Arbitration and Alternative Dispute Resolution: Matching Dynamics and Flexibility for the New Space Age

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Abstract

One of the main tasks of international law is to establish the foundations for peace and stability. As Art. 2, par. 3 of the Charter of the United Nations states: "All Members shall settle their international disputes by peaceful means in such a manner that international peace and security, and justice, are not endangered". Keeping this objective in mind, one must consider the close correlation between the exponential growth of actors aiming to operate in the space market and the potential increase of possible disputes between them. Furthermore, emphasis must be placed on a consideration which is as important as it is obvious, namely that a peaceful environment is conducive to the well-being of the market and business. In this respect, the use of legislative instruments to define the parameters for a rapid and effective resolution of disputes arising from space activities, can contribute to the development of an environment which is able to coordinate the entry and permanence of all actors in the sector. Starting from this indefectible presupposition, this paper examines the peculiar position of the new private actors operating in the space market, which require rethinking of traditional dispute resolution dynamics, highlighting their specific needs, including agile paths in the attribution of competence with respect to the peculiarities of a dispute, a faster resolution of disputes and clarification and development of the applicable legal standards in the sector. This study continues with an analysis of the three means of dispute settlement that appear closer to these needs, shedding light to their pros and cons: arbitration, mediation and conciliation. On the basis of this analysis, particular attention is placed on the benefits of arbitration, also through a comparison of its use in other emerging industries that seem to have similarities with the space sector demands. This will lead to an inevitable reflection on the PCA Optional Rules for Arbitration of Disputes relating to Space Activities, ten years after their adoption. Starting from its key Provisions, this paper intends to point out the aspects that have caused a poor application of these rules, operating on which its effectiveness can be implemented. Our study concludes with a reflection on the adequacy of arbitration as a means of resolution of space-related disputes, with reference to the desirability of setting up ad hoc courts in this area.

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1. Introduction

Space law is a relatively new branch of international law. It is immersed in the particularities of science and technology, it relies on the spirit of innovation and trust in progress, which directs its evolutionary path according to an optimistic approach towards a future made of discoveries and development.

The duty of legislation is to create a regulatory framework in which outer space activities can develop to their full potential and cope with the new challenges they pose.

A careful use of legislative instruments can define the parameters for peaceful use of outer space, contributing to the development of an environment capable of coordinating the entry and permanence of all actors, both private and public, who intend to operate in this area.

In this regard, we need to reflect on the importance of a system of rules that allow for a rapid resolution of conflicts. Investing in the means of dispute resolution regulation is an idea as trivial as it is fundamental. Thanks to a stable and peaceful environment, where conflicts are promptly resolved, each operator would be able to carry out their business safely and would have less hesitation to invest in the industry.

In fact, the new possibilities of exploitation of outer space, created by technological progress, open up new transnational scenarios, attracting a wide and disparate array of operators, in particular private actors, which require a regulation more adherent with their specific demands. This leads to the need for a rethinking and substantial implementation of existing legal structures in the field of space law, especially with regard to the system of space dispute resolution mechanisms.

This paper examines the peculiar position of the new private actors operating in the space market, in the light of the current legal framework, that reveals a substantial lacuna in space law. In the context of the *Corpus Juris Spatialis*[1] there is no mandatory and binding mechanism to resolve disputes. We can only find a vague reference to the dispute settlement mechanisms operating under general international law and, in particular, the article 33 of the United Nations Charter, in the 1967 Outer Space Treaty; whereas only the 1972

1 The regulatory framework of space law has developed during the second phase of its evolution, with the five Treaties negotiated within the framework of UNCOPUOS, to which conventionally refers as Corpus Juris Spatialis.

Liability Convention provides for a special procedure for the settlement of space disputes, which nevertheless has numerous shortcomings.[2]
The international community's awareness of the need for a reliable and efficient dispute resolution system has gradually increased over time. This realization is directly related to the phenomenon of the commercialization of the outer space, with the increase of international collaborations, especially in the economic sector; as well as the progressive increase of subjects operating in such context and finally, the consequent interest in creating an environment that guarantees solidity to the economic interrelations, ensuring a peaceful development of commercial activities.
In particular, as the number of private operators participating in space activities increases, so does the likelihood of such actors being involved in space disputes. In the face of these changes, the international community has increasingly felt the need to equip itself with effective mechanisms for resolving disputes in response to the intrinsic peculiarities of space activities.
In this regard, Arbitration, Mediation and Conciliation have shown a particular usefulness.
This study continues with an analysis of these means, with particular attention on the benefits of arbitration.
This will lead to a reflection on one of the most significant achievements of the international community in its efforts to fill the gap and provide space law with an appropriate dispute resolution system, that concerns the arbitration itself: the adoption of the *Optional Rules for Arbitration of Disputes Relating to Outer Space Activities* (*Outer Space Rules*), by the Permanent Court of Arbitration, which confirms the particular relevance recognised to this mechanism. This paper intends to point out the aspects that have caused a poor application of these rules, operating on which its effectiveness can be implemented.
Our study concludes with a consideration on the adequacy of arbitration as a means of resolution of space-related disputes.

2. Methodology

Our work analyzes the existing literature on the subject of new space actors and on the dispute settlement in space law, with particular attention to international arbitration.
The aim is to outline the prevailing needs of the private actors and the difficulties they encounter with specific regard to the management of the

2 It does not provide for a mandatory dispute settlement mechanism; moreover, the procedure envisaged is limited in its objective and subjective scope. For further information see: Gorove, S., *Dispute Settlement in the Liability Convention*, Developments in Space Law, Issues and Policies, in Utrecht Studies in Air and Space Law (vol. 10), Martinus Nijhoff Publishers, Dordrecht-Boston-London, 1991, 236.

disputes in which they are involved, highlighting the particular responsiveness of arbitration to these needs. This will be done, in particular, through an analysis of two other means of dispute resolution, notably mediation and conciliation, and by a brief comparison with another emerging industry, which shares some of the problems encountered in the space sector.
The study includes an analysis of the *Optional Rules for Arbitration of Disputes Relating to Outer Space Activities* (*Outer Space Rules*), as a set of rules that institutionalizes the arbitral mechanism within the framework of space law, in order to question the causes of its poor application and the appropriateness of an implementation of its use.

3. Discussion & Results

Before proceeding to the analysis of the three means of dispute settlement that appear closest to the needs of private actors highlighted above, it is appropriate to note a number of factors that depower the spatial dispute resolution system.[3]

a. First, there is no mandatory mechanism;
b. None of the existing dispute resolution procedures can be used to resolve all types of space disputes, which show a wide range of facets;
c. Private entrepreneurs are largely denied access to the mechanisms available for dispute resolution in the current legal framework of international space law;
d. Decisions resulting from dispute settlement mechanisms are generally non-binding;
e. Even if we opt for an arbitration solution, which provides for the binding nature of the awards, there are still a number of problems.

Firstly, the reserved and strategic nature of activities in outer space may hinder recourse to arbitration procedures; secondly, states may exercise sovereign immunity to prevent the initiation and conduct of arbitration proceedings relating to disputes involving them; finally, the technical nature of space activities, which requires the use of scientific experts, and in the specific field of international space law, cannot be neglected. We will see how many of these issues have been answered by the adoption of the Outer Space Rules.

3 Tronchetti, F., *Bringing Space Law in the 21st Century: The Permanent Court of Arbitration Adopts Optional Rules for Arbitration of Dispute Relating to Outer Space Activities*, 56th Colloquium on the Law of Outer Space, Session 2: Settlement of Space-related Disputes, Proceedings of the International Institute of Space Law, 2013, 202.

3.1. The Needs of the New Private Actors Operating in the Space Market: Rethinking of Traditional Dispute Resolution Dynamics

Space activities today present themselves as one of the most promising sectors of the world economy. The growing interest in the space market is articulated in a progressive increase of the actors involved and in the multiple uses to which the outer space lends itself.

Initially, as is well known, sovereign states were the absolute protagonists in the field of space activities. These activities mainly concerned military purposes, whereas civil uses were a by-product of the former. This early stage was followed by a phase characterized by the use of outer space in the general public's interest, especially with the development of satellite technology for telecommunications.

It is in the 1980s that we begin to feel a significant change in the dynamics of the market, with a strong trend to commercialization and especially with the involvement of private actors, attracted by the huge possibilities of earnings.[4]

A real revolution began in the space economy in these years, with the phenomenon of the so-called New Space Economy, an all-inclusive concept that denotes the proliferation of new private actors who conduct their activities separately from institutional and governmental structures, seeking their place in the space market, with the primary objective of allowing low-cost access to space technologies, establishing themselves as one of the main growth engines of the economy in this sector.[5]

The ongoing revolution in the field of space activities, with the consequent proliferation of actors involved, has led to new problems, especially in relation to international disputes, showing the inadequacy of the existing regulation.

We have already noted that with the increase of the number of private operators participating in space activities, the likelihood of such actors being involved in space disputes also increases. For a long time, they have faced a very problematic situation, due to the lack of adequate means of dispute resolution available to them.[6]

4 Stephan Hobe, *The Impact of New Developments on International Space Law (New Actors, Commercialisation, Privatisation, Increase in the Number of "Space-faring Nations")*, Uniform Law Review, Volume 15, Issue 3-4, August-December 2010, 869-870.

5 Grimard, M.; Dr. Reibaldi G., *NewSpace Recent Evolution: An Opportunity for Europe to Enter the Game?*, 67th International Astronautical Congress (IAC), Guadalajara, Mexico, 26-30 September 2016.

6 Tronchetti, F., *Bringing Space Law in the 21st Century: The Permanent Court of Arbitration Adopts Optional Rules for Arbitration of Dispute Relating to Outer Space Activities*, 56th Colloquium on the Law of Outer Space, Session 2: Settlement of Spacerelated Disputes, Proceedings of the International Institute of Space Law, 2013, 200-202.

These actors have entered into an international system designed for state subjects, with the consequent difficulties of access to the traditional means of dispute resolution provided for by public international law and the lack of valid alternatives in the framework of space law.
In the event of an international dispute (e.g.,the two private entities belong to two different jurisdictions), the private actors always have the possibility to appeal to the national courts or courts of the state of origin of the other party. However, in these cases there are problems related to the execution of sentences, *jus standi* and to the unfamiliarity with the national laws of the "host" country.
A valid alternative option is to seek a binding dispute resolution through the mechanism of international arbitration.[7]
It is evident, in the light of the changes revealed in the space market with the proliferation of private actors, the need for a rethinking of traditional dispute resolution dynamics, based on their specific needs, concerning in particular agile paths in the allocation of competences with respect to the peculiarities of a dispute, a faster resolution of disputes and clarification and development of the applicable legal rules in the field and cost containment, to channel economic resources into company development.[8]
They need flexibility, neutral procedures that guarantee equality in the exercise of the right of defence, targeted legal aid, and decision-making bodies with the necessary knowledge to be able to frame disputes in the context of the space industry.
We will now show our observations on how international arbitration addresses these problems, responding to the needs of private actors.

3.2. Benchmarking: Mediation, Conciliation and Arbitration

3.2.1. Mediation

Mediation is an Alternative Dispute Resolution technique with a long legacy. It consists of a process in which a neutral party assists two or more disputants to achieve a voluntary and negotiated resolution of their differences.
The mediator has no power to adjudicate a decision, to render a judgment or to make an award, unlike a judge or an arbitrator. Therefore, has no power to impose a settlement on the parties and has no responsibility to counsel them.

7 *Ibidem.*
8 Marinova A., Gould M., Zara M., *Visualisations Of Trends Among Newspace Companies To Help The Optimisation And Modernisation Of Current Regulatory Regimes In Space,* GLEX 2021,12,3,10,x62711, Global Space Exploration Conference (GLEX 2021), St Petersburg, Russian Federation, 14-18 June 2021, 9-10.

The effectiveness of this mechanism depends essentially on the confidence of the parties in the mediator and in their willingness to reach an agreement.[9]
Mediation has both advantages and disadvantages.In relation to disadvantages, one of the first problematic factors concerns the role of the mediator. Mediation presupposes that the latter has a certain influence on both parties to the dispute. However, it should be noted that in space disputes, often the parties are powerful actors, such as space-faring states or multi-national corporations, which hardly accept to subject themselves to the influence of a mediator.[10]
Another major disadvantage is that the mediation has no set procedure. The resolution of the dispute depends on the parties' willingness to reach a compromise. Mediation can potentially take a long time to conclude. This is a particularly deleterious factor in space activities, which may be paralyzed by the protracted dispute.[11]
Furthermore, as we have said, mediation requires that a third party, the mediator, enjoys the trust of both parties. In the field of space activities, this may be problematic, given the extremely reserved nature of these activities.[12]
It has been observed that the key to mediation is compromise. Its effectiveness ultimately depends on the cooperation of the parties. This implies that the refusal to cooperate or the violation of a rule of space law by one of the parties, precludes the use of this mechanism.[13]
Finally, we must not overlook the possibility of the Mediator pursuing personal interests in the context of the dispute, causing a substantial loss of neutrality in the mediation process.[14]
Mediation also has advantages over the resolution of space disputes. It must be understood that this is a flexible process. The parties may retain their autonomy during the course of the negotiations. The possibility of having control over the development of the process is a factor which may encourage the parties to participate in it.[15]
Another interesting aspect of mediation is that the mediator, in some cases, may have the possibility to offer solutions. In this way there is the opportunity to find a settlement of the dispute on the basis of the principles of space law, taking into account the interests of both parties.[16]

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9 Bostwick, P. D., *Going Private with the Judicial System: Making Creative Use of ADR Procedures to Resolve Commercial Space Disputes*, Journal of Space Law, Vol. 23, no. 1, 1995. P. 28-298. Goh, G. M., *Dispute Settlement in International Space Law: A Multi-Door Courthouse for Outer Space*, Leiden-Boston, 2007, p. 103.
10 *Ibidem,* 104.
11 *Ibidem.*
12 *Ibidem.*
13 *Ibidem.*
14 *Ibidem.*
15 *Ibidem*, 105.
16 *Ibidem.*

Mediation can, finally, guarantee the confidentiality of the process, which is obviously important in the field of space activities, given the need for privacy of the related operations.[17]

3.2.2. Conciliation

Conciliation is a "*method for the settlement of international disputes of any nature according to which a commission set up by the parties […] proceeds to the impartial examination of the dispute and attempts to define the terms of a settlement susceptible of being accepted them or of affording the parties, with a view to settlement, such aid as they may have requested.*"[18]

Conciliation also has both advantages and disadvantages.

- It is characterized by extreme flexibility, a trait that as we have seen is particularly attractive in the space sector, especially in the face of the large investments that the parties face to conduct their activities.[19]
- The method of conciliation also facilitates the achievement of a compromise, allowing the brokerage of package deals, guaranteeing the parties reciprocity of their respective requests and concessions.[20]
- In addition, conciliation allows the parties to consider whether or not to accept the conciliator's proposal. If the proposal is not in their best interests, they may opt for a different dispute settlement method. This makes this procedure extremely responsive to the particular needs of the parties, as well as efficient in its practical conclusions.[21]
- Finally, the agreement reached and the principle that inspired it is not binding for any subsequent disputes in which one of the parties may be involved in the future. This makes the acceptance of the resolution more plausible and enables the parties to focus primarily on the practical aspects of the dispute rather than the legal ones.[22]

17 *Ibidem*, 107.
18 Article 1, regulation on the Procedure of international conciliation, (1961) 49-II Ann. IDI 385.
19 Bostwick, P. D., *Going Private with the Judicial System: Making Creative Use of ADR Procedures to Resolve Commercial Space Disputes*, Journal of Space Law, Vol. 23, no. 1, 1995. P. 28-298. Goh, G. M., *Dispute Settlement in International Space Law: A Multi-Door Courthouse for Outer Space*, Leiden-Boston, 2007, p. 107-108.
20 *Ibidem,* 108.
21 *Ibidem.*
22 *Ibidem,* 108-109.

Among the disadvantages of conciliation are the following:[23]

- Conciliation cannot operate without the consent and goodwill of the other party. These requirements are not easy to find in the disputes arising from space activities, because of the huge investments involved, where the stakes are extremely high.
- Moreover, the contribution that the conciliation procedure can make in terms of the development of space law is rather small, mainly due to the lack of legal precedents.
- Conciliation generally suffers from a historical lack of usage, it is reasonable to assume that the parties will be more directed towards the use of long-standing methods.
- Finally, the conciliation, as noted above, often requires a subsequent recourse to another subsequent binding third party dispute settlement mechanism in the event of its failure. This aspect can be discouraging for the parties, especially for the need to obtain a rapid resolution of the dispute.

3.2.3. Arbitration

Already in the early 1990s, the doctrine observed that for decades, and increasingly, arbitration was the preferred method for resolving disputes in international commercial relations, also by states and state institutions[24]
Arbitration has various advantages, especially in the field of space activities.

Final and binding decisions.[25] This feature, and the consequent high degree of stability that characterizes the arbitral awards, stems from the fact that they are not subject to appeal, with the consequence that the application and enforcement of arbitral decisions is remarkably rapid. This is an extremely important factor in the field of space activities, where there is a particular need for rapid dispute resolution, for reasons strictly related to the timing of the activities themselves, normally characterized by high degrees of

23 Böckstiegel, K. H., *Arbitration of Disputes Regarding Space Activities*, IISL.2.-93-813, published by the American Institute of Aeronautics and Astronautics, 1993, 139-140.

24 Böckstiegel, K. H., *Arbitration of Disputes Regarding Space Activities*, IISL.2.-93-813, published by the American Institute of Aeronautics and Astronautics, 1993, 139-149; Hertzfeld, H. R; Nelson, G. N., *Binding Arbitration as an Effective Means of Dispute Settlement for Accidents in Outer Space*, 56 Proc. Int'l Inst. Space L. 129, Session 2, Settlement of Space-Related Disputes, 56th colloquium on the law of outer space, 2013, 139-140.

25 Goh, G. M., *Dispute Settlement in International Space Law: A Multi-Door Courthouse for Outer Space*, Leiden-Boston, 2007, 116-117.

technicality that require compliance with specific programs and protocols, such as in the case of launches of spacecraft.[26]

Enforceability. The 1958 New York United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards, which provides for the possibility of enforcing arbitral awards in all territories subject to the jurisdiction of the signatory States is to thank for the broad endorsement of arbitration as a dispute resolution method. This is particularly important in the field of space activities, given their international and typically cross-border nature.[27]

Neutrality. Arbitration can take place in any state, in any language and with arbitrators of any nationality. This operational flexibility allows the parties to structure a neutral and fair procedure, free of undue advantages for the counterparty. This is also a very important element in the space sector, which concerns projects that often involve international collaborations.[28]

Specialization of arbitrators.[29] The parties may choose the judge or judges of the dispute. The possibility of designating arbitrators is one of the most important advantages in the use of arbitration in space disputes, since this is a sector characterised, more than others, by the need for multidisciplinary knowledge. It brings together technical, scientific and economic expertise which cannot be neglected for a full understanding of the disputes.[30]

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26 *Ibidem*.

27 *Ibidem*.

28 White, Jr. W., N., *Resolution of Disputes Arising in Outer Space*, IISL 92-0032, Proceedings of the thirty-fifth colloquium on the law of outer space, international institute of space law of the international astronautical federation, august 28-September 5, 1992, Washington, DC, published by American institute of aeronautics and astronautics, 1992, 188; Böckstiegel, K. H., *Arbitration of Disputes Regarding Space Activities*, IISL.2.-93-813, published by the American Institute of Aeronautics and Astronautics, 1993, 139-149; Hertzfeld, H. R; Nelson, G. N., *Binding Arbitration as an Effective Means of Dispute Settlement for Accidents in Outer Space*, 56 Proc. Int'l Inst. Space L. 129, Session 2, Settlement of Space-Related Disputes, 56th colloquium on the law of outer space, 2013, 139.

29 Goh, G. M., *Dispute Settlement in International Space Law: A Multi-Door Courthouse for Outer Space*, Leiden-Boston, 2007.,116-117.

30 White, Jr. W., N., *Resolution of Disputes Arising in Outer Space*, IISL 92-0032, Proceedings of the thirty-fifth colloquium on the law of outer space, international institute of space law of the international astronautical federation, august 28-September 5, 1992, Washington, DC, published by American institute of aeronautics and astronautics, 1992, 188; Hertzfeld, H. R; Nelson, G. N., *Binding Arbitration as an Effective Means of Dispute Settlement for Accidents in Outer Space*, 56 Proc. Int'l Inst. Space L. 129, Session 2, Settlement of Space-Related Disputes, 56th colloquium on the law of outer space, 2013, 139- 140.

Speed and cost reduction.[31] Arbitration is faster and less expensive than traditional court proceedings. This is due, in particular, to the limited possibility of appealing against arbitral awards. The parties thus avoid the danger of being involved in a long and costly series of appeals, resulting in time and cost savings, which is particularly attractive for space operators, for the obvious reasons already mentioned above.[32]

Confidentiality.[33] Arbitration protects the confidentiality of the parties. The arbitral hearings are not public and only the parties receive a copy of the arbitral award. This allows privacy on sensitive information relating to the dispute, such as data relating to the development of new technologies.

Wide accessibility. Arbitration is a mechanism available to all parties: governments, societies and individuals.[34]

However, Arbitration also has disadvantages.[35]
First of all, it is not aimed at improving the relations between the parties involved in the dispute, indeed often involves a worsening of relations between them. In the field of space activities, this is particularly important because of the relatively small size of the community engaged in activities in this field. It would therefore be appropriate to ensure lasting and stable relationships of collaboration.
Moreover, except in exceptional cases, the unsuccessful party cannot oppose the decision. Potentially, a blatantly incorrect arbitration award could still stand. This is discouraging for operators in the space sector, where there are different interests involved, especially from an economic point of view.
It should also be noted that the protection of confidentiality has as a negative side the absence of legal precedent in arbitral awards. In this perspective,

31 Goh, G. M., *Dispute Settlement in International Space Law: A Multi-Door Courthouse for Outer Space*, Leiden-Boston, 2007, 116-117.

32 White, Jr. W., N., *Resolution of Disputes Arising in Outer Space*, IISL 92-0032, Proceedings of the thirty-fifth colloquium on the law of outer space, international institute of space law of the international astronautical federation, august 28-September 5, 1992, Washington, DC, published by American institute of aeronautics and astronautics, 1992, 188; Böckstiegel, K. H., *Arbitration of Disputes Regarding Space Activities*, IISL.2.-93-813, published by the American Institute of Aeronautics and Astronautics, 1993, 139.

33 Goh, G. M., *Dispute Settlement in International Space Law: A Multi-Door Courthouse for Outer Space*, Leiden-Boston, 2007, 116-117.

34 Hertzfeld, H. R; Nelson, G. N., *Binding Arbitration as an Effective Means of Dispute Settlement for Accidents in Outer Space*, 56 Proc. Int'l Inst. Space L. 129, Session 2, Settlement of Space-Related Disputes, 56th colloquium on the law of outer space, 2013, 139- 140.

35 Goh, G. M., *Dispute Settlement in International Space Law: A Multi-Door Courthouse for Outer Space*, Leiden-Boston, 2007, 117-118.

arbitration does not contribute to the evolution of the legal framework of space law and there is also concern that arbitral awards may contribute to its fragmentation, as in the case of two decisions which in similar cases reach diametrically opposed conclusions. Furthermore, a climate of uncertainty caused by the lack of precedent does not favour commercial practices, especially in a relatively young sector such as the space economy.

3.3. PCA Optional Rules for Arbitration of Disputes relating to Space Activities

The lack of dispute resolution mechanisms in space law, with particular reference to private actors, has been widely highlighted.
The mechanisms available have often revealed their limited scope in relation to the subjective and objective profile of space disputes. This absence has considerably weakened the applicability of space law and has created a climate of uncertainty that can discourage investment in the sector, especially by private companies.[36]
The international community has increasingly felt the need to fill the gap in the space law system of disputes settlement. The most significant product of this need was the cc.dd. Optional Rules for Arbitration of Disputes Relating to Outer Space Activities (Outer Space Rules), adopted on 6 December 2011 by the Administrative Council of the Permanent Court of Arbitration (CPA).
It is a body of rules that outline an arbitration procedure to address the specific needs of space-related disputes.
The Outer Space Rules consist of 43 articles. Their main features are:[37]

a. **Accessibility**: All actors involved in the conduct of space activities, including states, intergovernmental and non-governmental organizations, as well as private individuals, have the right to use them for the resolution of disputes involving them.
b. **Applicability:** their scope is extremely broad, due to the fact that the characterisation of the dispute as relating to outer space is not a necessary condition for the resolution of such disputes under the Regulation. As a result, the rules simply become applicable if the parties agree to do so.
Article 1(1): Where parties have agreed that disputes between them in respect of a defined legal relationship, whether contractual or not, shall be referred to arbitration under the Permanent Court of Arbitration Optional Rules for Arbitration of Disputes Relating to

36 Tronchetti, F., *Bringing Space Law in the 21st Century: The Permanent Court of Arbitration Adopts Optional Rules for Arbitration of Dispute Relating to Outer Space Activities*, 56th Colloquium on the Law of Outer Space, Session 2: Settlement of Space related Disputes, Proceedings of the International Institute of Space Law, 2013, 195.
37 *Ibidem.*

Outer Space Activities, then such disputes shall be settled in accordance with these Rules subject to such modification as the parties may agree. The characterization of the dispute as relating to outer space is not necessary for jurisdiction where parties have agreed to settle a specific dispute under these Rules.

c. **Scientific and legal expertise:** The rules have recognized that the technical nature of space activities requires the support of legal and scientific experts during the arbitral proceedings. Therefore, the parties may select arbitrators with expertise in space matters as well as legal and technological experts to support the arbitration panel.
To improve this advantage, Article 10(4) of the Outer Space Rules assists the parties in the selection of arbitrators, by instructing the Secretary General of CPA to compile a permanent list of arbitrators with particular expertise. The use of this list is optional.
Article 10(4): In appointing arbitrators pursuant to these Rules, the parties and the appointing authority are free to designate persons who are not Members of the Permanent Court of Arbitration at The Hague. For the purpose of assisting the parties the Secretary-General will make available a list of persons considered to have expertise in the subject matters of the dispute at hand for which these Rules have been designed.

d. **Immunity:** The rules state that consent to arbitration through the use of an arbitration clause constitutes a waiver of immunity to jurisdiction. This provision also applies to states and international organisations.
Article 1(2): Agreement by a party to arbitration under these Rules constitutes a waiver of any right of immunity from jurisdiction, in respect of the dispute in question, to which such party might otherwise be entitled. A waiver of immunity relating to the execution of an arbitral award must be explicitly expressed.

e. **Confidentiality:** Due to the sensitive nature of space activities, the parties to a dispute may refrain from submitting it to an arbitral tribunal for fear of disclosure of confidential and economically valuable information.
The rules address this concern by allowing the arbitral tribunal to appoint a "Confidentiality Adviser". Such an adviser should report to the court on specific issues on a confidential basis, thus preserving sensitive information.
Article 34(5): An award may be made public with the consent of all parties or where and to the extent disclosure is required of a party by legal duty, to protect or pursue a legal right or in relation to legal proceedings before a court or other competent authority.
Article 17(8): The arbitral tribunal may also, at the request of a party or on its own motion, appoint a confidentiality adviser as an expert

in accordance with article 29 in order to report to it on the basis of the confidential information on specific issues designated by the arbitral tribunal without disclosing the confidential information either to the party from whom the confidential information does not originate or to the arbitral tribunal.

f. **Final and binding nature of the arbitration award**: the award of the arbitral tribunal shall be made in writing, final and binding. The parties are obliged to respect and carry it out without delay. This is important to create a climate of certainty in the field of space activities.
Article 34(2): All awards shall be made in writing and shall be final and binding on the parties. The parties shall carry out all awards without delay.
g. **Neutrality:** The rules allow the parties to choose a seat of arbitration located outside their respective provenance territories. This provision reflects the international nature of space disputes.
h. **Interpretation of the Treaty**: The Rules may also be used to resolve disputes concerning interpretation and the Corpus Juris Spatialis. If used, this provision could help to solve some thorny issues and, as a result, contribute to the substantial development of space law.

Despite the apparent and timely compliance of outer space rules with the specific needs of the space sector, it should be noted that there are no publicly known cases of arbitration proceedings conducted according to the provisions of the Outer Space Rules.
The CPA handled several disputes arising from the conduct of space activities, but in those cases, the parties opted predominantly for the use of the UNCITRAL Rules, a set of rules that delineate an arbitration procedure in the field of international trade relations and that have constituted the framework on which the Outer Space Rules themselves have been developed.[38]
We must therefore take into account the answer, which is still negative, with regard to the use of the Outer Space Rules and the orientation of the actors towards international commercial arbitration, in particular through the use of the UNCITRAL Rules.
It is therefore necessary to highlight the factors which seem to weaken their application.

38 Rosenberg, B. C.; Dadwal, V., *The 10 Year Anniversary of the PCA Outer Space Rules: A Failed Mission or The Next Generation?*, Kluwer Arbitration Blog, 2021,http://arbitrationblog.kluwerarbitration.com/2021/02/16/the-10-year-anniversary-ofthe-pca-outer-space-rules-a-failed-mission-or-the-next-generation/, last access 21/06/2022.

The current landscape of space disputes appears to be dominated by private actors (mainly active in the satellite and telecommunications sectors). This finding leads to a reflection on the actual degree of knowledge of the rules by them. Although CPA is a well-established institution which enjoys the trust of States and international organisations, it is not axiomatic that this assertion also applies to individuals.[39]

The preference for commercial arbitration can be determined by several factors.
First of all, the intensification of space activities has manifested itself predominantly in the commercial sphere. It is therefore possible to deduce the consequence that most of the disputes that arise fall within those relating to commercial relations.
Another significant fact lies in the confidence that inspires a body of rules from the long heritage, which are the UNCITRAL Rules, especially when compared to the young history of the Outer Space Rules. A set of rules that has already found wide application in all areas of international trade, certainly constitutes a strong attraction for space actors.
Finally, one disadvantage of the application of the Outer Space Rules could be in the fact that costs relating to the secretarial services provided by the International Bureau of the Permanent Court of Arbitration shall be borne by the parties.[40]

4. Conclusions

It has been observed that the increasing commercialization of outer space has led to a change in the landscape of operators in the field of space activities.
The increase in the number of actors involved has also increased the possibility of international disputes. In this regard, particular emphasis has been placed on the proliferation of private actors and their specific needs, which clashes with the apparent inadequacy of space law regulation.
The international community has increasingly felt the need to equip itself with effective settlement of disputes in response to the intrinsic peculiarities of space activities.
The efforts made to achieve this objective have led to a fairly widespread finding, namely the recognition of the potential of the institute of international arbitration.
In fact, although other means of resolution meet some of the needs of the sector, such as Mediation and conciliation, arbitration has advantages

39 *Ibidem*.
40 Baez, J., *The PCA's Optional Rules for Arbitration of Dispute Relating to Outer Space Activities: Bringing Arbitration to Infinity and Beyond*, Arbitration Law Review, Vol. 4 Yearbook on Arbitration and Mediation, 4 218, 2012, 224.

particularly suited to resolving the main issues related to space-related disputes, especially in the light of the needs of the new actors.
We have observed that the main advantages of arbitration include final and binding decisions; highly specialized arbitrators; rapidity and cost reduction compared to the traditional judicial proceedings; protection of confidentiality; but, above all, it is a mechanism available to all actors in the sector: governments, companies, individuals.
The disadvantages of arbitration have also been highlighted: often leads to a worsening of relations between the parties to the dispute; it does not allow appeals, except in exceptional cases; the protection of confidentiality involves the absence of legal precedent in arbitral awards. However, the legal community has considered this instrument extremely valuable and has carried out studies that were able to make the most of the characteristics of international arbitration in order to address the problems encountered by the actors operating in the Space market.
One of the most relevant findings was the adoption of the Optional Rules for Arbitration of Disputes Relating to Outer Space Activities (Outer Space Rules) by the Permanent Court of Arbitration.
This body of rules offers a means of resolution that is closely connected to the reality of modern space activities, taking into account their peculiarities; accessible to all actors who carry out such activities; versatile, thanks to its wide scope of application; and, above all, binding.[41]
Despite the many positive features they possess, their success depends exclusively on the will of the actors operating in the space market. In basic terms this means that they are contingent on confidence they can inspire in the international community. It has been found that in reality their application is still poor; the actors seem to prefer the commercial arbitration.
We can however observe that, although commercial arbitration offers adequate response to the disruptive phenomenon of the commercialisation of outer space, it is desirable to implement the application of the Outer Space Rules, which appear to be a valuable tool to fill the gap existing in the resolution of disputes arising from the conduct of space activities, showing a valid solution to all the critical issues encountered in the resolution of conflicts in this particular area.
Arbitration is a crucial tool in support of the emerging space economy, assisting private actors with a flexible but effective mechanism for resolving their disputes, which allows a wide protection of their investments in the market.

41 Tronchetti, F., *Bringing Space Law in the 21st Century: The Permanent Court of Arbitration Adopts Optional Rules for Arbitration of Dispute Relating to Outer Space Activities*, 56th Colloquium on the Law of Outer Space, Session 2: Settlement of Spacerelated Disputes, Proceedings of the International Institute of Space Law, 2013, 203.

Arbitration is a crucial tool in support of the emerging space economy, assisting private actors with a flexible but effective mechanism for resolving their disputes, which allows a wide protection of their investments in the market.
It is interesting to note that there are common needs between this sector and the technological sector, by which, moreover, real overlaps can be found.

"The technology sector is the category of stocks relating to the research, development, or distribution of technologically based goods and services. This sector contains businesses revolving around the manufacturing of electronics, creation of software, computers, or products and services relating to information technology.[42]

The technology industry – including IT, biotech and alternative energy among other segments – is increasingly accepting of arbitration. The top benefits recognized to arbitration are, also in this sector, specialized expertise, time savings and privacy. It has also been observed that technology companies, and no doubt companies in other changing industries, increasingly turn to international arbitration for dispute resolution.[43]
In conclusion, arbitration is not a definitive solution to the problem of space-related disputes. However, it is certainly a tool that has proved effective and useful in many areas and it is worth investing in it.
Finally, it is worth mentioning a hypothesis feared in doctrine,[44] namely, the establishment of an ad hoc court specifically dedicated to the resolution of space disputes.
In this respect, it was noted that, in particular, by adopting the point of view of a private actor, especially in the case of small and medium-sized enterprises, the idea of a court specifically responsible for resolving disputes arising from space activities could be very interesting.[45]

42 Frankenfield, J., *Technology Sector*, https://www.investopedia.com/terms/t/technology_sector.asp; last access 09/08/2022.

43 Benton, G. L., *Technology Dispute Resolution Survey Highlights US and International Arbitration Perceptions, Misperceptions and Opportunities*; Technology Dispute Resolution Survey Highlights US and International Arbitration Perceptions, Misperceptions and Opportunities - Kluwer Arbitration Blog; last access 09/08/2022.

44 See, among the others: Goh, G. M., *Dispute Settlement in International Space Law: A Multi-Door Courthouse for Outer Space*, Leiden-Boston, 2007; Doon Hwan, K., *Proposal of Creating an International Court of Air and Space Law*, Essay for the Study of the International Air and Space Law, Korean Studies Information Co., Ltd, 2008; Bourely, M., *Creating an International Space and Aviation Arbitration Court*, IISL.2.-93-814, 144-149.

45 Marinova A., Gould M., Zara M., *Visualisations Of Trends Among Newspace Companies To Help The Optimisation And Modernisation Of Current Regulatory Regimes In Space,* GLEX 2021,12,3,10,x62711, Global Space Exploration Conference (GLEX 2021), St Petersburg, Russian Federation, 14-18 June 2021, 9-10.

The rapid identification of the forum would accelerate access to justice and, consequently, the resolution of the dispute itself, reducing the frustration often caused by the difficulty of orienting oneself in an area with large regulatory gaps, this is primarily due to the fact that legislation fails to keep pace with technological progress.

The creation of an ad hoc Space Tribunal could make an important contribution to the clarification and development of the legal rules applicable in the field, from which any space actor could benefit.

However, sovereign states do not seem inclined to increase the cases of ad hoc international tribunals.[46] Whether this would change with time and we will witness an increased governmental support for alternative dispute resolution venues for the space industry is only a matter of time.

46 Catalano Sgrosso G., *Diritto Internazionale dello Spazio*, Firenze, LoGisma, 2011, 355.