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***Activities of States in Outer Space in Light of New Developments:
Meeting International Responsibilities and Establishing National Legal and Policy Frameworks***

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SUMMARY

1. *The European legal framework*
2. *The European Space Agency (ESA)*
3. *ESA and the "other" Europe*
4. *A common European legislation on space activities*
5. *A comparative look at national laws*

1. The European legal framework

My presentation specifically deals with the States of the European Space Agency (ESA), within the session on the examples of national regulatory and policy frameworks relating to the peaceful exploration and use of outer space.

I will briefly make reference to the European legal framework, characterized by the three main actors: the European Space Agency (ESA), the European Union (EU), and the member States of both organizations. This means that until now the European model of co-operation in space has been the result of joint efforts among European States.

2. The European Space Agency (ESA)

The European Space Agency (ESA) is the main intergovernmental organization operating in Europe for the development of Europe's space capability.

It was created in 1975 with the Paris Convention which entered in force in 1980 and has 19 Member States (Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Romania, Spain, Sweden, Switzerland and the United Kingdom).

ESA's main purpose is to provide for, and to promote, for exclusively peaceful purposes, cooperation among European States in space research and technology and their applications, with a view to their being used for scientific purposes and for operational space application systems. ESA has declared its willingness, as a major player in space, to be bound by the rights and obligations of those follow-up treaties to the OST where that option was offered: the 1968 Rescue Agreement, the 1972 Liability Convention and the 1975 Registration Convention.

ESA of course has a set of internal regulation in place dealing with its own structure and methods of operation, and it is also endowed with the power to contract and to conclude international agreements, such as the 1998 Intergovernmental Agreement on the International Space Station. But it does not have legislative or normative power towards its Member States.

3. ESA and the "other" Europe

The European Union (EU) is presently founded on the Treaty of Lisbon entered into force the 1st of December 2009 which mentions space with research and technological development among the shared competences of the Union.

Article 4, para. 3, of the Treaty of Lisbon establishes that "In the areas of research, technological development and space, the Union shall have competence to carry out activities, in particular to define and implement programmes; however, the exercise of that competence shall not result in Member States being prevented from exercising theirs".

Furthermore Article 189 states that:

"1. To promote scientific and technical progress, industrial competitiveness and the implementation of its policies, the Union shall draw up a European space policy. To this end, it may promote joint initiatives, support research and technological development and coordinate the efforts needed for the exploration and exploitation of space.

2. To contribute to attaining the objectives referred to in paragraph 1, the European Parliament and the Council, acting in accordance with the ordinary legislative procedure, shall establish the necessary measures, which may take the form of a European space programme, excluding any harmonization of the laws and regulations of the Member States”.

Finally, the Treaty states that “the Union shall establish any appropriate relations with the European Space Agency”.

Thus, the door is open for continuing the existing cooperation and partnership, which currently governs the relations between the two organisations through the ESA/UE Framework Agreement entered into force in 2004, which has created a European Space Council gathering the Member States of both entities (29). This FA, which has been renewed until 2012, is seen as a key to the implementation of the European space strategy. The two organizations share a joint European Strategy for Space and have together developed the European Space Policy (ESPI) to strengthen Europe and benefit its citizens. On the occasion of the 2007 Space Council, the Council of ESA at ministerial level and the Council of the European Union adopted the Resolution on the European Space Policy (ESPI). The European Parliament reaffirmed these aspects in the Resolution adopted on 20 November 2008.

4. A common European legislation on space activities

All ESA Member States are parties to the OST, and most of them have ratified the other outer space treaties. The only exception is the Moon Agreement; among the 19 members of ESA only Austria, Belgium and the Netherlands ratified the Agreement.

However, ESA has no power to adopt common space legislation for Member States to implement those treaties. Likewise, the EU does not possess such competence under the Treaty of Lisbon. National space legislation continues to lay within the domestic jurisdiction of Member States.

Some States have adopted specific space legislation, such as the United Kingdom, Sweden, France and Belgium, while other Member States have covered only some of the building blocks, such as Italy and Germany, and are in a drafting process for a national space legislation addressing authorization and licensing procedures for private activities.

The aims and the context in which national laws have been developed differ as much as do the frameworks set by the laws adopted in the period between. While the Swedish Act on space activities was adopted in a context where public space programmes constituted the entire space activity, by contrast Acts such as the UK Outer Space Act or the Dutch Space Activities Act responded to the need to provide a legal basis for the growing industrial and satellite operation activities.

In addition, legislations enacted so far vary considerably for extent and content, consisting in extremely short texts (like Sweden Act on Space Activities); texts simply dealing with the registration of outer space objects (like the Spanish Royal Decree of 24 February 1995); thoroughly elaborated texts encompassing almost all possible elements of private space activities falling under the supervision of governments (UK Outer Space Act , Belgium Law, French Law).

5. A comparative look at national laws

In this general context, I will now take into consideration the main features of some national legislations dealing with space activities.

The **Swedish Act on Space Activities 1982** covers basically all activities in outer space with the exception of sounding rocket operations. All such activities, whether conducted from Swedish soil or by Swedish nationals, require a license, and such license would stipulate the requirement of full reimbursement of the Swedish government in any case where the latter would have to pay a claim. In principle the Swedish government is entitled to full reimbursement of any international liability claim, although no obligatory insurance is provided for. The licensing regime is detailed by the Implementing Decree on Space Activities 1982 which, inter alia, provides the National Board of Space Activities (NBSA) that runs the national register of space objects.

In its turn, the adoption of the **UK Outer Space Act 1986** was motivated by the increase of private enterprise involvement in space activities facilitated by a general tendency towards privatization experienced in many sectors of industry and services. In this vein, the purpose of the Act is to allow the Government to comply with its international obligations.

The licensing obligation regards space activities by UK nationals. Licenses include an obligation for full reimbursement of the UK government. Contrary to the Swedish case, the licensing authority (namely the British National Space Centre – BNSC) is expressly authorized to require insurance to cover such liability. In this regard, the policy developed by the UK authorities is to oblige the licensee to take out an insurance policy covering reimbursement of the UK government up to £ 100 million – noting that under the Liability Convention liability is essentially unlimited.

The **Netherlands Space Activities Act 2007** followed the recent developments in space activities, characterised by the strong moving from governmental activities in outer space (even within intergovernmental organizations such as INTELSAT, INMARSAT and EUTELSAT), to the ownership of in orbit satellites by private telecommunication operators. The licensing obligation pertains to those conducting such activities from Dutch territory. Furthermore, that obligation can be made applicable to Dutch nationals if active in the territory of States not parties to the OST.

The Minister of Economic Affairs is the authority empowered to issue a licence; varying conditions are established which the licensee must abide: hard-core conditions without which the licence will not be granted (safety of persons and goods, environmental protection, public order and security) and case-by-case conditions to be assessed by the Minister in the light of the previous or the foreseeable conduct of the applicant.

In case of damages caused to third parties due to the space activities, the State is entitled to recover from the private operator the sum paid by the State. It is to be said that one key condition for the grant of a licence is that the prospective licensee must maintain insurance cover for liability arising from space activities for which a licence is requested. The Netherlands Act incorporates the criterion of the “maximum possible cover”, according which the Minister shall consider what can reasonably be covered by insurance. However, the Netherlands Act expressly limits the liability of the private operator to provide redress only up to the value of the sum insured.

Belgian Law on the Activities of Launching, Flight Operations or Guidance of Space Objects 2008 establishes the license obligation for activities conducted from Belgian territory. In addition, such obligation applies to activities conducted by Belgian nationals outside Belgium, if it is provided for by special agreement with the State from whose territory such activities would take place. Regarding reimbursement by the licensee of the government in case of international liability claims addressed towards the latter, it is in principle unlimited. The competent Minister may, in granting license, create obligation for insurance to be taken out in favour of third parties to cover the damage that may result from the activities authorised. The same Minister is responsible to take care of the National Register of Space Objects.

France is the third major space faring country in the world and the main launching State in Europe. The **French Space Operations Act of 2008** is aimed at ensuring legal certainty for commercial operations.

The Act requires the prior authorization for the activities of space operators falling within its scope. The licence is granted by the Ministry of research, which is responsible of the assessment of moral, financial and professional requirements laid down the “decree of authorisation”, while technical assessment is delegated to CNES.

Space operators are obliged to obtain insurance. The Act provides the possibility to suspend such obligation for a limited period of time on the basis of insurance market conditions and the possibility to exempt satellite operators from such obligation with regard to operation phases which not involve the change of orbital position or other manoeuvring. Operators must be insured up to the amount they may be held liable for.

The Act previews that a ceiling will be fixed according to the criteria of Article 13 and French financial law. Furthermore, the operator benefits from the so called “State guarantee” for the portion of liability exceeding the ceiling whereby the Sate covers

the portion of damages beyond the ceiling. The Act establishes extensively on the control system after the grant of authorisation and lays down a lump sum fine (200.000 euro) in cases where an operator acts without authorisation or does not comply with the requirements contained in the decree of authorisation.

Let us now have a look to Germany and Italy.

The **German legislation on remote sensing** (Satellite Data Security Act), which entered into force on December 1, 2007, is aimed at safeguarding security interests in the distribution of high-resolution satellite data. The need for a specific legislation regarding the authorization and licensing of satellite-based remote sensing systems and the distribution of data acquired through those means arose from the evolution of the structures of investments in space related projects. The increased participation of private actors in the newest remote sensing projects of public-private partnerships through the investment of huge amounts of private capital require a clear and transparent legal framework. The Act implements a licensing procedure for the distribution of remote sensing satellite data generated by high-grade remote sensing satellite systems in order to ensure national security and foreign policy interests. The Act contains a data distribution mechanism that creates a system in which an operator, distributor or operator/distributor will be licensed.

The **Italian legislation on space activities** is characterised by two laws in force concerning respectively the registration of space objects (Law 12 July 2005, n. 153) and the indemnification for damages caused by space objects (Law 25 January 1983, n. 23). The latter broadens the State's obligation for the indemnification of victims. A new law on authorization of private activities on outer space is in process of drafting, which would better promote private-sector activity and space use for the achievement of the objectives set forth in the Italian space programme.

By Law n. 153 the Italian Space Agency (ASI) is entrusted with the institution and custody of a National Register for the objects launched into outer space, including the information concerning each space object as prescribed by Article IV of the 1975 Convention.

The private subjects obliged to notify the ASI with launches in outer space are, first of all, all persons, natural and juridical, of Italian nationality that launch or procure the launch of a space object. In view of this connecting link, the Law applies not only to private persons that launch or procure the launch from the Italian territory or from a facility under Italian jurisdiction or control, but also from a territory or facility pertaining to a foreign State.

Secondly, the Law provides for the registration of objects launched in outer space by foreign persons from the Italian territory or from facilities under Italian control (i.e. the San Marco-Malindi Launch and Tracking Station in Kenya).

The rules on compensation for damage caused by objects launched in outer space are contained in Italian Law n. 23 of 1983, which implements the 1972 Liability

Convention, is applicable to States and not to individuals damaged by space objects. Law n. 23 applies only in cases of damage caused by space objects launched by foreign launching States.

Article 3 of the Law regards the victims of Italian nationality. It gives them a right to be compensated even though the Italian State has not obtained compensation, for one reason or another, from the liable launching State under the Convention. Italian natural and juridical persons are also entitled to receive compensation if the Italian State has presented no claim for compensation, provided, in this case, that a claim has not been presented to the liable State by the State on whose territory the damage was sustained or by the State of which the persons concerned are permanent residents.

Law n. 23 also recognizes a conditioned right for compensation to foreign natural and juridical persons, only when and to the extent which the Italian State has presented a claim and obtained reparation.

The obligation to compensate Italian victims is restricted only to the amount actually obtained.

In conclusion, the mentioned cases of national legislation on space activities shows the growing importance of this kind of legal regulation in Europe. However, a number of considerable divergences exist between national space laws.

Such divergences are most pronounced in such areas as the scope of the licensing obligation and the handling of insurance – whether an obligation to take out insurance is imposed on the licensee or not; whereas in areas such as liability reimbursement (which is usually unlimited, at least in principle) and the criterion of a dedicated entity for licensing and registration purposes there, apparently, seems to be a larger measure of harmonisation.

Which is the way for further harmonization?

The ESA remains the technical body for setting up space programs and, in cooperation with the EU, a European Space Policy.

The EU is the political body for assuring strategic decisions. It will increase its political intervention in space matters, but it will not be empowered under the Treaty of Lisbon of normative powers and, in particular, of the power to directly harmonize national legislation on space matters. This is without prejudice, for the EU, to continue to harmonize under different legal grounds matters that have an indirect relevance to space activities, such as telecommunications.

The legislative competence will indeed continue to fundamentally lie on member States of the ESA and/or the EU.

Harmonization within the EU context would have, when possible, the ordinary objective of bringing existing national space legislation and legal schemes more in line

Member States of the European Space Agency (ESA)

with each other, so providing coordination, approximation and mutual recognition of national legislation or administrative provisions; it would also have, on the other hand, the additional objective of filling the gap between Member States, introducing, where absent, common legislative principles and rules. In this vein, harmonization could become a further, important instrument for a common European space policy.

I am sure that ESA and EU will support of harmonization. Of course, of major interest and relevance are the recommendations which will be addressed to member States by COPUOS at the end of the work of the WG chaired by Prof. Marboe.