotion Act (Act No. 43 of 2022)* / 経済安全保障推進法.
- *Basic Plan on Space Policy (4th edition, 2023)* / 宇宙基本計画.
- *Guidelines for Cybersecurity Measures for Civil Space Systems Ver. 2.0* / 民間宇宙システムにおけるサイバーセキュリティ対策ガイドライン Ver.2.0.
- *Guidebook on Space Debris Reduction under the Space Activities Act* / 宇宙活動法に基づくスペースデブリ低減ガイドブック.
- *Space Domain Defence Guidelines (2025)* / 宇宙領域防衛ガイドライン.
- *Guidelines on a Licence to Operate a Spacecraft Performing On-Orbit Servicing* / 軌道上サービスに係る人工衛星管理許可に関するガイドライン.
- *Space Technology Strategy (2024)* / 宇宙技術戦略.
- *Basic Act on Cybersecurity* / サイバーセキュリティ基本法.
- *National Security Strategy (2022)* / 国家安全保障戦略.

VIII. New Zealand

The completion of the New Zealand Jurisdiction Survey relied on 13 sources covering the legal, regulatory and policy framework, as well as related matters, applicable to space activities and, in particular, the establishment and operation of spaceports. The research encompassed space-specific legislation, government policy, implementing regulations, international agreements, and legislation governing related areas, including radiocommunications, civil aviation, environmental management, hazardous substances, occupational health and safety, and maritime transport.

Sources consulted

- *Outer Space and High-altitude Activities (Amendment) Act 2023.*
- *National Space Policy (May 2023).*



- *Outer Space and High-altitude Activities (Licences and Permits) Regulations 2017.*
- *Outer Space and High-altitude Activities (Definition of High-altitude Vehicle) Regulations 2017.*
- *Outer Space and High-altitude Activities Act 2017.*
- *New Zealand–United States Technology Safeguards Agreement.*
- *Radiocommunications Act 1989.*
- *Civil Aviation Act 1990.*
- *Resource Management Act 1991.*
- *Hazardous Substances and New Organisms Act 1996.*
- *Outer Space and High-altitude Activities Act 2017 – Amendment (2025) introducing the Ground-Based Space Infrastructure (GBSI) authorisation regime.*
- *WorkSafe New Zealand Act 2013.*
- *Maritime Transport Act 1994.*

IX. Norway

The completion of the Norway Jurisdiction Survey relied on 14 sources covering the legal, regulatory and policy framework, as well as related matters, applicable to space activities and, in particular, the establishment and operation of spaceports. The research encompassed proposed space legislation, international agreements, regulations governing satellite ground stations, and legislation addressing related areas, including digital and national security, electronic communications, aviation, environmental protection, export controls, explosive substances, and the legal regime applicable to Svalbard.

Sources consulted

- *Forslag til ny lov om romvirksomhet (Proposed Act on Space Activities).*
- *Technology Safeguards Agreement (TSA) Norway–United States (Teknologisikkerhetsavtale Norge–USA).*
- *Forskrift om jordstasjoner for satellitter på Svalbard (Regulations on Earth Stations for Satellites in Svalbard).*
- *Forskrift om jordstasjoner for satellitter i Antarktis (Regulations on Earth Stations for Satellites in Antarctica).*



- *Lov om utskyting av gjenstander fra norsk territorium m.m. ut i verdensrommet (Act on Launching Objects from Norwegian Territory etc. into Outer Space).*
- *Lov om digital sikkerhet (Digital Security Act).*
- *Lov om nasjonal sikkerhet (National Security Act).*
- *Lov om elektronisk kommunikasjon (Electronic Communications Act).*
- *Lov om luftfart (Aviation Act).*
- *Lov om vern mot forurensninger og om avfall (Pollution Control Act).*
- *Lov om kontroll med eksport av strategiske varer, tjenester og teknologi m.v. (Export Control Act).*
- *Svalbardtraktaten (Svalbard Treaty).*
- *Lov om eksplosjonsfarlige stoffer (Act on Explosive Substances).*
- *Forslag til ny lov om romvirksomhet (Proposed Act on Space Activities)* — legislative update reflecting its first reading in the Storting and pending second reading (not yet adopted as of June 2026).

X. Portugal

The completion of the Portugal Jurisdiction Survey relied on 11 sources covering the legal, regulatory and policy framework, as well as related matters, applicable to space activities and, in particular, the establishment and operation of spaceports. The research encompassed national and regional space legislation, government strategies, implementing regulations, administrative instruments, and legislation governing related areas, including electronic communications, environmental protection, aviation, foreign trade and export controls, and national security.

Sources consulted

- *Estratégia Portugal Espaço 2030 (Portuguese 2030 Space Strategy)*, adopted by *Resolução do Conselho de Ministros n.º 30/2018*.
- *Decreto-Lei n.º 16/2019, de 22 de janeiro (Portuguese National Space Act)*, as amended by *Decreto-Lei n.º 20/2024, de 2 de fevereiro*.
- *Decreto Legislativo Regional n.º 9/2019/A, de 9 de maio (Azores Regional Space Act)*.



- *Regulamento da ANACOM n.º 697/2019, de 5 de setembro, as amended by Regulamento n.º 1206-A/2024.*
- *Portaria n.º 279/2023, de 11 de setembro.*
- *Despacho n.º 3732/2020, creating the National Defence Space Program Working Group.*
- *Lei n.º 16/2022, de 16 de agosto (Electronic Communications Law).*
- *Lei de Bases da Política de Ambiente, together with Decreto-Lei n.º 151-B/2013, de 31 de outubro (Environmental Impact Assessment).*
- *Código Aeronáutico.*
- *Lei do Comércio Externo (Foreign Trade Act) and the applicable export control regulations.*
- *Lei n.º 37/2011, de 22 de junho, as implemented by Decreto-Lei n.º 130/2015, de 9 de julho.*

XI. Oman

The completion of the Oman Jurisdiction Survey relied on 11 sources covering the legal, regulatory and policy framework, as well as related matters, applicable to space activities and, in particular, the establishment and operation of spaceports. The research encompassed national space policy and capacity-building programmes, spaceport development initiatives, national economic strategy, and legislation governing related areas, including foreign investment, special economic zones, civil aviation, telecommunications, environmental protection, and the use of airspace for launch vehicle activities.

Sources consulted

- *National Capacity-Building Program in the Space Sector (2024–2027).*
- *National Space Policy and Executive Program (2023–2033).*
- *Duqm Spaceport Development Project, including the Duqm-1 and Duqm-2 missions.*
- *Oman Vision 2040.*
- *Foreign Capital Investment Law, issued by Royal Decree No. 50/2019.*



- *Special Economic Zone at Duqm (SEZAD) Law*, issued by Royal Decree No. 119/2011, as amended.
- *Civil Aviation Law*, issued by Royal Decree No. 93/2004.
- *Royal Decree No. 30/2002 on Telecommunications*, as amended.
- *Environmental Protection Law*, issued by Royal Decree No. 114/2001.
- *Royal Decree on the Telecommunications Regulatory Authority (TRA)*, as amended.
- *CAD-5 Airspace Usage for Launch Vehicle Activities*.

XII. Republic of Korea

The completion of the Republic of Korea Jurisdiction Survey relied on 12 sources covering the legal, regulatory and policy framework, as well as related matters, applicable to space activities and, in particular, the establishment and operation of spaceports. The research encompassed national space policy, proposed and enacted space legislation, institutional reforms, strategic planning, and legislation governing related areas, including aerospace development, radio communications, telecommunications, aviation, foreign trade, and space debris mitigation.

Sources consulted

- *National Space Exploration Roadmap (2025)*.
- *Proposed Amendment to the Space Development Promotion Act* (MSIT, 2024).
- *Korea AeroSpace Administration (KASA) Establishment Act* (Act No. 20144).
- *4th Basic Plan for Space Development (2023–2027)*.
- *Space Damage Compensation Act* (Law No. 8714).
- *Space Development Promotion Act* (Law No. 7538).
- *Aerospace Industry Development Promotion Act*.
- *Radio Waves Act*.
- *Telecommunications Business Act*.
- *Aviation Safety Act*.
- *Foreign Trade Act*.
- *Draft Recommendations on the Development and Operation of Spacecraft to Reduce Space Debris (2020)*.



XIII. Russian Federation

The completion of the Russian Federation Jurisdiction Survey relied on 16 sources covering the legal, regulatory and policy framework, as well as related matters, applicable to space activities and, in particular, the establishment and operation of spaceports. The research encompassed national space legislation, institutional and strategic policy documents, licensing regulations, and legislation governing related areas, including communications, aviation, export controls, environmental protection, and the licensing of regulated activities. The research also considered official guidance and publicly available information concerning the licensing framework for space activities and recent developments relating to commercial spaceport infrastructure.

Sources consulted

- *Federal Law No. 215-FZ "On the State Space Corporation 'Roscosmos'".*
- *Federal Law No. 216-FZ "On Amendments to Certain Legislative Acts Following Adoption of the Roscosmos Law".*
- *Fundamentals of Russian Federation State Policy in the Field of Space Activities (to 2030 and beyond).*
- *Law of the Russian Federation "On Space Activities" (No. 5663-I).*
- *Federal Space Program of Russia.*
- *Federal Law on Communications.*
- *Air Code of the Russian Federation.*
- *Federal Law on Export Control.*
- *Federal Law on Environmental Protection.*
- *Federal Law on Licensing of Certain Types of Activities.*
- *Resolution of the Government of the Russian Federation No. 168 of 14 February 2022 (as amended on 29 January 2026), approving the Regulation on the Licensing of Space Activities.*
- *Licensing of Space Activities: When Permission is Required.*
- *License for Space Activities.*
- *Resolution of the Government of the Russian Federation No. 298 of 18 March 2020.*
- *Russia's First Private Spaceport, Primorsky (Space Energy) – RIA News, 10 May 2026.*
- *Licensing Algorithm in the Field of Space Activities.*



XIV. South Africa

The completion of the South Africa Jurisdiction Survey relied on 17 sources covering the legal, regulatory and policy framework, as well as related matters, applicable to space activities and, in particular, the establishment and operation of spaceports. The research encompassed national space policy and legislation, proposed regulatory reforms, regional policy frameworks, and legislation governing related areas, including electronic communications, civil aviation, environmental protection, biodiversity, customs, cybersecurity, data protection, and the control of weapons of mass destruction and conventional arms.

Sources consulted

- *National Space Strategy.*
- *Cybercrimes Act 2020.*
- *Protection of Personal Information Act, 2013.*
- *National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004).*
- *Customs and Excise Act.*
- *South African Space Industry Regulatory Bill.*
- *African Union Agenda 2063.*
- *South African National Space Agency Act (Act No. 36 of 2008).*
- *National Space Policy 2008.*
- *Astronomy Geographic Advantage Act (Act No. 21 of 2007).*
- *Space Affairs Amendment Act 1995.*
- *Space Affairs Act (Act No. 84 of 1993).*
- *Electronic Communications Act (Act No. 36 of 2005).*
- *National Environmental Management Act (Act No. 107 of 1998).*
- *Civil Aviation Act (Act No. 13 of 2009).*
- *Non-Proliferation of Weapons of Mass Destruction Act (Act No. 87 of 1993).*
- *National Conventional Arms Control Act (Act No. 41 of 2002).*



XV. Sweden

The completion of the Sweden Jurisdiction Survey relied on 10 sources covering the legal, regulatory and policy framework, as well as related matters, applicable to space activities and, in particular, the establishment and operation of spaceports. The research encompassed national and European space policy, proposed and enacted space legislation, government strategies, and legislation governing related areas, including protective security, aviation, electronic communications, and environmental protection.

Sources consulted

- *Sweden's Defence and Security Strategy for Space (2024).*
- *Proposed new Space Act (SOU 2021:91).*
- *A Strategy for Swedish Space Activities (Government Communication 2017/18:259).*
- *Decree on Space Activities (1982:1069).*
- *Act on Space Activities (1982:963).*
- *Protective Security Act (2018:585).*
- *Aviation Act (2010:500).*
- *Electronic Communications Act (2003:389).*
- *Environmental Code (1998:808).*
- *Electronic Communications Act (2022:482), replacing the Electronic Communications Act (2003:389).*

XVI. United Kingdom

The completion of the United Kingdom Jurisdiction Survey relied on 89 sources covering the legal, regulatory and policy framework, as well as related matters, applicable to space activities and, in particular, the establishment, licensing and operation of spaceports. The research encompassed national space legislation and regulations, regulatory guidance issued principally by the Civil Aviation Authority, licensing and safety requirements, environmental assessment, security, cybersecurity, insurance and liability, accident investigation, airspace and marine licensing, hazardous substances and explosives, communications and spectrum management, export controls, technical standards, planning and construction requirements,



and environmental and nature conservation frameworks applicable throughout the United Kingdom and, in particular, Scotland.

Sources consulted

- *Outer Space Act 1986.*
- *Space Industry Act 2018.*
- *Space Industry Regulations 2021.*
- *Spaceflight Activities (Investigation of Spaceflight Accidents) Regulations 2021.*
- *Space Industry (Appeals) Regulations 2021.*
- *Air Navigation Order 2016, section 96.*
- *Launching or Returning a Rocket or Space Plane: Rules and Regulations.*
- *Space Licensing in the UK.*
- *CAP3227: Spaceflight Regulatory Objectives.*
- *CAP2221: Regulator's Licensing Rules.*
- *CAP2220: Principles and Guidelines for the Spaceflight Regulator in Assessing ALARP and Acceptable Risk.*
- *CAP2224: Guidance on Applying for a Licence under the Outer Space Act 1986.*
- *CAP2209: Applying for a Licence under the Space Industry Act 2018.*
- *CAP2213: Guidance for Launch Operator and Return Operator Licence Applicants and Licensees.*
- *CAP2212: Guidance for Spaceport Licence Applicants and Licensees.*
- *CAP2211: Guidance for Range Control Licence Applicants and Licensees.*
- *Guidance to the Regulator on Environmental Objectives Relating to the Exercise of Its Functions under the Space Industry Act 2018.*
- *CAP2215: Guidance for the Assessment of Environmental Effects.*
- *CAP2381: Appendix C, Block A – Initial Screening Checklist.*
- *CAP2352: Guidance for the Public Consultation Approach for the Assessment of Environmental Effects.*
- *CAP2991: Guidance for the Space Industry Act 2018 on the Civil Aviation Authority's Environmental Review Principles.*
- *CAP2217: Guidance on Security Matters for Applicants and Licensees.*
- *CAP2535: Guidance on Cyber Security Strategies for Applicants and Licensees.*



- *CAP2259A: Launch Operator Safety Case Licensing Statement.*
- *CAP2259B: Safety Operations Manual Licensing Statement.*
- *CAP2259C: Training Manual Licensing Statement.*
- *CAP2214: Working with the Regulator as a Licensee under the Space Industry Act 2018.*
- *Space Industry (Indemnities) Act 2025.*
- *CAP2218: Guidance on Insurance Requirements and Liabilities under the Space Industry Act 2018.*
- *CAP2216: Guidance on Appealing Decisions Made under the Space Industry Act 2018 and the Outer Space Act 1986.*
- *CAP2210: Guidance for Orbital Operator Licence Applicants and Licensees.*
- *CAP2219: Guidance on the Investigation of Spaceflight Accidents.*
- *CAP2194: Guidance to Applicants on Large Rocket Launch Permissions under the Air Navigation Order.*
- *Notifications for Smaller Rockets.*
- *Launch Collision Avoidance Analysis (LCOLA).*
- *Make a Marine Licence Application.*
- *Scottish Marine Licensing Authority.*
- *English Marine Licensing Authority.*
- *Marine Licence Application – Rocket Launch – Saxa Vord Spaceport, Shetland – 00009681.*
- *Managing Risks and Risk Assessment at Work.*
- *Hazardous Substance Consent.*
- *Understanding COMAH.*
- *Control of Major Accident Hazards (COMAH).*
- *Guidance on ALARP Decisions in COMAH.*
- *Understanding Explosives.*
- *Explosives Regulations 2014.*
- *Explosives Law and Enforcement.*
- *Civil Aviation Act 2012.*
- *Communications Act 2003.*
- *Spectrum Statement – Policy Paper.*



- *Space Spectrum Strategy.*
- *Procedures for the Management of Satellite Filings.*
- *Export Control Act 2002.*
- *BSI Flex 1969: Space Sustainability – Overarching Principles and Framework.*
- *BSI Flex 1971 v2.0: Space Sustainability – Launch – Code of Practice.*
- *Environmental Protection Act 1990.*
- *Building Regulations.*
- *Historic Environment.*
- *Town and Country Planning (Scotland) Act 1997.*
- *Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017.*
- *Marine (Scotland) Act 2010.*
- *Marine and Coastal Access Act 2009.*
- *Marine Strategy Framework Directive.*
- *Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2017.*
- *OSPAR Convention.*
- *Scotland's National Marine Plan.*
- *Water Environment (Controlled Activities) (Scotland) Amendment Regulations 2021.*
- *Water Environment and Water Services (Scotland) Act 2003.*
- *Water Framework Directive.*
- *Flood Risk Management (Scotland) Act 2009.*
- *Air Quality (Scotland) Amendment Regulations 2016.*
- *Directive 2008/50/EC on Ambient Air Quality and Cleaner Air for Europe.*
- *Waste Framework Directive.*
- *Conservation (Natural Habitats, &c.) Regulations 1994.*
- *Transport Act 2000.*
- *Land Reform (Scotland) Act 2003.*
- *Safeguarding Aerodromes, Technical Sites and Military Explosives Storage Areas.*
- *Scottish Planning Policy.*
- *Planning Advice Note 1/2013: Environmental Impact Assessment.*
- *Planning, Environmental Protection and Regulation.*



- *Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora.*
- *Wildlife and Countryside Act 1981.*
- *Conservation (Natural Habitats, &c.) Regulations 1994.*
- *Nature Conservation (Scotland) Act 2004.*
- *Wildlife and Natural Environment (Scotland) Act 2011.*
- *Climate Change Act 2008.*
- *Climate Change (Emissions Reduction Targets) (Scotland) Act 2019.*
- *Spaceport 1 Planning Application.*
- *Space Industry Act 2018, as amended by the Space Industry (Indemnities) Act 2025.*

XVII. United States of America

The completion of the United States of America Jurisdiction Survey relied on 15 sources covering the legal, regulatory and policy framework, as well as related matters, applicable to space activities and, in particular, the establishment and operation of spaceports. The research encompassed national space legislation, executive policy, federal regulations governing commercial space transportation, satellite communications and remote sensing, export controls, environmental protection, and proposed legislation relating to orbital sustainability.

Sources consulted

- *Executive Order on Enabling Competition in the Commercial Space Industry.*
- *51 U.S. Code — National and Commercial Space Programs (Title 51).*
- *U.S. Commercial Space Launch Competitiveness Act (2015).*
- *14 CFR Chapter III — Commercial Space Transportation (FAA Regulations).*
- *47 CFR Part 25 — Satellite Communications (FCC Regulations).*
- *15 CFR Part 960 — Licensing of Private Remote Sensing Space Systems (NOAA Regulations).*
- *National Aeronautics and Space Act, as amended.*
- *International Traffic in Arms Regulations (ITAR) (22 CFR Parts 120–130).*
- *National Environmental Policy Act (NEPA) (42 U.S.C. § 4321 et seq.).*
- *Export Administration Regulations (EAR) (15 CFR Parts 730–774).*



- *Orbital Sustainability (ORBITS) Act of 2025.*
- *Executive Order on Enabling Competition in the Commercial Space Industry – implementation update.*
- *14 CFR Chapter III – Commercial Space Transportation (FAA Regulations) – regulatory updates.*
- *47 CFR Part 25 – Satellite Communications (FCC Regulations) – regulatory updates.*
- *Export Controls – ITAR (22 CFR Parts 120–130) and EAR (15 CFR Parts 730–774), including the 2024 modernisation of the EAR.*

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XVIII. Argentina

The completion of the Argentina Jurisdiction Survey relied on 28 sources covering the legal, regulatory and policy framework, as well as related matters, applicable to space activities and, in particular, the establishment and operation of spaceports. The research encompassed national space legislation, presidential decrees establishing the institutional framework for space activities, national space strategies and plans, legislation governing telecommunications, environmental protection, aviation, defence, nuclear activities, customs and export controls, as well as relevant international space law instruments applicable in Argentina.

Sources consulted

- *Decree No. 50/2019 (as subsequently amended).*
- *Decreto Nacional No. 995/1991 (National Decree No. 995/1991, 28 May 1991).*
- *Decreto PEN No. 2076/1994 (PEN Decree No. 2076/1994).*
- *Decreto PEN No. 1330/1999 (PEN Decree No. 1330/1999).*
- *Decreto PEN No. 125/1995 (PEN Decree No. 125/1995).*
- *Decreto PEN No. 532/2005 (PEN Decree No. 532/2005).*
- *Ley No. 24.158 (Law No. 24.158).*
- *Ley No. 26.092 (Law No. 26.092).*
- *Ley No. 27.208 (Law No. 27.208, 2015).*
- *Resolución No. 252/1996 CONAE (CONAE Resolution No. 252/1996).*



- *Resolución No. 260/1999 CONAE (CONAE Resolution No. 260/1999).*
- *Ley No. 27.078 (Law No. 27.078, 2014).*
- *Decreto de Necesidad y Urgencia No. 267/2015 (DNU Decree No. 267/2015, 2015).*
- *Ley No. 25.675 (Law No. 25.675, 2002).*
- *Código Aeronáutico (Ley No. 17.285) (Aeronautics Code, Law No. 17.285, 1967).*
- *Ley No. 23.554 (Law No. 23.554, 1988).*
- *Ley No. 24.804 (Law No. 24.804, 1997).*
- *Ley No. 19.549 (Law No. 19.549, 1972).*
- *Ley No. 24.449 (Law No. 24.449, 1995).*
- *Plan Espacial Nacional 2016–2027 (National Space Plan 2016–2027).*
- *Plan Satelital Geoestacionario Argentino 2015–2035 (Argentine Geostationary Satellite Plan 2015–2035).*
- *Ley de la Navegación (Law No. 20.094) (Navigation Law, Law No. 20.094, 1973).*
- *Ley No. 24.051 (Law No. 24.051, 1992).*
- *Ley No. 25.612 (Law No. 25.612, 2002).*
- *Ley No. 24.948 (Law No. 24.948, 1998).*
- *Ley de Inversiones Extranjeras (Law No. 21.382) (Foreign Investment Law, Law No. 21.382, 1993).*
- *Decreto No. 603/1992 (Decree No. 603/1992).*
- *Código Aduanero (Law No. 22.415) (Customs Code, Law No. 22.415).*

XIX. Austria

The completion of the Austria Jurisdiction Survey relied on 21 sources covering the legal, regulatory and policy framework, as well as related matters, applicable to space activities and, in particular, the establishment and operation of spaceports. The research encompassed primary legislation, implementing regulations, national strategies, and other relevant statutory instruments governing areas including aviation, cybersecurity, environmental protection, occupational safety, defence, foreign investment, export control, telecommunications, and customs.

Sources consulted



- *Bundesministeriengesetz-Novelle 2025 (Federal Ministries Act Amendment 2025), BGBl. I Nr. 10/2025.*
- *Bundesgesetz über die Genehmigung von Weltraumaktivitäten und die Einrichtung eines Weltraumregisters (Weltraumgesetz) (Federal Law on the Authorisation of Space Activities and the Establishment of a National Space Registry (Austrian Outer Space Act)), BGBl. I Nr. 132/2011.*
- *Verordnung des Bundesministers für Verkehr, Innovation und Technologie zur Durchführung des Bundesgesetzes über die Genehmigung von Weltraumaktivitäten und die Einrichtung eines Weltraumregisters (Weltraumverordnung) (Regulation of the Federal Minister for Transport, Innovation and Technology in Implementation of the Federal Law on the Authorisation of Space Activities and the Establishment of a National Space Registry (Outer Space Regulation)), BGBl. II Nr. 36/2015.*
- *Österreichische Weltraumstrategie 2030+ (Austrian Space Strategy 2030+).*
- *Militärische Weltraumstrategie 2035+ (Military Space Strategy 2035+).*
- *Datenschutz-Anpassungsgesetz 2018 (Data Protection Adaptation Act 2018), BGBl. I Nr. 37/2018.*
- *Luftfahrtgesetz (Aviation Act), BGBl. Nr. 253/1957*
- *Netz- und Informationssystemsicherheitsgesetz 2024 (NISG 2024) / Network and Information Systems Security Act 2024*
- *Bundesgesetz über die Sicherheitsuntersuchung von Unfällen und Störungen (Safety Investigation Act), BGBl. I Nr. 40/2005.*
- *ArbeitnehmerInnenschutzgesetz (Employee Protection Act).*
- *Umwelthaftungsgesetz (Environmental Liability Act).*
- *Umweltverträglichkeitsprüfungsgesetz 2000 (Environmental Impact Assessment Act 2000), BGBl. Nr. 697/1993 as amended (consolidated: BGBl. I Nr. 80/2018).*
- *Chemikaliengesetz 1996 (Chemicals Act).*
- *Gewerbeordnung 1994 (Trade Act).*
- *Wehrgesetz 2001 (Defence Act 2001), BGBl. I Nr. 146/2001.*
- *Militärbefugnisgesetz (Military Powers Act), BGBl. I Nr. 86/2000.*
- *Sicherheitspolizeigesetz (Security Police Act).*
- *Investitionskontrollgesetz (Investment Control Act), BGBl. I Nr. 87/2020.*



- *Aussenwirtschaftsgesetz 2011 (Foreign Trade Act 2011), BGBl. I Nr. 26/2011.*
- *Kriegsmaterialgesetz (War Material Act), BGBl. Nr. 540/1977.*
- *Telekommunikationsgesetz 2021 (Telecommunications Act 2021), BGBl. I Nr. 190/2021.*
- *Zollrechts-Durchführungsgesetz (Customs Law Implementation Act).*

XX. Azerbaijan

The completion of the Azerbaijan Jurisdiction Survey relied on 23 sources covering the legal, regulatory and policy framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed dedicated space legislation, implementing measures, national space policies and programmes, and general legislation governing aviation, environmental protection, telecommunications, information security, export control, technical safety, land use, customs and national security.

Sources consulted

- *Law of the Republic of Azerbaijan "On Space Activities" (Azerbaycan Respublikasının "Kosmik fealiyyet haqqında" Qanunu), No. 927-VIQ, dated 24 June 2023.*
- *Presidential Decree No. 2291 of 4 August 2023 "On the application of the Law 'On Space Activities' No. 927-VIQ dated 24 June 2023".*
- *Presidential Decree No. 1326 of 27 April 2021 "On the establishment of the Space Agency of the Republic of Azerbaijan (Azercosmos)".*
- *Law No. 603-IVQ of 19 April 2013 on accession to the Outer Space Treaty*
- *Charter of the Space Agency of the Republic of Azerbaijan (Azercosmos), adopted by Decision No. 54 of the Cabinet of Ministers of the Republic of Azerbaijan dated 26 February 2022.*
- *Presidential Decree No. 885 of 3 May 2010 "On Establishing 'Azercosmos' Open Joint-Stock Company".*
- *Presidential Order No. 443 of 17 August 2009 "State Programme on the Establishment and Development of the Space Industry in the Republic of Azerbaijan".*
- *Presidential Decree approving the State Program for the Development of Remote Surveillance Services of the Earth of the Republic of Azerbaijan for 2019–2022.*



- *Law of the Republic of Azerbaijan "On Accession to the Convention Establishing the European Telecommunications Satellite Organization (EUTELSAT)" (with amendments).*
- *Law of the Republic of Azerbaijan "On Accession to the Agreement on the Establishment of the 'INTERSPUTNIK' International System and Organization of Space Communications".*
- *Law of the Republic of Azerbaijan "On Telecommunications", No. 927-IIG, dated 14 June 2005.*
- *Law of the Republic of Azerbaijan "On Environmental Protection", No. 678-IQ, dated 8 June 1999.*
- *Law of the Republic of Azerbaijan "On Aviation".*
- *Law of the Republic of Azerbaijan "On Technical Safety", No. 733-IQ, dated 2 November 1999.*
- *Law of the Republic of Azerbaijan "On Information, Informatization and Protection of Information".*
- *Law of the Republic of Azerbaijan "On Export Control".*
- *Law of the Republic of Azerbaijan "On Environmental Impact Assessment".*
- *Law of the Republic of Azerbaijan "On Approval of the Radiocommunication Regulations", as updated by Law No. 506-VIQ of 15 April 2022.*
- *Merchant Shipping Code of the Republic of Azerbaijan.*
- *Law on Defence.*
- *Law on National Security.*
- *Law on State Secrets.*
- *Code of the Republic of Azerbaijan.*

XXI. Algeria

The completion of the Algeria Jurisdiction Survey relied on 19 sources covering the legal, regulatory and policy framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed dedicated space



legislation, implementing measures, institutional legislation, national space policy, and general legislation governing environmental protection, civil aviation, telecommunications, competition, electronic communications, finance, criminal law, customs, investment and national defence.

Sources consulted

- *Law No. 19-06 of 17 July 2019 on Space Activities (Loi n° 19-06 du 17 juillet 2019 relative aux activités spatiales).*
- *Presidential Decree No. 02-48 of 16 January 2002, as amended, on the establishment, organisation and functioning of the Algerian Space Agency (Décret présidentiel n° 02-48 du 16 janvier 2002 portant création, organisation et fonctionnement de l'Agence spatiale algérienne).*
- *National Space Programme (Programme Spatial National – PSN), adopted on 28 November 2006.*
- *Law No. 03-10 of 19 July 2003 on Environmental Protection in the Framework of Sustainable Development (Loi n° 03-10 du 19 juillet 2003 relative à la protection de l'environnement dans le cadre du développement durable).*
- *Law No. 98-06 of 27 June 1998 setting the general rules relating to civil aviation (Loi n° 98-06 du 27 juin 1998 fixant les règles générales relatives à l'aviation civile), as amended.*
- *Law No. 18-04 of 10 May 2018 laying down the general rules relating to post and electronic communications.*
- *Law No. 20-05 of 28 April 2020 on the Prevention and Fight against Discrimination and Hate Speech (Loi n° 20-05 du 28 avril 2020).*
- *Ordinance No. 03-03 of 19 July 2003 on Competition (Ordonnance n° 03-03 du 19 juillet 2003 relative à la concurrence), as amended.*
- *Law No. 15-04 of 1 February 2015 on Electronic Signature and Certification (Loi n° 15-04 du 1er février 2015).*
- *Ordinance No. 03-11 of 26 August 2003 on Money and Credit (Ordonnance n° 03-11 du 26 août 2003 relative à la monnaie et au crédit), as amended.*
- *Law No. 14-01 of 24 February 2014 amending the Penal Code (Loi n° 14-01 du 24 février 2014).*



- *Customs Code (Code des Douanes).*
- *Law No. 22-18 of 24 July 2022 on Investment (Loi n° 22-18 du 24 juillet 2022 relative à l'investissement).*
- *Law No. 14-06 of 9 August 2014 on National Service (Loi n° 14-06 du 9 août 2014 relative au service national).*
- *Constitution of the People's Democratic Republic of Algeria (2020 Revision).*
- *Law No. 09-04 of 5 August 2009 on the Prevention and Fight against Cybercrime (Loi n° 09-04 du 5 août 2009 portant règles particulières relatives à la prévention et à la lutte contre les infractions liées aux technologies de l'information et de la communication).*
- *Ordonnance No. 76-80 of 23 October 1976 establishing the Maritime Code (Code Maritime), as amended.*
- *Law No. 2000-03 of 5 August 2000 on Post and Telecommunications (Loi n° 2000-03 du 5 août 2000 fixant les règles générales relatives à la poste et aux télécommunications), as amended.*
- *Decree No. 07-145 of 19 May 2007 on Environmental Impact Assessment (implementing the environmental assessment regime), referido na secção Environmental Law / Hazardous Materials.*

XXII. Belgium

The completion of the Belgium Jurisdiction Survey relied on 15 sources covering the legal, regulatory and policy framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed dedicated space legislation, implementing measures, national strategies, and general legislation governing cybersecurity, electronic communications, economic regulation, critical infrastructure, environmental protection, civil aviation, maritime affairs, foreign investment screening, export controls, national security and defence.

Sources consulted



- *Law of 17 September 2005 on the Activities of Launching, Flight Operation or Guidance of Space Objects (Loi du 17 septembre 2005 relative aux activités de lancement, d'opération de vol ou de guidage d'objets spatiaux), as revised by the Law of 1 December 2013.*
- *Royal Decree of 15 March 2022 implementing certain provisions of the Law of 17 September 2005 (Arrêté royal du 15 mars 2022 portant exécution de certaines dispositions de la loi du 17 septembre 2005).*
- *Belgian Space Strategy (Stratégie spatiale belge).*
- *National Security Strategy (2022).*
- *Law of 18 April 2024 establishing a framework for the cybersecurity of network and information systems of general interest for public security (Wet van 18 april 2024 / Loi du 18 avril 2024).*
- *Law of 21 November 2017 on Critical Infrastructures (Loi du 21 novembre 2017 relative aux infrastructures critiques).*
- *Code of Economic Law, Book XI (Code du droit économique, Livre XI / Wetboek van economisch recht, Boek XI).*
- *Law of 13 June 2005 on Electronic Communications (Loi du 13 juin 2005 relative aux communications électroniques).*
- *Federal Law of 13 February 2006 on the assessment of the effects of certain plans and programmes on the environment and public participation (Loi du 13 février 2006 relative à l'évaluation des incidences de certains plans et programmes sur l'environnement et à la participation du public dans l'élaboration de plans et programmes relatifs à l'environnement).*
- *Cooperation Agreement of 30 November 2022 establishing the Belgian FDI Screening Mechanism.*
- *Law of 5 August 1991 on import, export and transit of arms, munitions and military-use materials and related technology (Loi du 5 août 1991 relative à l'importation, à l'exportation et au transit d'armes, de munitions et de matériel devant servir spécialement à un usage militaire ou de maintien de l'ordre et de la technologie y afférente), as amended.*



- *Law on Civil Aviation of 27 June 1937 (Loi relative à la navigation aérienne), as amended.*
- *Belgian Shipping Code (Belgisch Scheepvaartwetboek / Code belge de la navigation), in force since 1 November 2020.*
- *Organic Law of 30 November 1998 on the Intelligence and Security Services (Loi du 30 novembre 1998 organique des services de renseignement et de sécurité).*
- *Belgian Criminal Code (Code pénal / Strafwetboek).*

XXIII. Belarus

The completion of the Belarus Jurisdiction Survey relied on 16 sources covering the legal, regulatory and policy framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed dedicated space legislation, presidential decrees, national space programmes, environmental and aviation legislation, telecommunications, information security, cybersecurity, customs, foreign trade, investment, defence, and international space law instruments applicable to Belarus.

Sources consulted

- *Decree of the President of the Republic of Belarus No. 609 of 22 December 2004 "On the Implementation of the State Policy of the Republic of Belarus in the Field of Exploration and Peaceful Uses of Outer Space".*
- *Presidential Decree on the implementation of the Belarusian-Russian project for the development of the Belarusian space system for remote sensing of Earth (2024–2028).*
- *Resolution No. 1517 of the Council of Ministers of the Republic of Belarus of 14 October 2008 "On the National Programme for Research and Use of Space for Peaceful Purposes".*
- *Law of the Republic of Belarus No. 1982-XII of 26 November 1992 "On Environmental Protection" (Закон Республики Беларусь "Об охране окружающей среды"), as amended.*
- *Air Code of the Republic of Belarus, Law No. 117-Z of 16 May 2006 (Воздушный кодекс Республики Беларусь).*
- *Law of the Republic of Belarus No. 399-Z of 18 July 2016 "On State Environmental Expertise, Strategic Environmental Assessment and Environmental Impact*



Assessment" (Закон Республики Беларусь "О государственной экологической экспертизе, стратегической экологической оценке и оценке воздействия на окружающую среду").

- *Law of the Republic of Belarus No. 2-Z of 16 December 2008 "On Atmospheric Air Protection" (Закон Республики Беларусь "Об охране атмосферного воздуха"), as amended.*
- *Law of the Republic of Belarus No. 45-Z of 19 July 2005 "On Telecommunications" (Закон Республики Беларусь "Об электросвязи").*
- *Law of the Republic of Belarus No. 455-Z of 10 November 2008 "On Information, Informatization and Protection of Information" (Закон Республики Беларусь "Об информации, информатизации и защите информации"), as amended.*
- *Decree of the President of the Republic of Belarus No. 40 of 14 February 2023 "On Cyber Security" (Указ Президента Республики Беларусь № 40 "О кибербезопасности").*
- *Law of the Republic of Belarus No. 347-Z of 25 November 2004 "On State Regulation of Foreign Trade Activities" (Закон Республики Беларусь "О государственном регулировании внешнеторговой деятельности").*
- *Law of the Republic of Belarus "On Investments" (Закон Республики Беларусь "Об инвестициях"), as amended by Law No. 350-Z of 8 January 2024.*
- *Customs Legislation of the Eurasian Economic Union and the Customs Legislation of the Republic of Belarus.*
- *Law of the Republic of Belarus of 20 July 2016 "On Approving the Military Doctrine of the Republic of Belarus".*
- *Doctrine of Information Security of the Republic of Belarus (Доктрина информационной безопасности Республики Беларусь), 2019.*
- *National Programme for Research and Use of Space for Peaceful Purposes for 2008–2012.*
- *National Programme for Research and Use of Space for Peaceful Purposes for 2013–2017.*
- *National Space Programme for 2016–2020.*
- *State Programme on Priority Scientific, Technical and Innovative Activities for 2021–2025.*



XXIV. Colombia

The completion of the Colombia Jurisdiction Survey relied on 19 sources covering the legal, regulatory and policy framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed dedicated space legislation, implementing regulations, institutional legislation, constitutional provisions, international treaty implementation instruments, and general legislation governing telecommunications, aviation, environmental protection, maritime affairs, customs, defence, spectrum management and environmental sanctions.

Sources consulted

- *Ley 2302 de 2023, "Por medio de la cual se adoptan medidas para garantizar la defensa e integridad territorial en el ámbito espacial y se dictan otras disposiciones" (Law 2302 of 2023, By means of which measures are adopted to guarantee defence and territorial integrity in the space domain and other provisions are issued).*
- *Decreto 1064 de 2024, "Por el cual se modifica el Título 9 del Libro 2, Parte 2, del Decreto número 1070 de 2015 ... y se expiden normas sobre el ejercicio de actividades espaciales controladas al interior del territorio colombiano" (Decree 1064 of 2024 on controlled space activities within Colombian territory).*
- *Decreto 2258 de 2018, "Por medio del cual se establecen normas y procedimientos para el Registro de Objetos Lanzados al Espacio Ultraterrestre..." (Decree 2258 of 2018 establishing the Registry of Objects Launched into Outer Space), as amended.*
- *Decreto 2442 de 2006, as modified by Decreto 0184 de 2023, creating and regulating the Comisión Colombiana del Espacio (Colombian Space Commission).*
- *Ley 2107 de 2021 approving the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (Outer Space Treaty).*
- *Ley 1569 de 2012 and Decreto 1065 de 2014 approving and promulgating the Convention on Registration of Objects Launched into Outer Space (Convenio sobre el Registro de Objetos Lanzados al Espacio Ultraterrestre).*



- *Ley 1591 de 2012 and Decreto 328 de 2016 approving and promulgating the Convention on International Liability for Damage Caused by Space Objects (Convenio sobre la Responsabilidad Internacional por Daños Causados por Objetos Espaciales).*
- *Constitución Política de Colombia (Political Constitution of Colombia).*
- *Acto Legislativo 02 de 2024, amending Article 217 of the Constitution and renaming the Air Force as the Aerospace Force.*
- *Ley 1341 de 2009, as amended by Ley 1978 de 2019, on Information and Communications Technologies and establishing the National Spectrum Agency.*
- *Código de Comercio, Libro V – Parte Segunda (Commercial Code, Book V – Part Two).*
- *Reglamentos Aeronáuticos de Colombia (RAC – Colombian Aeronautical Regulations).*
- *Decreto 1294 de 2021, updating the structure and functions of Aerocivil.*
- *Ley 99 de 1993 and Decreto 1076 de 2015 (Single Regulatory Decree for Environment and Sustainable Development).*
- *Decreto Ley 2324 de 1984 reorganising the Dirección General Marítima (DIMAR) and Ley 1 de 1991 on Ports.*
- *Decreto 1165 de 2019, as amended by Decreto 659 de 2024, establishing the Customs Regime.*
- *Decreto 1070 de 2015 (Single Regulatory Decree for the Defence Sector), as amended.*
- *Ley 1333 de 2009, as amended by Ley 2387 de 2024, establishing the environmental sanctioning procedure.*
- *Resolución MinTIC 376 de 2022 establishing the requirements and procedure for granting permits for the use of radio spectrum associated with satellite radiocommunication services.*

XXV. Djibouti

The completion of the Djibouti Jurisdiction Survey relied on 11 sources covering the legal, regulatory and policy framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed dedicated space legislation, implementing regulations, institutional legislation, national space programmes, and general legislation governing environmental protection, civil aviation, digital infrastructure,



telecommunications, investment, customs and nuclear, radiological, chemical and biological safety.

Sources consulted

- *Law No. 167/AN/22/8th Legislature of 10 November 2022 on Launch, Flight-Operation and Guidance Activities for Space Objects (Loi n°167/AN/22/8ème L du 10 novembre 2022 relative aux activités de lancement, d'opération de vol ou de guidage d'objets spatiaux).*
- *Decree No. 2023-209/PR/MENSUR setting the Authorisation Procedure for Launch or Guidance Operations of Space Objects (Décret n°2023-209/PR/MENSUR fixant la procédure d'autorisation d'opérations de lancement ou de guidage d'objets spatiaux).*
Decree No. 2023-178/PR/MENSUR creating the Special Status of Engineers and Technicians of Space Systems (Décret n°2023-178/PR/MENSUR portant création du statut particulier des ingénieurs et techniciens des systèmes spatiaux).
- *Law No. 51/AN/09/6th Legislature establishing the Environmental Code (Loi n°51/AN/09/6ème L portant Code de l'Environnement).*
- *Law No. 108/AN/10/6th Legislature of 10 January 2011 creating the Civil Aviation Authority of Djibouti (Loi n°108/AN/10/6ème L du 10 janvier 2011 portant création de l'Autorité de l'Aviation Civile de Djibouti).*
- *Law No. 74/AN/20/8th Legislature creating the Djibouti Multisectoral Regulatory Authority (Loi n°74/AN/20/8ème L portant création de l'Autorité de Régulation Multisectorielle de Djibouti).*
- *Law No. 019/AN/23/9th Legislature establishing the Digital Code (Loi n°019/AN/23/9ème L portant Code Numérique).*
- *Law No. 107/AN/20/8th Legislature creating the National Authority for Nuclear, Radiological, Chemical and Biological Safety and Security (Loi n°107/AN/20/8ème L portant création de l'Autorité Nationale de Sécurité et Sûreté Nucléaires, Radiologiques, Chimiques et Biologiques).*
- *Investment Code (Code des Investissements).*



- *Customs legislation and the Djibouti Ports and Free Zones Authority legal framework. National Space Programme and national satellite programme documentation relating to Djibouti-1A and Djibouti-1B.*

XXVI. Denmark

The completion of the Denmark Jurisdiction Survey relied on 21 sources covering the legal, regulatory and policy framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed dedicated space legislation, implementing regulations, national space strategies and guidance, and general legislation governing telecommunications, aviation, environmental protection, land-use planning, maritime affairs, foreign investment screening, export controls, cybersecurity, telecommunications security, chemicals and occupational health and safety.

Sources consulted

- *Act No. 409 of 11 May 2016 on Activities in Outer Space (Lov nr. 409 af 11. maj 2016 om aktiviteter i det ydre rum).*
- *Executive Order No. 552 of 31 May 2016 on Requirements in Connection with Approval of Activities in Outer Space, etc. (Bekendtgørelse nr. 552 af 31. maj 2016 om krav ved godkendelse af aktiviteter i det ydre rum m.v.).*
- *Guidelines for Applying for Approval of Danish Space Activities (Vejledning til ansøgningsskema om rumaktivitet).*
- *Denmark's National Space Strategy (Danmarks nationale strategi for rummet), 2016; Denmark's National Space Strategy – Update of Strategic Objectives, 2021.*
- *Strategy for Space Research and Innovation (Strategi for rumforskning og innovation), 2024.*
- *Act on Radio Frequencies (Lov om radiofrekvenser), LBK nr. 119 af 7. februar 2026.*
- *Aviation Act (Luftfartsloven), LBK nr. 1149 af 13. oktober 2017.*
- *Environmental Assessment Act (Miljøvurderingsloven), LBK nr. 4 af 3. januar 2023.*
- *Environmental Assessment Order (Miljøvurderingsbekendtgørelsen), BEK nr. 1608 af 9. december 2024.*



- *Environmental Protection Act (Miljøbeskyttelsesloven), LBK nr. 1742 af 22. december 2025.*
- *Planning Act (Planloven), LBK nr. 223 af 1. marts 2024.*
- *Danish Merchant Shipping Act (Søloven), LBK nr. 1013 af 29. juni 2023.*
- *Act No. 842 of 10 May 2021 on Screening of Certain Foreign Direct Investments, etc. in Denmark (Lov nr. 842 af 10. maj 2021 om screening af visse udenlandske direkte investeringer m.v. i Danmark).*
- *Cybersecurity Act (Lov nr. 434 af 6. maj 2025 om foranstaltninger til sikring af et højt cybersikkerhedsniveau).*
- *Act No. 435 of 6 May 2025 on Security and Preparedness in the Telecommunications Sector (Lov nr. 435 af 6. maj 2025 om sikkerhed og beredskab i telesektoren).*
- *Chemicals Act (Kemikalieloven), LBK nr. 1200 af 25. september 2025.*
- *Working Environment Act (Arbejdsmiljøloven).*
- *Danish Registry of Outer Space Objects.*
- *Denmark's National Frequency Plan.*

XXVII. Ecuador

The completion of the Ecuador Jurisdiction Survey relied on 22 national sources covering the legal and regulatory framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed the national legal, regulatory and institutional framework governing space activities, including the Ecuadorian Air Force (FAE), the former Ecuadorian Space Institute (IEE), the Military Geographic Institute (IGM), the Ministry of Telecommunications and the Information Society (MINTEL) and ARCOTEL, telecommunications and radio spectrum management, civil aviation and national airspace control, environmental protection and environmental impact assessment, land-use planning, cybersecurity and personal data protection, occupational health and safety, civil liability and insurance, customs, foreign investment, maritime and port administration, national defence and public security, as well as constitutional provisions relating to the geostationary orbit and the institutional framework for Ecuador's space activities.

Sources consulted



- *Constitution of the Republic of Ecuador / Constitución de la República del Ecuador (Official Registry No. 449, 20 October 2008, as amended).*
- *Organic Telecommunications Law / Ley Orgánica de Telecomunicaciones (Official Registry Supplement No. 439, 18 February 2015).*
- *Organic Environmental Code / Código Orgánico del Ambiente (Official Registry Supplement No. 983, 12 April 2017).*
- *Organic Code of Production, Commerce and Investments / Código Orgánico de la Producción, Comercio e Inversiones (COPCI) (Official Registry Supplement No. 351, 29 December 2010).*
- *Civil Aviation Law / Ley de Aviación Civil (Official Registry Supplement No. 435, 11 January 2007).*
- *Aeronautics Code / Código Aeronáutico.*
- *Public and State Security Law / Ley de Seguridad Pública y del Estado (Official Registry Supplement No. 35, 28 September 2009).*
- *Organic Administrative Code / Código Orgánico Administrativo (Official Registry Supplement No. 31, 7 July 2017).*
- *Organic Law on Territorial Planning, Land Use and Soil Management / Ley Orgánica de Ordenamiento Territorial, Uso y Gestión del Suelo (Official Registry Supplement No. 790, 5 July 2016).*
- *Labour Code / Código del Trabajo, codification published in Official Registry Supplement No. 167, 16 December 2005, as amended.*
- *Organic Law on Personal Data Protection / Ley Orgánica de Protección de Datos Personales (Official Registry Supplement No. 459, 26 May 2021).*
- *Organic Law for the Control of National Airspace / Ley Orgánica para el Control del Espacio Aéreo Nacional (Official Registry Second Supplement No. 609, 26 July 2024).*
- *Executive Decree No. 143 transferring space competences to the Ecuadorian Air Force / Decreto Ejecutivo No. 143, 16 September 2025.*
- *Executive Decree No. 714 dissolving the Ecuadorian Space Institute / Decreto Ejecutivo No. 714, 11 April 2019.*



- *Executive Decree No. 1246 creating the Ecuadorian Space Institute / Decreto Ejecutivo No. 1246, 19 July 2012.*
- *Organic Law for the Strengthening of Cybersecurity / Ley Orgánica de Fortalecimiento de la Ciberseguridad (Official Registry Fifth Supplement No. 290, 22 May 2026).*
- *Regulation to the Organic Environmental Code / Reglamento al Código Orgánico del Ambiente (Executive Decree No. 752, 2019).*
- *Civil Code / Código Civil.*
- *General Ports Law / Ley General de Puertos.*
- *Law on the National Port Administrative Regime / Ley de Régimen Administrativo Portuario Nacional.*
- *General Insurance Law / Ley General de Seguros.*
- *Regulation on Workers' Safety and Health and Improvement of the Working Environment (Executive Decree No. 2393) / Reglamento de Seguridad y Salud de los Trabajadores y Mejoramiento del Medio Ambiente de Trabajo (Decreto Ejecutivo No. 2393).*

XXVIII. Finland

The completion of the Finland Jurisdiction Survey relied on 20 sources covering the legal, regulatory and policy framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed dedicated space legislation, implementing and institutional measures, national space policy, and general legislation governing ground stations, telecommunications, aviation, environmental protection, construction, cybersecurity, territorial surveillance, maritime affairs, hazardous substances, waste management, foreign investment screening and export controls. The research also considered the relevant legislative preparatory materials concerning the Finnish space authorisation framework.

Sources consulted

- *Act on Space Activities (Laki avaruustoiminnasta), Act No. 63/2018.*
- *Decree of the Ministry of Economic Affairs and Employment on Space Activities (Työ- ja elinkeinoministeriön asetus avaruustoiminnasta), Decree No. 74/2018.*



- *Government Decree No. 739/2019 establishing the Finnish Space Committee (Avaruusasiain neuvottelukunta).*
- *Act on Ground Stations and Certain Radars (Laki maa-asemista ja eräistä tutkista), Act No. 96/2023.*
- *Ministry of Defence Decree on the Supervision of Space Activities Carried Out by the Defence Forces (Puolustusministeriön asetus puolustusvoimien avaruustoiminnan valvonnasta), Decree No. 999/2019.*
- *National Space Strategy 2024–2030 (Kansallinen avaruusstrategia 2024–2030), adopted by Government Resolution on 30 December 2024.*
- *Aviation Act (Ilmailulaki), Act No. 864/2014.*
- *Act on the Environmental Impact Assessment Procedure (Laki ympäristövaikutusten arviointimenettelystä), Act No. 252/2017.*
- *Act on Electronic Communications Services (Laki sähköisen viestinnän palveluista), Act No. 917/2014.*
- *Construction Act (Rakentamislaki), Act No. 751/2023.*
- *Act on the Control of Exports of Dual-Use Items (Laki kaksikäyttötuotteiden vientivalvonnasta), Act No. 500/2024.*
- *Cybersecurity Act (Kyberturvallisuuslaki), Act No. 124/2025.*
- *Territorial Surveillance Act (Aluevalvontalaki), Act No. 755/2000, as amended.*
- *Maritime Act (Merilaki), Act No. 674/1994.*
- *Environmental Protection Act (Ympäristönsuojelulaki), Act No. 527/2014.*
- *Chemicals Act (Kemikaalilaki), Act No. 599/2013.*
- *Waste Act (Jätelaki), Act No. 646/2011.*
- *Act on the Export of Defence Material, Act No. 282/2012.*
- *Act on the Monitoring of Foreign Corporate Acquisitions (Laki ulkomaisten yritysostojen seurannasta), Act No. 172/2012, as amended in 2020.*
- *Government Proposal HE 157/2017 concerning the Act on Space Activities.*



XXIX. Israel

The completion of the Israel Jurisdiction Survey relied on 26 sources covering the legal, regulatory and policy framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed institutional and strategic sources relating to Israel's civilian space programme, together with general legislation governing aviation, telecommunications and spectrum, defence and dual-use export controls, national security, cybersecurity, privacy, planning, environmental assessment, hazardous substances, business licensing, environmental protection and enforcement, customs, maritime affairs, foreign investment screening and technological innovation.

Sources consulted

- *Government decision establishing the Israel Space Agency* (הישראלית החלל סוכנות), 1983.
- *Aviation Law, 5771-2011* (תשע"א-2011, הטיס חוק).
- *Communications Law (Telecommunications and Broadcasting), 5742-1982* (התקשורת חוק) (תשמ"ב-1982, ושידורים בוק).
- *Wireless Telegraph Ordinance [New Version], 5732-1972* (חדש נוסח) [האלחוטי הטלגרף פקודת] (תשל"ב-1972).
- *Defence Export Control Law, 5767-2007* (תשס"ז-2007, ביטחוני יצוא על הפיקוח חוק).
- *Import and Export Order (Control of Export of Dual-Use Goods, Services and Technology), 5766-2006* (תשס"ו-, דו-שימושיים וטכנולוגיה שירותים, טובין יצוא על פיקוח) ויצוא יבוא צו (2006).
- *Regulation of Security in Public Bodies Law, 5758-1998* (ציבוריים בגופים הביטחון להסדרת חוק) (תשנ"ח-1998).
- *Protection of Privacy Law, 5741-1981* (תשמ"א-1981, הפרטיות הגנת חוק).
- *Protection of Privacy Regulations (Data Security), 5777-2017* (אבטחת הפרטיות הגנת תקנות) (תשע"ז-2017, מידע).
- *Law for Handling Serious Cyberattacks in the Digital Services and Data Storage Sector (Temporary Order – Iron Swords), 5784-2023* (שירותי במגזר חמורות סייבר בתקיפות לטיפול חוק) (תשפ"ד-2023, ברזל חרבות – שעה הוראת) ואחסון דיגיטל.
- *Planning and Building Law, 5725-1965* (תשכ"ה-1965, והבנייה התכנון חוק).



- *Planning and Building Regulations (Environmental Impact Statements)*, 5763-2003 (תשס"ג-2003, (הסביבה על השפעה תסקירי) והבנייה התכנון תקנות).
- *Hazardous Substances Law*, 5753-1993 (תשנ"ג-1993, (המסוכנים החומרים חוק).
- *Business Licensing Law*, 5728-1968 (תשכ"ח-1968, (עסקים רישוי חוק).
- *Clean Air Law*, 5768-2008 (תשס"ח-2008, (נקי אוויר חוק).
- *Prevention of Nuisances Law*, 5721-1961 (תשכ"א-1961, (מפגעים למניעת חוק).
- *Environmental Protection (Inspection and Enforcement Authorities) Law*, 5771-2011 (חוק (תשע"א-2011, (ואכיפה פיקוח סמכויות) הסביבה הגנת).
- *Customs Ordinance [New Version]* (חדש נוסח] המכס פקודת).
- *Ports Ordinance [New Version]*, 5731-1971 (חדש נוסח] הנמלים פקודת).
- *Encouragement of Research, Development and Technological Innovation in Industry Law*, 5744-1984 (תשמ"ד-1984, (בתעשייה טכנולוגית וחדשנות פיתוח, מחקר לעידוד חוק).
- *Airports Authority Law*, 5737-1977 (תשל"ז-1977, (התעופה שדות רשות חוק).
- *Air Navigation Law (Security in Civil Aviation)*, 5737-1977 (הטיס חוק) (האזרחית בתעופה ביטחון), (תשל"ז-1977).
- *Strategic Plan for Advancing the Israeli Civilian Space Industry* (לקידום האסטרטגית התכנית) (בישראל האזרחית החלל תעשיית), 2022.
- *Israel Space Agency official portal and programme guidance* (הישראלית החלל סוכנות).
- *Security Cabinet Resolution B/372 of 30 October 2019 establishing the national-security foreign-investment advisory mechanism.*
- *Israel Innovation Authority space-technology support programme documentation, including the Space Tech Lab and Space Lab Tech 2025 programmes.*

XXX. Italy

The completion of the Italy Jurisdiction Survey relied on 32 sources covering the legal, regulatory and policy framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed dedicated space legislation, implementing and institutional measures, national space and aerospace policies, ENAC regulations and policy instruments, and general legislation governing aviation and navigation, environmental protection, construction, electronic communications, export



controls, foreign investment screening, cybersecurity, personal data, hazardous substances, civil protection and corporate liability.

Sources consulted

- *Law No. 89 of 13 June 2025, Provisions on the Space Economy (Legge 13 giugno 2025, n. 89, Disposizioni in materia di Economia dello Spazio).*
- *Law No. 7 of 11 January 2018, Measures for the coordination of space and aerospace policy and provisions concerning the organisation and functioning of the Italian Space Agency (Legge 11 gennaio 2018, n. 7, Misure per il coordinamento della politica spaziale e aerospaziale e disposizioni concernenti l'organizzazione e il funzionamento dell'Agenzia spaziale italiana).*
- *Legislative Decree No. 128 of 4 June 2003, Reorganisation of the Italian Space Agency (Decreto Legislativo 4 giugno 2003, n. 128, Riordino dell'Agenzia Spaziale Italiana).*
- *Law No. 23 of 25 January 1983, Implementing provisions for the Convention on international liability for damage caused by space objects (Legge 25 gennaio 1983, n. 23, Norme di attuazione della convenzione sulla responsabilità internazionale per i danni causati da oggetti spaziali).*
- *Law No. 153 of 12 July 2005, Accession of the Italian Republic to the Convention on Registration of Objects Launched into Outer Space (Legge 12 luglio 2005, n. 153, Adesione della Repubblica italiana alla Convenzione sull'immatricolazione degli oggetti lanciati nello spazio extra-atmosferico).*
- *Law No. 87 of 28 January 1970 implementing the Outer Space Treaty (Legge 28 gennaio 1970, n. 87).*
- *Presidential Decree No. 965 of 5 December 1975 implementing the Rescue Agreement (Decreto del Presidente della Repubblica 5 dicembre 1975, n. 965).*
- *Law No. 426 of 5 May 1976 ratifying the Liability Convention (Legge 5 maggio 1976, n. 426).*
- *Ministry of Infrastructure and Transport Guidance Act No. 354 of 10 July 2017.*
- *Ministry of Infrastructure and Transport Policy Document No. 250 of 9 May 2018.*
- *Ministerial Decree designating Taranto-Grottaglie Airport as Italy's first commercial spaceport, 2018.*



- *ENAC Regulations for the Construction and Operation of Spaceports (Regolamento per la costruzione e l'esercizio degli spaziorporti – RCOS), third edition, 2023.*
- *ENAC Suborbital and Space Access Regulations (SASO), first edition, 2023.*
- *Government Guidelines on Space and Aerospace (Indirizzi governativi in materia di spazio e aerospazio), January 2025.*
- *National Manifesto for the Space Economy (Manifesto Nazionale per l'Economia dello Spazio), September 2024.*
- *Strategic Plan for the Space Economy (Piano Strategico per l'Economia dello Spazio), originally adopted in 2016 and subsequently updated.*
- *National Recovery and Resilience Plan (Piano Nazionale di Ripresa e Resilienza – PNRR).*
- *Legislative Decree No. 152 of 3 April 2006, Environmental Code (Decreto Legislativo 3 aprile 2006, n. 152, Norme in materia ambientale).*
- *Presidential Decree No. 380 of 6 June 2001, Consolidated Building Act (Decreto del Presidente della Repubblica 6 giugno 2001, n. 380, Testo Unico delle disposizioni legislative e regolamentari in materia edilizia).*
- *Legislative Decree No. 259 of 1 August 2003, Electronic Communications Code (Decreto Legislativo 1 agosto 2003, n. 259, Codice delle comunicazioni elettroniche), as amended.*
- *Legislative Decree No. 221 of 15 December 2017 on dual-use export controls and sanctions (Decreto Legislativo 15 dicembre 2017, n. 221, Disciplina sanzionatoria per la violazione delle disposizioni del regolamento (CE) n. 428/2009).*
- *Decree-Law No. 21 of 15 March 2012, converted by Law No. 56 of 11 May 2012, establishing the Golden Power framework (Decreto-legge 15 marzo 2012, n. 21, convertito con Legge 11 maggio 2012, n. 56), as amended.*
- *Navigation Code (Codice della navigazione), Royal Decree No. 327 of 30 March 1942, as amended.*
- *Legislative Decree No. 196 of 30 June 2003, Personal Data Protection Code (Decreto Legislativo 30 giugno 2003, n. 196, Codice in materia di protezione dei dati personali).*
- *Legislative Decree No. 101 of 10 August 2018 aligning Italian law with the GDPR (Decreto Legislativo 10 agosto 2018, n. 101).*



- *Legislative Decree No. 231 of 8 June 2001 on the administrative liability of legal persons (Decreto Legislativo 8 giugno 2001, n. 231, Disciplina della responsabilità amministrativa delle persone giuridiche).*
- *Legislative Decree No. 138 of 4 September 2024 implementing the NIS 2 Directive.*
- *Legislative Decree No. 105 of 26 June 2015 implementing the Seveso III Directive.*
- *Decree-Law No. 105 of 21 September 2019, converted by Law No. 133 of 18 November 2019, establishing the National Cybersecurity Perimeter (Perimetro di Sicurezza Nazionale Cibernetica).*
- *Legislative Decree No. 1 of 2 January 2018, Civil Protection Code (Decreto Legislativo 2 gennaio 2018, n. 1, Codice della protezione civile).*
- *ENAC-FAA Memorandum of Understanding on commercial space transport, first signed in 2014 and renewed in 2016 with ASI involvement.*
- *ENAC-Virgin Galactic Agreement of Cooperation, signed in December 2024.*

XXXI. Kazakhstan

The completion of the Kazakhstan Jurisdiction Survey relied on 19 sources covering the legal, regulatory and policy framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed dedicated space legislation, implementing measures, bilateral instruments governing the Baikonur Cosmodrome, national space programmes, and general legislation governing environmental protection, telecommunications, aviation and airspace, construction, licensing, civil protection, national security and defence, foreign investment, customs, administrative offences and criminal liability.

Sources consulted

- *Law of the Republic of Kazakhstan No. 528-IV of 6 January 2012 "On Space Activities" (Закон Республики Казахстан «О космической деятельности»), as amended, including by Law No. 86-VIII.*
- *Government Decree of the Republic of Kazakhstan No. 838 of 26 June 2012 "On Approval of the Rules for Coordination and Decision-Making on Launches of Space Objects from Kazakhstan and Abroad by Kazakhstan Participants" (Постановление*



Правительства Республики Казахстан «Об утверждении Правил координации и принятия решений о пусках космических объектов...»).

- *Order of the Minister of Digital Development, Innovations and Aerospace Industry No. 162/NQ of 12 July 2019 on the Rules for Establishing Protection Zones for Ground-Based Space Infrastructure Objects (Правила установления охранных зон объектов наземной космической инфраструктуры).*
- *Presidential Decree of 17 April 1995 ratifying the Lease Agreement for the Baikonur Complex between Kazakhstan and Russia (Указ Президента Республики Казахстан о ратификации Договора аренды комплекса «Байконур»).*
- *Agreement between the Republic of Kazakhstan and the Russian Federation on the Basic Principles and Conditions of Utilisation of the Baikonur Cosmodrome, 1994, as amended.*
- *Lease Agreement for the Baikonur Complex between the Republic of Kazakhstan and the Russian Federation, as extended until 2050.*
- *Ecological Code of the Republic of Kazakhstan No. 400-VI of 2 January 2021 (Экологический кодекс Республики Казахстан).*
- *Law of the Republic of Kazakhstan No. 567-II of 5 July 2004 "On Communications" (Закон Республики Казахстан «О связи»), as amended.*
- *Law of the Republic of Kazakhstan No. 339-IV of 15 July 2010 "On Use of Air Space of the Republic of Kazakhstan and Aviation Activity" (Закон «Об использовании воздушного пространства Республики Казахстан и авиационной деятельности»), as amended.*
- *Construction Code of the Republic of Kazakhstan No. 253 of 2026 (Строительный кодекс Республики Казахстан).*
- *State Space Programme / National Space Strategy of the Republic of Kazakhstan, including successive programmes adopted since 2005.*
- *Law of the Republic of Kazakhstan No. 202-V of 16 May 2014 "On Permits and Notifications".*
- *Law of the Republic of Kazakhstan No. 188-V of 11 April 2014 "On Civil Protection".*
- *Law of the Republic of Kazakhstan No. 527-IV of 6 January 2012 "On National Security".*
- *Law of the Republic of Kazakhstan "On Defence and the Armed Forces".*



- *Entrepreneurial Code of the Republic of Kazakhstan No. 375-V of 29 October 2015.*
- *Customs Code of the Republic of Kazakhstan.*
- *Code of Administrative Offences of the Republic of Kazakhstan No. 235-V of 5 July 2014.*
- *Criminal Code of the Republic of Kazakhstan.*

XXXII. Kenya

The completion of the Kenya Jurisdiction Survey relied on 25 sources covering the legal, regulatory and policy framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed the institutional framework governing the Kenya Space Agency, national space policy and strategic planning, and general legislation and regulatory instruments governing telecommunications and spectrum, civil aviation and airspace, environmental protection and impact assessment, land-use planning, cybersecurity, data protection, maritime affairs, foreign investment, national defence and aviation security and accident investigation.

Sources consulted

- *The Kenya Space Agency Order, 2017, Legal Notice No. 22 of 7 March 2017, as revised to 31 December 2022.*
- *Kenya Information and Communications Act, 1998, Act No. 2 of 1998, as revised.*
- *Kenya Information and Communications (Radio Communications and Frequency Spectrum) Regulations, 2010, Legal Notice No. 58 of 2010.*
- *Environmental Management and Co-ordination Act, 1999, Act No. 8 of 1999, as revised.*
- *Environmental (Impact Assessment and Audit) Regulations, 2003, Legal Notice No. 101 of 2003.*
- *Civil Aviation Act, 2013, Act No. 21 of 2013, as revised to 26 April 2024.*
- *Civil Aviation (Air Traffic Services) Regulations, 2018, Legal Notice No. 137 of 2018.*
- *Physical and Land Use Planning Act, 2019, Act No. 13 of 2019.*
- *Computer Misuse and Cybercrimes Act, 2018, Act No. 5 of 2018, as amended.*
- *Computer Misuse and Cybercrimes (Critical Information Infrastructure and Cybercrime Management) Regulations, 2024, Legal Notice No. 44 of 2024.*
- *Data Protection Act, 2019, Act No. 24 of 2019.*



- *Kenya Maritime Authority Act, 2006, Act No. 5 of 2006.*
- *Merchant Shipping Act, 2009, Act No. 4 of 2009.*
- *Kenya Communications Regulations, 2001, Legal Notice No. 68 of 2001, as revised. Frequency Spectrum Management Guidelines, 2020.*
- *Kenya Table of Radio Frequency Allocations, 2020.*
- *Civil Aviation (Security) Regulations, 2020, Legal Notice No. 128 of 2020.*
- *Civil Aviation (Aircraft Accident and Incident Investigation) Regulations, 2024, Legal Notice No. 5 of 2025, published on 31 January 2025.*
- *Investment Promotion Act, 2004, Act No. 6 of 2004.*
- *Foreign Investments Protection Act, Cap. 518.*
- *Kenya Defence Forces Act, 2012, Act No. 25 of 2012.*
- *Constitution of Kenya.*
- *Kenya Space Policy, 2016.*
- *Kenya Space Agency Strategic Plan 2023–2027.*
- *Kenya Space Agency Strategic Plan 2020–2025.*

XXXIII. Liechtenstein

The completion of the Liechtenstein Jurisdiction Survey relied on 13 national sources covering the legal and regulatory framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed the national legal framework governing the authorisation and supervision of space activities, registration of space objects, electronic communications and spectrum management, civil aviation, environmental protection and impact assessment, cybersecurity, customs and export controls, as well as official government explanatory materials supporting the implementation of the national space legislation.

Sources consulted

- *Law of 5 October 2023 on the Authorisation of Space Activities and the Registration of Space Objects (Gesetz of 5 October 2023 on the Authorisation of Space Activities and*



the Registration of Space Objects (Weltraumgesetz; WRG) / Gesetz vom 5. Oktober 2023 über die Genehmigung von Weltraumaktivitäten und die Registrierung von Weltraumgegenständen (Weltraumgesetz; WRG)).

- *Space Ordinance (Ordinance of 4 December 2023 on the Authorisation of Space Activities and the Registration of Space Objects (Weltraumverordnung) / Verordnung vom 4. Dezember 2023 über die Genehmigung von Weltraumaktivitäten und die Registrierung von Weltraumgegenständen (Weltraumverordnung)).*
- *Office for Communications (Amt für Kommunikation).*
- *Communications Act (Act of 5 April 2023 on Electronic Communications (Kommunikationsgesetz (KomG)) / Gesetz vom 5. April 2023 über die elektronische Kommunikation (Kommunikationsgesetz; KomG)).*
- *Ordinance on Identification Means and Frequencies in Electronic Communications (Verordnung über Identifikationsmittel und Frequenzen im Bereich der elektronischen Kommunikation (IFV)).*
- *Liechtenstein Frequency Allocation Plan (Liechtenstein Frequency Allocation Plan (FAP)).*
- *Aviation Act (Gesetz über die Luftfahrt (Luftfahrtgesetz; LFG)).*
- *Environmental Impact Assessment Act (Act of 5 December 2013 on Environmental Impact Assessment (UVPG) / Gesetz vom 5. Dezember 2013 über die Umweltverträglichkeitsprüfung (UVPG)).*
- *Environmental Protection Act (Umweltschutzgesetz (USG)) of 29 May 2008.*
- *Cyber Security Act (Cyber-Sicherheitsgesetz (CSG)), of 4 May 2023.*
- *Customs Union Treaty between Switzerland and Liechtenstein (Treaty of 29 March 1923 between Switzerland and Liechtenstein establishing a Customs Union / Zollvertrag zwischen der Schweiz und Liechtenstein vom 29. März 1923).*
- *Government Report and Motion No. 40/2023 concerning the enactment of the Law on the Authorisation of Space Activities and the Registration of Space Objects (Bericht und Antrag der Regierung Nr. 40/2023 betreffend den Erlass eines Gesetzes über die Genehmigung von Weltraumaktivitäten und die Registrierung von Weltraumgegenständen (Weltraumgesetz; WRG)).*



- *Swiss–Liechtenstein Civil Aviation Arrangements (including LGBI. 2003 Nr. 40 and LGBI. 2010 Nr. 77).*

XXXIV. Luxembourg

The completion of the Luxembourg Jurisdiction Survey relied on 14 national sources covering the legal and regulatory framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed the national legal framework governing the authorisation and supervision of space activities and space resources, electronic communications and spectrum management, civil aviation and airspace, cybersecurity, export controls, foreign direct investment screening, environmental permitting, electronic communications networks and services, as well as national space policy and official government guidance supporting the implementation of Luxembourg's space legislation.

Sources consulted

- *Law of 15 December 2020 on Space Activities (Loi du 15 décembre 2020 portant sur les activités spatiales).*
- *Law of 20 July 2017 on the Exploration and Use of Space Resources (Loi du 20 juillet 2017 sur l'exploration et l'utilisation des ressources de l'espace).*
- *Electronic Media Law of 27 July 1991 (amended by Law of 27 July 1991 on Electronic Media) (Loi modifiée du 27 juillet 1991 sur les médias électroniques).*
- *Law of 30 May 2005 on the Organisation of the Management of Radio Frequencies (Loi modifiée du 30 mai 2005 portant organisation de la gestion des ondes radioélectriques).*
- *Law of 27 June 2018 on Export Controls (Loi modifiée du 27 juin 2018 relative au contrôle des exportations).*
- *Law of 5 May 2026 on Measures to Ensure a High Level of Cybersecurity (Loi du 5 mai 2026 concernant des mesures destinées à assurer un niveau élevé de cybersécurité).*
- *Law of 10 June 1999 on Classified Establishments (Loi modifiée du 10 juin 1999 relative aux établissements classés).*
- *Law of 14 July 2023 Establishing a National Foreign Direct Investment Screening Mechanism (Loi du 14 juillet 2023 portant mise en place d'un mécanisme de filtrage).*



national des investissements directs étrangers susceptibles de porter atteinte à la sécurité ou à l'ordre public).

- *Law of 17 December 2021 on Electronic Communications Networks and Services (Loi du 17 décembre 2021 relative aux réseaux et services de communications électroniques).*
- *Law of 5 May 2026 on the Resilience of Critical Entities (Loi du 5 mai 2026 sur la résilience des entités critiques).*
- *National Space Strategy and Action Plan 2023–2027 (National Space Strategy and Action Plan 2023–2027 – Focus on Sustainability).*
- *LuxIMPULSE – National Space Programme (LuxIMPULSE – National Space Programme).*
- *SpaceResources.lu Initiative (SpaceResources.lu).*
- *Defence Space Strategy (Stratégie spatiale de défense).*

XXXV. Namibia

The completion of the Namibia Jurisdiction Survey relied on 13 national sources covering the legal, regulatory and policy framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed the national institutional framework for space science and technology, the absence of dedicated space legislation, national space policy, telecommunications and spectrum regulation, civil aviation, environmental protection and impact assessment, research and innovation governance, customs and import/export controls, maritime and port legislation, foreign investment, electronic transactions, and official government information relating to the proposed national space legislative framework.

Sources consulted

- *National Space Science and Technology Policy, launched 4 June 2021.*
- *Research, Science and Technology Act, 2004 (Act No. 23 of 2004).*
- *Communications Act, 2009 (Act No. 8 of 2009).*
- *Civil Aviation Act, 2016 (Act No. 6 of 2016).*
- *Environmental Management Act, 2007 (Act No. 7 of 2007).*



- *Environmental Impact Assessment Regulations, 2012.*
- *Import and Export Control Act, 1994 (Act No. 30 of 1994).*
- *Customs and Excise Act, 1998 (Act No. 20 of 1998).*
- *Namibian Ports Authority Act, 1994 (Act No. 2 of 1994).*
- *Marine Traffic Act, 1981.*
- *Foreign Investments Act, 1990 (Act No. 27 of 1990).*
- *Electronic Transactions Act, 2019 (Act No. 4 of 2019).*
- *Marine Resources Act, 2000 (Act No. 27 of 2000).*

XXXVI. Nigeria

The completion of the Nigeria Jurisdiction Survey relied on 18 national sources covering the legal, regulatory and policy framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed the national legal framework governing space activities, licensing and supervision, defence space activities, electronic communications and spectrum management, civil aviation and airspace, environmental protection and impact assessment, customs and import-export controls, competition and foreign investment, cybersecurity and data protection, maritime affairs, as well as national policy and regulatory guidance for the Nigerian space sector.

Sources consulted

- *National Space Research and Development Agency Act, 2010 (Act No. 9 of 2010).*
- *Defence Space Administration (Establishment) Act, 2016.*
- *Regulations on Licensing and Supervision of Space Activities, 2015.*
- *NASRDA Handbook on Space Regulation and Spectrum Management, 2025.*
- *Nigerian Communications Act, 2003 (Act No. 19 of 2003).*
- *Commercial Satellite Communications Guidelines, 2018.*
- *Civil Aviation Act, 2022 (Act No. 30 of 2022).*
- *Nigeria Civil Aviation Regulations, 2023.*
- *Environmental Impact Assessment Act, 1992 (Cap E12, Laws of the Federation of Nigeria).*



- *National Environmental Standards and Regulations Enforcement Agency (Establishment) Act, 2007.*
- *Nigeria Customs Service Act, 2023.*
- *Federal Competition and Consumer Protection Act, 2018.*
- *Nigerian Investment Promotion Commission Act, 1995.*
- *Nigeria Data Protection Act, 2023.*
- *Cybercrimes (Prohibition, Prevention, etc.) Act, 2015 (as amended by the Cybercrimes Amendment Act, 2024).*
- *Nigerian Maritime Administration and Safety Agency Act, 2007.*
- *Nigerian Ports Authority Act.*
- *National Space Policy and Programmes of Nigeria.*

XXXVII. Netherlands

The completion of the Netherlands Jurisdiction Survey relied on 15 national sources covering the legal, regulatory and policy framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed the national legal framework governing the authorisation and supervision of space activities and the registration of space objects, telecommunications and spectrum management, civil aviation, environmental protection and spatial planning, cybersecurity, export controls, foreign investment screening, as well as national space policy and official regulatory guidance supporting the implementation of the Dutch space legislation.

Sources consulted

- *Space Activities Act (Wet ruimtevaartactiviteiten), 24 January 2007.*
- *Decree on the Register of Space Objects (Besluit register ruimtevoorwerpen), 13 November 2007.*
- *Regulation on Applications for Space Activity Licences and Registration (Regeling aanvraag vergunning ruimtevaartactiviteiten en registratie), 7 February 2008.*
- *Decree on Unguided Satellites (Besluit ongeleide satellieten), 2015.*
- *Decree Designating Supervisors under the Space Activities Act (Besluit aanwijzing toezichthouders Wet ruimtevaartactiviteiten), 2016.*



- *Telecommunications Act (Telecommunicatiewet), 19 October 1998.*
- *Aviation Act (Wet luchtvaart), 18 June 1992.*
- *Environment and Planning Act (Omgevingswet), in force since 1 January 2024.*
- *Strategic Goods Decree (Besluit strategische goederen).*
- *National Frequency Plan 2014 (Nationaal Frequentieplan 2014).*
- *Security Assessment of Investments, Mergers and Acquisitions Act (Wet veiligheidstoets investeringen, fusies en overnames).*
- *Space Policy Memorandum 2019 (Nota Ruimtevaartbeleid 2019).*
- *Government Response to the Long-term Space Agenda (Kabinetsreactie op de Lange-termijn Ruimtevaartagenda), 21 February 2025.*
- *Defence Space Agenda (Defensie Ruimte Agenda), 25 November 2022.*
- *RDI Guidance on Space Activities and Satellites (Ruimtevaartactiviteiten en satellieten).*

XXXVIII. Pakistan

The completion of the Pakistan Jurisdiction Survey relied on 13 national sources covering the legal, regulatory and policy framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed the national legal framework governing the authorisation and supervision of space activities, telecommunications and spectrum regulation, civil aviation, environmental protection and environmental impact assessment, strategic export controls, cybersecurity, and national space policy and regulatory development.

Sources consulted

- *Pakistan Space Activities Rules, 2024.*
- *Pakistan Space and Upper Atmosphere Research Commission Ordinance, 1981.*
- *National Space Policy of Pakistan, approved on 13 December 2023.*
- *Draft Space Regulatory Framework, August 2025.*
- *Pakistan Telecommunication (Re-organization) Act, 1996.*
- *Pakistan Civil Aviation Act, 2023.*
- *Pakistan Civil Aviation Authority Act, 2023.*
- *Pakistan Environmental Protection Act, 1997.*



- *Pakistan Environmental Protection Agency (Review of IEE and EIA) Regulations, 2000.*
- *Export Control on Goods, Technologies, Material and Equipment related to Nuclear and Biological Weapons and their Delivery Systems Act, 2004.*
- *Export Control (Licensing and Enforcement) Rules, 2021.*
- *National Command Authority Act, 2010.*
- *Prevention of Electronic Crimes Act, 2016.*
- *Customs Act, 1969*

XXXIX. Peru

The completion of the Peru Jurisdiction Survey relied on 14 national sources covering the legal, regulatory and policy framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed the national legal framework governing the organisation and supervision of space activities, the registration of space objects, telecommunications and spectrum management, civil aviation, environmental protection and impact assessment, cybersecurity, data protection, customs, strategic planning, and official government policy and institutional documents relating to the development of Peru's national space sector.

Sources consulted

- *Decree Law No. 20643 establishing the National Commission for Aerospace Research and Development (CONIDA) / Decreto Ley No. 20643, Creación de la Comisión Nacional de Investigación y Desarrollo Aeroespacial (CONIDA), 11 June 1974.*
- *Law No. 28799 declaring of national interest the creation, implementation and development of the National Centre for Satellite Image Operations (CNOIS) / Ley No. 28799, que declara de interés nacional la creación, implementación y desarrollo del Centro Nacional de Operaciones de Imágenes Satelitales (CNOIS), 19 July 2006.*
- *Supreme Decree No. 008-2016-DE establishing the National Registry of Objects Launched into Outer Space / Decreto Supremo No. 008-2016-DE, que establece el Registro Nacional de Objetos Lanzados al Espacio Ultraterrestre.*



- *Supreme Decree No. 013-93-TCC approving the Consolidated Text of the Telecommunications Law / Decreto Supremo No. 013-93-TCC, Texto Único Ordenado de la Ley de Telecomunicaciones.*
- *Law No. 27261 on Civil Aviation / Ley No. 27261, Ley de Aeronáutica Civil del Perú.*
- *Supreme Decree No. 050-2001-MTC approving the Regulation of the Civil Aviation Law / Decreto Supremo No. 050-2001-MTC, Reglamento de la Ley de Aeronáutica Civil.*
- *Law No. 27446 on the National Environmental Impact Assessment System / Ley No. 27446, Ley del Sistema Nacional de Evaluación del Impacto Ambiental (SEIA).*
- *Law No. 28611, General Environmental Law / Ley No. 28611, Ley General del Ambiente.*
- *Legislative Decree No. 1088 on the National System of Strategic Planning and the National Centre for Strategic Planning (CEPLAN) / Decreto Legislativo No. 1088, Ley del Sistema Nacional de Planeamiento Estratégico y del Centro Nacional de Planeamiento Estratégico (CEPLAN).*
- *Law No. 30999, Cyber Defence Law / Ley No. 30999, Ley de Ciberdefensa.*
- *Law No. 29733, Personal Data Protection Law / Ley No. 29733, Ley de Protección de Datos Personales.*
- *Law No. 29763, Forestry and Wildlife Law / Ley No. 29763, Ley Forestal y de Fauna Silvestre.*
- *National Space Policy / Política Nacional Espacial, 2024.*
- *Institutional Policy approved by Head Resolution No. 076-2024-JEINS-CONIDA / Política Institucional aprobada por la Resolución Jefatural No. 076-2024-JEINS-CONIDA.*

XL. Philippines

The completion of the Philippines Jurisdiction Survey relied on 17 national sources covering the legal and regulatory framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed the national legal framework governing space activities and the Philippine Space Agency, telecommunications



and radio spectrum regulation, civil aviation, environmental impact assessment, strategic trade controls, maritime safety, customs, cybersecurity, data protection, special economic zones, satellite communications and related implementing regulations.

Sources consulted

- *Philippine Space Act (Republic Act No. 11363), 8 August 2019.*
- *Implementing Rules and Regulations of the Philippine Space Act.*
- *Public Telecommunications Policy Act of the Philippines (Republic Act No. 7925), 1 March 1995.*
- *Civil Aviation Authority Act of 2008 (Republic Act No. 9497), 4 March 2008.*
- *Presidential Decree No. 1586 establishing the Environmental Impact Statement System, 11 June 1978.*
- *Implementing Rules and Regulations for the Philippine Environmental Impact Statement System (DENR Administrative Order No. 2003-30), 2003.*
- *Strategic Trade Management Act (Republic Act No. 10697), 13 November 2015.*
- *Philippine Coast Guard Law of 2009 (Republic Act No. 9993), 12 February 2010.*
- *Konektadong Pinoy Act (Republic Act No. 12234), 24 August 2025.*
- *Implementing Rules and Regulations of the Konektadong Pinoy Act.*
- *Radio Control Act (Act No. 3846), as amended.*
- *Customs Modernization and Tariff Act (Republic Act No. 10863), 30 May 2016.*
- *Cagayan Special Economic Zone Act of 1995 (Republic Act No. 7922), 24 February 1995.*
- *Executive Order No. 467, s. 1998, providing a National Policy on the Operation and Use of International Satellite Communications in the Country, 17 March 1998.*
- *Cybercrime Prevention Act of 2012 (Republic Act No. 10175), 12 September 2012.*
- *Data Privacy Act of 2012 (Republic Act No. 10173), 15 August 2012.*
- *Philippine Civil Aviation Regulations.*



XLI. Poland

The completion of the Poland Jurisdiction Survey relied on 14 national sources covering the legal and regulatory framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed the national legal framework governing space activities, including the Polish Space Agency and the National Register of Space Objects, civil aviation, environmental protection and environmental impact assessment, cybersecurity, foreign investment screening, export controls, electronic communications and radio spectrum, construction and spatial planning, maritime administration, national defence, and the national space strategy.

Sources consulted

- *Act on Space Activities / Ustawa z dnia 13 lutego 2026 r. o działalności kosmicznej, 13 February 2026.*
- *Polish Space Agency Act / Ustawa z dnia 26 września 2014 r. o Polskiej Agencji Kosmicznej, 26 September 2014.*
- *Aviation Law / Ustawa z dnia 3 lipca 2002 r. – Prawo lotnicze, 3 July 2002.*
- *Environmental Protection Act / Ustawa z dnia 27 kwietnia 2001 r. – Prawo ochrony środowiska, 27 April 2001.*
- *Act on Sharing Information on the Environment and Its Protection, Public Participation in Environmental Protection, and Environmental Impact Assessments / Ustawa z dnia 3 października 2008 r. o udostępnianiu informacji o środowisku i jego ochronie, udziale społeczeństwa w ochronie środowiska oraz o ocenach oddziaływania na środowisko, 3 October 2008.*
- *National Cybersecurity System Act / Ustawa z dnia 5 lipca 2018 r. o krajowym systemie cyberbezpieczeństwa, 5 July 2018.*
- *Act on the Control of Certain Investments / Ustawa z dnia 24 lipca 2015 r. o kontroli niektórych inwestycji, 24 July 2015.*
- *Act on Trade with Foreign Countries in Goods, Technologies and Services of Strategic Importance for State Security and for the Maintenance of International Peace and Security / Ustawa z dnia 29 listopada 2000 r. o obrocie z zagranicą towarami, technologiami i usługami o znaczeniu strategicznym dla bezpieczeństwa państwa, a*



także dla utrzymania międzynarodowego pokoju i bezpieczeństwa, 29 November 2000.

- *Electronic Communications Law / Ustawa z dnia 12 lipca 2024 r. – Prawo komunikacji elektronicznej, 12 July 2024.*
- *Construction Law / Ustawa z dnia 7 lipca 1994 r. – Prawo budowlane, 7 July 1994.*
- *Act on Spatial Planning and Development / Ustawa z dnia 27 marca 2003 r. o planowaniu i zagospodarowaniu przestrzennym, 27 March 2003.*
- *Act on Maritime Areas of the Republic of Poland and Maritime Administration / Ustawa z dnia 21 marca 1991 r. o obszarach morskich Rzeczypospolitej Polskiej i administracji morskiej, 21 March 1991.*
- *Defence of the Fatherland Act / Ustawa z dnia 11 marca 2022 r. o obronie Ojczyzny, 11 March 2022.*
- *Polish Space Strategy / Uchwała nr 6 Rady Ministrów z dnia 26 stycznia 2017 r. w sprawie przyjęcia Polskiej Strategii Kosmicznej, 26 January 2017.*

XLII. Republic of Ireland

The completion of the Republic of Ireland Jurisdiction Survey relied on 12 national sources covering the legal and regulatory framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed the national framework governing aviation and airspace management, planning and environmental regulation, telecommunications and radio spectrum management, cybersecurity, dangerous substances, health and safety, defence, customs and export controls, as well as the national space strategy and related policy framework.

Sources consulted

- *Irish Aviation Authority Act 1993 (No. 29 of 1993), as amended by the Aviation Regulation Act 2022 (No. 11 of 2022).*
- *Air Navigation and Transport Acts 1936–2022 (primary Act: Air Navigation and Transport Act 1936, No. 40 of 1936, as amended through the Air Navigation and Transport Act 2022).*



- *European Union (Measures for a High Common Level of Cybersecurity) Regulations 2024 (S.I. No. 396 of 2024).*
- *Planning and Development Act 2000 (No. 30 of 2000), as amended by the Planning and Development Act 2024 (No. 34 of 2024).*
- *Environmental Protection Agency Act 1992 (No. 7 of 1992).*
- *Defence Act 1954 (No. 18 of 1954).*
- *Wireless Telegraphy Acts 1926–2009 (primary Act: Wireless Telegraphy Act 1926, No. 45 of 1926, as amended through 2009).*
- *Dangerous Substances Act 1972 (No. 10 of 1972).*
- *National Space Strategy for Enterprise 2019–2025, published 19 June 2019.*
- *Communications Regulation Act 2002 (No. 20 of 2002).*
- *Companies Act 2014.*
- *European Communities (Water Policy) Regulations 2003 (S.I. No. 722 of 2003).*

XLIII. **Spain**

The completion of the Spain Jurisdiction Survey relied on 21 national sources covering the legal and regulatory framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed the national legal, regulatory and institutional framework governing space activities, including the Spanish Space Agency (AEE) and the National Institute for Aerospace Technology (INTA), the registration of space objects, telecommunications and radio spectrum management, civil aviation and airspace regulation, environmental protection and environmental impact assessment, critical infrastructure protection, national defence, civil protection, occupational health and safety, maritime navigation and port infrastructure, foreign investment screening, public administrative procedures and the legal regime of the public sector, as well as national space policy, strategy and the proposed legislative framework for space activities.

Sources consulted



- *Law 17/2022 amending Law 14/2011 on Science, Technology and Innovation / Ley 17/2022, de 5 de septiembre, por la que se modifica la Ley 14/2011, de 1 de junio, de la Ciencia, la Tecnología y la Innovación.*
- *Statute of the Spanish Space Agency (Royal Decree 158/2023) / Real Decreto 158/2023, de 7 de marzo, por el que se aprueba el Estatuto de la Agencia Espacial Española.*
- *Statute of the National Institute for Aerospace Technology (INTA) / Estatuto del Instituto Nacional de Técnica Aeroespacial (INTA).*
- *Royal Decree 278/1995 establishing the Spanish Register of Space Objects / Real Decreto 278/1995, de 24 de febrero, por el que se crea en España el Registro previsto en el Convenio de 12 de noviembre de 1974 de la Asamblea General de las Naciones Unidas.*
- *General Telecommunications Law (Law 11/2022) / Ley 11/2022, de 28 de junio, General de Telecomunicaciones.*
- *Regulation on the Use of the Radioelectric Public Domain (Royal Decree 123/2017) / Real Decreto 123/2017, de 24 de febrero, por el que se aprueba el Reglamento sobre el uso del dominio público radioeléctrico.*
- *Air Navigation Law (Law 48/1960) / Ley 48/1960, de 21 de julio, sobre Navegación Aérea.*
- *Air Traffic Regulation (Royal Decree 57/2002) / Real Decreto 57/2002, de 18 de enero, por el que se aprueba el Reglamento de Circulación Aérea.*
- *Environmental Assessment Law (Law 21/2013) / Ley 21/2013, de 9 de diciembre, de evaluación ambiental.*
- *Law on the Protection of Critical Infrastructures (Law 8/2011) / Ley 8/2011, de 28 de abril, por la que se establecen medidas para la protección de las infraestructuras críticas.*
- *National Defence Organic Law (Organic Law 5/2005) / Ley Orgánica 5/2005, de 17 de noviembre, de la Defensa Nacional.*
- *National Civil Protection System Act (Law 17/2015) / Ley 17/2015, de 9 de julio, del Sistema Nacional de Protección Civil.*
- *Occupational Risk Prevention Law (Law 31/1995) / Ley 31/1995, de 8 de noviembre, de Prevención de Riesgos Laborales.*



- *Maritime Navigation Law (Law 14/2014) / Ley 14/2014, de 24 de julio, de Navegación Marítima.*
- *Revised Text of the State Ports and Merchant Marine Act (Royal Legislative Decree 2/2011) / Real Decreto Legislativo 2/2011, de 5 de septiembre, por el que se aprueba el Texto Refundido de la Ley de Puertos del Estado y de la Marina Mercante.*
- *National Security Strategy 2021 / Estrategia de Seguridad Nacional 2021.*
- *National Aerospace Security Strategy 2025 / Estrategia de Seguridad Aeroespacial Nacional 2025.*
- *Draft Space Activities Act / Anteproyecto de Ley de Actividades Espaciales.*
- *Spanish Space Strategy 2023 / Estrategia Espacial Española 2023.*
- *Law on the Legal Regime of the Public Sector (Law 40/2015) / Ley 40/2015, de 1 de octubre, de Régimen Jurídico del Sector Público.*
- *Law on the Common Administrative Procedure of Public Administrations (Law 39/2015) / Ley 39/2015, de 1 de octubre, del Procedimiento Administrativo Común de las Administraciones Públicas.*

XLIV. South Africa

The completion of the South Africa Jurisdiction Survey relied on 26 national sources covering the legal and regulatory framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed the national legal, regulatory and institutional framework governing space activities, including the South African Council for Space Affairs (SACSA), the South African National Space Agency (SANSA), the licensing of space activities and launch facilities, environmental protection and environmental impact assessment, civil aviation and airspace management, telecommunications and radio spectrum management, cybersecurity and data protection, hazardous substances, occupational health and safety, customs and export controls, national defence and security, maritime safety, as well as national space policy, space strategy and the proposed South African Space Industry Regulatory Bill (SASIRA).

Sources consulted:

- *Space Affairs Act, No. 84 of 1993.*



- *Space Affairs Amendment Act, No. 64 of 1995.*
- *South African National Space Agency Act, No. 36 of 2008.*
- *South African Space Industry Regulatory Bill (Draft).*
- *Astronomy Geographic Advantage Act, No. 21 of 2007.*
- *National Environmental Management Act, No. 107 of 1998.*
- *National Environmental Management: Biodiversity Act, No. 10 of 2004.*
- *National Environmental Management: Waste Act, No. 59 of 2008.*
- *National Environmental Management: Air Quality Act, No. 39 of 2004.*
- *National Water Act, No. 36 of 1998.*
- *Civil Aviation Act, No. 13 of 2009.*
- *Electronic Communications Act, No. 36 of 2005.*
- *Electronic Communications and Transactions Act, No. 25 of 2002.*
- *Cybercrimes Act, No. 19 of 2020.*
- *Protection of Personal Information Act, No. 4 of 2013.*
- *Critical Infrastructure Protection Act, No. 8 of 2019.*
- *Hazardous Substances Act, No. 15 of 1973.*
- *Occupational Health and Safety Act, No. 85 of 1993.*
- *Disaster Management Act, No. 57 of 2002.*
- *Defence Act, No. 42 of 2002.*
- *Non-Proliferation of Weapons of Mass Destruction Act, No. 87 of 1993.*
- *National Conventional Arms Control Act, No. 41 of 2002.*
- *Customs and Excise Act, No. 91 of 1964.*
- *National Space Policy (2008).*
- *National Space Strategy (South African National Space Agency – SANSA).*
- *South African Earth Observation Strategy (SAEOS).*

XLV. Slovakia

The completion of the Slovakia Jurisdiction Survey relied on 14 national sources covering the legal and regulatory framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed the national legal



framework governing the authorisation and supervision of space activities and the registration of space objects, electronic communications and radio spectrum management, civil aviation, environmental protection and environmental impact assessment, water protection, cybersecurity, critical infrastructure, defence-related export controls, building and planning law, fire protection, administrative fees, equality and non-discrimination, as well as the national space strategy.

Sources consulted

- *Act No. 378/2024 Coll. on the Regulation of Space Activities / Zákon č. 378/2024 Z. z. o regulácii vesmírnych aktivít, 28 November 2024 (in force from 1 February 2025).*
- *Act No. 452/2021 Coll. on Electronic Communications / Zákon č. 452/2021 Z. z. o elektronických komunikáciách, 2021.*
- *Decree No. 288/2022 Coll. establishing the Frequency Spectrum Use Plan / Vyhláška č. 288/2022 Z. z., ktorou sa ustanovuje Plán využívania frekvenčného spektra, 2022.*
- *Act No. 143/1998 Coll. on Civil Aviation / Zákon č. 143/1998 Z. z. o civilnom letectve, 1998.*
- *Act No. 24/2006 Coll. on Environmental Impact Assessment / Zákon č. 24/2006 Z. z. o posudzovaní vplyvov na životné prostredie, 2006.*
- *Act No. 364/2004 Coll. on Water / Zákon č. 364/2004 Z. z. o vodách, 2004.*
- *Act No. 69/2018 Coll. on Cybersecurity / Zákon č. 69/2018 Z. z. o kybernetickej bezpečnosti, 2018.*
- *Act No. 367/2024 Coll. on Critical Infrastructure / Zákon č. 367/2024 Z. z. o kritickej infraštruktúre, 2024.*
- *Act No. 392/2011 Coll. on Trading with Defence Industry Products / Zákon č. 392/2011 Z. z. o obchodovaní s výrobkami obranného priemyslu, 2011.*
- *Act No. 25/2025 Coll. Building Act / Zákon č. 25/2025 Z. z. Stavebný zákon, 2025.*
- *Act No. 314/2001 Coll. on Fire Protection / Zákon č. 314/2001 Z. z. o ochrane pred požiarmi, 2001.*
- *Act No. 145/1995 Coll. on Administrative Fees / Zákon Národnej rady Slovenskej republiky č. 145/1995 Z. z. o správnych poplatkoch, 1995.*



- *Act No. 365/2004 Coll. on Equal Treatment (Anti-Discrimination Act) / Zákon č. 365/2004 Z. z. o rovnakom zaobchádzaní, 2004.*
- *Slovak Space Strategy 2030+ / Slovenská vesmírna stratégia 2030+, 2024.*

XLVI. **Slovenia**

The completion of the Slovenia Jurisdiction Survey relied on 13 national sources covering the legal and regulatory framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed the national legal framework governing the authorisation and supervision of space activities, the registration of space objects, electronic communications and radio spectrum management, civil aviation, environmental protection, cybersecurity, export controls, administrative procedures, disaster and emergency management, foreign direct investment screening, defence, customs and dual-use controls, as well as the national space strategy.

Sources consulted

- *Act on Space Activities / Zakon o vesoljskih dejavnostih (ZVD) (Official Gazette RS No. 49/22), 16 March 2022.*
- *Decree on the Implementation of the Act on Space Activities / Uredba o izvajanju Zakona o vesoljskih dejavnostih.*
- *Electronic Communications Act / Zakon o elektronskih komunikacijah (ZEKom-2) (Official Gazette RS No. 130/22), 2022.*
- *Aviation Act / Zakon o letalstvu (Official Gazette RS No. 81/10, as amended).*
- *Environmental Protection Act / Zakon o varstvu okolja (ZVO-2) (Official Gazette RS No. 44/22), 24 March 2022.*
- *Act on the Control of Export of Dual-Use Goods / Zakon o nadzoru izvoza blaga z dvojno rabo (ZNIBDR) (Official Gazette RS No. 37/04, as amended).*
- *Information Security Act / Zakon o informacijski varnosti (ZInfV-1) (Official Gazette RS No. 31/25), 23 May 2025.*
- *Slovenian Space Strategy 2030 / Slovenska vesoljska strategija 2030, 3 November 2023.*



- *General Administrative Procedure Act / Zakon o splošnem upravnem postopku (ZUP).*
- *Protection Against Natural and Other Disasters Act / Zakon o varstvu pred naravnimi in drugimi nesrečami.*
- *Defence Act / Zakon o obrambi.*
- *Foreign Direct Investment Screening Act / Zakon o preverjanju tujih neposrednih naložb (Official Gazette RS No. 55/23), 2023.*
- *Maritime Code / Pomorski zakonik (Official Gazette RS No. 62/16, as amended).*

XLVII. Uzbekistan

The completion of the Uzbekistan Jurisdiction Survey relied on 17 national sources covering the legal and regulatory framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed the national legal framework governing space activities, the institutional framework for the national space programme, space communications, telecommunications and radio spectrum management, civil aviation, environmental protection and environmental impact assessment, cybersecurity, export controls, licensing and permitting procedures, customs, as well as national space policies and strategic development.

Sources consulted

- *Law of the Republic of Uzbekistan No. ZRU-1017 "On Space Activities" / O'zbekiston Respublikasi Qonuni No. O'RQ-1017 "Kosmik faoliyat to'g'risida", 13 January 2025.*
- *Presidential Decree No. DP-5806 "On the Development of Space Activities in the Republic of Uzbekistan" / O'zbekiston Respublikasi Prezidentining PF-5806-son Farmoni "O'zbekiston Respublikasida kosmik faoliyatni rivojlantirish to'g'risida", 30 August 2019.*
- *Cabinet of Ministers Resolution No. 781 on Measures to Organise the Activities of the Agency of Space Research and Technology under the Cabinet of Ministers of the Republic of Uzbekistan / O'zbekiston Respublikasi Vazirlar Mahkamasining 781-son Qarori, 17 September 2019.*



- *Cabinet of Ministers Resolution on Measures for Further Development of the Space Communication Network / Vazirlar Mahkamasining "Kosmik aloqa tarmog'ini yanada rivojlantirish chora-tadbirlari to'g'risida" qarori, 2022.*
- *Concept for the Development of the Space Communication Network of Uzbekistan for 2022–2026 / O'zbekiston kosmik aloqa tarmog'ini 2022–2026 yillarda rivojlantirish konsepsiyasi, 2022.*
- *Presidential Decree on Additional Measures for Accelerated Implementation of Aerospace Technologies / "Aerokosmik texnologiyalarni jadal joriy etish bo'yicha qo'shimcha chora-tadbirlar to'g'risida", 2025.*
- *Presidential Resolution No. PP-424 on Additional Measures for the Further Development of the Space Network / O'zbekiston Respublikasi Prezidentining PQ-424-son Qarori "Kosmik tarmoqni yanada rivojlantirish bo'yicha qo'shimcha chora-tadbirlar to'g'risida", 23 November 2022.*
- *Cabinet of Ministers Resolution No. 274 on Measures to Further Improve the Activities of the Agency for Space Research and Technologies / O'zbekiston Respublikasi Vazirlar Mahkamasining 274-son Qarori, 20 May 2022.*
- *Air Code of the Republic of Uzbekistan / Havo kodeksi, 7 May 1993.*
- *Law of the Republic of Uzbekistan No. ZRU-1015 "On Telecommunications" / O'zbekiston Respublikasi Qonuni No. O'RQ-1015 "Telekommunikatsiyalar to'g'risida", 27 December 2024.*
- *Law on the Use of Radio Frequency Spectrum / "Radiochastota spektridan foydalanish to'g'risida", 1998.*
- *Law of the Republic of Uzbekistan No. ZRU-764 "On Cybersecurity" / O'zbekiston Respublikasi Qonuni No. O'RQ-764 "Kiberxavfsizlik to'g'risida", 15 April 2022.*
- *Law on Nature Protection / "Tabiatni muhofaza qilish to'g'risida", 1992.*
- *Law on Environmental Expertise, Environmental Impact Assessment and Strategic Environmental Assessment / "Ekologik ekspertiza, atrof-muhitga ta'sirni baholash va strategik ekologik baholash to'g'risida", 2025.*
- *Law of the Republic of Uzbekistan No. 658-II "On Export Control" / O'zbekiston Respublikasi Qonuni No. 658-II "Eksport nazorati to'g'risida", 26 August 2004.*



- *Law No. ZRU-701 "On Licensing, Permitting and Notification Procedures" / O'zbekiston Respublikasi Qonuni No. O'RQ-701 "Litsenziyalash, ruxsat berish va xabardor qilish tartib-taomillari to'g'risida", 14 July 2021.*
- *Customs Code of the Republic of Uzbekistan / O'zbekiston Respublikasining Bojxona kodeksi, 20 January 2016.*

XLVIII. Türkiye

The completion of the Türkiye Jurisdiction Survey relied on 17 national sources covering the legal and regulatory framework applicable to space activities and related matters relevant to the establishment and operation of spaceports. The research encompassed the national legal framework governing space activities, telecommunications and radio spectrum management, civil aviation, environmental protection and environmental impact assessment, cybersecurity, climate and environmental sustainability, personal data protection, customs, foreign direct investment, defence and export controls, land-use planning, occupational health and safety, maritime infrastructure, as well as national space policy and strategy.

Sources consulted

- *Presidential Decree No. 23 on the Turkish Space Agency / Türkiye Uzay Ajansı Hakkında Cumhurbaşkanlığı Kararnamesi, Official Gazette No. 30624, 13 December 2018.*
- *Turkish Civil Aviation Law No. 2920 / Türk Sivil Havacılık Kanunu No. 2920, 14 October 1983.*
- *Electronic Communications Law No. 5809 / Elektronik Haberleşme Kanunu No. 5809, 5 November 2008.*
- *Environmental Law No. 2872 / Çevre Kanunu No. 2872, 9 August 1983.*
- *Environmental Impact Assessment Regulation / Çevresel Etki Değerlendirmesi Yönetmeliği, Official Gazette No. 31907, 29 July 2022.*
- *Cybersecurity Law No. 7545 / Siber Güvenlik Kanunu No. 7545, Official Gazette No. 32846, 19 March 2025.*



- *Personal Data Protection Law No. 6698 / Kişisel Verilerin Korunması Kanunu No. 6698, 24 March 2016.*
- *Climate Law No. 7552 / İklim Kanunu No. 7552, Official Gazette No. 32951, 9 July 2025.*
- *Law No. 5201 on the Control of Industrial Enterprises Producing War Weapons, Equipment, Vehicles, Ammunition and Explosives / Harp Araç ve Gereçleri ile Silâh, Mühimmat ve Patlayıcı Madde Üreten Sanayi Kuruluşlarının Denetimi Hakkında Kanun No. 5201, Official Gazette No. 25511, 3 July 2004.*
- *Customs Law No. 4458 / Gümrük Kanunu No. 4458, Official Gazette No. 23866, 4 November 1999.*
- *Foreign Direct Investment Law No. 4875 / Doğrudan Yabancı Yatırımlar Kanunu No. 4875, Official Gazette No. 25141, 17 June 2003.*
- *Defence Industry Security Law No. 5202 / Savunma Sanayii Güvenliği Kanunu No. 5202, Official Gazette No. 25510, 3 July 2004.*
- *Zoning Law No. 3194 / İmar Kanunu No. 3194, Official Gazette No. 18749, 9 May 1985.*
- *Ports Law No. 618 / Limanlar Kanunu No. 618, 14 April 1925.*
- *Occupational Health and Safety Law No. 6331 / İş Sağlığı ve Güvenliği Kanunu No. 6331, Official Gazette No. 28339, 30 June 2012.*
- *Military Forbidden Zones and Security Zones Law No. 2565 / Askerî Yasak Bölgeler ve Güvenlik Bölgeleri Kanunu No. 2565, 18 December 1981.*
- *National Space Program and Strategy Document 2022–2030 / Milli Uzay Programı ve Strateji Belgesi 2022–2030.*



Annex E: Table of Standards and Guidelines applicable to the management and operation of spaceports

AEAAS WP2 Harmonised Table Standards and Guidelines							
#	Standard	Category	Relevant AEAAS regulatory item(s) (D2 Annex D)	WP2 Assessment	Geographic Scope	Short Description	Reference Source
ECSS							
Management Standards (ECSS-M)							
1	ECSS-M-ST-10C Rev.1	Project Management	No direct Annex D item; horizontal project support	Normative status: ECSS technical standard Lifecycle stage: Planning / construction Relevance: Supporting	European	Establishes the requirements for the planning, management and implementation of space projects throughout their lifecycle, including governance, reviews, configuration, risk and project control processes.	https://ecss.nl/standard/ecss-m-st-10c-rev-1-project-planning-and-implementation/
2	ECSS-M-ST-40C	Configuration and Information Management	D.1 - Safety standards and technical specifications	Normative status: ECSS technical standard Lifecycle stage: All lifecycle stages Relevance: Supporting	European	Defines the requirements for configuration and information management throughout the lifecycle of space projects, ensuring the identification, control, traceability and integrity of technical information and configuration items.	https://ecss.nl/standard/ecss-m-st-40c-rev-1-configuration-and-information-management/
3	ECSS-M-ST-60C	Cost and Schedule Management	No direct Annex D item; horizontal project support	Normative status: ECSS technical standard Lifecycle stage: Planning / construction Relevance: Indirect	European	Establishes the requirements for planning, monitoring and controlling project costs and schedules throughout the lifecycle of space projects. It defines the management processes necessary to support	https://ecss.nl/standard/ecss-m-st-60c-cost-and-schedule-management/



						the efficient use of resources, identify potential cost and schedule deviations, and implement appropriate corrective actions to achieve project objectives.	
4	ECSS-M-ST-80C	Risk Management	D.4 - Hazard analysis and risk assessment	Normative status: ECSS technical standard Lifecycle stage: All lifecycle stages Relevance: Supporting	European	Defines the requirements for identifying, assessing, monitoring and mitigating risks throughout the lifecycle of space projects to support informed decision-making.	https://ecss.nl/standard/ecss-m-st-80c-risk-management/
Engineering Standards (ECSS-E)							
5	ECSS-E-ST-10C Rev.1	System Engineering	D.1 - Safety standards and technical specifications	Normative status: ECSS technical standard Lifecycle stage: Planning / construction Relevance: Supporting	European	Defines the general systems engineering requirements for the development, integration, verification and validation of space systems throughout the project lifecycle.	https://ecss.nl/standard/ecss-e-st-10c-rev-1-system-engineering-general-requirements-15-february-2017/
6	ECSS-E-ST-10-06C	Technical Requirements Specification	D.1 - Safety standards and technical specifications	Normative status: ECSS technical standard Lifecycle stage: Planning / construction Relevance: Supporting	European	Establishes the requirements for the preparation and management of technical requirements specifications for space systems. It defines the different types of technical requirements and the principles for developing clear, complete and consistent specifications applicable to all space projects.	https://ecss.nl/standard/ecss-e-st-10-06c-technical-requirements-specification/
7	ECSS-E-ST-10-02C Rev.1	Verification	D.1 - Safety standards and technical specifications	Normative status: ECSS technical standard Lifecycle stage: Construction / operation	European	Establishes the requirements for planning, performing and documenting verification activities	https://ecss.nl/standard/ecss-e-st-10-02c-rev-1-verification-1-february-2018/



				Relevance: Supporting		to demonstrate compliance with system requirements.	
8	ECSS-E-ST-10-03C	Testing	D.1 - Safety standards and technical specifications	Normative status: ECSS technical standard Lifecycle stage: Construction / operation Relevance: Supporting	European	Defines the requirements for planning, conducting and documenting tests performed during the development and qualification of space systems.	https://ecss.nl/standard/ecss-e-st-10-03c-rev-1-testing-31-may-2022/
9	ECSS-E-ST-10-04C Rev.1	Space Environment	D.1 - Safety standards and technical specifications	Normative status: ECSS technical standard Lifecycle stage: Planning / construction / operation Relevance: Supporting	European	Defines the natural and induced space environments applicable to space systems, including environmental models and rules for determining mission-specific environmental conditions across different space regimes.	https://ecss.nl/standard/ecss-e-st-10-04c-rev-1-space-environment-15-june-2020/
10	ECSS-E-ST-10-24C	Interface Management	D.1 - Safety standards and technical specifications H.3 - Payload review requirements	Normative status: ECSS technical standard Lifecycle stage: Planning / construction / operation Relevance: Supporting	European	Establishes a systematic process for the identification, specification, approval, implementation, verification and control of interfaces throughout the lifecycle of space projects. It defines the requirements for managing interfaces between space, ground and launch segments to ensure functional and physical compatibility across interconnected systems.	https://ecss.nl/standard/ecss-e-st-10-24c-rev-1-interface-management-15-november-2024/
11	ECSS-E-ST-20C	Electrical and Electronic	D.1 - Safety standards and technical specifications	Normative status: ECSS technical standard Lifecycle stage: Planning / construction Relevance: Supporting	European	Establishes the general engineering principles, requirements and processes applicable to electrical, electronic, electromagnetic and microwave engineering in space projects, including the design and verification of electrical subsystems and payloads.	https://ecss.nl/standard/ecss-e-st-20c-rev-2-electrical-and-electronic-8-april-2022/



1 2	ECSS- E-ST- 20-07C Rev.2	Electromagnetic Compatibility	D.1 - Safety standards and technical specifications	Normative status: ECSS technical standard Lifecycle stage: Construction / operation Relevance: Supporting	European	Establishes the engineering requirements for ensuring electromagnetic compatibility in space systems. It defines the system requirements, verification processes and test methods necessary to control electromagnetic effects and demonstrate compliance throughout the development and verification of space projects.	https://ecss.nl/standard/ecss-e-st-20-07c-rev-2-electromagnetic-compatibility-3-january-2022/
1 3	ECSS- E-ST- 32C Rev.1	Structural General Requirements	D.1 - Safety standards and technical specifications	Normative status: ECSS technical standard Lifecycle stage: Construction Relevance: Supporting	European	Establishes the mechanical engineering requirements for structural engineering, covering the definition, design, development, verification, production, operation and disposal of structural subsystems throughout the lifecycle of space products.	https://ecss.nl/standard/ecss-e-st-32c-rev-1-structural-general-requirements/
1 4	ECSS- E-ST- 35C Rev.1	Propulsion	D.1 - Safety standards and technical specifications	Normative status: ECSS technical standard Lifecycle stage: Planning / construction / operation Relevance: Supporting	European	Establishes the engineering requirements applicable to liquid, solid and electric propulsion systems used in launch vehicles and spacecraft. It defines the activities, processes and engineering requirements covering functional, physical, environmental, quality, operational and verification aspects of propulsion systems.	https://ecss.nl/standard/ecss-e-st-35c-rev-1-propulsion-general-requirements/



1 5	ECSS- E-ST- 40C Rev.1	Software	D.1 - Safety standards and technical specifications	Normative status: ECSS technical standard Lifecycle stage: Construction / operation Relevance: Supporting	European	Establishes the software engineering requirements for the development of software used in space systems. It defines the processes for software requirements, design, development, verification, validation, operation and maintenance, providing a comprehensive framework for software engineering throughout the lifecycle of space projects.	https://ecss.nl/standard/ecss-e-st-40c-rev-1-software-30-april-2025/
1 6	ECSS- E-ST- 50C Rev.2	Communications	D.1 - Safety standards and technical specifications G.4 - Compliance with ITU Radio Regulations	Normative status: ECSS technical standard Lifecycle stage: Construction / operation Relevance: Supporting	European	Establishes the engineering requirements for the development of end-to-end spacecraft communication systems. It defines the terminology, engineering activities, functional and performance requirements for space-ground, space-to-space and spacecraft communication links, covering the space link, space network and relevant aspects of the ground network.	https://ecss.nl/standard/ecss-e-st-50c-rev-1-communications-5-december-2024/
1 7	ECSS- E-ST- 70C	Ground Systems and Operations	D.1 - Safety standards and technical specifications	Normative status: ECSS technical standard Lifecycle stage: Operation Relevance: Supporting	European	Contains the basic rules, principles and requirements for engineering the ground segment and mission operations that form part of a space project, including customer-supplier relationships. It excludes ground systems (for example, EGSE (Electrical	https://ecss.nl/standard/ecss-e-st-70c-ground-systems-and-operations/



						Ground Support Equipment)) and operations supporting space-segment verification, which are covered by ECSS-E-ST-10-02, and it excludes the launch segment and its operations. It is therefore supporting rather than directly applicable to spaceport launch operations.	
1 8	ECSS- E-ST- 80C	Security in Space Systems Lifecycles	D.6 - Security requirements	Normative status: ECSS technical standard Lifecycle stage: All lifecycle stages Relevance: Supporting	European	Establishes the security engineering requirements for space systems throughout their lifecycle. It defines the processes and controls necessary to ensure the implementation of security measures across space, ground, launch and support segments, addressing both system security and lifecycle security through a risk-based approach.	https://ecss.nl/standard/ecss-e-st-80c-space-engineering-security-in-space-systems-lifecycles/
ECSS-Q – Product Assurance Standards							
1 9	ECSS- Q-ST- 10C Rev.1	Product Assurance Management	D.1 - Safety standards and technical specifications	Normative status: ECSS technical standard Lifecycle stage: All lifecycle stages Relevance: Supporting	European	Establishes the management principles and requirements for implementing and maintaining a Product Assurance programme throughout all phases of a space project. It defines the Product Assurance management framework, including planning, documentation and project-wide assurance	https://ecss.nl/standard/ecss-q-st-10c-rev-1-product-assurance-management-15-march-2016/



						activities applicable to all space projects.	
20	ECSS-Q-ST-10-09C Rev.1	Nonconformance Control System	D.1 - Safety standards and technical specifications	Normative status: ECSS technical standard Lifecycle stage: Construction / operation Relevance: Supporting	European	Establishes the requirements for the identification, documentation, assessment and control of non-conformances affecting deliverable products and supplies in space projects. It defines the processes for managing non-conformances throughout the project lifecycle to ensure compliance with project requirements.	https://ecss.nl/standard/24183/
21	ECSS-Q-ST-20C Rev.2	Quality Assurance	D.1 - Safety standards and technical specifications	Normative status: ECSS technical standard Lifecycle stage: All lifecycle stages Relevance: Supporting	European	Establishes the quality assurance requirements for the planning, implementation and maintenance of a Quality Assurance programme for products developed within space projects. The standard defines the quality assurance framework applicable throughout the project lifecycle and is applicable to all space projects.	https://ecss.nl/standard/ecss-q-st-20c-rev-2-quality-assurance-1-february-2018/
22	ECSS-Q-ST-20-07C	Quality and Safety Assurance for Space Test Centres	D.1 - Safety standards and technical specifications D.4 - Hazard analysis and risk assessment	Normative status: ECSS technical standard Lifecycle stage: Construction / operation Relevance: Supporting	European	Establishes the quality assurance and safety assurance requirements for space test centres. It defines the requirements applicable to test processes, personnel, facilities, test environments and operations associated with test specimens to ensure the safe and reliable execution of testing activities in space projects.	https://ecss.nl/standard/ecss-q-st-20-07c-quality-and-safety-assurance-for-space-test-centres-1-october-2014/



2 3	ECSS-Q-ST-30C Rev.1	Dependability	D.1 - Safety standards and technical specifications D.4 - Hazard analysis and risk assessment	Normative status: ECSS technical standard Lifecycle stage: All lifecycle stages Relevance: Supporting	European	Establishes the dependability assurance programme and the dependability requirements applicable to space systems. It defines the principles, processes and engineering activities required to identify, assess and mitigate technical risks, ensuring that dependability objectives are achieved throughout all phases of a space project.	https://ecss.nl/standard/ecss-q-st-30c-rev-1-space-product-assurance-dependability-15-february-2017/
2 4	ECSS-Q-ST-40C Rev.1	Safety	D.1 - Safety standards and technical specifications D.4 - Hazard analysis and risk assessment	Normative status: ECSS technical standard Lifecycle stage: All lifecycle stages Relevance: Supporting	European	Establishes the safety programme and the technical safety requirements for space projects. It defines the principles and requirements for identifying, assessing and controlling hazards to protect personnel, space systems, launch vehicles, ground support equipment, property and the environment throughout the project lifecycle.	https://ecss.nl/standard/ecss-q-st-40c-rev-1-safety-15-february-2017/
2 5	ECSS-Q-ST-40-02C	Hazard Analysis	D.4 - Hazard analysis and risk assessment	Normative status: ECSS technical standard Lifecycle stage: Planning / construction / operation Relevance: Supporting	European	Establishes the principles, processes and requirements for performing hazard analyses in space projects. It defines the methodology for identifying, assessing and managing hazards that may affect personnel, space systems, ground support equipment, facilities, property or the	https://ecss.nl/standard/ecss-q-st-40-02c-hazard-analysis/



						environment throughout the project lifecycle.	
2 6	ECSS-Q-ST-60C Rev.4	Electrical, Electronic and Electromechanical (EEE) Components	D.1 - Safety standards and technical specifications	Normative status: ECSS technical standard Lifecycle stage: Construction Relevance: Indirect	European	Establishes the requirements for the selection, control, procurement and use of electrical, electronic and electromechanical (EEE) components in space projects. It defines component assurance requirements based on three classes of assurance and risk, supporting their appropriate application throughout the development and integration of space systems.	https://ecss.nl/standard/ecss-q-st-60c-rev-4-electrical-electronic-and-electromechanical-eee-components-30-april-2025/
2 7	ECSS-Q-ST-70C Rev.2	Materials, Mechanical Parts and Processes	D.1 - Safety standards and technical specifications	Normative status: ECSS technical standard Lifecycle stage: Construction Relevance: Indirect	European	Establishes the requirements for the selection, qualification, procurement, control and use of materials, mechanical parts and manufacturing processes in space projects. It defines the management, technical and documentation requirements necessary to ensure their suitability and approval for integration into space systems and associated equipment.	https://ecss.nl/standard/ecss-q-st-70c-rev-2-materials-mechanical-parts-and-processes-15-october-2019/
2 8	ECSS-Q-ST-	Cleanliness and Contamination Control	D.1 - Safety standards and technical specifications	Normative status: ECSS technical standard	European	Establishes the requirements for cleanliness and contamination control throughout the lifecycle	https://ecss.nl/standard/ecss-q-st-70-01c-cleanliness-and-



70-01C Rev.1			Lifecycle stage: Construction / operation Relevance: Supporting		of space projects. It defines the management, planning and control measures necessary to achieve and maintain required cleanliness levels for personnel, facilities, operations and contamination-sensitive hardware during design, development, production, testing, launch and mission operations.	contamination-control-15-october-2025/
2 ECSS- Q-ST- 80C Rev.2	Software Product Assurance	D.1 - Safety standards and technical specifications	Normative status: ECSS technical standard Lifecycle stage: Construction / operation Relevance: Indirect	European	Establishes the software product assurance requirements for the development, maintenance and reuse of software used in space systems. It defines the product assurance processes necessary to ensure the quality, reliability and compliance of deliverable and quality-affecting software throughout the lifecycle of space projects.	https://ecss.nl/standard/ecss-q-st-80c-rev-2-software-product-assurance-30-april-2025/
# Standard	Category	Relevant AEAAS regulatory item(s) (D2 Annex D)	WP2 Assessment	Geographic Scope	Short Description	Reference Source
ISO						
3 ISO 14620-1:2018	Safety requirements	D.1 - Safety standards and technical specifications D.4 - Hazard analysis and risk assessment	Normative status: ISO International Standard Lifecycle stage: All lifecycle stages Relevance: Supporting	International	Establishes the safety programme and technical safety requirements for space systems. It defines the principles and processes for hazard identification, risk assessment,	https://www.iso.org/standard/67837.html



						hazard control, safety verification and safety validation to ensure the protection of personnel, space systems, infrastructure, property and the environment throughout the lifecycle of space projects.	
3 1	ISO 14620-2:2019	Launch Site Operations	D.1 - Safety standards and technical specifications D.4 - Hazard analysis and risk assessment D.5 - Emergency response planning	Normative status: ISO International Standard Lifecycle stage: Licensing / operation Relevance: Direct	International	Establishes the safety requirements for launch site operations, defining the responsibilities of operators and the principles, methods and procedures necessary to ensure the safety of personnel, property and the environment during the preparation and launch of space systems.	https://www.iso.org/standard/74116.html
3 2	ISO 14620-3:2021	Flight Safety Systems	D.2 - Range safety requirements D.3 - Flight termination system requirements D.4 - Hazard analysis and risk assessment	Normative status: ISO International Standard Lifecycle stage: Licensing / operation Relevance: Direct	International	Establishes the minimum requirements for flight safety systems used during orbital and suborbital launches, including flight termination, tracking and telemetry systems. It defines the safety requirements necessary to minimize risks to people, property and the environment during space launch operations.	https://www.iso.org/standard/81677.html
3 3	ISO 14620-4:2025	Spacecraft Assembly, Integration and Test	D.1 - Safety standards and technical specifications D.4 - Hazard analysis and risk assessment H.3 - Payload review requirements	Normative status: ISO International Standard Lifecycle stage: Construction / operation Relevance: Direct	International	Establishes the safety requirements for the management and operation of spacecraft assembly, integration and test (AIT) activities. It defines the	https://www.iso.org/standard/84446.html



						principles for hazard identification, risk reduction and safe operations during spacecraft assembly, testing, logistics, handling and related activities at space test centres and AIT facilities.	
34	ISO 14625:2023	Ground Support Equipment	D.1 - Safety standards and technical specifications D.4 - Hazard analysis and risk assessment	Normative status: ISO International Standard Lifecycle stage: Construction / operation Relevance: Direct	International	Specifies general characteristics and minimum performance, design, test, checkout, maintenance, safety, reliability, maintainability and quality requirements for non-flight ground support equipment used to transport, handle, assemble, inspect, test, service, launch or recover space vehicles and payloads at launch, landing or retrieval sites.	https://www.iso.org/standard/78977.html
35	ISO 17689:2023	Interface Control Documents	D.1 - Safety standards and technical specifications H.3 - Payload review requirements	Normative status: ISO International Standard Lifecycle stage: Planning / construction / operation Relevance: Direct	International	Establishes basic requirements for preparing interface control documents and controlling interfaces among ground support equipment, payloads, launch vehicles, other ground support equipment and launch-site utility systems; it applies to ground-support-equipment developers and operators performing space activities.	https://www.iso.org/standard/83490.html
36	ISO/TR 17400:2021	Launch-Complex Testing	D.1 - Safety standards and technical specifications D.4 - Hazard analysis and risk assessment	Normative status: ISO Technical Report (guidance) Lifecycle stage: Construction / operation Relevance: Direct	International	Provides general testing guidance for new, redesigned or upgraded launch complexes, integration sites and associated equipment, covering testing phases and objectives before	https://www.iso.org/standard/74190.html



						facilities are declared ready for launch-vehicle processing and launch.	
37	ISO 22772:2020	LV-to-EGSE Electrical Interfaces	D.1 - Safety standards and technical specifications	Normative status: ISO International Standard Lifecycle stage: Construction / operation Relevance: Direct	International	Defines electrical-interface types, design and environmental requirements, verification methods, and interface-check requirements for launch-vehicle-to-electrical-ground-support-equipment interfaces used in online processing.	https://www.iso.org/standard/73897.html
38	ISO 24113:2023	Space debris mitigation requirements	E.3 - Debris mitigation requirements G.5 - Adherence to debris mitigation guidelines	Normative status: ISO International Standard Lifecycle stage: Planning / operation / decommissioning Relevance: Supporting	International	Establishes the primary requirements for mitigating the generation of space debris throughout the lifecycle of unmanned space systems. It defines the measures applicable to launch vehicles, spacecraft and other objects operating in or passing through near-Earth space to reduce the long-term impact of debris on the space environment.	https://www.iso.org/standard/83494.html
39	ISO 16290:2013	Technology Readiness Levels (TRLs)	<i>No direct Annex D item; horizontal project support</i>	Normative status: ISO International Standard Lifecycle stage: Planning / construction Relevance: Indirect	International	Defines the Technology Readiness Levels (TRLs) and the assessment criteria for evaluating the maturity of space technologies. It establishes the conditions to be met at each readiness level to enable a consistent and objective assessment of technology development.	https://www.iso.org/standard/56064.html
40	ISO 27875:2026	Re-entry Risk Management	C.3 - Re-entry licence requirements	Normative status: ISO International Standard	International	Establishes a framework for assessing, reducing and controlling the risks associated	https://www.iso.org/standard/87629.html



			D.4 - Hazard analysis and risk assessment	Lifecycle stage: Licensing / operation Relevance: Direct		with the atmospheric re-entry of uncrewed spacecraft and launch vehicle orbital stages. It defines requirements for mission planning, design and review to protect people and the environment from hazards arising during controlled and uncontrolled re-entry.	
4 1	ISO 20892:2025	Launch Complex Modernization	D.1 - Safety standards and technical specifications	Normative status: ISO International Standard Lifecycle stage: Planning / construction / operation Relevance: Direct	International	Establishes the general requirements for the modernization of launch complexes and their components. It defines the modernization process, including its stages, performance requirements, and the roles and interactions of the organizations involved in planning and implementing modernization activities.	https://www.iso.org/standard/88934.html
4 2	ISO 21349:2023	Project Reviews	<i>No direct Annex D item; horizontal project support</i>	Normative status: ISO International Standard Lifecycle stage: All lifecycle stages Relevance: Supporting	International	Specifies the process requirements for conducting project reviews throughout the lifecycle of space projects. It defines the responsibilities of review boards, the review process, and the inputs, outputs and conditions necessary to support project oversight and decision-making at key milestones.	https://www.iso.org/standard/84724.html
4 3	ISO 21886:2019	Configuration Management	D.1 - Safety standards and technical specifications	Normative status: ISO International Standard Lifecycle stage: All lifecycle stages Relevance: Supporting	International	Defines the requirements, methods and responsibilities for configuration management throughout the	https://www.iso.org/standard/72052.html



						lifecycle of space projects. It establishes the processes necessary to maintain the integrity, traceability and control of project configurations from mission analysis through disposal.	
4 4	ISO 16091:2018	Integrated Logistic Support	D.1 - Safety standards and technical specifications	Normative status: ISO International Standard Lifecycle stage: Construction / operation Relevance: Supporting	International	Defines the management requirements for planning, developing and providing integrated logistic support throughout the lifecycle of space systems. It establishes the processes necessary to ensure that systems can be effectively operated, maintained and supported while meeting operational objectives and lifecycle requirements.	https://www.iso.org/standard/72937.html
4 5	ISO 14300-1:2023	Part 1: Structuring of a project Programme Management	No direct Annex D item; horizontal project support	Normative status: ISO International Standard Lifecycle stage: All lifecycle stages Relevance: Indirect	International	Specifies the programme and project management requirements applicable to space projects within contractual relationships between customers and suppliers. It establishes the management framework for planning, organizing and controlling space projects throughout their lifecycle.	https://www.iso.org/standard/86543.html
4 6	ISO 14300-2:2023	Part 2: Product assurance Programme Management	D.1 - Safety standards and technical specifications	Normative status: ISO International Standard Lifecycle stage: All lifecycle stages Relevance: Supporting	International	Defines the product assurance policy, objectives, principles and requirements applicable throughout the lifecycle of space products. It establishes the	https://www.iso.org/standard/86544.html



						framework for quality, safety, dependability, software and hardware assurance, as well as parts, materials and processes, to ensure the integrity and reliability of space systems.	
#	Standard	Category	Relevant AEAAS regulatory item(s) (D2 Annex D)	WP2 Assessment	Geographic Scope	Short Description	Reference Source
ICAO (International Civil Aviation Organisation)							
47	ICAO NAT Doc 013 – Operational Guidance Material for Commercial Space Operations (CSO) – North Atlantic Region (1st ed., July 2024)	Commercial Space Operations	D.7 - Airspace and maritime coordination H.1 - Pre-launch notification requirements H.2 - Launch window coordination	Normative status: ICAO regional guidance (non-binding) Lifecycle stage: Licensing / operation Relevance: Direct	Regional – ICAO North Atlantic (NAT) Region	Provides North Atlantic regional guidance for integrating commercial launch and re-entry operations and other new entrants into the air traffic management system. It supports coordination among State space regulators, launch and re-entry operators, air navigation service providers and air traffic service units, while remaining descriptive guidance rather than a basis for regulatory formulation.	Operational Guidance Material for Commercial Space Operations (CSO)



48	ICAO Annex 11 – Air Traffic Services	Air Traffic Services	D.7 - Airspace and maritime coordination	Normative status: ICAO SARPs (Standards and Recommended Practices) (subject to State implementation) Lifecycle stage: Licensing / operation Relevance: Supporting	International	Establishes the international standards and recommended practices for the provision of air traffic services. It defines the framework for the organization and management of airspace, the provision of air traffic control, flight information and alerting services, and the coordination of airspace to ensure the safe, orderly and efficient flow of air traffic.	https://ffac.ch/wp-content/uploads/2020/10/ICAO-Annex-11-Air-Traffic-Services.pdf
49	ICAO Doc 4444 – Procedures for Air Navigation Services – Air Traffic Management (PANS-ATM)	Air Traffic Management	D.7 - Airspace and maritime coordination	Normative status: ICAO PANS (State implementation) Lifecycle stage: Operation Relevance: Supporting	International	Establishes the internationally recognized procedures for air traffic management. It defines the operational procedures for the provision of air traffic services, including flight planning, separation, coordination, communication and airspace management, to ensure the safe, orderly and efficient movement of air traffic.	https://recursosdeaviacion.com/wp-content/uploads/2021/01/icao-doc-4444-air-traffic-management.pdf
#	Standard	Category	Relevant AEAAS regulatory item(s) (D2 Annex D)	WP2 Assessment	Geographic Scope	Short Description	Reference Source
UNOOSA (United Nations Office for Outer Space Affairs)							
50	Guidelines for the	Long-term Sustainability of Outer Space Activities	E.4 - Sustainability provisions	Normative status: UN COPUOS guidelines (non-binding) Lifecycle stage: All lifecycle stages	International	Establishes internationally recognized guidelines to promote the	Guidelines for the Long-term Sustainability of Outer Space Activities



	Long-term Sustainability of Outer Space Activities of the Committee on the Peaceful Uses of Outer Space		G.5 - Adherence to debris mitigation guidelines	Relevance: Supporting		safe, sustainable and responsible conduct of outer space activities. It provides recommendations for policy and regulatory frameworks, safety, information exchange, risk management, scientific and technical cooperation, and the long-term sustainability of the space environment.	
51	Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space	Space Debris Mitigation	E.3 - Debris mitigation requirements G.5 - Adherence to debris mitigation guidelines	Normative status: UN COPUOS guidelines (non-binding) Lifecycle stage: Planning / operation / decommissioning Relevance: Supporting	International	Establishes internationally recognized guidelines to mitigate the creation of space debris throughout the mission lifecycle. It provides recommendations for mission planning, spacecraft and launch vehicle design, operational practices and end-of-life disposal to reduce debris generation and preserve the long-term sustainability of the space environment.	Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space
#	Standard	Category	Relevant AEAAS regulatory item(s) (D2 Annex D)	WP2 Assessment	Geographic Scope	Short Description	Reference Source



IADC							
52	IADC Space Debris Mitigation Guidelines (Rev. 4, 2025)	Space Debris Mitigation	E.3 - Debris mitigation requirements G.5 - Adherence to debris mitigation guidelines	Normative status: IADC technical guidelines (non-binding) Lifecycle stage: Planning / operation / decommissioning Relevance: Supporting	International	Establishes internationally recognized technical guidelines for mitigating space debris throughout the lifecycle of spacecraft and launch vehicle orbital stages. It provides recommendations for mission planning, spacecraft design, operational practices, collision prevention, post-mission disposal and constellation management to preserve the long-term sustainability of the space environment.	IADC Space Debris Mitigation Guidelines ☒