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WORKING DOCUMENT

From:	General Secretariat of the Council
To:	Working Party on Civil Protection (CER) Horizontal Working Party on Cyber Issues Working Party on Space
Subject:	EU Space Act: MS comments on Titles I, IV (chapt. II-VI), V, VI and Annexes VII and VIII (deadline 24/10/2025)

Space Act : Titles I, IV (chap. II-VI), V, VI + related definitions Deadline: ***24 October 2025 cob***
From: AT, CZ, DE, EL, ES, FI, FR, HU, IE, IT, LT, LU, MT, NL, PL, PT, SE **Updated: 18/11/2025 12:27**

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Commission proposal	Drafting Suggestions and Comments
General Comments	[redacted]

Commission proposal	Drafting Suggestions and Comments
	[redacted]

PUBLIC

Commission proposal	Drafting Suggestions and Comments
	[redacted]

PUBLIC

Commission proposal	Drafting Suggestions and Comments
	[redacted]

PUBLIC

Title I
GENERAL PROVISIONS

PUBLIC

Commission proposal	

PUBLIC

Commission proposal	

PUBLIC

Commission proposal	[redacted]
Article 1	
Subject matter	

PUBLIC

Commission proposal	
1. This Regulation lays down rules for the establishment and functioning of the internal market of space-based data and space services.	
2. To achieve a high common level of safety, resilience and environmental sustainability of space services through the operation and use of space infrastructure generating space-based data, this Regulation lays down harmonised rules on:	

PUBLIC

Commission proposal	[redacted]
(a) authorisation, registration and supervision of space activities carried out by space services providers established in the Union, and respectively, registration and supervision of space activities carried out by international organisations and space services providers established in third countries when providing space-based data or space services in the Union, with respect to matters of safety, resilience and environmental sustainability of space activities;	

PUBLIC

Commission proposal
(b) orbit traffic management rules, through the provision of collision avoidance services;
(c) governance and enforcement aspects;

PUBLIC

Commission proposal
(d) establishment of a Union Space Label and capacity-building measures.

PUBLIC

Commission proposal	[redacted]
Article 2	
Scope	

PUBLIC

Commission proposal	[redacted]

PUBLIC

Commission proposal	

PUBLIC

Commission proposal	[redacted]
1. This Regulation applies to the following space services providers:	

PUBLIC

Commission proposal	
(a) space operators;	
(b) collision avoidance space services providers;	
(c) primary providers of space-based data;	
(d) international organisations.	

PUBLIC

Commission proposal	
2. The provisions of Title IV, Chapters I and V, do not apply to orbits further than the geostationary Earth orbit (GEO).	
3. This Regulation does not apply to:	

PUBLIC

Commission proposal	
(a) space objects exclusively used for defence or national security purposes, irrespective of which space services provider carries out the space activities;	

PUBLIC

Commission proposal	[redacted]

PUBLIC

Commission proposal	[redacted]
(b) space objects that have been temporarily placed for defence purposes under a military operation and control, for the duration of the respective space mission;	

PUBLIC

Commission proposal	

PUBLIC

Commission proposal
(c) the authorisation or management of radio spectrum governed by Decision 676/2002/EU, Directive (EU) 2018/1972 and Decision no 243/2012/EU;
(d) assets launched before 1 January 2030.

PUBLIC

Commission proposal	

PUBLIC

Commission proposal	
4. The requirements laid down in Title IV, Chapter I, regarding the design and manufacture of space objects shall apply to space objects where their operation generates space-based data that are used in the Union or enables the provision of space services in the Union.	

PUBLIC

Commission proposal	[redacted]
Article 3	
Free movement	

PUBLIC

Commission proposal
1. Member States shall not restrict, for reasons related to the safety, resilience and environmental sustainability, as covered by this Regulation, the provision of space-based data and space services in the Union by space services providers registered in the Union register of space objects referred to in Article 24.
2. Notwithstanding paragraph 1, where a Union space services provider intends to operate in, or launch from, a Member State other than the Member State of establishment, Member States may, when issuing the respective authorisations for operation or launch, impose stricter requirements on safety, resilience or environmental sustainability in relation to the respective space mission, insofar as such requirements are objectively necessary to safeguard the safety, resilience or environmental sustainability of the respective operation or launch subject to authorisation on their territories.

PUBLIC

Commission proposal	
	[redacted]

PUBLIC

Commission proposal	[redacted]
3. Member States shall provide all the relevant information regarding the requirements referred to in paragraph 2 through the Information Portal established in accordance with Article 110.	
Article 4	
National security clause	

PUBLIC

Commission proposal	
This Regulation shall be without prejudice to the responsibilities of Member States for safeguarding national security and other essential State functions.	

PUBLIC

Commission proposal	[redacted]

PUBLIC

Commission proposal	

PUBLIC

Commission proposal	[redacted]
Article 5	
Definitions	

PUBLIC

Commission proposal	[redacted]

PUBLIC

Commission proposal	
	[redacted]

PUBLIC

Commission proposal	[redacted]
For the purposes of this Regulation, the following definitions shall apply:	
(1) 'space object' means a human-made object sent to outer space, including a spacecraft and the launch vehicle orbital stage;	

PUBLIC

Commission proposal	
(8) ‘space mission’ means a user defined mission to be achieved by a space object;	

PUBLIC

Commission proposal
(9) ‘space infrastructure’ means any asset or set of assets, systems and sub-systems or parts thereof, used to carry out space activities, through the interaction and operation of the ground, space and link segments;
(11) ‘space segment’ means the segment of space infrastructure located in outer space, including space objects, space stations, space probes, crewed space transportation systems and onboarded hardware and software in the information systems and other onboarded material or equipment;
(12) ‘space-based data’ means data received from outer space, including but not limited to data of interception, of localisation, of transmission of a signal generated by a space object, or observation data, and which originate from the Earth, a celestial body, a space object or from outer space;

PUBLIC

Commission proposal	
(13) ‘space activities’ means a set of operations when carrying out activities in outer space, in particular:	

PUBLIC

Commission proposal	[redacted]
(a) operation and control of space objects, including for re-entry;	
(b) launch services, including launch attempts;	

PUBLIC

Commission proposal	
(c) operation and maintenance of launch sites and facilities;	
(d) activities in relation to the exploration of outer space, such as human spaceflight, space transport and conducting experiments, including of scientific nature, in outer space;	
(e) activities in relation to the use and management of space objects in outer space, such as in-space operations and services (ISOS);	
(f) operations that entail the monitoring of space debris;	

PUBLIC

Commission proposal
(g) operations that entail the disposal of space debris;
(14) ‘space services’ means any of the following services:
(a) operation and control of a space object;

PUBLIC

Commission proposal	[redacted]
(b) provision of launch services, as well as provision of services of operation and maintenance of the launch sites;	
(c) any of the services provided by a primary provider of space-based data;	

PUBLIC

Commission proposal
(d) in-space services and operations (ISOS);
(e) collision avoidance space services;
(15) 'space services provider' means a provider of space services covered by this Regulation;
(16) 'space operator' means a public or private entity that operates the space infrastructure, by carrying out at least one of the following space services, based on authorisation or a specific regime for carrying out a national space programme:

PUBLIC

Commission proposal	[redacted]
(a) operation, control and return of a space object ('spacecraft operator');	
(b) operation, control and monitoring of the launch process of a space object ('launch operator');	
(c) operation, control and maintenance of facilities at the ground segment of space infrastructure used for the launch process ('launch site operator');	
(d) operation and control of a space object for the purposes of provision of in-space operation and service, including to other space objects ('ISOS provider');	

PUBLIC

Commission proposal
(22) ‘primary providers of space-based data’ means space services providers, established in the Union or in a third country, that initiate the first processing of space-based data which is technically sufficient to enable any subsequent provision of space-based data, as follows:
(a) providers of electronic communications services, where the space-based data concerned is communication;
(b) space services providers which ensure the first processing of observation data, before other processing thereof, where the space-based data concerned is observation data;

PUBLIC

Commission proposal
(25) ‘research and education institution’ means a space services provider which carries out space activities for experimental purposes, whether or not exploiting the results of that research for commercial purposes;

PUBLIC

Commission proposal
(26) ‘small and medium-sized enterprises’ (‘SMEs’) means small and medium-sized enterprises as defined in Article 2 of the Annex to Commission Recommendation 2003/361/EC;
(27) ‘small mid-caps’ (SMCs) means enterprises as defined in Article 2 of the Annex to Commission Recommendation C(2025) 3500 final;
(28) ‘entities applying a simplified risk management’ means space operators that are small enterprises or research or education institutions and apply the simplified risk management referred in Article 10(3) and in Article 15(2);
(46) ‘network and information system’ means the network and information system as defined in Article 6, point (1), of Directive (EU) 2022/2555;

PUBLIC

Commission proposal
(47) ‘security of network and information systems’ means security of network and information systems as defined in Article 6, point (2), of Directive (EU) 2022/2555;
(49) ‘mission control centre’ means the element in the ground segment dedicated to the control and monitoring of the execution of a space mission;
(50) ‘satellite control centre’ means the element of the ground segment dedicated to the control of the satellite platform configuration;
(51) ‘effective technical control’ means the assurance of a space operator that a space object only executes commands transmitted by authorized sources and that those commands are executed in the proper order and at the intended moment;
(54) ‘cyber threat’ means a ‘cyber threat’ as defined in Article 2, point (8), of Regulation (EU) 2019/881;
(55) ‘significant cyber threat’ means ‘significant cyber threat’ as defined in Article 6, point (11), of Directive (EU) 2022/2555;

PUBLIC

Commission proposal	[redacted]
(59) ‘aggregated dataset’ means a life cycle inventory (LCI) of multiple unit processes or life cycle stages, for which inputs and outputs are provided only at the aggregated level, horizontally or vertically;	

PUBLIC

Commission proposal
(61) ‘disaggregation’ means the process that breaks down an aggregated dataset into smaller horizontal or vertical unit process datasets;
(62) ‘derived dataset’ means a dataset obtained by combining, through mathematical operations, two or more datasets or by combining at least one dataset with substantial additional information or other datasets;
(74) ‘Union Space Labelling Scheme’ means a comprehensive set of rules, technical requirements, standards and procedures established at Union level that apply to the compliance check of products, processes, services, including testing and inspection activities carried out in relation to matters of safety, resilience or environmental sustainability;

PUBLIC

Commission proposal	
	[redacted]

PUBLIC

Title IV
TECHNICAL RULES

PUBLIC

Commission proposal	[redacted]

PUBLIC

Commission proposal	

PUBLIC

Chapter II
RESILIENCE OF SPACE INFRASTRUCTURE

PUBLIC

Commission proposal	
	[redacted]

PUBLIC

Commission proposal	

PUBLIC

Commission proposal	
	[redacted]

PUBLIC

Commission proposal	[redacted]

PUBLIC

Commission proposal	[redacted]

PUBLIC

Commission proposal	
	[redacted]

PUBLIC

Commission proposal	
SECTION 1 **GENERAL PROVISIONS**	

PUBLIC

Article 75

PUBLIC

[redacted]

Commission proposal	[redacted]
Relationship with NIS 2 and CER Directives	

PUBLIC

Commission proposal	
	[redacted]

PUBLIC

Commission proposal	

PUBLIC

Commission proposal	
1. In relation to Union space operators qualifying as essential or important entities pursuant to Article 3 of Directive (EU) 2022/2555 with regard to space activities and space services covered by this Regulation, this Regulation shall be considered, as regards Article 21 of Directive (EU) 2022/2555, related to cybersecurity risk-management measures, a sector-specific Union legal act, for the purposes of Article 4 of that Directive.	

PUBLIC

Commission proposal	
	[redacted]

PUBLIC

Commission proposal	[redacted]

PUBLIC

Commission proposal	[redacted]

PUBLIC

Commission proposal	
2. Where Union space operators have been identified as critical entities in accordance with Directive (EU) 2022/2557, this Regulation shall apply in complementarity with Directive (EU) 2022/2557.	

PUBLIC

Commission proposal	

PUBLIC

Commission proposal	[redacted]
3. For the purposes of this Chapter, the competent authorities shall cooperate with the relevant authorities designated or established pursuant to Article 9(1) of Directive 2022/2557, as follows:	

PUBLIC

Commission proposal	
	[redacted]

PUBLIC

Commission proposal
(a) in the context of supporting the risk assessments to be carried out under this Regulation, pursuant to Article 78(2), and the risk assessments to be carried out under Directive (EU) 2022/2557, pursuant to Article 12(2), second subparagraph, and to Article 13(2);
(b) whenever necessary for the purposes of ensuring consistency in the application of this Regulation and Directive (EU) 2022/2557, and of sharing information, including for the purposes referred to in Articles 11, 15, 18 and 21 of that Directive.

PUBLIC

Commission proposal	
	[redacted]

PUBLIC

SECTION 2
RISK MANAGEMENT

PUBLIC

[redacted]

Commission proposal	[redacted]

PUBLIC

Article 76	[redacted]

PUBLIC

Commission proposal
Risk management through the lifecycle of space missions
1. Union space operators shall take all the necessary measures to manage the risks posed to the security of network and information systems and the security of the physical infrastructure and environment, in accordance with the principle of proportionality, taking into account their risk profile and size, as well as the nature, scale and complexity of their space activities.

PUBLIC

Commission proposal	[redacted]
The measures referred to in the first subparagraph shall be:	
(a) comprehensive, to cover, depending on the tasks being carried out, all segments of space infrastructure, including the ground infrastructure, encompassing the systems and subsystems thereof;	

PUBLIC

Commission proposal
(b) appropriate and proportionate to risks;
(c) based on an all hazard-approach.
2. The measures referred to in paragraph 1, first subparagraph, shall allow Union space operators to:

PUBLIC

Commission proposal
(a) ensure at all times the resilience of space infrastructure;
(b) maintain effective technical control of their space missions, while allowing a level of risk that is appropriate and consistent with the objectives and the features of each space mission and compliant with supervisory instructions.
3. Union space operators shall take into account at least the following criteria when assessing the appropriate and consistent level of risk in accordance with paragraph 2, point (b):

PUBLIC

Commission proposal	[redacted]
(a) the type and features of the space mission, such as its specific objectives, the orbit, the constellation size;	
(b) the impact upon other space activities;	

PUBLIC

Commission proposal	
(c) the size of the respective entity, the degree of exposure to risk and the likelihood and severity of incidents, including their societal and economic impact.	
4. Union space operators shall manage the risks referred to in paragraph 1, first subparagraph, to ensure the digital and physical resilience of space infrastructure, throughout the lifecycle of space missions, with due regard to:	

PUBLIC

Commission proposal	
(a) the conception and design phases, including the preparatory activities to the manufacturing phase, such as mission analysis, system analysis, system definition, system design, until the complete determination of systems;	
(b) the manufacturing and test phases, such as manufacture, assembly, integration, verification, validation and qualification phases;	
(c) the operational phase, including:	
(i) the transport, commissioning, launch and early orbit phase (‘LEOP’);	

PUBLIC

Commission proposal
(ii) the operation of a space object, the routine phase, the activities related to the control, management and monitoring of a space mission and any relevant coordination thereof;
(iii) maintenance of the ground segment and space segment;
(iv) carrying out in-space operations and services, such as on-orbit servicing;
(d) the end of life phases, notably the end of the space mission, the passivation, the disposal, the decommissioning and de orbiting phases;
(e) any supporting activities, such as transport, storage, logistics, maintenance services, management of general ICT infrastructure.

PUBLIC

Commission proposal	
5. Union space operators shall establish, implement and maintain an information security management system in accordance with relevant standards.	

PUBLIC

Commission proposal	
The information security management system referred to in the first subparagraph shall be part of the overall risk management of Union space operators and shall be implemented in a way that allows them to efficiently and comprehensively address all sources of risk, pursuant to Article 78(1), point (a), and the principles laid down in paragraph 2, point (b).	
6. Union space operators shall establish, implement and apply a policy and procedures to assess whether the cybersecurity risk-management measures taken are effectively implemented and maintained.	

PUBLIC

Commission proposal	[redacted]
Article 77	

PUBLIC

Commission proposal	[redacted]
Organisational aspects	
1. The management body of a Union space operator shall oversee, be responsible and held liable for, the implementation of the risk management measures taken to ensure compliance with the requirements laid down in this Chapter.	

PUBLIC

Commission proposal	
2. Union space operators shall set up, revise and monitor internal mechanisms regarding the human resources security policy, to ensure that all personnel, understand and commit to security responsibilities, in line with roles and responsibilities. Union space operators shall set up human resources polices to ensure throughout the hiring and disciplinary processes any needed vetting and checks.	

PUBLIC

Commission proposal	[redacted]
Article 78	
Risk assessments	

PUBLIC

Commission proposal	[redacted]

PUBLIC

Commission proposal	[redacted]
1. Throughout the life cycle of space missions, Union space operators, shall:	

PUBLIC

Commission proposal
(a) identify and assess, on a continuous basis, all sources of risks;
(b) regularly review the identified risks;
(c) identify cybersecurity and physical vulnerabilities and incidents and analyse, in view of the risk assessment referred to in paragraph 2, when such vulnerabilities cannot be fixed or mitigated immediately;
(d) establish dedicated risk treatment plans for all the cybersecurity vulnerabilities identified which create a risk above the level of risk referred to in Article 76(2), point (b).

PUBLIC

Commission proposal
2. Union space operators shall carry out risk assessments in accordance with point 1, of Annex VII.
3. The Commission is empowered to adopt delegated acts, in accordance with Article 113, to supplement this Regulation by:

PUBLIC

Commission proposal
(a) establishing, for the purposes of the risk scenarios referred to in point 1.4, point (f), of Annex VII, the criteria for the identification of:
(i) critical assets, critical functions, critical operations and critical stages, throughout the lifecycle of space missions, for which Union space operators shall develop security risk scenarios;
(ii) critical assets and critical functions referred to in Article 79(1), first subparagraph, for which the entities applying a simplified risk management shall develop security risk scenarios;
(b) developing risk scenarios that are tailored to the risks addressed by Union space operators, and respectively entities applying a simplified risk management;

PUBLIC

Commission proposal
(c) establishing a minimal list of security objectives, including the risk levels to be taken into account;
(d) developing the criteria and the methodology to ensure the comparability of risk assessments, to facilitate the supervisory activities ('supervisory reviews') of competent authorities;
(e) develop threat modelling methods to support the risk assessments for different segments and systems of space infrastructure;
(f) develop risk treatment measures to be applied by the Union space operators.

PUBLIC

Commission proposal
Article 79
Simplified risk management
1. Entities subject to the simplified risk management referred to in Article 10(3) shall apply the measures laid down in point 9, of Annex VII, only in relation to critical assets and critical functions, needed to address the risks of:

PUBLIC

Commission proposal	[redacted]
(a) loss of control of assets with propulsion;	
(b) loss of control of assets with capacity to emit interferences susceptible to adversely impact the security of other space operations.	

PUBLIC

Commission proposal
2. Competent authorities shall submit to the Agency the list of entities applying a simplified risk management.
3. The Agency shall report to the Commission annually on the application of the simplified risk management across the Union. The Agency may submit recommendations to facilitate supervisory convergence across the internal market.
The main findings of the reports referred to in the first subparagraph shall be tabled, as appropriate, on the agenda of the meetings of the EU Space Resilience Network established in accordance with Article 94(1).

PUBLIC

Commission proposal
4. To allow the provisions of this Regulation to be adapted to scientific and technical progress, based on the best available techniques, the Commission is empowered to adopt delegated acts in accordance with Article 113 to amend the requirements laid down in point 9, of Annex VII.

PUBLIC

Commission proposal	[redacted]
Article 80	
Identification and management of information and assets of space infrastructure	
1. Union space operators shall establish, maintain and update comprehensive policies for the categorization and management of information and assets of space infrastructure.	

PUBLIC

Commission proposal
2. Union space operators shall identify and document assets in accordance with point 2, of Annex VII, considering the risk assessments referred to in Article 78(2), and proportionately with the need to monitor and detect incidents referred to in Article 83.
3. Union space operators shall categorise information according to information security needs, based on, at least:
(a) the need to ensure the confidentiality, integrity, authenticity and availability of information;
(b) the level of criticality required by the security level of the respective space mission.
4. For the purposes of paragraphs 1, 2 and 3, Union space operators, and respectively entities applying a simplified risk management, as regards the

PUBLIC

Commission proposal	
critical assets and critical functions referred to in Article 79(1), first subparagraph, shall set up and maintain inventories.	
The inventories referred to in first subparagraph shall be drawn-up by individual space mission, indicating the origin and the current physical location of assets, including the identification of a cloud-based service, when relevant. Inventories shall be up to date.	

PUBLIC

Commission proposal	[redacted]
Article 81	
Management and control of access rights	

PUBLIC

Commission proposal
1. Union space operators shall implement the management and control of access rights through identity and access management protocols.
2. The protocols referred to in paragraph 1 shall set-out the conditions and procedures for the logical and physical access rights to systems and assets, including for remote access.
3. The identity and access management protocols referred to in paragraph 1 shall:
(a) be capable of safeguarding accesses to the ground segment and to the centres for the control of the space segment;

PUBLIC

Commission proposal
(b) allow restriction of physical and logical access to all critical assets, critical information, critical functions, critical operations and, as appropriate, critical equipment or information identified in accordance with Article 80(2);
(c) be tailored to standard operations and to emergency situations, to enable effective and timely emergency responses upon the activation of the response and recovery plans referred to in Article 87.
4. When setting-out the conditions and procedures referred to in paragraph 2, Union space operators shall cover the issuance, the continuous management (including change, upgrade or downgrade), the revocation, termination, verification and the audit of logical and physical access rights for all authorised devices, processes, and users.
Those conditions and procedures shall be based on the principles of 'need to know' and 'the least privilege' (limitation to what is required for ensuring a legitimate and approved use or activity).

PUBLIC

Commission proposal
5. The identity and access rights referred to in paragraph 2 shall be revoked automatically when the authorizations of staff or devices expire or are no longer needed.
6. The identity and access management protocols referred to in paragraph 1 shall ensure adequate protection of information and assets identified in accordance with Article 80(2) from risks, including from damage, misuse or unauthorised access or usage.
Article 82
Physical resilience

PUBLIC

Commission proposal	[redacted]
1. Union space operators shall take the measures laid down in point 3, of Annex VII, and any other measures that are necessary and adequate to ensure the resilience of the physical assets and which are at least equivalent to the technical, security and organisational measures referred to in Article 13 of Directive (EU) 2022/2557 to ensure the resilience of the ground segments.	

PUBLIC

Commission proposal	[redacted]
2. Where Union space operators have been identified as critical entities in accordance with Directive (EU) 2022/2557, this Regulation shall apply without prejudice to, and in complementarity with, that Directive.	

PUBLIC

Commission proposal	
3. Union space operators shall define, protect and segregate areas that contain assets and information which are deemed sensitive or identified as critical, based on the identification carried out pursuant to Article 80(2).	
4. The Commission is empowered to adopt delegated acts in accordance with Article 113, to amend the requirements laid down in point 3, of Annex VII, to adapt them to the scientific and technical progress, based on the best available techniques.	
Article 83	
Detection and monitoring of incidents	

PUBLIC

Commission proposal
1. Union space operators shall monitor on a continuous basis the occurrence of anomalies and incidents by using appropriate detection systems and mechanisms.
2. Union space operators, and respectively entities applying the simplified risk management, as regards the critical assets and critical functions referred to in Article 79(1), first subparagraph, shall ensure that the ground stations have access to detection systems and mechanisms that comply with at least the requirements laid down in point 4, of Annex VII.
3. The spacecraft and the ground segment shall be configured to generate and respectively receive, upon detection of an incident, a security event which shall be sent to a security monitoring subsystem. The security monitoring subsystem of the ground segment shall be, in terms of information technology, segregated from the rest of the infrastructure (logical segregation).

PUBLIC

Commission proposal
4. Union space operators shall ensure that the detection systems and mechanisms are regularly tested in accordance with Articles 88 and 89.
5. The Commission is empowered to adopt delegated acts in accordance with Article 113, to amend the list of requirements laid down in point 4, of Annex VII, to adapt them to the scientific and technical progress, based on the best available techniques.
Article 84

PUBLIC

Commission proposal
Prevention and protection
1. Union space operators shall tailor the measures concerning the cybersecurity of the spacecraft and the ground segment adopted in accordance with this Chapter to the specific needs of the space mission and shall adequately cover the risks identified in the security risk assessment referred to in Article 78(2).
2. Union space operators shall ensure that the network and information systems fulfil the following conditions:
(a) they comply with the requirements laid down in point 5.1, of Annex VII;

PUBLIC

Commission proposal
(b) they are configured to allow the ground segment to supervise the telemetry/telecommand on ground and to supervise the state of the spacecraft;
(c) they enable Union space operators to maintain effective technical control of the space segment.
3. Union space operators, and respectively entities applying a simplified risk management, as regards the critical assets and critical functions referred to in Article 79(1), first subparagraph, shall ensure that only authorised devices communicate with the systems in charge of the control, command of a satellite, and configuration of the space mission.
They shall comply to that effect with at least the requirements laid down in point 5.2, of Annex VII and point 5.3, of Annex VII.

PUBLIC

Commission proposal	
4. Union space operators shall implement preventive and protective measures that are necessary and adequate to ensure the resilience of space activities, by taking at least the measures regarding the ground segment which are laid down in point 5.4, of Annex VII.	
5. The Commission is empowered to adopt delegated acts in accordance with Article 113 to amend the requirements laid down in point 5, of Annex VII, to adapt them to the scientific and technical progress, based on the best available techniques.	
Article 85	
Cryptography and encryption	

PUBLIC

Commission proposal	
1. Based on the risk assessment referred to in Article 78(2), Union space operators, and respectively entities applying a simplified risk management, as regards the critical assets and critical functions referred to in Article 79(1), first subparagraph, shall comply with the following:	
(a) they shall define a cryptographic concept to ensure the cybersecurity of the space missions, by duly considering all the relevant criteria, such as the objective of the space mission, the features of the payload, any functional requirement and any relevant threat scenarios;	
(b) they shall select cryptographic mechanisms in accordance with the relevant standards and recommendations of competent authorities;	

PUBLIC

Commission proposal
(c) they shall implement policies and procedures for the use of cryptography and encryption for their space missions.
2. Union space operators shall establish a lifecycle management policy for the cryptographic keys which shall set out rules for the protection and management of cryptographic key to ensure the secure generation, use, storage, distribution, and disposal thereof.
3. For the purposes of paragraph 1, first subparagraph, Union space operators shall implement at least the following requirements:

PUBLIC

Commission proposal	
(a) end-to-end authentication of the links between the satellite control centres and the space segment, by using cryptographic mechanisms between the ground segment and the satellite;	
(b) ensure the encryption of telecommands considering the risk assessments referred to in Article 78(2), and following recommendations from supervisory reviews;	

PUBLIC

Commission proposal
(c) ensuring the availability of cryptographic keys and parameters that are necessary to ensure the implementation of the response and recovery plans referred to in Article 87, through redundant cryptographic equipment, or by implementing key escrowing.
4. The Commission is empowered, in accordance with Article 113, to adopt delegated acts to further supplement the use by Union space operators of cryptographic products and related key management products or services certified under the European cybersecurity certification schemes adopted pursuant to Article 49 of Regulation (EU) 2019/881, to ensure the protection of the telemetry and telecommands.

PUBLIC

Commission proposal	[redacted]
Article 86	

PUBLIC

Commission proposal
Backup management and redundancies
1. Union space operators and respectively entities applying a simplified risk management, as regards the critical assets and critical functions referred to in Article 79(1), first subparagraph, shall ensure a sound and comprehensive backup management policy to enable the restoration of the network and information systems, and to facilitate, with minimum downtime and limited disruption or loss recovery, the recovery processes and the retrieval of data, upon the activation of the response and disaster recovery measures.

PUBLIC

Commission proposal
That policy shall specify the data subject to the backup management, the frequency of backups, and the restoration and recovery procedures and methods used.
2. Union space operators shall ensure that the backup systems do not jeopardise the security of the network and information systems, or the confidentiality, integrity, authenticity, and availability of data.
3. Union space operators and respectively entities applying a simplified risk management, as regards the critical assets and critical functions referred to in Article 79(1), first subparagraph, shall ensure sufficient redundancies of relevant components of the network and information systems in the ground segment.
They shall in particular:

PUBLIC

Commission proposal
(a) ensure redundancies of elements, other than the components of the network and information systems, as necessary to safeguard the continuity of operations, for instance redundancies of power supply in the form of generators for secondary processing sites;
(b) ensure geographical splitting into distinct locations, as deemed appropriate, of redundant elements and of back-up;
(c) ensure an adequate survivability of the space segment, without intervention, to facilitate quick recovery from incidents, such as notably from cyber-attacks, disasters, failures, as well as from an accidental interruption of services.
4. The Commission is empowered to adopt delegated acts in accordance with Article 113, to specify further the requirements on backup needed to ensure adequate survivability of the space segment and to facilitate quick recovery from incidents in order to allow the provisions of this Regulation to be adapted to scientific and technical progress, based on the best available techniques.

PUBLIC

Commission proposal	[redacted]
Article 87	
Business continuity policy and response and recovery plans	

PUBLIC

Commission proposal	
1. As part of their risk management, Union space operators shall put in place and shall document incident and crisis management measures. The measures shall be structured into a business continuity policy which shall be implemented through tailored response and recovery plans.	
2. The response and recovery plans referred to in paragraph 1 shall allow Union space operators to quickly and effectively respond to incidents and contain the adverse effects thereof.	
3. The crisis management measures taken by Union space operators shall build on the measures established, within the space segment and the ground segment, including redundancies and backups, to mitigate in particular the following:	

PUBLIC

Commission proposal	
(a) natural disasters;	
(b) operation accidents;	
(c) disruptions in the supply of utilities, notably during the operation phases;	
(d) loss of power generation, power failures and disturbances and changes of conditioning of the relevant equipment;	
(e) loss of physical assets at the ground segment, including, for instance, loss of mission control centres, loss of satellite control centres, and loss of terrestrial interconnection between them;	

PUBLIC

Commission proposal
(f) interferences on the ground-to-space, space-to-ground and the space-to-space radio frequency links;
(g) altered or compromised parts of the ground segment, including as regards the cryptographic keys.
When implementing the requirements set out in the first subparagraph, Union space operators shall take into consideration the need to maintain effective technical control of the space segment, and ensuring the continuity of services and minimising the areas of the unavailability of services.
4. Union space operators shall ensure that staff involved in carrying out business continuity measures and implementing response and recovery plans have acquired full and adequate trainings needed to fulfil their roles.

PUBLIC

Commission proposal
Article 88
Testing
1. Union space operators shall establish, maintain and review a testing programme for the network and information systems, as an integral part of their risk-management.
2. The testing programme referred to in paragraph 1 shall include testing campaigns comprising all necessary tests, notably considering the risk assessment referred to in Article 78(2).

PUBLIC

Commission proposal
3. Union space operators shall ensure that, prior to launch, or in the case of satellites part of a constellation, prior to the launch of the first batch of satellites, and at least every 3 years afterwards, they carry out Threat Led Penetration Testing (TLPT).

PUBLIC

Commission proposal	[redacted]

PUBLIC

Commission proposal
The plan for testers carrying out a TLPT shall outline the scope and the methodology of the TLPT, the entity in charge of carrying out such test, the mitigation strategy for any risks which carrying out of a TLPT may entail.
Testers carrying out TLPT shall comply with the following requirements:
(a) they shall be of the highest suitability and reputability;
(b) they shall possess all technical and organisational capabilities and shall demonstrate specific expertise in penetration testing;
(c) they shall provide an independent assurance or an audit report;
(d) they shall present a redress plan to address the identified risks.

PUBLIC

Commission proposal	[redacted]
Testers that are external to the corporate structure of the Union space operators shall be certified by an accreditation body of a Member State or shall adhere to formal codes of conduct or ethical frameworks. They shall be fully covered by a relevant professional indemnity insurance against risks of misconduct and negligence.	
Union space operators shall monitor system failures and anomalies observed during the testing processes and evaluate their criticality.	

PUBLIC

Commission proposal
Article 89
Learning and training

PUBLIC

Commission proposal
1. Union space operators shall provide their staff with appropriate training, in accordance with paragraphs 2, 3, 4, 5 and 6.
2. All staff of Union space operators shall be adequately and continuously trained and shall follow the trainings referred to in point 7.1, of Annex VII.
3. Union space operators shall ensure that all staff receive tailored trainings in accordance with point 7.2, of Annex VII.
4. All security personnel working for the Union space operators shall have the required security skills and shall be adequately trained.

PUBLIC

Commission proposal	
5. Staff of Union space operators operating in sensitive environments or handling sensitive equipment or data shall be regularly trained on the best methods and practices to carrying out such tasks.	
6. Union space operators shall incorporate the lessons learned from the handling of incidents by updating business continuity plans, training sessions and staff testing programmes.	
Article 90	
Crisis communication and disclosure policy	

PUBLIC

Commission proposal	
1. Union space operators shall put in place a crisis communication strategy which shall enable responsible disclosure of significant incidents and shall be targeted to, and tailored for, each of the following categories:	
(a) staff involved in the execution of risk management tasks, notably response and response and recovery measures;	

PUBLIC

Commission proposal
(b) staff, other than that staff referred to in point (a), to the extent that communication to such staff is deemed appropriate for ensuring general corporate awareness, based on the need-to-know principle;
(c) clients, to alert them of, and raise awareness of, significant cyber threats;
(d) in the case of satellites hosting third-party payloads, where an incident has adverse impact on the satellite platform operations, the concerned third-party entity, according to a pre-defined agreement and following instructions set out in its response and disaster recovery plan.
2. At least one person in the corporate structure of Union space operators shall be responsible of the implementation of the communication strategy referred to in paragraph 1 and shall fulfil the function of media officer.

PUBLIC

Commission proposal	[redacted]
Article 91	
Handling of incidents	

PUBLIC

Commission proposal	[redacted]
1. Union space operators shall establish and implement an incident management process that allows them to promptly detect, identify, handle	

PUBLIC

Commission proposal	
and respond to incidents and to report significant incidents in accordance with Article 93.	
Union space operators shall set up roles and responsibilities in relation to the different types of incidents which shall be adapted to the different risk scenarios.	

PUBLIC

Commission proposal
2. Union space operators shall ensure that at least the significant incidents are reported to the senior risk management staff immediately.
The management body shall receive, on a regular basis, to be determined by the chief information security officer, the security manager or the senior risk management officer, sufficient information about the significant incident, an assessment of their impact, information about the response and recovery measures which have been taken and any additional controls and procedures to be established in the follow-up of that significant incident.
3. When a satellite hosts third-party payloads, and an incident has adverse impact on the satellite platform operations, Union space operators shall inform the concerned third-party entity and shall follow the instructions

PUBLIC

Commission proposal	
set out in the pre-defined agreements referred to in the second subparagraph and those set out in the response and disaster recovery plans.	

PUBLIC

Commission proposal
For those purposes of ensuring speed and effective handling of incidents, Union space operators shall conclude agreements with third-party entities for which a satellite host a payload.
4. Union space operators shall address the root causes of incidents to prevent the occurrence of future incidents.

PUBLIC

Commission proposal	

PUBLIC

Commission proposal	[redacted]
Article 92	
Supply chain risk management	

PUBLIC

Commission proposal	[redacted]

PUBLIC

Commission proposal	
1. Union space operators shall establish a supply chain risk management framework. Their contracts with supplier manufacturers and service providers shall contain supply-chain security-related aspects in particular on information security requirements.	

PUBLIC

Commission proposal	
2. Union space operators shall base their supply chain risk management on a strategy to reduce risks in the supply chain which shall include at least the measures referred to in point 6, of Annex VII.	

PUBLIC

Commission proposal
3. Union space operators shall establish an inventory of at least the critical assets of non-Union origin, which, considering the risk assessment referred to in Article 78(2), are needed to maintain an effective technical control of the space mission, such as the orbital control, with a view to supporting the analysis of the level of dependence of the space missions of the respective assets.
4. To allow the provisions of this Regulation to be adapted to scientific and technical progress, based on the best available techniques, the Commission is empowered to adopt delegated acts in accordance with Article 113, to amend the list of requirements laid down in point 6, of Annex VII.

PUBLIC

Commission proposal	
SECTION 3 **REPORTING OF INCIDENTS**	

PUBLIC

Commission proposal	[redacted]
Article 93	

PUBLIC

Commission proposal	[redacted]
Reporting of significant incidents	

PUBLIC

Commission proposal
1. Union space operators shall report to the structure referred to in Article 34(4) of Regulation (EU) 2021/696 significant incidents affecting the Union-owned assets.
2. Without prejudice to paragraph 3, Union space operators shall report to the competent authorities referred to in Article 28(1) the significant incidents affecting the assets referred to in Article 5, first paragraph, point (21). The competent authorities referred to in Article 28(1) shall in turn transmit a summary of each reported incident to the Agency.

PUBLIC

Commission proposal	[redacted]
3. Where Union space operators qualify as essential or important entities pursuant to Annexes I or II of Directive (EU) 2022/2555, the reporting referred to in paragraph 2, shall be carried out through the CSIRTs, established pursuant to Article 10 (1) of Directive 2022/2555 or, where applicable, the competent authority, established pursuant to Article 8(1) of Directive 2022/2555, which shall, without delay, transmit all the relevant reported information to the competent authorities referred to in Article 28(1),	

PUBLIC

Commission proposal	
including any technical support and feedback that such CSIRTs or authorities provided to space operators pursuant to Articles 23 of that Directive.	

PUBLIC

Commission proposal	

PUBLIC

Commission proposal
Where Union space operators have been identified as critical entities pursuant to Directive (EU) 2022/2557, Member States shall determine whether the reporting referred to in the first subparagraph shall be carried out by the Union space operators directly to the competent authorities referred to in Article 28(1), or to the authorities referred to in Article 15 of that Directive or by other means.

PUBLIC

Commission proposal
The provisions of paragraph 7 shall in that case apply accordingly as regards the information to be transmitted.
4. For Union space operators qualifying as essential or important entities pursuant to Annexes I or II of Directive (EU) 2022/2555, or which are identified as critical entities pursuant to Directive (EU) 2022/2557, respectively, the reporting requirement referred to in paragraphs 2 and 3 shall be without prejudice to the reporting obligations provided for in Article 23 of Directive (EU) 2022/2555 or the notification obligations provided for in Article 15(1) and (2) of Directive (EU) 2022/2557, respectively.
5. Without prejudice to the technical input, advice, remedies and subsequent follow-up which may be provided, as applicable, in accordance with national law, by the CSIRTs, in accordance with Article 11 of Directive (EU) 2022/2555, competent authorities may provide feedback to Union space operators, by making available any relevant anonymised information on cyber threats and may discuss remedies or ways to minimise and mitigate potential adverse impact across borders.
6. An incident shall be considered significant if:

PUBLIC

Commission proposal	
(a) it has caused or can cause a severe operational disruption of space activities carried out by Union space operators, or of services provided, or considerable financial loss for the Union space operators concerned;	
(b) it has an impact on, or can impact, other natural or legal persons by causing considerable material or non-material damage.	

PUBLIC

Commission proposal
7. Union space operators shall submit to the Agency, as regards the requirement referred to in paragraph 1, and respectively to the competent authorities, as regards the requirement referred to in paragraph 2, the following information:
(a) without undue delay, and in any event within 12 hours of becoming aware of the significant incident, as regards the Union-owned assets, and within 24 hours for assets referred to in Article 5, first paragraph, point (21), respectively, an early warning which shall indicate whether the significant incident may have been caused by unlawful or malicious acts, or if it could have a cross-border impact;
(b) without undue delay, and in any event within 72 hours of becoming aware of the significant incident, a report, which shall update the information referred to in point (a), and shall provide an initial assessment of the significant incident, including its severity and impact, as well as, where available, the indicators of compromise;
(c) upon the request of the competent authority, or as applicable, of the Agency, an intermediate report with relevant status updates;
(d) a final report, not later than 1 month after the submission of the report referred to in point (b), including the following:

PUBLIC

Commission proposal
(i) a detailed description of the significant incident, including its severity and impact;
(ii) the type of threat or the root cause that is likely to have triggered that significant incident;
(iii) the applied and ongoing mitigation measures;
(iv) as applicable, the cross-border impact of the significant incident;
(e) if a significant incident is still ongoing at the time of the submission of the final report referred to in point (d), a progress report at that time, as well as a final report within 1 month from the date of the handling the significant incident.
The Commission is empowered to adopt delegated acts, in accordance with Article 113, to supplement this Regulation, by specifying the criteria to determine what constitutes a severe operational disruption of space activities, or of services provided by a Union space operator, as referred to in paragraph 6, point (a), including the relevant materiality thresholds.

PUBLIC

Commission proposal	[redacted]

PUBLIC

Commission proposal
8. The Commission is empowered to adopt implementing acts, in accordance with the examination procedure referred to in Article 114(2), to specify in further detail the content of the information to be reported pursuant to paragraph 7, and to lay down the templates and procedures for the reporting of that information.
Article 94

PUBLIC

Commission proposal	[redacted]
Union Space Resilience Network	

PUBLIC

Commission proposal	[redacted]
1. The Union Space Resilience Network ('EUSRN') is established to support coordination and exchanges between the Agency and the competent authorities in fulfilling their respective mandates as regards Union-owned assets and respectively the assets referred to in Article 5, first paragraph, point (21).	

PUBLIC

Commission proposal
2. The EUSRN shall have the following tasks:
(a) to ensure consistent approaches among the competent authorities when providing the advice and support referred to in Article 93(5), and support the Union space operators in achieving coherence in their monitoring and handling of significant incidents;
(b) to prevent, as regards significant incidents affecting the assets referred to in Article 5, first paragraph, point (21), adverse impacts in the functioning of the Union Space Programme referred to in Article 1 of Regulation (EU) 2021/696, as well as to promote, for that purpose, the necessary coordination and to support the adoption, by the Commission and the Agency, of measures needed to mitigate such adverse impacts, under the mandates conferred by Articles 28, 29 and 34 of Regulation (EU) 2021/696, with a view to fulfil the objectives laid down in Article 4(1), point (c), of that Regulation;

PUBLIC

Commission proposal	
(c) to ensure coherence of the national measures taken pursuant to Article 34(6) and Article 42 of Regulation (EU) 2021/696 for the protection of the assets of infrastructure located on the territories of Member States, at the ground segments, which are an integral part of the Union Space Programme;	
(d) to discuss any relevant developments on risks affecting the assets of space infrastructure, promote a consistent approach in the monitoring and management of cyber risk for the space sector in the Union, discuss best practices and share information regarding relevant resilience measures;	
(e) organise joint meetings with the NIS Cooperation Group established pursuant to Article 14(1) or EU-CyCLONe established pursuant to Article 16 (1) of Directive (EU) 2022/2555 to exchange relevant information in relation to the space sector concerning cyber threats, incidents, vulnerabilities, awareness raising initiatives, trainings, exercises and skills, capacity building, standards and technical specifications.	

PUBLIC

Commission proposal	
3. The EUSRN shall be composed of representatives of competent authorities, the Commission, the Agency and the European External Action Service (EEAS).	

PUBLIC

Commission proposal
Where appropriate, the Commission or the Agency may invite representatives of other Union institutions, agencies or bodies, in particular the European Union Agency for Cybersecurity (ENISA), the European Defence Agency (EDA), or the European Union Military Staff (EUMS) to attend specific sessions of the EUSRN.
4. The EUSRN shall, on a regular basis, exchange information with, and report to, the computer security incident response teams network ('CSIRTs network') referred to in Article 15 of Directive (EU) 2022/2555, to ENISA and to the European Cyber Crisis Liaison Organisation Network (EU-CyCLONe) referred to in Article 16 of that Directive, with a view to provide situational updates and assessments in relation to significant incidents impacting the assets referred to in Article 5, first paragraph, point (21), of this Regulation, and to discuss any potential consequences that significant incidents may entail upon other sectors and services falling within the scope of that Directive.

PUBLIC

Commission proposal	
5. The Commission shall ensure coordination between the EUSRN and the Critical Entities Resilience Group established pursuant to Article 19 of Directive (EU) 2022/2557, and respectively, between the EUSRN and the Cooperation Group established pursuant to Article 14 of Directive (EU) 2022/2555.	
6. The EUSRN shall meet on a regular basis and at least twice a year. The Agency shall chair the technical working groups.	
In addition to the regular meetings referred to in first subparagraph, the EUSRN shall hold, every 18 months, a general session dedicated to the facilitation of strategic cooperation in the domain of space and the sharing of	

PUBLIC

Commission proposal	
relevant updates and analyses. The Commission shall chair the general sessions.	
SECTION 4 **INFORMATION SHARING AND AWARENESS**	
Article 95	
Information sharing on cyber threats	

PUBLIC

Commission proposal
1. Union space operators may, on a voluntary basis, exchange among themselves relevant information in the area of cybersecurity, including relevant information on cyber-attacks, cyber threats, electronic interferences such as jamming, spoofing, information on indicators of compromise, adversarial tactics, techniques and procedures, near misses, vulnerabilities, threat-actor-specific information, and share cybersecurity alerts and recommendations for the configuration of cybersecurity tools allowing detection of cyberattacks, to the extent that such information sharing:
(a) aims at preventing, detecting, responding to, or recovering from incidents, or mitigating the impact thereof;
(b) enhances the level of cybersecurity and the overall resilience of Union space operators, in particular by raising awareness on cyber threats, by limiting or impeding the ability of such threats to spread, by supporting the development of defensive capabilities and common knowledge regarding vulnerability remediation, threat detection, containment and prevention techniques, mitigation strategies, response and recovery stages, or by promoting collaborative cyber threat research between public and private entities;
(c) takes places within trusted communities of Union space operators;

PUBLIC

Commission proposal
(d) is implemented through arrangements that protect the potentially sensitive nature of the information shared and are governed by rules of conduct, in full respect of business confidentiality, of the rules on the protection of personal data, in accordance with Regulation (EU) 2016/679, and the guidelines on competition policy.
2. The arrangements referred to in paragraph 1, point (d), shall:
(a) specify the conditions to enter, and the rules to participate in, information-sharing arrangements, as well as the type of information to be shared;
(b) specify the operational aspects, such as use of dedicated ICT platforms and automation tools;
(c) set out the details governing the involvement of public authorities in the information-sharing arrangements and the capacity in which those authorities may participate in such arrangements.
3. Union space operators shall notify competent authorities of their participation in the cybersecurity information-sharing arrangements referred to in paragraph 1, upon entry into, and exit from, such arrangements.

PUBLIC

Commission proposal
4. The Commission, shall, with the assistance of the Agency, facilitate the establishment of cybersecurity information-sharing arrangements referred to in paragraph 1, point (d), by supporting or promoting the activities of EU Space Information Sharing and Analysis Centre.

PUBLIC

Chapter III
ENVIRONMENTAL SUSTAINABILITY OF SPACE ACTIVITIES

PUBLIC

[redacted]

Commission proposal	[redacted]

PUBLIC

Commission proposal	[redacted]

PUBLIC

Commission proposal	[redacted]
Article 96	
Environmental footprint of space activities	

PUBLIC

Commission proposal	
	[redacted]

PUBLIC

Commission proposal	
1. Sustainability shall cover sustainability in space and sustainability on Earth (environmental sustainability).	

PUBLIC

Commission proposal	[redacted]
2. Union space operators, except for those referred to in Article 10(4), shall calculate the EF of the space activities they carry out.	

PUBLIC

Commission proposal	[redacted]

PUBLIC

Commission proposal	[redacted]
3. Union space operators shall by contract require their suppliers to provide all data needed by Union space operators to meet the obligation referred to in paragraph 2.	

PUBLIC

Commission proposal	[redacted]

PUBLIC

Commission proposal
4. As part of the application for authorisation referred to in Article 6, applicants shall submit an Environmental Footprint Declaration ('EFD') to competent authorities.
5. The EFD shall attest that the Union space operators have calculated, in accordance with Article 97, the EF of the space activities they intend to carry out.
6. The EFD referred to in paragraph 4 shall be accompanied by all of the following:

PUBLIC

Commission proposal
(a) an EF certificate which shall be delivered in accordance with Article 98(2);
(b) the EF study supporting the results of the EFD;
(c) the aggregated and disaggregated datasets on the basis of the EF which has been calculated in accordance with paragraph 2;
(d) the proof of transmission of the aggregated and disaggregated datasets to the Commission, in accordance with Article 99(1), first subparagraph.
7. The EFD shall contain the following information:
(a) the name, the registered trade name or registered trademark of the Union space operators, their postal address and electronic means of communication;

PUBLIC

Commission proposal
(b) information about the type of space activities that are planned to be carried out and the type of products, substances or materials to which the EFD applies;
(c) the proof that the EF that has been calculated and verified in accordance with the calculation and verification rules laid down in the implemented act adopted pursuant to Article 97(4);
(d) the EF performance class to which the spacecraft belongs to, in accordance with the rules laid down in the implemented act adopted pursuant to Article 97(4);
The Commission is empowered to adopt implementing acts in accordance with the examination procedure referred to in Article 114(2), to lay down the templates and content for the information to be reported pursuant to the paragraph 6, first subparagraph.

PUBLIC

Commission proposal	
8. Until 31 December 2031 the following Union space operators shall be exempt from the obligations laid down in Articles 96, 97, 98, 99 and 100:	

PUBLIC

Commission proposal	[redacted]
(a) small-sized enterprises;	
(b) research and education institutions.	

PUBLIC

Commission proposal	[redacted]
Article 97	
EF calculation and verification of the space activities	

PUBLIC

Commission proposal
1. The EF of space activities shall cover the space missions carried out in any of the Earth orbits including graveyard orbits.
2. The calculation referred to in Article 96(2) shall cover all the activities carried out throughout the lifecycle of a space mission, including during initial stages, such as design and development, during the manufacturing phase, the operation phases and the end of life stages.

PUBLIC

Commission proposal
3. The EF of space activities carried out under the Union Space Programme and the Union Secure Connectivity Programme shall cover the components referred to in Article 3(1), points (a) to (c) and point (e), of Regulation (EU) 2021/696 and in Article 1 of Regulation (EU) 2023/588.
4. The Commission is empowered to adopt implementing acts, in accordance with the examination procedure referred to in Article 114(2), to specify the method of calculation and verification of the EF of space activities, by taking into account scientifically sound assessment methods and the relevant international standards aligned with the Commission Recommendation (EU) 2021/2279[18]. Those implementing acts shall be reviewed to take into account scientific and technological developments and adapt to technological progress.

PUBLIC

[18] Commission Recommendation (EU) 2021/2279 of 15 December 2021 o communicate the life cycle environmental performance of products and http://data.europa.eu/eli/reco/2021/2279/oj).

Commission proposal	[redacted]
Article 98	
EF certificate	

PUBLIC

Commission proposal	[redacted]
1. When applying for authorisation, pursuant to Article 7(1), an applicant shall be in possession of a certificate attesting that the EF of their foreseen space activities has been calculated in accordance with the requirements laid down in Article 96(2).	
2. The certificate referred to in paragraph 1 shall be delivered by a qualified technical body for space activities carrying technical assessment, including verification and validation, for the purposes of Articles 96, 97, 98, 99 and 100.	
Article 99	
Transmission of datasets to the Union EF-related database	

PUBLIC

Commission proposal	[redacted]
1. Before applying for authorisation, in accordance with Article 7(1), applicants shall transmit the aggregated and disaggregated datasets referred to in Article 96(6), point (c), to the Commission.	

PUBLIC

Commission proposal
The Commission shall integrate those datasets in the Union database storing EF-related data and issue a proof of receipt to the applicants thereof.
2. Within 2 weeks from the date of the notification to third country space operators and international organisations of the decision of their registration in URSO, the Agency shall transmit to the Commission for integration into the Union database storing EF-related data, the aggregated and disaggregated datasets referred to in Article 96(6), point (c), which those space services providers have submitted, pursuant to Article 15(1), first subparagraph, or to Article 15(2), in their application for registration in URSO.
The Commission shall issue a proof of receipt.
3. The Commission shall ensure the confidentiality of the data that is included in the disaggregated datasets.
4. The aggregated datasets referred to in paragraph 1 shall be made publicly available by the Commission through the Union EF-related database.

PUBLIC

Commission proposal
Article 100
Use of disaggregated datasets informing policy making
1. The Commission shall make use of the disaggregated datasets referred to in Article 99, exclusively for the purposes of informing policymaking activities, of providing regulatory updates, and for the creation of derived datasets.
2. Union space operators, third country space operators and international organisations shall retain full ownership of the data included in the aggregated and disaggregated datasets transmitted pursuant to Article 99.
3. The Union shall acquire exclusive worldwide ownership of intellectual property rights related to the derived datasets which have been created on the basis of the disaggregated datasets referred to in paragraph 1.

PUBLIC

Commission proposal	[redacted]

PUBLIC

Chapter IV
IN-SPACE OPERATIONS AND SERVICES (ISOS)

PUBLIC

Commission proposal	[redacted]

PUBLIC

Commission proposal	[redacted]
Article 101	
ISOS	

PUBLIC

Commission proposal	
1. Union space operators carrying out ISOS shall comply with the requirements laid down in this Article and Annex VIII from 1 January 2034.	

PUBLIC

Commission proposal	[redacted]
2. For Union owned assets, spacecraft above the mini-satellite class that are operated by Union space operators shall possess a minimal technical capacity to receiving in-space services.	

PUBLIC

Commission proposal	
	[redacted]

PUBLIC

Commission proposal
3. For the purposes of ensuring the minimal technical capacity referred to in paragraph 2, a client spacecraft operated by Union space operators shall be equipped with dedicated Spacecraft Service Interfaces (SSI).
4. The Commission is empowered to adopt delegated acts in accordance with Article 113 to further supplement this Regulation by specifying:

PUBLIC

Commission proposal	
(a) the main features of the dedicated operational mode for the service that ensures a cooperative behaviour of the client spacecraft and minimises the risk of collision and malfunctions after the service;	
(b) where space debris objects are threatening other spacecraft and increase the risk of orbit pollution, the requirements needed to enable removal of debris objects from orbits by means of ISOS (active debris	

PUBLIC

Commission proposal	
removal), including those requirements applicable to the concept of operations.	
5. The Commission shall, by means of implementing acts, lay down:	

PUBLIC

Commission proposal	[redacted]
(a) the design principles for the dedicated SSI referred to in paragraph 3;	
(b) the design principles for Composable and Exchangeable Functional Satellite Modules (satAPPs) that can be connected to a spacecraft to deliver new spacecraft functionality or payload, making use of SSIs.	

PUBLIC

Commission proposal
Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 114(2).

PUBLIC

Chapter V
ORBITAL TRAFFIC RULES

PUBLIC

[redacted]

Commission proposal	[redacted]
Article 102	

PUBLIC

Commission proposal	[redacted]
Supervisory reviews and updates from the collision avoidance entity	
1. A competent authority may request the Union collision avoidance space services provider referred to in Article 64(1) to provide it with up-to-date information about its spacecraft, in the context of the annual reporting or of specific investigations carried out on Union spacecraft operators.	

PUBLIC

Commission proposal	
2. Upon receipt of such request, the Union collision avoidance space services provider referred to in Article 64(1) shall report to the competent authority on whether:	

PUBLIC

Commission proposal
(a) the measures set-up by the Union spacecraft operator meet the requirements outlined in the space debris mitigation plans referred to in Article 70(2), first subparagraph, throughout all phases of the space mission;
(b) the orbit position is in line with the selected orbit, pursuant to Article 69;
(c) the Union spacecraft operator complies with the requirements laid down in Article 64(1), (2), (3) and (4), and, as applicable, in Article 101(3).
Article 103

PUBLIC

Commission proposal	[redacted]
Conditions for collision avoidance manoeuvres in case of HIE	
1. When the CA entity referred to in Article 64(1), publishes a High Interest Event Alert between two manoeuvrable spacecraft and decides that	

PUBLIC

Commission proposal
one of the two concerned spacecraft have to perform a Collision Avoidance Manoeuvre (CAM), their proposed CAM shall be based on the following principles:
(a) take the utmost account of the protection of crewed vehicles;
(b) reduce the initial collision risk by at least one order of magnitude below the manoeuvre threshold for High Interest Event Alert; and
(c) not create unreasonable risks of secondary conjunctions.

PUBLIC

Commission proposal
2. Where both spacecraft are registered to the CA entity referred to in Article 64(1), Union spacecraft operators shall seek to agree on a strategy to implement the CAM referred to in paragraph 1under the coordination of that CA entity, within a reasonable period.
3. If no agreement can be found under paragraph 2 within a reasonable period, the CA entity referred to in Article 64(1) shall propose a strategy for action. That strategy shall take into consideration the right of the way rules, based on at least the following elements:

PUBLIC

Commission proposal	[redacted]

PUBLIC

Commission proposal	[redacted]
(a) protection of crew vehicle;	
(b) involvement of a spacecraft that is part of a constellation;	

PUBLIC

Commission proposal
(c) the operational capacity for CA manoeuvres;
(d) the state of the spacecraft;
(e) the eccentricity of the spacecraft's orbits;

PUBLIC

Commission proposal
(f) the age of the spacecraft;
(g) the phase and type of the respective space mission.
4. Where one of the two spacecraft is not registered to the CA entity referred to in Article 64(1), that entity shall establish contact with the respective spacecraft.

PUBLIC

Commission proposal
5. In case of successful contact under paragraph 4, the CA entity referred to in Article 64(1) shall, to the extent possible:
(a) exchange information on the tools and methods used for calculation of collision risks;
(b) share all the necessary data and calculation results to ensure avoidance of the collision;
(c) determine, in collaboration with both spacecraft's operators, the best collision avoidance's manoeuvres, taking into consideration the elements of the manoeuvres' action plan specified to in paragraph 3.
6. Where the contacts referred to in paragraph 4 are unsuccessful or if, after a reasonable period of time, contacts cannot be initiated, the CA entity referred to in Article 64(1) shall recommend to the Union spacecraft operator a strategy for action that ensures at least the respect of the principles outlined in paragraph 1 and shall inform the other Union spacecraft operator about the intended action.

PUBLIC

Commission proposal	

PUBLIC

Chapter VI
STANDARDISATION AND COMMON SPECIFICATIONS

PUBLIC

[redacted]

Commission proposal	[redacted]
Article 104	
Standards	

PUBLIC

Commission proposal	[redacted]

PUBLIC

Commission proposal	[redacted]
1. The Commission shall, in accordance with Article 10(1) of Regulation (EU) No 1025/2012, request one or more European standardisation organisations to draft standards in relation to the following essential requirements:	

PUBLIC

Commission proposal
(a) the requirements laid down in Article 72(2), first subparagraph, for the purposes of demonstrating compliance with Article 72(1);
(b) the requirements laid down in Article 25(5), first subparagraph, for the purposes of demonstrating compliance with Article 25(2).
When preparing the standardisation requests referred to in the first subparagraph, the Commission may take into account existing European or international standards in place or under development, to simplify the development of standards, in accordance with Regulation (EU) No 1025/2012.
2. Where the conditions referred to in paragraph 3 are fulfilled, the Commission shall adopt implementing acts establishing common specifications covering the technical requirements which provide the means to comply with the essential requirements referred to in paragraph 1, first subparagraph.

PUBLIC

Commission proposal	
3. The implementing acts referred to in paragraph 2 shall be adopted in any of the following cases where the Commission has requested, pursuant to Article 10(1) of Regulation (EU) No 1025/2012, one or more European standardisation organisations to draft a standard for the essential requirements referred to in paragraph 1, first subparagraph, and one of the following situations occurs:	

PUBLIC

Commission proposal
(a) requirements are not covered by harmonised standards, or parts thereof, the references of which have been published in the Official Journal of the European Union;
(b) requirements are covered by harmonised standards, or parts thereof, the references of which have been published in the Official Journal of the European Union, but application of those standards or parts thereof result in non-compliance with the essential requirements, or
(c) where the Commission considers that there is a need to address an urgent concern.
Those implementing acts shall be adopted in accordance with the advisory procedure referred to in Article 114(3).

PUBLIC

Commission proposal	
	[redacted]

PUBLIC

Title V
EQUIVALENCE DECISIONS, INTERNATIONAL AGREEMENTS AND REGIMES FOR INTERNATIONAL ORGANISATIONS

PUBLIC

Commission proposal	[redacted]
Article 105	
Equivalence	

PUBLIC

Commission proposal	[redacted]
1. The Commission may adopt, on the basis of a detailed assessment, an equivalence decision, by means of implementing acts, in accordance with Article 114(2), stating that the legal and supervisory framework of a third country ensures that the third country space operators established in that third country comply with legally binding requirements that are equivalent to the requirements laid down in this Regulation and are subject to an effective supervision and enforcement in that third country.	

PUBLIC

Commission proposal	
	[redacted]

PUBLIC

Commission proposal
2. The legal and supervisory framework of a third country shall be considered equivalent to this Regulation only if it fulfils at least the following conditions:
(a) the third country space operators established in that third country are subject to authorisation and effective supervision and enforcement on an ongoing basis;

PUBLIC

Commission proposal
(b) the third country space operators, established in that third country are subject to legally binding rules that are equivalent to the requirements laid down in Article 15; and
(c) the legal and supervisory framework of that third country provides for an effective equivalent system of recognition of space services providers authorised under third country legal regimes.
3. The Commission may attach specific conditions to the equivalence decisions, such as where the scale and scope of the space-based data or the space services provided by third country space operators are likely to be of strategic importance for the Union, or to ensure that the Commission, the Agency and the competent authorities have the necessary tools to prevent regulatory arbitrage.
A decision shall specify whether it is granted for a definite period.
4. The Commission shall inform the European Parliament and the Council annually of the equivalence decisions which have been taken or withdrawn by the Commission in the reporting year.

PUBLIC

Commission proposal
5. The Agency shall establish cooperation arrangements with the relevant competent authorities of third countries whose legal and supervisory frameworks have been recognised as equivalent in accordance with paragraph 1.
Such arrangements shall specify at least:
(a) the mechanisms for the exchange of information between the Agency, and the relevant supervisory authorities of the third countries concerned, including access to all information regarding the third country space operators authorised in the third countries, which are requested by the Agency;

PUBLIC

Commission proposal
(b) the mechanisms for a prompt notification to the Agency, where a third country competent authority deems that the third country space operators, which the Agency has registered in URSO, pursuant to Article 24, infringe the conditions of authorisation in that third country, or other law which those third country space operators are obliged to adhere to;
(c) the procedures concerning the coordination of activities, including investigation and on- site inspections that the Agency may carry out, in cooperation with the competent authorities of Member States, having duly informed the competent authority of the third country thereof.
6. The Commission shall, in cooperation with the Agency, monitor whether the legal and supervisory framework of a third country continues to be equivalent with the requirements laid down in this Regulation.
Where the legal and supervisory framework of a third country ceases to be equivalent, the Commission shall repeal the equivalence decision concerned.

PUBLIC

Commission proposal
Article 106
International agreements with third countries
1. The Union may conclude agreements for cooperation with third countries on matters covered by this Regulation, in particular for:

PUBLIC

Commission proposal
(a) facilitating the mutual recognition of rules on matters covered by this Regulation;
(b) facilitating the mutual recognition of technical assessments carried out by qualified technical bodies for space activities and by relevant authorities and technical bodies of third countries;
(c) setting out the details and procedures for the derogation for launch services referred to in Article 19;
(d) setting out the conditions for the use in the Union of space services or space-based data provided by a third country space operator which is a governmental entity, or which operates or owns military assets of space infrastructure, including with a civilian use.
2. The Agency may cooperate with the relevant supervisory authorities of third countries, other than those referred to in paragraph 1, point (b), and, subject to the approval of the Commission, may conclude Memorandums of Understanding and working arrangements with such authorities or with bodies of international organisations.

PUBLIC

Commission proposal	[redacted]
Article 107	
Regimes applicable to international organisations	
1. The Commission may, by means of contribution agreements, entrust an international organisation with the implementation of tasks for the operation of Union owned-assets.	

PUBLIC

Commission proposal	
Those contribution agreements shall set out the conditions and the practical and operational arrangements for the control of the application by that international organisation of the requirements laid down in Title IV.	
2. Where an international organisation operates the assets referred to in Article 5, first paragraph, point (21), Member States shall ensure the compliance of that international organisation with the requirements laid down in Title IV, in the context of the authorisations referred to in Article 6(1).	
3. Where an international organisation operates its own assets of space infrastructure, the Union shall endeavour to conclude agreements with that international organisation.	
The agreement referred to in the first subparagraph shall set out the conditions and the practical and operational arrangements to ensure the control of the application by that international organisation of the requirements laid down in Title IV, with due regard to its institutional framework.	

PUBLIC

Commission proposal	[redacted]
Article 108	
Relations with the European Space Agency	

PUBLIC

Commission proposal
1. The Union shall endeavour to conclude an agreement with the European Space Agency (ESA) to advance the objectives pursued by this Regulation and to strengthen the cooperation between the Union and ESA.
2. The agreement referred to in paragraph 1 shall set forth the conditions for the implementation by ESA of the requirements laid down in Title IV, and the practical and operational arrangements for ensuring the control of the application of such requirements, and in particular:
(a) where ESA is not the operator of the Union-owned assets, the arrangements needed for ESA to carry out the technical assessment allowing

PUBLIC

Commission proposal
the Commission to assess the compliance of the Union space operator of Union-owned space assets, with the requirements laid down in the Regulation, with a view to issuing the authorisation and carrying out the ongoing supervision referred to in Article 11(1), first subparagraph;
(b) where Union-owned assets are either operated or owned by ESA, the needed arrangements and conditions for allowing the technical assessment activities and the tasks of authorisation and supervision;
(c) any support which may be provided by ESA regarding the technical specifications needed for standardisation, under the supervision of the Commission, while taking into account the existing international technical standards for space activities.
3. ESA may provide support to Member States by carrying out technical assessments, pursuant to Article 8(1), point (b).
The agreement referred to in paragraph 1 shall set out the conditions for ESA to be recognised as a qualified technical body for space activities.

PUBLIC

Commission proposal
4. Upon request by the Commission, ESA may attend as observer or member, any relevant advisory group of technical nature that may be established under this Regulation.
Title VI **SUPPORTING MEASURES**

PUBLIC

Chapter I
CAPACITY-BUILDING MEASURES

PUBLIC

[redacted]

Commission proposal	[redacted]
Article 109	
Capacity building	

PUBLIC

Commission proposal	
1. The Commission shall support space operators, competent authorities and qualified technical bodies for space activities in the implementation of this Regulation, by:	
(a) developing, in close cooperation with the Agency and ENISA, as appropriate, guidance materials, methodologies and best practices on the following:	

PUBLIC

Commission proposal	
(i) the use, in the context of public procurement procedures carried out at national level, of Union Space Safety Labels issued in accordance to Article 112(4);	
(ii) requirements applying to novel areas or to areas under development, such as on-orbit servicing or orbital traffic rules;	

PUBLIC

Commission proposal	[redacted]
(iii) as appropriate, other matters covered by this Regulation;	
(b) promoting, with the assistance of the Agency, collaboration and information sharing on matters covered by Title IV, Chapter II, by facilitating the establishment of information sharing arrangements referred to in Article 29 of Directive (EU) 2022/2555.	

PUBLIC

Commission proposal	
2. The Commission shall support capacity-building, as well as research and innovation activities, by co-funding joint research and development projects to enable industry uptake of technological solutions facilitating compliance with the requirements laid down in this Regulation in the following areas:	

PUBLIC

Commission proposal
(a) the development of encryption technologies and protocols;
(b) the development of on-board safety systems;
(c) the development of ISOS technologies and concepts;
(d) any other matters covered by this Regulation.
The Commission shall adopt delegated acts, in accordance with Article 113, to supplement this Regulation, by specifying the matters referred to in point (c), of the first subparagraph.

PUBLIC

Commission proposal	[redacted]
3. The Commission shall fund:	
(a) the development of standards for launcher neutralizers;	

PUBLIC

Commission proposal	
(b) the provision of vouchers to support the participation of space operators to coaching programmes aimed at offsetting part of costs incurred with the implementation of the requirements laid down in Article 96(2).	
4. The Commission shall facilitate access to the threat-led penetration testing referred to in Article 88(3), first subparagraph, by mapping the availability of such testing services in the Union and by developing framework contracts to ensure fast and affordable access, notably for SMEs and small mid-caps.	

PUBLIC

Commission proposal	[redacted]
Article 110	
Information portal	

PUBLIC

Commission proposal
1. The Commission, with the support of the Agency, shall set-up and manage an Information Portal in support of this Regulation ('Information Portal').
2. The Information Portal shall carry out the following tasks:
(a) assist space operators in the implementation of this Regulation;

PUBLIC

Commission proposal
(b) provide compliance checklists to facilitate voluntary adherence to the Union Space Labelling Schemes established pursuant to Article 111(4), first subparagraph;
(c) support any relevant single point of contact setup by the Member States.
3. Member States shall inform the Commission of any national helpdesk portals established to manage queries on rules, procedures and authorisation processes.
The Commission shall ensure the interoperability of such helpdesk portals with the Information Portal.

PUBLIC

Chapter II
UNION SPACE LABEL FRAMEWORK

PUBLIC

[redacted]

Commission proposal	[redacted]
Article 111	
Union Space Labelling Schemes	

PUBLIC

Commission proposal	[redacted]

PUBLIC

Commission proposal	
	[redacted]

PUBLIC

Commission proposal
1. The Commission shall develop a Union Space Label Framework to promote enhanced voluntary adherence to high standards of protection of space activities.
The Union Space Label Framework shall be composed of Union Labelling schemes as referred to in paragraphs 2 and 3.
2. A Union Space Labelling Scheme shall establish the detailed requirements to:
(a) limit the risks associated to space debris;

PUBLIC

Commission proposal
(b) improve the safety and sustainability of space objects in orbit, the safety of aircraft in flight, or the safety of persons and property on ground when carrying out space activities;
(c) reduce the light pollution of spacecraft;
(d) reduce the radio pollution of spacecraft;
(e) safeguard the resilience of space infrastructure, in particular as regards critical assets and the resilience of the supply chain;

PUBLIC

Commission proposal
(f) enable in space operations and services;
(g) contribute to reducing the environmental impacts of carrying out space activities.
3. Following a request by the Commission, the Agency shall prepare a candidate scheme, or propose an update of an existing Union Space Labelling Scheme.
A Union Space Labelling Scheme may specify one or more of the following protection levels for the specific space missions, services or products that it covers: 'basic', 'substantial' or 'high'.
In such a case, it shall ensure that the specified protection level is commensurate with the level of protection associated with the requirements laid down in the respective Union Space Labelling Scheme.
4. The Commission shall adopt by means of implementing acts:
(a) a template for the elements of the Union Space Label Scheme, including their duration;

PUBLIC

Commission proposal
(b) Union Space Labelling Schemes based on the candidate scheme or updates of an existing Union space Labelling Scheme.
Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 114(2).
5. The Agency shall maintain a dedicated website providing updated information on, and publicising, the Union Space Labelling Schemes and the Union Space Labels.
Article 112
Award and use of a Union Space Label

PUBLIC

Commission proposal
1. Where a space operator intends to obtain a Union Space Label, that space operator shall submit to the Agency an application for Union Space Label accompanied by a detailed technical file demonstrating the fulfilment of the requirements established in the Union Labelling Scheme(s) for which the Union Space Label is sought.
The Agency shall immediately inform the Commission of the application.
2. The Agency shall provide to the Commission a detailed opinion as regards the compliance of the application with the requirements of the relevant Union Space Labelling Scheme(s).
3. Based on the Agency's assessment, the Commission shall decide, by means of implementing acts, on the applications.
4. The Agency shall issue Union Space Labels to space operators whose applications have been approved by the Commission, in accordance with paragraph 3, for a duration of a Space Label which shall be specified in the corresponding Union Space Labelling Scheme.

PUBLIC

Commission proposal
5. The Agency shall verify regularly on its own initiative, or upon complaint, the compliance of a holder of a Union Space Label with the requirements of the respective Union Space Label. Where the Agency establishes that the holder of a Union Space Label does not meet the requirements, it shall revoke the Union Space Label. Before revoking the Union Space Label, the Agency has to allow the holder of the Union Space Label to submit a reasoned statement.
6. The holder of a Union Space Label shall inform the Agency of any subsequently detected irregularities concerning the labelled space mission,

PUBLIC

Commission proposal
service or product, that may have an impact on its compliance with the requirements of the respective Union Space Label.
7. Any false or misleading advertising or use of a Union Space Label or of a logo which leads to confusion with a Union Space Label shall be prohibited.

PUBLIC

Guidelines to b

Please kindly provide your contributions in the table below.

Drafting suggestions: you may use '**track changes**'* or formatting (for exampl
necessary, in a different colour). *Track changes can only be connected once
To make it feasible to consolidate all contributions, the structure of the table m
New provisions may only be added in any of the **'existing cells'.**

Name of document: please add the **two initials** of your delegation's country fo
optional text, for example, for Austria: **AT comments on … .docx**

Thank you for your cooperation!

PUBLIC

Commission proposal – ANNEXES VII and VIII
General Comments

Commission proposal – ANNEXES VII and VIII	[redacted]
Annex VII	

PUBLIC

Commission proposal – ANNEXES VII and VIII
RESILIENCE ANNEX VII
1. **RISK ASSESSMENT**
1.1. In their risk assessments, Union space operators shall cover the key lifecycle stages referred to in Article 76(4), first subparagraph.
1.2. Union space operators applying a simplified risk management shall cover the key lifecycle stages referred to in Article 76(4), first subparagraph only in relation to critical assets and critical functions referred to in Article 79(1), first subparagraph.
1.3. A risk assessment shall evidence and document that for the respective segments, systems or subsystems, as applicable, Union space

PUBLIC

Commission proposal – ANNEXES VII and VIII
operators have set sufficient and adequate treatments to cover the identified risked.
1.4. A risk assessment shall be carried out at least prior to the launch. The risk assessment shall include at least the following elements:
(a) the risk source, whether malicious acts such as attacks, or accidents and natural disasters;
(b) the description of the risk context to which the respective segment, system or subsystem, as applicable, may be vulnerable, including for instance in the context of reconfigurable satellites;
(c) an outline of the risk assessment process;
(d) the description of the electronic communication networks;

PUBLIC

Commission proposal – ANNEXES VII and VIII	[redacted]
(e) the security objectives, including criteria scales and the risk appetite which shall be tailored to the respective space mission;	
(f) the risk scenarios covering at least the attack vectors that are well-known at that point in time;	

PUBLIC

Commission proposal – ANNEXES VII and VIII
(g) the applicable treatment for each identified risk and scenario, including comprehensive corporate information security policies and system specific security requirements.
Union space operators shall have in place risk assessment registers after the application of the treatments referred to in point (g).
1.5. The risk assessments shall be reviewed annually and whenever necessary subsequently considering the developments of the threat landscape.
Union space operators shall review the risk assessments:
(a) after each test campaign performed in accordance with Article 88;
(b) after each major change in the network and information systems;

PUBLIC

Commission proposal – ANNEXES VII and VIII	
(c) after each significant incident;	
(d) following supervisory instructions.	
2. **ASSET MAPPING**	
2.1. Identification, listing and categorization of assets, including systems and subsystems, as well as functions, operations, and technologies with the following characteristics:	
(a) assets deemed critical for carrying out space activities, by considering all relevant criteria, such as the key role played in the performance of the respective space mission, in maintaining effective control	

PUBLIC

Commission proposal – ANNEXES VII and VIII
of the space segment, or in ensuring the functionality and integrity of the payload;
(b) assets identified as a single point or common mode of failure, within the risk assessment;
(c) assets that generate, use or store sensitive data;
(d) assets that require use of highly specialised skills or know-how.
2.2. Setting-out procedures for the handling of assets of space infrastructure identified in point 2.1, including during transitional stages, such as transport, or throughout testing and validation phases.
3. **PHYSICAL RESILIENCE**

PUBLIC

Commission proposal – ANNEXES VII and VIII
3.1. In taking all necessary measures to ensure the resilience of the ground stations, Union space operators shall at least:
(a) adequately secure the launch sites and premises;
(b) maintain all physical assets, notably the equipment, in adequate condition, so as to ensure its integrity and availability, and in particular, as regards the spacecraft, in adequate conditions during manufacturing, testing, transport, commissioning and launch phases, as well as during the command, control and telemetry and the generation and transmission systems for all phases;
(c) place assets used by the command, control and telemetry, and the generation and transmission systems, in a way that limits access and reduces the risk of interferences, intentional or not;

PUBLIC

Commission proposal – ANNEXES VII and VIII
(d) ensure, at nominal level, hardening and shielding against natural radiation and determine radiation threat levels on the space segment following supervisory instructions;
(e) secure assets during all transitional stages, such as notably, transport, testing, as well as at the launching sites, in particular to avoid unauthorised access, tampering and damage;
(f) place critical back-up assets into distinct geographic zones and maintaining inventories of relevant equipment, to allow the latter to be readily available in case of incidents;
4. **DETECTION MECHANISMS**

PUBLIC

Commission proposal – ANNEXES VII and VIII
4.1. The detection mechanisms put in place by Union space operators shall:
(a) enable prompt detection of anomalous activities and identification of incidents, such as cyberattacks and electronic interferences;
(b) set-out alert thresholds and criteria to trigger incident response processes;
(c) monitor the state of the spacecraft;

PUBLIC

Commission proposal – ANNEXES VII and VIII
(d) based on the risk assessments, and as deemed appropriate by the competent authorities, monitor the radiofrequency environment as regards the nominal data flows for services part, for sites that are critical to the command, control and telemetry, the generation and transmission systems, and to the support for the detection of incidents and the localisation of the sources of interference.
5. **PROTECTION AND PREVENTIVE MEASURES**
5.1. The network and information systems shall:

PUBLIC

Commission proposal – ANNEXES VII and VIII
(a) be adequate to ensure the confidentiality, integrity and availability of data;
(b) be technologically resilient, which includes, for the space segment, ensuring resilience against, for instance, tampering, jamming, blinding attacks and spoofing of sensors;
(c) use cryptography in accordance with the principles laid down in Article 85;
(d) have an ICT architecture fit to ensure the proper allocation of spacecraft resources and the integrity of services;

PUBLIC

Commission proposal – ANNEXES VII and VIII
(e) have a security maintenance to allow to regularly install the latest patches, including a procedure for the urgent patching of vulnerabilities considered critical in light of the risk assessments.
5.2. The claimed identity of any device attempting to communicate with the satellite in view of modifying its internal state shall be authenticated.
5.3. The configuration of the flight systems and associated systems at the ground segment shall be done pursuant to pre-defined policies and shall be subject to verification in a way that prevents the installation or upgrade to software or firmware from being executed without an explicitly identified privilege to install such software.

PUBLIC

Commission proposal – ANNEXES VII and VIII
5.4. Minimal protection and preventive measures:
(a) Use of multi-factor authentication or continuous authentication solutions, secured voice, video and text communications and secured emergency communication systems, as appropriate;
(b) Ensuring that all systems that directly send critical commands to the space segment are physically or logically isolated from other networks, as appropriate.
6. **SUPPLY CHAIN RISK MANAGEMENT FRAMEWORK**

PUBLIC

Commission proposal – ANNEXES VII and VIII
6.1. Taking all appropriate measures to address the security related to the acquisition, development and maintenance of the network and information systems, including as regards vulnerability handling and disclosure.
6.2. Setting-out criteria for the choice of software and hardware products in the supply chain with due regard to the risk of obsolescence.
6.3. Deploying software integrity controls on the ground segment and the space segment including by deploying software integrity controls and authenticity controls proving the origin.
6.4. Controlling the network and information systems which are temporarily interconnected, such as in the context of the provision of maintenance or support.

PUBLIC

Commission proposal – ANNEXES VII and VIII
7. **TRAININGS**
7.1. General Trainings
(a) ICT security awareness programmes.
(b) Compulsory modules with exercises on basic cyber hygiene practices.
(c) Specific cybersecurity trainings with complexity levels that are commensurate to the remit of staff functions and tasks.

PUBLIC

Commission proposal – ANNEXES VII and VIII
(d) General trainings on security related to staff functions.
7.2. Tailored trainings
Union space operators shall ensure that tailored trainings are provided at least to staff:
(a) that operates, monitors and maintains the equipment interfacing with the space segment;
(b) that is in charge of implementing the business continuity policy and the response and recovery plan established in accordance with Article 87;
(c) that deals with cases requiring further interaction with third parties.

PUBLIC

Commission proposal – ANNEXES VII and VIII
8. **INCIDENT HANDLING**
8.1. Logging of incidents.
8.2. Classification of incidents by severity of their impact.
8.3. Deployment of response measures that are necessary and adequate to mitigate the impacts of incidents, by ensuring in a timely manner that services become operational and are secure.
8.4. Non-alteration and preservation of assets.
8.5. Follow-up of taken actions.

PUBLIC

Commission proposal – ANNEXES VII and VIII
9. **REQUIREMENTS FOR CRITICAL ASSETS AND RISKS IN THE CONTEXT OF THE SIMPLIFIED RISK MANAGEMENT**
9.1. The requirements laid down in Article 76.
9.2. Risk assessment referred to in Article 78(2).
9.3. Elements of the risk assessments referred to in point 1.4.

[redacted]

PUBLIC

Commission proposal – ANNEXES VII and VIII
9.4. Development of the risk scenarios referred to in point 1.4, point (f).
9.5. Setting-up and maintaining inventories referred to in Article 80(4), first subparagraph.
9.6. Prevention and protection measures in accordance with Article 84(3).
9.7. Principles for cryptography and encryption pursuant to Article 85(1), first subparagraph.
9.8. Measures for the backup management pursuant to Article 86(1) and (3).
9.9. Handling of incidents pursuant to Article 91.
Annex VIII

PUBLIC

Commission proposal – ANNEXES VII and VIII
<u>IN-SPACE OPERATIONS AND SERVICES (ISOS) REFERRED TO IN ARTICLE 101</u>
1. General provisions
1.1. General principles in carrying out ISOS
(a) For the purposes of this Annex, a client object shall be understood as a client space object, including a spacecraft, as well as space debris.

PUBLIC

Commission proposal – ANNEXES VII and VIII	[redacted]

PUBLIC

Commission proposal – ANNEXES VII and VIII	[redacted]
(b) The Union ISOS provider and the Union space operator of the client object shall conclude a dedicated ISOS-related contract.	

PUBLIC

Commission proposal – ANNEXES VII and VIII	[redacted]
(c) Any ISOS shall be carried out only after the Union ISOS provider and the Union space operator of a client object have explicitly and unequivocally consented to start carrying out the agreed operation or set of operations, as applicable.	
(d) The ISOS contract referred to in point (b) shall include a dedicated service plan describing in detail the mission concept for the	

PUBLIC

Commission proposal – ANNEXES VII and VIII
respective ISOS and the infrastructure of both the client object and the servicer spacecraft.
(e) The servicer spacecraft and the client object shall be designed and manufactured, and the corresponding service mission shall respectively be designed, in a way that limits the risk of collision.

PUBLIC

Commission proposal – ANNEXES VII and VIII	[redacted]
(f) During the ISOS operation, the physical separation between the servicer spacecraft and the client object shall be performed in a manner that ensures a sustainable orbit for both spacecraft.	

PUBLIC

Commission proposal – ANNEXES VII and VIII
1.2. Coordination of control centers
(a) The respective control centers of the servicer spacecraft and the client object shall ensure appropriate coordination, by sharing all data, including the telemetry, that is necessary to ensure the safety of the respective operations.
(b) Except where the client object is space debris, the Union ISOS provider and the Union space operator of a client object shall identify, for each phase in the carrying out of ISOS, the control centre with decision-making authority for joint operations in the area of proximity, including during the attach phase, as well as the control centre which controls the composite object in the attached phase.
2. Service provision
2.1. Servicer and service compatibility to client space object configuration

PUBLIC

Commission proposal – ANNEXES VII and VIII
The design of the servicer spacecraft and the operational service concept shall be compatible with the design and operation of the client object, respectively or, where the client object is space debris, with the condition of the debris object.
2.2. Due diligence obligations regarding the potential impacts on third parties
2.2.1. Union ISOS providers shall take all appropriate measures to prevent:
(a) interference with an object, other than the client object, that generates harm;

PUBLIC

Commission proposal – ANNEXES VII and VIII
(b) disruption, including interruption, of any operation carried out by a third party spacecraft;
and, where such prevention is not possible or is not immediately possible, shall adequately mitigate potential adverse impacts when carrying out ISOS.
2.2.2. The Union ISOS provider shall define in the operational concept a safe zone where presence of a third party will lead to non-engagement or withdrawal of the ongoing ISOS operation.
2.2.3. Where anomalies occur, or where unforeseen events, including those caused by the carrying out of ISOS, lead to potential adverse impact on third

PUBLIC

Commission proposal – ANNEXES VII and VIII
party space objects, the Union ISOS provider shall immediately notify the space operator of the third-party space object impacted.
2.2.4. The Union ISOS provider shall closely cooperate with CA service provider referred to in Article 63, including in the service operation phase.
2.3. Safety of operations
(a) For the purposes of the approach phase, and with a view to initiate the separation, the Union ISOS provider shall set out, in the operational concept, standby or transit points.
(b) During the service operation the Union ISOS providers shall conduct a GO/NO-GO testing at every appropriate timing/sequence and shall only continue the service operation when the GO condition is met. When the GO conditions are not met, a cancel command shall be triggered either autonomously or by a command sent from the ground segment.
(c) During the approach phase, and after the separation, the on-board systems of the servicer spacecraft shall be able to assess the risk of

PUBLIC

Commission proposal – ANNEXES VII and VIII
collision between the servicer spacecraft and the client object, in real time, and shall be capable of autonomously triggering an avoidance manoeuvre to place the servicer spacecraft on a path non-colliding with the client object.
2.4. Qualification of the system and servicing concept - Prior testing
Except for non-reversible ISOS operations, Union ISOS providers shall, for the purposes of ascertaining the proper system functioning for the planned

PUBLIC

Commission proposal – ANNEXES VII and VIII	Drafting Suggestions and Comments
ISOS, carry out tests in orbit at least before engaging in the first service operation or in the first step and only if no danger is posed to any other space object.	[redacted]

PUBLIC