IISL-99-IISL.3.01

Legal Framework for Expanding Privatisation in Space: Views and Interim Results from the "Project 2001"- Working Group on Privatisation

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Abstract

The increasing involvement of private enterprise in the formerly almost exclusively "public" or "national" domain of space ventures entails manifold legal consequences for both public administrations as well as for the newly involved private entities. The examination of this regulatory status quo of international and national frameworks, among other tasks is an essential part of the research project entitled *"Project 2001-Legal Framework for the Commercial Use of Outer Space"*. The research project, jointly initiated by the Institute of Air and Space Law of the University of Cologne and the German Aerospace Center (DLR), comprises five different Working Groups, where international experts from all parts of the world and from private and public bodies have joined for exchange of opinions and views with the final target to propose improvements in view of the expansion of private space activities.

Based on a report on the activities of the pro-ject's *Working Group on Privatisation*, the paper names legal implications which appear more or less common to the different approaches taken by governmental agencies in order to privatise space activities. Against this background, first conclusions on further objects of the *Working Group's* research on the different levels of relevant laws will be presented.

I. Purpose of the Working Group

The Working Group on Privatisation, one of altogether five Working Groups of Project 2001 on the *"Legal Framework for the Commercial Use of Outer Space"*,[1] is dedicated to explore regulatory needs and possible improvements with respect to general issues of privatising outer space activities. These are the needs ensuing from (firstly) more recent projects and increased ambitions of national states and their administrations to privatise certain outer space activities that can more effectively and at a lower cost be fulfilled by the private sector, and (secondly) the correspondingly in-

[1] For details on the research project and its background please refer to *Susanne Reif*, Project 2001: shaping a legal framework for the commercial use of outer space, Space Policy 15 (1999), 109-112.

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creased commercial activity of private enterprise.[2]

Compared with other areas of regulation, the legal framework for space activities on the level of international law, is recognised as largely developed and until now has quite well served its purposes. The legal questions raised vis-à-vis the participation of private enterprise in outer space activities and their importance however have been recognised and discussed since some time[3], during which - based on the more recent political, economic and technological developments - private enterprise in outer space has become more attractive than ever. The purpose of the Working Group is therefore to provide a forum for a concerted effort in order to thoroughly identify these new needs and to find answers on how they could be integrated into the existing legal framework.

It is clear that the search for those answers - in order to be beneficial - must consider the vital interests of the diverse parties involved: those of private 'players', public national interests, and international public interests, including the interests of mankind as such in the peaceful and responsible use of outer space. Thus, regulatory clarifications, where necessary, will have the purpose to facilitate private enterprise in outer space, but also to find a balanced solution regarding those issues which are relevant to ensure and maintain public interests.

II. Working Group Activities

A. Initial identification of scope of work

The Working Group counts 24 official members, who have agreed to be consulted by the co-ordinators on general and specific issues of their expertise. In an initial step some of the most outstanding legal issues to be examined were named. There are four more Working Groups on the Project dealing with legal problems arising within specific commercial space activities, and with their help further problems recurring in any private space activity could be identified in a synergetic process. The legal issues listed included areas genuinely associated with private commercial activity, such as 'private property' (including real estate, chattel and intellectual property), 'liability', 'competition and trade issues', 'insurance', 'dispute settlement and enforcement'.

Due to the fact that space activities touch different *'levels'* of law (international, national)[4], it appeared clear from the beginning that regard must be paid to the overall structure of the legal framework and the linkages between these different 'layers' of law.

More specific issues, that were also listed as critical points, showed the particular relevance of another general legal distinc-

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[2] On the notion of 'privatisation' and 'private enterprise' in international comparative law refer to *Bernd v. Hoffmann*, Les privatisations en droit comparé et en droit international (privé), Receuils de cours tome 235 (1992-IV), at 264-271.

[3] See e.g. *I. H. Diederiks-Verschoor/W. Paul Gormley*, The Future Legal Status of Nongovernmental Entities in Outer Space: Private Individuals and Companies as Subjects and Beneficiaries of International Space Law, Journal of Space Law 1977, 125-155; further refer to the session 'Legal Implications of Economic Activities in Space, Proceedings of the 27th Colloquium on the Law of Outer Space, Rome, Italy, 1981, p.1-88; and to *K.-H. Böckstiegel*, Legal Implications of Commercial Space Activities, ibid., 1-17.

[4] For its member countries also the law of the European Union and Communities and its supra-national character must be regarded as a separate level of distinction in this aspect.

tion; which is the distinction according to different *'sections'* or *'aspects'* of one legal framework (i.e. public/administrative, civil, criminal law) and their range of applicability. Considered from a subjective point of view, a substantive area of law can thus bring about different rights and obligations for the respective party involved, depending on whether the laws between private parties, public administrative law or international (public) law are applied. The different aspects under which one substantive issue would have to be considered becomes clear on a practical example, the well-known 'liability' issue: It includes the international liability of states, the question of recourse of states towards a private enterprise, the liability between private parties according to private law and international private law, the liability of a national administration towards their own citizens, incl. even legal possibilities for contractual waivers, etc.

In addition, apart from substantive issues of law, procedural aspects in connection with the increased private involvement in outer space are as well to be considered.

Based on the initial input and on personal discussions of the co-ordinators with the participating experts, the next step was to gather more of the relevant 'facts' which the regulatory framework would have to cover and to conduct an examination of the status quo of this regulatory framework against the background of these facts.

B. Workshop on Legal Issues of Privatising Space Activities

Thus, on 19 July 1999 a Workshop on these issues was held with the kind support of this very Institute and its president, Dr. N. Jasen-tuliyana, in co-operation with the *IISL Workshop on Space Law in the 21st Century* alongside UNISPACE III Conference (19 – 30 July 1999) in Vienna.

The relevant substantive areas were apportioned into two parts, i.e. issues pertaining to the international law and issues pertaining to the respective national (and the European) legal frameworks as applicable to private space activities. Speakers on national frameworks have additionally been asked to outline the privatisation policies adopted in their particular country. Further, the Workshop was to give opportunity for discussion and exchange of views on the diverse presentations. Based on the presentations and the discussion, conclusions were drawn by *Prof. Böckstiegel*, the scientific director of *Project 2001*.

As not many details of the Workshop can be reported here, a short overview must suffice:[5]

a. International Framework

Presenting a very detailed and elaborated paper on *'Public Space Law and Private Enterprise: The Fitness of International Space Law Instruments for Private Space Activities', Dr. v. d. Dunk* demonstrated how much national policies of privatisation and legislation with regard to private space activities depend on the unequivocal interpretation of international legal principles, as laid down in the international framework. In particular, he pointed to the often discussed principle(s) of general state responsibility and liability of the Outer Space Treaty (OST), their interrelation, and the problems ensuing from interpreting the criteria for responsibility when these general rules are to be reflected and implemented into national regulation within the respective national jurisdiction. He also

[5] For more information and the particular papers please refer to the Workshop Proceedings which can be obtained through the authors.

marked various practical gaps in the international 'liability concept of launching states', which does not include mere mission control activities but leads to permanent liability of all those once involved in the launch and which (naturally) could not take into account the new possibility of launching from the sea.
With respect to other substantive areas, *Dr. v. d. Dunk* enumerated many more issues, such as the private use and property question in an area not subject to national appropriation, the general lack of international rules and standards on the technical side (regarding environment, safety, and security) and the current dispute settlement system. Since private parties can bring forward claims in their own rights only on legal grounds pursuant to national laws, the topic of harmonisation of national private laws was raised in this connection.
Prof. Malanczuk introduced another relevant field of international law, which stands for the increased relevance of international regulations and agreements under the auspices of international organisations concerned with international trade, foreign investment and the protection of intellectual property rights. His paper dealt with *The Relevance of International Economic Law and the World Trade Organisation for Commercial Outer Space Activities* and within the huge legal framework of the WTO concentrated on the GATS and the more recent agreement in the sector of telecommunications services, but also listed other areas where WTO Agreements become relevant with respect to commercial space activities.

b. National Legal Frameworks and Privatisation Policies

While in the international framework different *interpretations* of the same legal *texts* may be found, the second part of the Workshop on national frameworks and privatisation policies – as expected - showed a rich diversity of approaches and emphases. The national frameworks and policies covered were those of the United States, European institutions (regarding the Galileo PPP), France, Germany, Russia, Japan, and India, presented by speakers directly concerned and involved with these issues.
Analysing the very different approaches taken in privatisation policies, it seems however, that the concrete model eventually adopted depends on three main factors: Firstly, it is dependent upon the concrete space activity to be privatised, i.e. subject to the initial investment needed, its commercial viability and its recognition or establishment in the markets. Secondly, general policy considerations, factors and principles exercise substantial impact. Among these factors are national security concerns and - even more importantly – the respective national macro-economic policy, which includes the general attitude towards privatisation, technology transfer and commercial involvement of the national state by state-owned or state-controlled enterprises. Based on this second factor are to mention as a third factor, the specific and actual legal instruments and framework offered by the respective national laws or regulations and their main principles.
Concerning the national legal frameworks for private space activities, the vast majority of speakers from countries where such do not exist, either expressed the view that clear licensing or other regulations on

space activities, in particular on private space activities were urgently needed or reported of recent initiatives to establish those frameworks. In this context it might be interesting to note that in the Russian Federation (R.F.) a mechanism for private space activities is felt desirable in addition to the already existing national framework, among which is the R.F. 1993 Law on Space Activity, and that a bill on business activities related to the exploration and use of space is being worked out.[6]

In countries where specific national regulations exist, this presents an opportunity to also clarify the legal situation in national private law, especially with regard to private liability,[7] as well on the level of criminal law by defining certain offences.[8] Comparing those regulations,[9] it becomes however clear that in countries, where national regulations are drafted, different issues are being emphasised, to the extent that some issues remain open in some countries, while some issues are regulated quite differently in different national laws. Thus, the Swedish Act on Space Activities (1982: 963) e.g. *does not* further specify to which conditions a licence for carrying out space activities can be made subject and with regard to the 'liability' question only contains an indemnification provision and no regulation of private 'inter-party' liability. An important example of *differing regulations*, is the scope of personal and territorial applicability of national space laws:[10] While the UK Outer Space Act 1986 is only applicable to 'UK nationals', the Swedish[11] and Australian[12] Acts and the licence requirements set out in the 49 USC Chapter on Commercial Space Launch Activities[13] apply to activities either undertaken by nationals or undertaken on the territory of the respective countries. Russia has adopted regulations of like consequences in its 1993 Law.[14] Although even such an issue of conflict of applicable laws and licensing requirements can be considered and addressed by the respective national regulations,[15] this particular example of differing national regulation on the issue of *which* entity should apply *where* for a licence, demonstrates that space business

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6 *Gubarev/Lavrov/Teselkin*, Commercial Space: Major Directions of Activities, Legal Framework and General Privatization Policy in Russia, Proceedings of the Project 2001-Workshop in Vienna [see fn. 4], p. 108-118, at 115/116.

7 As this has been done very clearly in Sections 66-69 of the Australian Space Activities Act 1998 or Art. 30 of the R.F. 1993 Law on Space Activity.

8 See Sec. 12 UK Outer Space Act, Sec. 5 Swedish Act on Space Activities (1982: 963), Art. 9 R.F. 1993 Law on Space, Activity, Sects. 11-15 Australian Space Activities Act 1998, Secs. 23 South Africa Space Affairs Act No. 84/1993; 49 USC Chapter 701 on Commercial Space Launch Activities provides in Sec. 70115 for a civil penalty to the government.

9 This has been done in detail by *Frans G. v. d. Dunk* in his book Private Enterprise and Public Interest in the European 'Spacescape': Towards Harmonized National Space Legislation for Private Space Activities in Europe, Leiden 1998.

10 As stressed by *Frans G. v.d. Dunk* during the Vienna Workshop.

11 Sweden: Act on Space Activities (1982: 963), Sec. 1.

12 Australia: Space Activities Act 1998 No. 123, Sec. 3.

13 49 USC Chapter 701 – Commercial Space Launch Activities, Sec. 70104.

14 See R.F. Law on Space Activity 1993, Arts. 1(1), 9(2), 17(2)&(4).

15 Sec. 70104(a)(3)&(4) of 49 USC Chapter 701 on Commercial Space Launch Activities makes license requirements for US citizens' launch activities outside US-territory subject to the existence or lack of certain bilateral agreements with foreign states to this effect. In Art. 17 (4) of R.F. Law on Space Activity 1993, conflicts with respect to registration, jurisdiction and control, and applicable law to determine the ownership of a space object have been addressed.

might suffer from differing provisions and moreover the lack of regulation.
The Workshop has also shown, that it must be kept in mind that a certain topic might still be addressed in a national framework, even if it is not mentioned in a 'national space act': General provisions or contractual agreements might have been found to be applicable and sufficient in terms of regulation.

III. Implications of current framework:

Preliminary results on the parameters of existing space law thus gaining shape and the consideration of other more recent discussions of this framework in other fora,[16] allow to list at the current stage the following examples of legal consequences with particular impact on the privatisation of space activities:

1. With increased private activity, national states' administrations are subject to increased pressure to fulfil their international obligations of authorisation and supervision of "activities of non-govern-mental entities" under Art. VI OST in order to live up to their responsibility for the compliance of national activities with international law.
2. National states are correspondingly exposed to an increased international liability risk, in particular if they disregard their responsibility and duty of supervision, and/or if they make no use of regulatory possibilities in order to take recourse from the real actors and to provide insurance obligations. This liability risk is chiefly increased by the specific liability provisions of Art. VII and the Liability Convention if a state qualifies as 'launching state' for a certain private operation.
3. On the level of national laws, specific regulations and explicit licensing provisos have been created only in six national states. In other states, general or contractual regulations are applicable. Differing regulations, but also the non-existence of explicit regulations in certain areas show a lack of harmonisation and transparency, which in turn leads to legal uncertainty. This uncertainty – as an economic implication - might prove detrimental to private enterprise. The applicable and relevant regulations on rights and obligations among private parties, typically regulated on the level of national laws, may also be mentioned in this context.[17] Lacking national regulation, contractual frameworks and corporate control are decisive for supervision of projects, but only in case the national state is vested with respective managerial powers or indispensable party in a project.
4. On the international level, due to the lack of definitions, the content of some provisions remains unclear, thus as well leading to legal uncertainty and possibly (in case of different interpretation by national states) resulting in gaps of legal coverage. Among those are the notions of "appropriate state"

[16] In particular the *IISL Workshop on Space Law in the 21st Century* (20 – 23 July 1999) at the UNISPACE III Conference in Vienna may be mentioned in this context.

[17] In the context of harmonisation especially the area of patents and intellectual property rights protection may be mentioned, where the differing legal implications are being particularly felt; see *Schmittmann/de Vries*, in: ESA (ed.), Intellectual Property Rights and Space Activities in Europe, SP-1209, February 1997, Conclusions and Recommendations, p. 47-50.

and "national 'activities in outer space' by non-governmental entities" in Art. VI OST; but also many other terms of more general character at the least have indirect implications for private space activities. Among these are the terms "national appropriation" in Art. II OST, "space object", "maintaining international peace and security" in Art. III OST and "peaceful use" in Art. IV OST, "compensation for damage" in Art. II Liab. Conv., "fault" in Art. III Liab. Conv., etc..[18]

5. Since there is a want of technical standards on the international level, also the definition of standards relevant for the safety of outer space operations, remains in the substantive and administrative responsibility and domain of national authorities with the naturally entailed diversification of law and procedure. The same is true for the security issue ("peaceful use"), where more detailed provisions on the international level are lacking.
6. Correspondingly to the 'downstream structure' of international law, according to which national states have to supervise and authorise private parties, those in turn have to involve and act through their national administrations for issues of international coordination (such as registration, international frequency coordination, dispute settlement on international damage compensation etc.).
7. As concerns the settlement of disputes outside particular organisations or cooperations, a relatively specific system is offered by the Liability Convention on the settlement of liability claims, which however is only binding if the (state) parties expressly agree so. State parties can otherwise take recourse to international consultations according to Art. IX OST as concerns potential harmful interference or to provisions of (optional) general international public law. Private parties have no standing in this system, but can involve their national administrations to make use of it or take individual recourse to national litigation or the (national and international) options of arbitration.[19]
8. Some substantive rules and issues of international law appear to be of particular impact on the increased involvement of private enterprise:
   - The 'launching state concept' of Art. VII OST and the Liability Convention, although at the moment still serving its victim-oriented purpose, might not anymore represent an adequate link between responsibility for damage and obligation to compensate, since the case of Sea Launch has shown that it is possible to launch space objects from the high sea.[20]

[18] The discussions on the interpretation of these terms are exhaustive since they include fundamental question of interpretations of the entire legal system of international space law and its implications, as can be seen on the example of the term 'appropriate state' in Art. VI OST.

[19] For details on the status quo of the law and current efforts of development refer to *K.-H. Böckstiegel*, The Settlement of Disputes regarding Space Activities after 30 Years of the Outer Space Treaty, in: *Lafferranderie/Crowther*, Outlook on Space Law over the Next 30 Years, 1997, p. 237-249.

[20] The 'review of the concept of launching state' has been adopted as an official agenda item of the UNCOPUOS-LSC during the 1999 Session of the Legal Subcommittee. [Official report not yet available. Preparatory documents are: UN Doc. A/AC.105/C.2/1999/CRP.3 of 22 February 1999 and UN Doc. A/AC.105/L.217 of 1 March 1999].

- Registration serves the purpose of identification of the launching state and of the state which can claim return of a space object, but also has vital influence on *which* state can exercise jurisdiction and control on a space object, including those privately owned.[21] This legal instrument consequently provides an important link between the legal regime in outer space in international public law and the legal rights or obligations of individuals. Although the link is basically established by Art. VIII OST, it is the Registration Convention which explicitly sets the requirement of registration and details of this vital link of 'jurisdiction and control'. The comparatively low status of ratification of this Convention[22], however leads to regulatory gaps with respect to this link.
- Legal conditions of use and distribution of natural resources in outer space remain an open issue for private enterprise as well as public bodies. While open questions on details of use on celestial bodies constitute a wide gap that could not be closed with the Moon Agreement,[23] with regard to orbital satellite positions and frequencies the constantly increased use of outer space and the thus delimited availability of resources for public and private bodies is challenging the pragmatic distribution system of the ITU and the principles of the OST.[24]

9. With the increased commercial activity legal implications are also entailed by the development of new international instruments affecting activities related to outer space. Among these are the WTO-Agreements, but also activities of organisations specialised in the promotion of certain private law standards with particular impact on the economy such as WIPO.[25] Further, this topic implies other regulatory fields, such as the area of global commercial activity of multinational enterprises.

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21 See *Meredith/Robinson*, Space Law: A Case Study for the Practitioner, Dordrecht et al., 1992, at 54.

22 See United Nations A/AC.105/772, A/CONF.184/BP/15, United Nations Treaties and Principles on Outer Space, Commemorative Edition Vienna 1999, p.52-65; as well as N. *Jasentuliyana*, Strengthening International Space Law: The Role of the United Nations, in: *ESA*, International Organisations and Space Law, Proceedings of the Third ECSL Colloquium (Perugia, 6-7 May 1999), Noordwijk 1999, 87-95, at 88.

23 The Moon Agreement has been ratified only by nine states and 5 others have signed it [refer to N. Jasentuliyana fn. 22]. The Outer Space Treaty yet only contains principles (benefit and interest of all countries, province of all mankind, non-appropriation) which might be interpreted differently. On the discussions with respect to the non-appropriation issue refer to *Wayne N. White Jr.*, Real Property in Outer Space, Proceedings of the 40th Colloquium on the Law of Outer Space, 1997, 370-328, at 372 and to *Sterns/Tennen*, Institutional Approaches to Managing Space Resources, 41st Colloquium on the Law of Outer Space, Paper No. IISL-98-IISL.1.04, at 2/3.

24 See *Francis Lyall*, International Telecommunications, Session 3, Discussion Paper presented at the UNISPACE III - IISL Workshop on Space Law in the 21st Century, Vienna, Austria (20-24 July 1999), Discussion Papers (not formally edited), 29-51.

25 On WIPO's activities see *Tomoko Miyamoto*, Space-Related Aspects of Intellectual Property Rights: WIPO's Role and Activity, in: *ESA* (ed.), International Organisations and Space Law [op. cit. at fn. 22], 103-108.

10. As concerns the approaches to concrete privatisation processes on the national and international level, each model is and must be dealt with on a case-by-case basis. Large privatisation programs are often controversial, time consuming, and politically sensitive.[26] In particular on the level of privatising international organisations in the telecommunication area, legal ways have been found and are being sought to preserve regular policy considerations such as ensuring the provision of vital public services at affordable prices.[27] On the national level, states can benefit from previous privatisation experiences in other fields and - in critical cases - apply the well-known means of preserving a certain (government) control in the form of a golden share or restrictions on ownership. In this context also the very particular legal situation in France regarding commercial space ventures should be mentioned, which is dealt with in a separate paper by *Dr. de Montluc* in this same Session. Further, policies of increased contracting out of certain tasks to the private sector raise a whole set of legal implications and problems on all levels of the law[28] as concerns the procedure of invitations to tender and its scope as well as performance monitoring.

IV. Conclusions and Outlook

As found during the Project 2001-Workshop in Vienna[29] the legal issues so far identified confirmed several needs, where proposals for improvement could be made by the Working Group on Privatisation. At the level of the international instruments of space law they could – where necessary - contain proposals for clarifications or - in some parts – amendments. In addition, other existing or new instruments of public international law, as administered by WTO, WIPO[30] or similar international organisations, must be kept in mind as potential instruments of harmonisation and of supplementation in particular fields of business law relevant for commercial space activities. For the national levels it might be useful to develop a model for more harmonised regulation insofar as states have to comply with duties of public international law, an opinion that was also brought forward during the general discussion. Insofar as the framework for privatisation depends on specific particularities of the national law, some criteria and issues could be itemised, which should be covered by national law for the sake of comprehensive regulation.
These efforts could support national states

[26] See *Veljanovski*, Privatization: Progress, Issues, and Problems, in: *Gayle/Goodrich* (eds.), Privatization and deregulation in a global perspective, New York/Westport, 1990, 63 - 79, at 67.

[27] *David Sagar*, The Privatisation of INMARSAT: Special Problems, in: *ESA* (ed.), International Organisations and Space Law [op. cit. at fn. 22], 127-247; *Diane S. Hinson*, A new INTELSAT for a new Millennium, ibid., 247-252.

[28] Relevant on the international level are the Agreement on Government Procurement within the WTO-Framework, further the national procurement regulations and for EC members the respective EC procurement regulations as applicable.

[29] *K.-H. Böckstiegel*, Concluding Remarks, Proceedings of the Project 2001-Workshop in Vienna [see fn. 4], p.144-145.

[30] Since WIPO has the task to administer various international treaties dealing with intellectual property rights but and to promote international property protection, the initiatives of this international organisation also are important with regard to a harmonised international IP regime.

in fulfilling their responsibilities according to Art. VI OST and to prevent the above mentioned risks ensuing from (not authorised and supervised) private activity. Private enterprise, on the other hand, would profit from legal clarity and transparent licensing regimes and conditions for private-public partnership.

The Working Group and its open concept towards the integration of different views gives a possibility for a target-oriented exchange of views and comments on the subject. We might find that they are not so far from each other as regards possible improvements in view of expanding privatisation in outer space. At this occasion, we would also like to thank all those who have contributed to this *Group's* work and invite you to make any comments you may have on the issues mentioned.