Aspects of Commercialization of Space Activities in Europe

by

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1. Introduction

When in the beginning of the 60's some European countries decided to join efforts in order to ensure that Europe would not be dependant as regards its space activities from the USA and the USSR, they created two distinct Organisations: the European Space Research organisation (ESRO) and the European Launcher Development Organisation (ELDO). This decision to endow Europe with its own space capability came rather late if one realises that the first Spoutnik was launched in October 1957 and that by the time the ESRO and ELDO Conventions entered into force in 1964, President Kennedy had already made the pledge to send, before the end of the decade, men to the moon and to return them safety to Earth. Although some European States had engaged in Space activities in the 50's the creation of ELDO and ESRO marked in fact the start of the political will of Europe to become a major actor in the exploration and the exploitation of space.

2. The ELDO Convention

Whereas the Convention of ESRO was strictly limited to the execution of a programme of scientific research and related technological activities, the ELDO Convention from the outset established that the cooperation between its Member States in the development of space vehicle launchers would also include the study of their scientific and commercial applications.

Article 2 (1) of the ELDO Convention stated that "The Organisation shall have as its aim the development and construction of space vehicle launchers and their equipment suitable for practical applications and for supply to eventual users".

The ELDO Convention also contained an Article 10 called "Commercial exploitation" which stated that:

"Member States which propose to exploit commercially, either alone or in conjunction with non-Member States, a space vehicle launcher jointly developed under a programme of the Organisation shall give to all Member States which have contributed to the cost of that programme an opportunity to participate in such exploitation on reasonable terms".

Article 11 of the ELDO Convention dealt with the delivery to third parties of launchers and gave mandate to the ELDO Council to decide on the conditions for delivery to states which are not Members of the Organisation or to international Organisations, such as ESRO.

In September 1971, two months before the failure of the F.11 launch of the Europa II launcher, which would lead to the demise of ELDO, the Secretariat made a proposal to the ELDO Council for a policy concerning the organisation of the Europa II programme and the sale of operational launchers.

The proposal contained chapters on the cost price structure of the launcher, the pricing policy and the organisation of the programme through the creation of a "Groupement d'intérêt économique" under French law which would unite a number of European industries in charge of the commercialisation of the Europa II launcher.

As said before the failure of the Europa II launcher resulted in a deep crisis and the proposal just mentioned became obsolete. It would however not be completely lost because the ELDO experience would serve later when ELDO and ESRO merged in 1975 into the European Space Agency.

3. The ESRO Convention

As mentioned before the ESRO Convention was strictly limited to the execution of a programme of scientific research and related technological activities and did not mention at all the possibility for ESRO to develop applications satellites. The applications satellites particularly in the area of telecommunications, offered real prospects for commercial exploitation and while Europe had tied its hands in a strict legal framework, other countries such as the USA were entering the commercial area of space exploitation.

Indeed in order to allow ESRO to embark on the development of applications satellites an amendment to the ESRO Convention would be required but this would be time consuming because amendments to the ESRO Convention needed ratification by the parliaments of its Member States.

There existed however within the ESRO Convention an Article which made it possible to overcome the lengthy procedure of amending the ESRO Convention. This Article VIII foresaw that if "outside the agreed programme but within the scope of the Organisation, one or more Member States engage in a project in connection with which the Council decides to make available the assistance of the Organisation or the use of its facilities, the resulting cost to the Organisation should be refunded to the Organisation by the State or States concerned.

On the basis of this Article the member States of ESRO concluded international Agreements with ESRO whereby this Organisation would execute applications programmes on behalf of these Member States.

The Ariane Programme, the Spacelab Programme, the Telecommunications Programme and the Meteosat Programme were all started as special projects made by certain Member States of ESRO with the support of the European Space Research Organisation. That of course did not mean that ESRO was entering the area of

commercial activities but it laid the basis for important Research and Development activities which would allow European industry to enter into fields which had a potential for commercial exploitation.

As result of the inadequacy of the ESRO Convention together with the crisis in ELDO, the European Governments decided to create a new Organisation, the European Space Agency, which would aim at giving Europe a flexible and efficient Organisation, taking due regard of the experiences of the past.

4. The ESA Convention

Article II of the ESA Convention which was signed on 30 May 1975 states that the purpose of the Agency shall be to provide for and to promote for exclusively peaceful purposes cooperation among European States in space research and technology and their space applications, with a view to them being used for scientific purposes and for operational space applications systems (...) by elaborating and implementing activities and programmes in the space field.

From this Article, it can be concluded that the European Space Agency remain principally an R and D Organisation. But the frequent references within the ESA Convention to operation applications systems point to the fact that the drafters of the Convention wished to ensure that the activities of the Agency would not be limited to science and technology but also to satisfying the needs of its Member States and their citizens in application areas such as Telecommunications and Earth Observation.

And indeed Article V of the Convention on the activities and programmes of the Agency offers the possibility to the Agency to carry out, in the area of space applications operational activities under conditions to be defined by the Council and in particular to ensure the exploitation of space systems. However the Member States of the Agency did not take advantage of this Article whenever they had the possibility

to commercially exploit products or programmes developed within the R and D programmes of ESA.

They merely used this Article to allow the Agency to give assistance or technical advice to non-ESA Member States or International Organisations, paying however special attention not to put the Agencies capacities in competition with private companies which could provide similar services. For exploitation of space systems on the contrary they preferred different legal solutions.

In the case of the Ariane launcher, developed by ESA, it was decided that after a transitional period during which the Agency would be in charge of producing, selling and launching six launchers, the so-called Promotion series, the further commercialisation would be entrusted to a private Company : Arianespace. No doubt the experience of ELDO was of particular importance in the choice of this formula.

Arianespace is a société anonyme under French law which has as shareholders not only the industry that participated in the development of the launcher but also the French National Space Agency CNES and a certain number of banks.

One could argue however that the choice of the Société anonyme structure is quite artificial because through a certain number of legal instruments the Member States of ESA which financed the development of Ariane have made sure that their interests are safeguarded by means of intensive control over Arianespace, by ensuring the availability of the launcher for their national programmes and by largely public financing of the capital of Arianespace.

In the telecommunications area another legal approach was taken. In the seventies, the Agency developed simultaneously a Telecommunications satellite for terrestrial applications called OTS and a maritime communications satellites Marots. Due to the situation of monopoly exercised by the Postal and Telecommunications authorities, the Agency could not exploit these satellites and consequently the European

Conference of Post and Telecommunications decided to create an intergovernmental Organisation, Eutelsat, which became in charge of managing the operational telecommunication satellites, actually developed by ESA. The Marots satellites were leased to Inmarsat, another International Organisation, which renamed the Marots satellite Marecs.

As far as meteorology is concerned the Agency, which developed the Meteosat satellite, was instrumental in creating the Eumetsat Organisation whose members are the meteorological services of European States. Pending the entry into force of the Eumetsat Convention, the Agency operated the satellites and ensured the control of the satellites once Eumetsat took over the responsibility for their exploitation.

The main difference between the Eutelsat approach and the Eumetsat approach is that Eutelsat is earning income from the lease of transponders, whereas Eumetsat provides a public service, not suited for privatisation, and is therefore financed by public funds.

Finally, I would like to draw the attention to the distribution of remote sensing data of ESA satellites, which has been entrusted to a consortium called Eurimage. This consortium has as members private companies but also the French company Spot Image which is also largely publicly funded.

These are just a number of examples how the Agency has been dealing with commercialisation of its products.

But the main legal issues are more linked to the changing regulatory environment in Europe due to the actions of the European Union.

5. The European Union

First of all I would like to recall that it was the adoption of the Single European Act in 1987 which formally confirmed competence upon the European Community in the field of research and development.

In mapping out this new domain of competence the European Community had to cross the path of the European actors in the space field. In 1988 the Commission published a Communication to the Council entitled "The European Community and space: a coherent approach".

In this communication the Commission draw the attention to the fact that the activities of space companies in Europe may conflict with competencies of the Community or with community legislation. It also recognised that the development of space activities may require the solution of a number of legal problems, with the involvement of the Commission such as the legal protection of satellite data, the harmonisation of legislation concerning intellectual property for inventions in space and the protection of the circumterrestrial environment.

But above all the Communication insisted on the role of complementarity it should play in order to ensure that the ever increasing impact of the space activities in the social and economic tissue could develop in a stable and harmonious legal environment, which is a primary factor in attracting private investment in space related activities.

An example of this concern is the action undertaken by the Commission and the European Center for Space Law in the area of legal protection of remote sensing data. As a result of this joint action a proposal was formulated to amend slightly the proposed Directive on protection of data bases, allowing the legal protection of the signal between the satellite and the reception station. It is evident that private

investors need to benefit from a secure legal environment before they will engage in the distribution and use of remote sensing data.

As far as the legal issues are concerned whereby Community legislation or competences may conflict with the activities of space Agencies, I would like to give a few examples in the relationship between the European Space Agency and the Commission of the European Union.

(a) The first example is in the area of launchers. Without entering into details I would like to recall that in 1984 an American private Company T.C.I. (Transpace Carriers Inc.) which had obtained the commercialisation of the Thor Delta launcher, requested the US Government to take economic sanctions against Europe alleging that Arianespace was being subsidised by the European Space Agency through its Member States. This action was discontinued but both the United States and Europe decided to enter into negotiations on rules of conduct in the international competition for provision of launching services.

These negotiations, which became known as the "Rules of the road negotiations" dealt of course with commercial issues, such as fair pricing and the level of support by Governments.

The European Space Agency lead the discussions with the United States until such time the Commission, on the basis of its competence in external commercial policy (Art. 113 of the Treaty of Rome), and its mandate to negotiate in the Uruguay round of GATT the liberalisation of services, agreed with ESA that it would take over the lead with the technical support of ESA. When, after the disintegration of the USSR, Russia wished to enter the field of launching services the Commission, again with ESA support, took the initiative of the negotiations on the entry of Russian in the worldwide competition between launch providers.

(b) The second example I would like to give is linked to the community legislation on fair competition and the application by ESA of the "fair return" principle. This principle, which is contained in the ESA Convention, means that firms in a given Member State receive under an optional programme, the percentage share of contracts corresponding to the State's contribution to that programme.

The communication on space of 1988 drew the attention to the possible perverse effect of this policy on the commercialisation of space activities. It did however not formally declare that the principle of fair return is contrary to the Treaty of Rome but merely stated that this principle is foreign to the basic principles of the Community. In some legal literature the application of the fair return principle is considered to be contrary to primary European law, although these authors recognise that at this point in time the secondary law exonerates Organisations such as ESA from the application of this law. The directive on public procurement for example clearly states that International Organisations are not subject to it.

In the long run however it is obvious that community law will have to be applied on space activities and certainly on these activities which are of commercial nature.

The Commission expressed its unease with the situation but understood that the principle of fair return is essential for the activities of ESA. Indeed, unlike the European Union which has its own financing through VAT and custom duties, ESA's budget is made up by contributions of Member States. These contributions are earmarked for research and development in space activities and Member States expect their industry to benefit from this financing.

In my opinion the solution of this problem can only be found in the perspective of a full European integration. I mean by that, that the unification

process of Europe should also include the integration of a number of regional International Organisations in one political structure. This political structure can only be the European Union.

The Communication of the Commission of 1988, already pointed to a weakness of the European space activities when it stated that "Europe still lacks a cogent overall policy which incorporates economic social, industrial and even defence considerations, a policy which helps to ensure that better use is made of the technological and industrial expertise acquired both within and outside the Community".

The commercialisation of space activities in Europe can only benefit from a clear legal environment, a task which the European Union has to take on if it wishes to ensure that Europe remains on an appropriate level in space activities.