

Towards European Legislation for Space Activities

Status - Assessment – Action

1. Context and purpose of EU legislation and regulation for space activities

The status and use of outer space are governed by international agreements, which can be ratified by States and for some of which, International Intergovernmental Organisations can declare their acceptance. Non-governmental actors require the authorisation of appropriate States, which also have to continuously supervise such activities.

Member States of the EU have ratified the most relevant international agreements (Outer Space Treaty, Rescue and Return Agreement, Liability Convention, Registration Convention, ITU legal texts); **the EU has not yet declared acceptance of the obligations from the Rescue and Return Agreement, the Liability Convention and the Registration Convention.** Besides that, **the enactment of national space legislation, authorising non-governmental actors, varies in the EU in two ways: not all Member States have enacted such national space laws and those who have, have done so with different approaches and with differing provisions.**

In view of the growing privatisation of space activities (including NewSpace), which is also a declared objective of the EU space strategy, **the goal has to be that all Member States of the EU enact national space legislation and that this shall be done in a way** that guarantees a level-playing field inside the EU and prevents licence-shopping. In addition, the EU needs a regulatory environment for its position in negotiations on the establishment of key principles for the global space economy. This is important for market access and fair competition in this sector reaching 1 trillion Euro globally before 2040.

The assessment of the role of EU in this context has also to be seen in the tradition of Europe organising space activities since its beginning also in inter-governmental cooperation (ESA, Eumetsat, Eutelsat, EU, plus single bilateral or multilateral projects) and conducting private space activities strongly amongst companies located in numerous Member States. **The EU is therefore facing a growing challenge and expectation to 1) ready itself as an actor, meeting international legal obligations as well as to 2) provide a sound legal and regulatory environment throughout the EU for meeting the aspirations in the space policy, economy, industry, programmes, applications, services and uses.** For this purpose, it can use its toolbox of legal and regulatory powers, taking into account the specific responsibilities of its Member States in this field as State Parties to the international treaties.

2. Status and interests of the Member States and relevant national stakeholders

The space sector is currently undergoing an important transformation fuelled by the rise of the private sector, the entry of new actors and an evolving geopolitical arena. Considering the increasing **importance of space to the functioning of our societies as well as to socio-economic development, space actors share many concerns such as the safety and sustainability of space activities**; – the Earth orbits should remain usable for the current and future generations, including commercial space activities. Concomitantly, the increasing risks cause **concerns about the protection of space assets**. Both viewpoints highlighting the need for management of the increased traffic, seizing the proliferation of new space debris and devising ways of remediating the existing debris population. These developments are also **relevant and interconnected to the security interests** of the Member States and the EU, especially considering that space technologies are often common between civilian and defence applications, thus, requiring increasing coordination and synergy between different policy and technology spheres. Considering the mix of interests, how to find an optimum regulatory environment inter alia to facilitate innovation, and ensure access to the global space market, and by *whom* and by which *means*?

The governance of the European space policy, including the definition of its orientations and implementation, is shared between the EU, ESA and the Member States. While the set-up is rather complex for example due to the different organisational and financing structures, it allows for diversity and flexibility for the Member States to design their national space policies, and any resulting regulation, in accordance with national interests and constitutional rules, based on the profile of the national space activities and actors, and within its sovereign competences. This is also highlighted in the **national space laws of the Member States of the EU, which despite remarkable commonalities, may have diverging rules, causing, at least in theory, fragmentation and problems on competition in the internal market**. Currently, ten EU Member States have comprehensive national space laws, namely Austria, Belgium, Denmark, Finland, France, Greece, Luxembourg, the Netherlands, Portugal, and Sweden. Additionally, there is increased interest to develop new national regulatory frameworks, or revise existing national space laws. In this regard, for example, Estonia, Hungary, and Malta have announced plans to create national regulatory frameworks, whereas Sweden has recently started to revise their existing space law. As Member States try to maintain and strengthen the competitiveness of their respective industries, regulatory frameworks may be used to gain competitive advantages, which in turn may increase division rather than unity at the European level. In contrast, if successful, any unified normative action at the EU level could potentially have an effect on changing the way space activities are conducted and lead to consolidated regulatory development beyond the EU, similarly as the General Data Protection Regulation (GDPR).

The classical scope of space law - authorisation and continuous supervision of space activities, is mandated by Article VI of the Outer Space Treaty for the States Parties to ensure that national space activities, including those by private actors, are carried out in compliance with international law. The Outer Space Treaty does not direct the means how this duty is to be implemented at national level. Making a national space law is perhaps the most known and effective way to set up conditions according to which national space

activities may be carried out, but there is ‘no one size fits all solution’. The discretion of the States to organise their internal matters is also reflected in the UN General Assembly Resolution ‘Recommendations on national legislation relevant to the peaceful exploration and use of outer space’ (2013), calling for “appropriate action at national level” to organise authorisation and supervision of non-governmental entities. Considering that the private sector is developing strong capacities and playing a more active role in space activities – often having a transnational character – new challenges arise for the regulatory framework.

Spacefaring States try to make a careful **balance when designing their regulatory frameworks between different policy objectives**, on the one hand encouraging entrepreneurship, innovation, growth and private investment in space activities, while on the other hand complying with the international obligations and managing the financial risks of the State. After all, space activities are considered as ultra-hazardous and can cause significant damage. The balancing exercise and the adoption of a holistic, proportional approach in making the risk assessment are especially relevant for small start-up companies, which may not be able to show long track record of financial stability. **Involving different stakeholders and the addressees** of the normative framework (industry, science community, and civil society) is a way to increase the possibilities that the resulting instruments meet the expectations, interests and practical needs of the respective actors. Besides official consultations, other means, such as conferences, hearings and workshops may be used to gain input from the user community.

As States bear international responsibility and liability for the space activities of their non-governmental entities, **national space laws contain rules to share burden and risks with private actors in order to safeguard public interests**. These interests can include, in addition to financial provisions, reflections of policy values inter alia in relation to environment or the attainment sustainable development goals. Even if regulating private activities may not at the outset be regarded as an action in support of the industry, **in case regulation achieves the goal of providing legal certainty, a level playing field and a framework which supports innovative technologies, regulation can act as a tool to foster growth of the private sector**. Moreover, it is noteworthy that, including requirements reflective of the public values in the regulation, such as a requirement to mitigate space debris, may provide an incentive to the subjects to invest in developing compliant technologies, thus supporting innovation and market creation. Modern space law making should benefit from design thinking and employ innovative ways of incentivising the actors to support important public policy goals and interests.

Aside any normative proposals by the EU, **European States could benefit from enhanced opportunities to exchange views and best practices in governmental networks and fora**. This could allow development of common views and voluntary streamlining of policy and norms, especially in the implementation of international non-legally binding instruments, such as the 21 Guidelines on the long-term sustainability of outer space activities adopted by the Committee on Peaceful Uses of Outer Space (COPUOS) in 2019. Such an approach could create opportunities for the European institutions to facilitate and coordinate European positions in accordance with existing competences and to enable Europe to have a leading position in the global discourse by providing views that highlight the *European space values*.

3. Competences of the EU-institutions and existing relevant legislation

The competences of the EU in terms of regulation of outer space activities are subject to several provisions of the EU treaties (Treaty on the European Union - TEU - and Treaty on the Functioning of the European Union - TFEU), which need to be combined all together. At first sight, one may find in Art. 4.3 TFEU and 189.2 TFEU the keys to circumscribe the area of power of the EU in the space domain.

According to Art. 4.3 TFEU, in the areas of research, technological development and **space**, the EU shall have competence to carry out activities, in particular to define and implement programmes. Art. 189.2 TFEU mandates the EU to elaborate and to implement a European Space Policy, notably through the execution of a European Space Programme and through an appropriate cooperation with ESA. This competence, however, explicitly **excludes any harmonisation** of the Member States' respective legislation and regulation in the space domain.

The determination and restriction of the EU competences in the area of space must be understood in the broader context of EU law. First, Art. 189 TFEU provides for the prevalence of the general principles applicable to “Research and Technological Development and Space” of Title XIX of Part III of the TFEU (see Art. 189.4 TFEU). According to Art. 181.1 TFEU, the EU and the Member States shall coordinate their research and technological development activities so as to ensure that national policies and EU policy are mutually consistent. Furthermore, the Commission may “take any **useful initiative**” to promote this coordination, including, among others, the establishment of guidelines, or the organisation of exchange of best practices.” This shall be done in close cooperation with the Member States and with full information of the European Parliament. Such “useful initiatives” could address the legal and economic conditions of space research and technological development activities in Europe.

More generally, Art. 189.2 TFEU must be interpreted in a way that it receives an effective meaning and application. But it must also be considered in the legal context of the entire TFEU, as well as in the factual context of the **rapid evolution and mutation of the worldwide space sector**. Also, it cannot be isolated from the rest of the principles, especially the most basic ones, that are provided in the EU treaties. In other words, the restrictions to the competences of the EU in the area of space should not result in depriving the EU from its other competences conferred on it by the treaties, or from its capacity to fully implement such competences, In that respect, the interpretation must take into account the evolution of the space domain, not only as an R&D domain, but with regard to its new connections to strategic interests, to sectorial policies and to other fundamental issues, in which EU is called to play a role.

Internal Market - Freedom of Establishment and of Service - Competition

The internal market is a fundamental pillar of the EU. Space activities (R&D, operation of satellites, goods and services based on space applications) essentially are economic activities, with their financial and commercial implications.

To that extent, the freedom of movement, establishment and provision of services based on space technology is to be guaranteed, just like for any other economic domain. The EU shall ensure that no **unjustified obstacle** remains against the supply of services by space operators or data providers in the whole EU area. To that end, EU institutions are entitled to take legislative or executive measures, notably in order to (see Art. 50.2 TFEU and Art. 57 TFEU):

- **abolish** the administrative procedures and practices, whether resulting from national legislation or from agreements previously concluded between Member States, the maintenance of which would form an obstacle to freedom of establishment;
- **coordinate** to the necessary extent the safeguards which, for the protection of the interests of members and others, are required by Member States of companies or firms with a view to making such safeguards equivalent throughout the Union;
- **provide** mechanism for the resolution of potential conflicts in the implementation of national space laws.

It is not unlikely that insurance policy or liability mechanisms under national space laws could be considered as such "*safeguards*".

The liberalisation of services goes even beyond the areas of competence in which the EU can take legislative measures (directives). It constitutes an endeavour to which Member States are committed. To that end, the European Commission may issue recommendations to their attention (see Art. 60 TFEU). Such recommendations addressing the regulation of space activities could therefore be envisaged, if national regulatory provisions interfere with the freedom to provide services between Member States.

As far as fair competition is concerned, the European Commission also has competences that are not explicitly limited to areas in which EU enjoys a harmonisation power. There too, consultation with the concerned Member State(s) can take place, which, if not successful, may lead to appropriate directives by the European Parliament and the Council (see Art. 116 TFEU).

Common Foreign and Security Policy

(1) External Action

Under Title V of the TEU, the EU is competent for policies and actions and shall work for a high degree of cooperation with the purpose of, amongst others (see Art. 21.2 TEU): preserving peace, preventing conflicts and strengthening international security, in accordance notably with the UN Charter; fostering sustainable economic development; encouraging the integration of all countries in the global economy; helping the preservation of the environment and the sustainable management of natural resources; assisting victims of natural or man-made disaster.

These purposes are directly connected to the **multiple uses of space technology**, as highlighted by national and international policies. To the extent space activities can serve such goals, the EU is called to take actions towards an efficient coordination of Member States' policies, which may also include the definition of common standards, norms or procedures.

(2) Defence

With the recent inclusion of outer space in NATO's operational domains, the institution of the US Space Command and the threats identified by some States on their national strategic space assets, it is obvious that space has become **a field for defence policy**. To that extent, the role of EU as defined in the common foreign and security policy, including its defence implications (see Art. 26 TEU), must be acknowledged.

As a conclusion, **the restriction of the legislative and regulatory power of the EU with respect to Member States' space activities must be understood and implemented without prejudice to the fundamental principles that guide the action of the Union in other policy domains.** This is especially true when outer space is considered in all its dimensions, beyond R&D.

4. The EU's international rights and obligations with respect to its space activities

In 2021, the European Parliament and the Council adopted Regulation (EU) 2021/696 establishing the Union Space Programme and the European Union Agency for the Space Programme. It is based on Art. 189.2 TFEU and reflects the Space Strategy for Europe prepared by the European Commission in 2016. This regulatory instrument provides the legal framework of **the EU Space Programme, which mainly consists of five components**, namely Galileo (global navigation satellites system under civil control), the European Geostationary Navigation Overlay Service (EGNOS), Copernicus (Earth observation system under civil control), Space Situational Awareness (SSA) and GOVSATCOM (satellite communication services for managing security critical missions and infrastructures). In addition, the Regulation aims at supporting an autonomous European access to space and at fostering the development of a strong space economy within the EU (Article 3 Regulation 2021/696).

This Regulation makes clear that the EU is willing to take on and **strengthen its role as an actor in the area of space**. Such a role of an international organisation is already envisaged in Article VI Outer Space Treaty, which provides that, when activities are carried on in outer space by an international organisation, responsibility for compliance with the Outer Space Treaty and – via its Article III – with international law, including the Charter of the United Nations, **shall be borne by the international organisation and by the States Parties participating in such organisation**. The rules on international responsibility of States and International Organisations were codified by the International Law Commission of the United Nations in 2001 and 2011 respectively. According to the ILC Articles on the Responsibility of States, an international organisation is an organisation that is established by a treaty or other instrument governed by international law and possesses its own international legal personality. Such an international organisation **bears international responsibility for every internationally wrongful act that is attributable to it**. Yet, the international responsibility for outer space activities **goes even further than under general international law**, as it includes responsibility also for activities carried on by **non-governmental entities** (Article VI Outer Space Treaty).

In addition, international law applicable to space activities **contains rules on liability, which also go beyond general international law**. It provides for absolute and unlimited liability of the launching State/international organisation for damage caused by space objects on Earth or to aircraft in flight. If damage is caused elsewhere, for example by a collision of spacecraft in outer space, liability is still unlimited, but depends on whether the damage is due to the fault of the launching State or international organisation or the fault of persons for whom they are responsible. **The reason for these special rules on liability is the ultra-hazardous nature of space activities.**

The role of international organisations with respect to activities in outer space is especially reflected in the Liability Convention (Article XXII), the Registration Convention (Article VII) and the Rescue and Return Agreement (Article 6). Under these conventions, **international organisations may declare their acceptance of the rights and obligations contained therein.** Member States of any such organisations, which are States Parties to the Convention, **shall take all appropriate steps to ensure that the organisation makes such a declaration.**

The term “launching State” or “launching authority” is interpreted and applied uniformly in all the UN treaties and conventions on outer space mentioned. It is defined as the State or authority, which “launches or procures the launching of a space object” or from “whose territory or facility a space object is launched”.

As European States have carried out space activities through international organisations for many years, several European organisations have already declared their acceptance of the rights and obligations of the UN treaties on outer space. These include the European Space Agency (ESA), the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) and the European Telecommunication Satellite Organisation (EUTELSAT).

It should therefore be **the next logical step of the EU to follow the example of the other European organisations and to declare its acceptance of the rights and obligations of the UN treaties on outer space.** According to Regulation 2021/696, the Commission should explore the possibility of the EU’s acceptance of the rights and obligations provided for in the relevant UN treaties and conventions and make, if necessary, appropriate proposals (see para 14 in the preamble).

Such a declaration would be legally and politically in the interest of the EU and its Member States. It would remove doubts on jurisdiction and control over EU space objects, which may otherwise arise under Article VIII Outer Space Treaty. It would also ensure that space objects are recovered and returned to it upon return to Earth (Article 5 Rescue and Return Agreement). The Commission has already started consultations with Member States on this matter. It is necessary that these consultations lead to positive result soon and are followed-up by concrete proposals on the next steps.

According to Regulation 2021/696, the EU shall be the owner of all tangible and intangible assets created or developed under the Programme’s components (Article 9). While ownership of space assets is not the decisive criterion for rights and obligations under international law, the UN space treaties refer to “jurisdiction and control” over space objects, whose ownership is not changed by their presence in space. In order **to secure jurisdiction and control over a space object, the space object must be registered.**

So far, satellites owned by the EU have not been registered, neither at the European nor on the international level. This leads to uncertainty who has the right to exercise jurisdiction and control over **them.** The EU therefore **must find a way to register its assets and to convey this information to the United Nations for entry in the international registry** of space objects maintained by the United Nations Office for Outer Space Affairs (UNOOSA).

According to the Regulation, the newly created EU Agency for the Space Programme, which replaces the former GNSS Agency, situated in Prague, Czechia, has a central role, in the implementation and administration of the EU Space Programme. The Regulation assigns numerous tasks and functions to the Agency, which it exercises through its Administrative Board, its Executive Director and its Security Accreditation Board. The Regulation determines rules, procedures and principles which the Agency must apply in the exercise of its function. For an international recognition of this function of the EU Space Agency and of the ownership of the EU of the respective space assets, international registration would be required.

The **acceptance of rights and obligations under the UN space treaties** is necessary in particular **in the international domain**. According to the Regulation, Copernicus should be the European contribution to the Global Earth Observation System of Systems, and the Commission should establish or maintain appropriate cooperation with relevant sectoral UN bodies (para 85 in the preamble of Regulation 2021/696).

In addition, the EU has established a support framework for space surveillance and tracking (SST) by means of Decision No 541/2014/EU (see para 88 in the preamble of Regulation 2021/696). The SST sub-component should lead to the establishment of an autonomous European catalogue of space objects, building on data from the network of SST sensors (see para 89 in the preamble). This shall be a contribution to prevent the proliferation of space debris and to ensure the sustainable and guaranteed access to and use of space, which is a global common objective (see para 88 in the preamble). The SST sub-component should be conducive to existing mitigation measures, such as the COPUOS Space Debris Mitigation Guidelines and Guidelines for the Long-Term Sustainability of Outer Space activities, or other initiatives to ensure the safety, security and sustainability of outer space activities, and shall contribute to ensuring the peaceful use and exploration of outer space (see para 94 of the preamble).

In principle, the EU could also declare the acceptance of rights and obligations for the **Moon Agreement**. In this case, however, the required majority of its Member States is not yet party to this treaty. Nevertheless, the EU could announce its interest to do so, which would certainly raise a discussion and possible readiness by numerous Member States to consider, signing and ratifying this treaty. Following such an accomplishment, the **EU could become the champion of developing a regime for the use of space resources** based on Article 11 of the Moon Agreement, which would then have to be regarded as the most legitimate effort to do so, opposite to the efforts of the US (Artemis Accords) and Russia/China (Guidelines for Activities) to unilaterally set rules in this area.

The EU's declaration of acceptance of the rights and obligations provided for in the UN treaties on outer space would therefore be in the interest of the EU and its Member States and **would strengthen the role of the EU as a responsible and credible actor in outer space**. According to Regulation 2021/696 the Commission should, alongside the High Representative of the Union for Foreign Affairs and Security Policy ("the High Representative") and in close coordination with Member States, **promote responsible behaviour in space when**

implementing the Programme including reducing space debris proliferation (para 14 in the preamble).

5. Developing legislation and regulation for space activities in the EU

The EU Space Programme does not only regulate the five components of the EU's own Space Programme but also aims at the promotion and support of space activities by and in Member States (Article 4 Regulation 2021/696). This includes the support of innovation, entrepreneurship, skills, and capacity building, with particular regard to SMEs and start-ups, in all Member States and Union regions.

The objectives of the EU Space Programme include the provision of high-quality and secure space-related data, information and services, in order to meet existing and future needs as well as to **support the Union's political priorities and independent decision making, inter alia for climate change, transport and security** (Article 4 Regulation 2021/696).

The Regulation sets out the financial envelope for the Space Programme until 2027 (encompassing EUR 14,88 billion in current price). In addition, other EU programmes and funds, which share similar objectives, could be used to pursue the objectives of the Space Programme, including Horizon Europe, the InvestEU Programme, the European Defence Fund and the European Regional Development Fund. **These funds are distributed to private industry through different means, such as procurement procedures, public contracts as well as grants and prizes** (para 15 preamble Regulation 2021/696).

Mindful of the distribution of competences between the Union and its Member States in several of these policies, Regulation 2021/696 provides for coordination with Member States and the use of Commission delegated acts (in accordance with Regulation 182/2011) with respect to the Programme's security requirements. In addition, the Programme should be implemented in accordance with the objectives of the Directive of the European Parliament and of the Council on the re-use of public sector information (2003/98/EC), in particular transparency, the creation of conditions conducive to the development of services and contributing to economic growth and job creation in the Union. Furthermore, the Programme should make use of available in-situ and ancillary data provided by the Member States in accordance with the Directive of the European Parliament and of the Council establishing an Infrastructure for Spatial Information in the European Community (INSPIRE) (2007/2/EC). **It follows that the Space Programme is integrated into other areas of EU activities in which the EU does not possess exclusive competence.**

The Regulation sets out that, since the objective of the Regulation cannot be sufficiently achieved by the Member States, but can rather, by reason of the scale and effects of the action that go beyond the financial and technical capacities of any single Member State, **be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 TEU**. In accordance with the principle of proportionality, as required by that Article, the Regulation does not go beyond what is necessary in order to achieve that objective (para 127 preamble).

In addition to the EU Space Programme, Member States will continue to carry out and support space activities at the national level. These activities, for which the Member States are responsible as their “national activities in outer space” (Article VI Outer Space Treaty), are subject to authorisation and supervision at the national level, if they are carried out by non-governmental entities. Authorisation and supervision is generally carried out on the basis of a national space law, if available, or by other means, such as contractual obligations or procurement conditions. States also want to keep jurisdiction and control as “States of registry” (Article VIII Outer Space Treaty) over their space objects. They are also interested in ensuring that national activities are reliable and safe so as to prevent liability as “launching States” (Article VII Outer Space Treaty, Article II and III Liability Convention). **In addition, States want to take precautions that the respective space activities do not hamper their political, economic and security interests.** These interests are, amongst others, reflected in the conditions for authorisation, terms and procedures of supervision and requirements for registration.

In view of the competences the EU has in many policy areas, specifically with respect to the internal market and competition law but also in other areas, **the prerequisites for authorisation and supervision of space activities at the national level must include EU law and policy aspects.** Member States need to comply with their obligations under EU law when exercising their function of authorisation and supervision of national space activities. **While this is self-evident in areas, in which the EU has exclusive competence, this is also true where it has a shared competence with the Member States.**

Regulation 2021/696 explains in detail the objectives and principles of the EU Space Programme. The space industry and other industries in Member States contribute and benefit from this strengthened effort of the EU in the area of space, including by the financial envelop. In the exercise of their national competences in the area of space, **Member States will share a lot of the objectives and principles,** including inter-operability and standardisation, with the EU Space Programme. In addition, Member States will have an interest that **data security and other security aspects** are complied with both at the national and at the European level.

It follows that, in the process of authorisation and supervision of space activities, **Member States will need to ensure that not only national, but also European rules and interests are safeguarded, when non-governmental entities carry out space activities.** Due to the division of competences between the EU and its Member States the respective interests in various policy areas are closely intertwined.

As a consequence, it could be **helpful for Member States** that do not yet have a national space law or established other practice of authorisation and supervision, that **principles and rules that need to be complied with by the Member States in their authorisation and supervision of national space activities are formulated in an EU legal instrument.** Such an instrument could leave room for specific national interests and requirements but ensure at the same time that European policies and rules are complied with. In addition, it can contribute to remove burdens and hurdles within the internal market. It will help to minimise the risk that operators interested in the development of space activities face diverging rules in different Member

States. An EU instrument could ensure a minimum standard and define certain basic prerequisites for authorisation which may be further **developed by Member States** if they so wish. **This would contribute to the provision of a level playing field for space operators throughout the Union and to the strengthening of the European space industry.**

6. Suggested Content of a European Legislation for Space Activities

The developments below describe the content of a European Legislation for Space Activities, under the following three liminal observations:

- By space activities, we mean all activities of exploration or exploitation of outer space, legally attachable to the European Union, whether they are activities in the earth-space segment (design, construction, launch, exploitation of space objects ...), the space-earth segment (space communications, earth observation, tracking, internet by satellite ...) or the space-space segment (in-space servicing ...).
- The provisions listed below have been classified into three categories according to whether they result from the provisions of the treaties relating to space, whether they integrate concerns, in particular safety and security, specific to the conduct of European space projects or whether they take into account the need for regulation of an emerging European market for space activities.
- Thus classified, the provisions below make it possible to describe a European legislation for space activities with a variable perimeter, respectful of and compatible with the existing competences of the States in the space sector, according to whether the objective pursued is
 - the establishment of a base of rules common to the Member States of the European Union with the aim of coordinating their national legislations,
 - the definition of a legal framework for the development of European projects according to Regulation n°2021-696 dated 21 April 2021, specifically with regard to safety and security, or,
 - the organization of a European market for space activities, including adapted competition rules.

	Basic Provisions	Provisions relating to Safety and Security	Economic aspects
a) Authorization	<p><i>Recalling the obligation set out by the provisions of article VI of the Outer-Space Treaty (OST) on authorization and supervision of activities carried out by non-governmental entities, this provision aims at</i></p> <ul style="list-style-type: none"> • <i>national procedures, when</i> 		

	<p><i>networks, operations, space objects concern more than one Member State,</i></p> <ul style="list-style-type: none"> • <i>encouraging Member States that do not have such regulations to adopt national regulations in the space field and</i> • <i>enabling transparency between the Member States, by encouraging the circulation of information on their national procedures (as it does, for example, with regard to the control of foreign investments).</i> <p><i>In this purpose, this provision lists the required authorizations (launch, in-orbit control, earth stations, spaceports, etc.) and defines a general methodology for their attribution. It also encourages the dissemination of coordinated and timely information between the Member States and between the Member States and the Commission on the decisions taken.</i></p>		
<p>b) Registration</p>	<p><i>This provision recalls the obligations fixed by the Convention on the registration of objects launched into outer space, set up a system of information by each Member State of the registered objects and institute a European register of civil space objects.</i></p>		

<p>c) Liability</p>	<p><i>This provision recalls the principle of the international liability of States for damage caused by space objects or their components under their jurisdiction, its modalities, as described in the Convention on International Liability for Damage Caused by Space Objects (damage caused in space, damage caused on the surface of the earth or to aircraft...).</i></p> <p><i>It could also encourage more coordination between the Member States, by</i></p> <ul style="list-style-type: none"> • <i>enabling the circulation of information on their national regimes of liability,</i> • <i>setting up a European standard of fault and</i> • <i>harmonizing the thresholds for sharing the responsibility of the States and of the operators towards third parties.</i> 		
<p>d) Frequencies and Orbital Positions</p>	<p><i>This provision refers to the Spectrum Decision 676/2002/CE of 7 March 2002 on a regulatory framework for radio spectrum policy in the European Community ("Radio Spectrum Decision") and to the Directive EU 2018/1972 of 11 December 2018 establishing the European Electronic Communications Code.</i></p> <p><i>In line with these texts, this provision therefore invites the Member States to set</i></p>		

	<i>up specific procedures for the authorization of frequencies and orbital positions.</i>		
e) Transfer of Ownership and Space Resources	<i>This provision could recall the legal regime of space objects: on earth, in the launch phase, in their orbit. It could also settle the delicate question of the transfer of ownership - and therefore of jurisdiction - of space objects evolving in outer space. Finally, it could express a European position on the issue of the legal regime of space resources.</i>		
f) Security		<i>Following Regulation 2021/696, this provision could list the essential strategic interests of the Union concerning space operations and define the modalities of their respect by the Member States, including in the decisions taken in the framework of their national legislations.</i>	
g) Sustainability		<i>This provision should encourage Member States to have technical regulations dealing with the end-of-life of space objects. It should also define a framework for the coordinated implementation of existing debris monitoring systems (SSA/SST). Finally, it could in this context provide the elements for implementing Space Traffic Management.</i>	
h) Standardization			<i>This provision could encourage the development of uniform European standards, for instance by extending ETSI's competencies and</i>

			<i>promoting European standards.</i>
i) Market Regulation			<p><i>While waiting for a European mega constellation and insofar as the mega constellations that are going to be put into service are all of non-European origin, the European market has every chance of being a consumer market for services provided by foreign space infrastructures.</i></p> <p><i>In this context, this provision could extend the application to the space sector of the two European regulations currently being adopted (DMA and DSA) or it could encourage the adoption of a Space Market Act (SMA) based on the DMA and DSA model.</i></p> <p><i>More generally, it could define competition rules specific to the space activities market, including temporary or permanent derogation rules applicable to concentrations of companies in the space sector, to innovative start-ups, to state aid, and to public procurement.</i></p> <p><i>Finally, it could recall the need to protect the European industry by defining, subject to reciprocity, more stringent rules for foreign companies that take over companies in the space sector or those that provide services in Europe that are largely subsidized by their country of origin.</i></p>
j) Export Control			<i>This provision can recall the main elements of the export-control system set</i>

			<i>up by the Regulation (CE) 428/2009 of 5 May 2009.</i>
k) Financing			<p><i>This provision could encourage the Member States to</i></p> <ul style="list-style-type: none"> ○ <i>Pursue a major European support program for companies in the space sector in the civil and defence fields, encourage intra-European cooperation</i> ○ <i>Promote market access for start-ups (growth capital)</i> ○ <i>Harmonize the regime of SPACs</i> ○ <i>...</i>
l) Data			<p><i>This provision should cover a wide spectrum of data (scientific data, public data, private data, and meteorological data). A definition of space-based data would be welcome. This provision must refer to the whole action of the European Union, including INSPIRE Directive, with a view to data transparency and the constitution of European space databases.</i></p>

7. Line of action

Step 1: Preparation and Consultation Process. For the purpose of establishing ESL, a normal written consultation process (like for the communication on the Action plan on synergies between civil, defence and space industries, COM(2021)70) is not sufficient. A visible kick-off with all stakeholders (including all EU institutions as well as European IGOs) is necessary. Useful would also be breakouts with Member States, industry, and other non-governmental actors. This should lead to Green Book – Legislation – Regular Review.

Step 2: Application of an approach. While a pure coordination approach would take too long and would, due to the strong variation of existing legislation in Member States lead to difficult

negotiations (including complicated reciprocity agreements and mutual recognition mechanisms), an approach alongside the experience with the ONP Directive (90/387/EEC) with the option to establish “Train measures” would lead to quicker results.

Step 3: Passing of two legal acts:

- (1) **EU declaration of acceptance of the obligations from Treaties (Liability Convention and Registration Convention) with a Regulation on the implementation of these obligation.** (This would encompass elements, also contained in national space laws, thus providing the EU with the opportunity to lead by example as an actor also legally integrated in the international system.
- (2) **EU appropriate legal instrument, as a Framework Directive, for encouraging the enactment or the revision of national space laws by the EU Member States,** as for ensuring also the interoperability among national space laws in the EU, potentially containing the elements: authorisation and supervision, registration, liability, frequencies and orbital positions, space resources; security, sustainability and safety in space (including STM) and on Earth, standardisation; market regulation and competition, export control and critical components, financing, data and ground stations, which will then be followed by respective implementing acts in the Member States.

Step 4: Establishing a forum for continuous stakeholder exchange. Such a forum would be necessary to provide an opportunity in particular for the Member States to share experience and practices with the implementation of the Framework Directive and for the EU to further develop measure to assure meeting the goals of European Space Legislation.

Step 5: International action by the EU. Europe can only act internationally, when it is itself implementing its obligations in a proper or even exemplary way. The joint European position will have to be presented in international forums (in particular UNCOPUOS, ITU and ISO but also forums related to trade and competition), in order to influence the development of international law and regulation in the common interest, as currently discussed in the fields of STM or secure connectivity. Any European space diplomacy will rest on Europe carefully implementing its international legal obligations.

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