

The European Union and Space

A 'Star Wars' Saga?

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Abstract

This article explores the complex relationship between the European Union (EU) and space, alias space's ever-growing place and role in the EU legal order. Two distinct paths are identified in this respect. On the one hand, as from the mid-1980s and despite the lack of an express 'space competence', space policy parameters were introduced in EU acts regulating telecommunications, satellite communications and electronic databases, but only to the extent necessary to serve the functioning of the single market. On the other hand, an autonomous EU Space Policy has been progressively elaborated as from the late 1990s through several initiatives, namely the strengthening of the collaboration with the European Space Agency and the setting up of the Galileo and Global Monitoring for Environment and Security (GMES)/Copernicus programmes. This tendency was corroborated by the conferral of an express space competence on the EU by the Lisbon Treaty, whose constitutional and institutional implications are explored in this article. It is submitted that the new space competence shall allow the EU to reach a stage of maturity and claim a greater degree of autonomy at the international level and, at the same time, to project its own governance model, thus enhancing the quality of international cooperation in space.

Keywords: EU space competence, EU Space Policy, Galileo, Copernicus, Framework Agreement ESA-EU.

A Introduction

The European Union (EU) represents a model of interstate cooperation, which is genuinely novel in international law. As the European Court of Justice (hereafter ECJ) put it in its famous *Van Gend en Loos* judgment,

... the objective of the EEC treaty, which is to establish a common market, the functioning of which is of direct concern to interested parties in the community, implies that this treaty is more than an agreement which merely creates mutual obligations between the contracting states. This view is confirmed by the preamble to the treaty which refers not only to governments

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but to peoples. [...] The Community constitutes a new legal order of international law for the benefit of which the states have limited their sovereign rights, albeit within limited fields, and the subjects of which comprise not only member states but also their nationals....¹

The initial objectives of the – then – European Economic Community (EEC) were centred mainly on economic integration, focusing on market operation, free competition, etc. However, its central mission has always been the achievement of an ever-closer union and the well-being of the peoples of Europe. Such a broad mission entails the undertaking of EU initiatives in several fields, which have an impact on the lives of EU citizens. Therefore, new competences have been gradually conferred on the EU by means of successive Treaty amendments so as to include new fields of action that are not of purely economic nature, such as environmental protection, culture, research and development and tourism.

Space had not been included among the initial priorities of the EU, nor had it been taken into account in the framework of its legislative activities until the mid-1980s. This is due to the lack of an express EU competence, but also to the fact that space was traditionally considered as a field of intergovernmental cooperation. Thus, the Member States undertook action at the international level by participating on an individual basis in the 1975 Convention, which established the European Space Agency (hereafter ESA).² ESA is an international organization lying outside the EU supranational framework³ and operating according to the intergovernmental model. In this respect, it has been pointed out that the ESA Convention “serves as a legal umbrella allowing permanent cooperation activities in space among Member States and with third parties in a simplified legal manner”.⁴

The progressive broadening and deepening of EU powers as from the mid-1980s brought space policy considerations into the core of the EU fields of action without, however, depriving Member States of their autonomous powers at the international level. In this respect, two paths can be distinguished. At first, space policy parameters were inserted into several acts that were adopted in the framework of EU fields of competence (I). Furthermore, the gradual setting up of a

1 ECJ, judgment of 5 February 1963 in *Case 26/62, Van Gend en Loos*, ECLI:EU:C:1963:1.

2 ESA's aim is “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 their being used for scientific purposes and for operating space applications systems” (Art. II, ESA Convention). On the genesis and the content of the ESA Convention see in detail F. Von Der Dunk, ‘European Space Law’, in F. Von der Dunk & F. Tronchetti (Eds.), *Handbook of Space Law*, Cheltenham, Elgar Publishing, 2015, p. 211 *et seq.*

3 Today, ESA has 22 Members (Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden, Switzerland and the United Kingdom), an Associate Member (Slovenia), and it cooperates with 7 EU Member States (Bulgaria, Croatia, Cyprus, Malta, Latvia, Lithuania and Slovakia), see www.esa.int/About_Us/Welcome_to_ESA.

4 Also see F. Mazurelle, J. Wouters, & W. Thiebaut, *The Evolution of European Space Governance: Policy, Legal and Institutional Implications*, Leuven Centre of Global Governance Studies, Working Paper No. 25, 2009, p. 12.

European space policy led to the introduction of a distinct ‘space competence’ in the Lisbon Treaty (II).

I ‘Lost in Space’: Space Considerations in EU Legislation

The Single European Act (1987) conferred new powers on the EEC and extended its scope of action. Space was not considered as a distinct field of action at that time, but rather it was included in the broader sector of science and technological development: Articles 130f to 130q of the EEC Treaty referred to the Community’s aim “to strengthen the scientific and technical basis of European industry and to encourage it to become more competitive at international level” (Article 130f). These objectives were to be achieved through the implementation of research, technological and demonstration programmes, the promotion of cooperation with undertakings, research centres and universities (Article 130g). Space was not explicitly mentioned but was deemed to be an integral part thereof, as carrying out space programmes implies a high-quality research activity.

The first direct reference to a ‘European Community space policy’ is found in the 1985 ‘Toksvig Report’ of the European Parliament,⁵ where it was affirmed that such policy should serve specific ends, *i.e.*

to improve the living and working conditions of the peoples of Europe, to assist the Community’s efforts in the sphere of development and cooperation, to satisfy the Community’s energy objectives.

Furthermore, the report stressed that

as a matter of principle, the European Community must promote international cooperation in space matters and show itself ready to participate in international projects whenever this may be done without prejudice to its independence.⁶

Therefore, the Union’s strategy in space had to be twofold:

- not to be ‘left out’ of scientific and technological developments, but to actively participate in international cooperation, without, however, endangering its autonomy and its own specific characteristics; such participation would strengthen its international position, both at an economic and at a political level;
- to take advantage of those developments in order to promote its own project of integration. In other words, space policy considerations were to be taken

5 European Parliament, *Report on European Space Policy*, Working Document No. A2/108-85, 30 September 1985.

6 Although European Parliament reports are not binding and do not impose or even imply a legal obligation for EU action, they are not deprived of interest because they are deemed to express the opinion of the peoples of Europe. It should also be noted that in 1985 the impact of the European Parliament’s position was all the more significant, given that the direct election of its members as from 1979 reinforced its legitimacy and its institutional role.

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into account as an instrument of market integration, to the extent that they affected sensitive sectors of economic activity.

The European Commission confirmed the approach suggested by the European Parliament, and it gradually introduced the ‘space dimension’ in its legislative proposals in several fields, which are more likely to be affected by space activities. It should be noted that the Commission often expresses its position through Communications, a type of act that is not provided for in the Treaties but has been extensively used since the 1960s and has been qualified as a ‘privileged instrument of EU administrative action’.⁷ These documents are not legally binding, but constitute ‘soft law’⁸ instruments playing an important role in the legislative procedure, mainly as preparatory texts. European Commission Communications often take the form of Green and White Papers, which are documents of reflection with several addressees. Green Papers set the general framework governing a specific matter, identify the main issues to be solved and launch the discussion about future developments. White Papers are discussion documents containing more concrete proposals as to the action to be undertaken.⁹

In light of the foregoing, the extensive use of Communications, bringing forward the ‘space dimension’ and suggesting its inclusion in secondary legislation, demonstrates the Commission’s will to largely consult on the basis of space technological developments and to enhance their input in European integration. Space policy parameters were thus included in EU legislation in the sectors of telecommunications (1), satellite communications (2) and electronic databases (3), a brief outline of which is presented hereafter.¹⁰

1 *The Telecommunications Sector*

The 1987 Green Paper ‘on the development of the common market for telecommunications services and equipment’¹¹ outlines the Commission’s views on the need to open the telecommunications sector to competition. Until then, this sec-

7 See M. Tournepiche, ‘Les communications: Instruments privilégiés de l’action administrative de la Communauté européenne’, *Revue du marche commun et de l’Union Européenne*, No. 454, 2003, p. 55 *et seq.*

8 Several definitions of the term ‘soft law’ have been suggested so far. My opinion is that soft law can be defined as “rules of conduct which are not legally binding – as they are not followed by a sanctions mechanism – but produce legal effects both for their authors and their addressees and are taken into account by courts as part of the applicable regulatory framework”, R.-E. Papadopoulou, *Soft Law in the Legal Order of the European Union* (in Greek), Athens, Nomiki Vivliothiki, 2012, p. 208.

9 Both Green and White Papers emanate from the British legal tradition: in the UK, Green Papers are government policy documents for discussion in parliament, which are bound in green, while White Papers are official reports of government affairs, bound in white. See L. Senden, *Soft Law in European Community Law*, Oxford and Portland Oregon, Hart Publishing, 2004, pp. 124 & 126.

10 Reference to EU acts is not exhaustive, nor does it enter into details as to their content, the aim of this article being to show how space considerations have gradually interfered into several fields of EU activity.

11 COM(1987)0290 fin. This document, as well as all Commission Communications mentioned in this article, are accessible in the EU website, <https://eur-lex.europa.eu>.

tor had been operating as a State monopoly or on the basis of special or exclusive rights.

The Green Paper took into account the developments in satellite technology and proposed to the EU institutions

- To assimilate the regulatory regime for receive-only earth stations (ROES) for satellite communications to the regime for telecommunications terminals and TV receive-only satellite antennae, and to fully open it to competition,
- To adopt “a coherent European position regarding the future development of satellite communications in the Community [...] regarding development of the earth station market in Europe, in particular with regard to common standards for future development of satellite links (space segment), the relationships between EUTELSAT, national, and private systems, and the full use of the technological potential of the European Space Agency development of international-satellite communications”.¹²

The European legislature followed the Commission’s proposal only partially; although Directive 88/301 concerning competition in the market of telecommunications terminal equipment¹³ included receive-only satellite stations in its field of application (Article 1), satellites were left out of the main legislative acts that imposed the opening of the telecommunications sector to competition: Directive 90/388¹⁴ on competition in markets for telecommunication services expressly excluded from its field of application communication via satellites,¹⁵ and Directive 90/387¹⁶ on the establishment of the internal market for telecommunications services through the implementation of open network provision (ONP) did not address this issue. The reluctance to legislate can be attributed to several reasons, such as the lack of an explicit EU space competence, along with the fact that Member States had already undertaken action at the international level. The opening of the internal market to space activities would thus seem to require a more comprehensive approach on behalf of the Union. This need was mentioned by the Council of the EU in its Resolution of 30 June 1988 “on the development of the common market for telecommunications services and equipment up to 1992”,¹⁷ which set as a major policy goal the

working out of a common position on satellite communications, so that this new information medium can develop in a favourable environment, taking account of the general rules of operation and exploitation of the network environment, as well as the competition rules of the Treaty and existing international commitments of Member States.

12 *Ibid.*, p. 25.

13 OJ L 131 of 27 May 1988, p. 73.

14 OJ L 192 of 24 July 1990, p. 10.

15 Art. 1 para. 2.

16 OJ L 192 of 24 July 1990, p. 1.

17 OJ C 257 of 4 October 1988, p. 1.

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It is clear that the EU was in search of a common position that would serve its internal goals – namely market integration – and at the same time enhance its participation in international action.

It is only in 2002 that satellite communications were expressly identified as an integral part of the telecommunications sector. Directive 2002/21¹⁸ repealing the ONP 1990 Directive, included satellite networks in its field of application, and Directive 2002/77,¹⁹ which repealed Directive 90/388, urged Member States to abolish any regulatory prohibition or restriction on the offer of space segment capacity to any authorized satellite earth station network operator (Article 7§1). The opening of satellite communications to competition had become unavoidable: the rapid technological developments in that sector had already obliged the EU to undertake specific action in this field (see below, under 2).

2 *The Satellite Communications Sector*

Although satellite communications were initially excluded from EU legislation, the European Commission 1990 Green Paper²⁰ stressed that they are a vital element of trans-European services and networks and that they are necessary to ensure Europe's strategic and stable position in space. Also, it considered satellite communications as an integral part of the EU market that should be opened to competition, a fortiori given the new market offered by East European countries. In other words, EU legislation in this field would serve a multiple purpose: strengthening competition and promoting the objectives of integration, extending the scope of the EU market, and reinforcing the Union's position in the space sector. The Green Paper suggested specific actions, such as the full opening of the ground sector (*i.e.* receiving and emitting stations) and the free access to spatial capacities, and it was complemented by a Communication issued in 1994, which suggested the abolition of restrictions to space segment capacity.²¹

The Satellite Directive (94/46)²² contributed largely to the accomplishment of the above aims, by addressing several issues and allowing for the inclusion of the satellite sector in the free competition environment. In a nutshell, the Satellite Directive extended the Services Directive (90/388) to cover satellite communications services and provided for the abolition of exclusive and special rights on telecommunications services (Article 2§2). Furthermore, it obliged Member States to abolish restrictions on the offer of space segment capacity on their terri-

18 Directive 2002/21 on a common regulatory framework for electronic communications networks and services, OJ L 108 of 24 April 2002, p. 33.

19 Directive 2002/77 on competition in the markets for electronic communications networks and services, OJ L 249 of 17 September 2002, p. 21.

20 COM(90)0490 fin. "on a common approach in the field of satellite communications in the European Community".

21 COM(94)0210 fin. The Commission's position was corroborated by a 1991 Council Resolution "on the development of the common market for satellite communication services and equipment", which called for the harmonization and liberalization of the market for satellite earth stations, OJ C 8 of 14 January 1992, p. 1.

22 Directive 94/46 amending Directive 88/301 and Directive 90/388 in particular with regard to satellite communications, OJ L 628, of 19 October 1994, p. 15.

tory (Article 2§3b).²³ Lastly, it required Members States that were party to the international conventions setting up Intelsat, Immarsat, Eutelsat and Intersputnik to communicate to the Commission information on any measure that could prejudice compliance with the EU competition rules (Article 3).²⁴ The enforcement of competition principles in the satellite communications sector was further ensured by Commission Decisions assessing the compatibility of concentrations in this field with the common market and the EEA Agreement.²⁵

Directive 94/46 was repealed by Directive 2002/77, which codified the legal framework applicable to the liberalization of the market in the field of telecommunications services. That Directive provided that

Member States which are party to international conventions setting up international-satellite organizations shall, where such conventions are not compatible with the competition rules of the EC Treaty, take all appropriate steps to eliminate such incompatibilities (Article 7§2).

This provision specifies the general rule stipulated in Article 351 TFEU,²⁶ according to which the obligations deriving from EU membership prevail over international commitments undertaken by the Member States; it must be noted that Article 7§2 goes beyond the corresponding provision of Directive 94/46, as it imposes on Member States an obligation to act in order to preserve the EU competition rules, and not a simple obligation to inform the Commission on any possible incompatibilities.

3 *Electronic Databases*

The liberalization of satellite communications led to the development of satellite remote sensing, which, in turn, opened the way to commercial applications and operations thereof,²⁷ thus raising the issue of protection of the data generated by remote sensing systems. A study carried out in 1993 on behalf of the European Commission²⁸ concluded that remote sensing data should be protected under the databases rather than under the copyright provisions. Indeed, copyright protec-

23 “Member States shall ensure that any regulatory prohibitions or restrictions on the offer of space-segment capacity to any authorized satellite earth station network operator are abolished, and shall authorize within their territory any space-segment supplier to verify that the satellite earth station network for use in connection with the space segment of the supplier in question is in conformity with the published conditions for access to his space segment capacity.”

24 For a comprehensive analysis of the Satellite Directive see S.T. Legoueff, ‘Satellite Services: The European Regulatory Framework’, *Competition and Telecommunications Law Review*, Vol. 2, No. 5, 1996, pp. 185-191.

25 Thales/Finmeccanica/Alcatel Alenia Space & Telespazio, Decision COMP/M.4403 of 4 April 2007, OJ C 034 of 11 February 2009, p. 5, Nordic Satellite Distribution, Decision No. 96/177/EE of 19 July 1995, OJ L 53 of 2 March 1996, p. 20.

26 Art. 351 TFEU, which provides: “To the extent that [prior] agreements are not compatible with the Treaties, the Member State or States concerned shall take all appropriate steps to eliminate the incompatibilities established. Member States shall, where necessary, assist each other to this end and shall, where appropriate, adopt a common attitude.”

27 See Von Der Dunk, 2015, p. 249.

28 P. Gaudrat, *Conditions of Access to Earth Observation Data: Legal Aspects*, European Centre for Space Law, 1993.

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tion is not well-suited in this case, as it usually covers products with a certain degree of originality.

Directive 96/9 on the legal protection of databases²⁹ aimed to afford an appropriate and uniform level of protection of databases as a means to secure the remuneration of the makers thereof. The Directive, which is still in force, provides for a copyright protection of “databases which, by reason of the selection or arrangement of their contents, constitute the author’s own intellectual creation”³⁰ as well as for a sui generis right when the maker of the database shows “that there has been qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents”.^{31, 32} A ‘database’ is defined very broadly as a “collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means”,³³ and, therefore, it is deemed to include databases created through satellite remote sensing; indeed, remote data

are generated by an automated process built into the satellite sensors and then sent to the receiving stations on the ground by means of telemetry. Remote sensing data reflect the geographic reality. Without some degree of processing, primary remote sensing data are not comprehensible for the human mind.³⁴

It results from the foregoing that, although all EU institutions expressed their will to enhance EU involvement in space, the latter was regulated only to the extent necessary to serve the single market programme, which consists of a ‘gigantic programme of deregulation’.³⁵ liberalization of space segment capacity was decided in order to ensure free competition in the telecommunications sector, satellite networks were included in the ONP Directive in order to preserve free movement of services, etc. This is confirmed by the legal bases³⁶ of the rele-

29 OJ L 77 of 27 March 1996, p. 20.

30 Art. 3§1. The copyright protection does not extend to the content of the database, nor does it depend on any criteria such as its aesthetic or artistic value, Art. 3§§1, 2.

31 Art. 7§1.

32 On the content of Directive 96/9 see in detail M. Schneider, ‘The European Union Database Directive’, *Berkeley Technology Law Journal*, Vol. 13, No. 1, 1998, pp. 551-564; G.M. Hunsucker, ‘The European Database Directive: Regional Stepping Stone to an International Model?’, *Fordham Intellectual Property, Media and Entertainment Law Journal*, Vol. 7, No. 2, 1997, pp. 697, 727.

33 Art. 1 para. 1. This broad definition was corroborated by the ECJ case law, see *Fixtures Marketing v. OPAP*, C-444/02, judgment of 9 November 2004, EU:ECLI:C:2004:697.

34 See C. Doldirina, ‘Intellectual Property Rights in the Context of Space Activities’, in Von der Dunk & Tronchetti, 2015, p. 958.

35 As put by C.L. Ehlermann, ‘The Contribution of EC Competition Policy to the Single Market’, *Common Market Law Review*, Vol. 29, No. 2, 1992, pp. 257-282, at 258.

36 The choice of the legal basis of EU acts “may not depend simply on an institution’s conviction as to the objective pursued but must be based on objective factors which are amenable to judicial review”, ECJ, judgment of 26 March 1987, *Case 45/86, Commission v. Council*, EU:ECLI:C:1987:163. On this issue see C.H. Kohler & J.-C.L. Engel, ‘Le choix approprié de la base juridique pour la législation communautaire: enjeux constitutionnels et principes directeurs’, *Europe*, Janvier 2007.

vant EU acts: the ‘liberalization’ Directives were based on Article 106§3 TFEU, which provides that “the Commission shall ensure the application of the provisions of this Article [*i.e.* the observance of competition rules by undertakings with special or exclusive rights] and shall, where necessary, address appropriate directives or decisions to Member States”. The Directives on ONP and database protection were based on Article 114 TFEU concerning the adoption of

measures for the approximation of the provisions laid down by law, regulation or administrative action in Member States which have as their object the establishment and functioning of the internal market.

Certainly, at that time no express EU competence on space was available; however, the EU legislator could have overcome this obstacle by having recourse to Article 235 EC Treaty (today: Article 352 TFEU), which refers to the Union’s ‘implied competences’.³⁷ It is obvious that the EU institutions did not wish to undertake action based on an ‘implied’ mandate in a field governed by Member State action at the international level; therefore, as long as no specific legal basis was provided for in the Treaty, space considerations could only be taken into account in a selective and fragmented way.

On the other hand, the new space competence introduced in 2009 (see below, II.2) has not led to the abandonment of the legal bases used so far. For instance, in 2014 the Commission submitted to the European Parliament and the Council a proposal for a Directive concerning the dissemination of earth observation satellite data for commercial purposes;³⁸ Article 114 TFEU was suggested as the appropriate legal basis, because the act would regulate issues closely related to the functioning of the market.³⁹ The proposal was later withdrawn owing to the inability to reconcile different positions within the Council and the European Parliament, and the Commission stated that it would come forward with a new initiative at a later stage. In any case, the choice of this specific legal basis shows that certain aspects of space activities shall always be subject to the internal market rules, given their impact on free circulation and competition within the EU.

II ‘Star Trek’: Space as an Autonomous Field of EU Action

All through the past few decades the EU has acknowledged that space could – and should – be developed as a distinct field of action. However, the highly intergovernmental nature of this sector, its inherent link to national security and thus its

37 According to Art. 352 TFEU, “If action by the Union should prove necessary, within the framework of the policies defined in the Treaties, to attain one of the objectives set out in the Treaties, and the Treaties have not provided the necessary powers, the Council, acting unanimously on a proposal from the Commission and after obtaining the consent of the European Parliament, shall adopt the appropriate measures ...”.

38 COM(2014)0344 fin.

39 Free circulation of low-resolution satellite data, the establishment of common technical parameters – and thus the removal of obstacles to free circulation – of High Resolution Satellite Data (HRSD), as well as the prevention of likely distortions of competition in that market.

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strategic nature,⁴⁰ as well as the initiatives already undertaken at the international level, mainly the creation of ESA, called for a cautious approach. In this respect, the Union asserted its role by putting forward several initiatives in space and by gradually setting up a European Space Policy (1). Furthermore, a turning point in EU action in this field is the Lisbon Treaty, which provided for a specific ‘space competence’ (2).

1 *Towards the Making of a European Space Policy: EU Initiatives in Space*

In a Communication entitled *The Community and Space: A Coherent Approach*, issued in 1988, the European Commission unfolded its vision of Europe’s future involvement in space, based on the fact that ‘space is far from a specific sector of activity’ and that ‘it will affect more and more the whole economic, industrial and cultural life of European society’. The proposed lines of action comprised the development of telecommunications and earth observation systems, cooperation with ESA through common space programmes, etc.⁴¹ Therefore, the main target would not be to ‘inject’ the space dimension into the internal market but to set up a holistic approach, whereby space would play a central role; moreover, participation in European Space Programmes was deemed to reinforce the Union’s role at the international scene.

This policy document was followed by a series of Communications,⁴² which focused on space and expressed the Commission’s will to enhance EU’s active involvement in this field. The Council⁴³ and the European Parliament⁴⁴ have also issued Resolutions calling for the development of a coherent European Space Policy.

40 As pointed out by Mazurelle *et al.*, 2009, p. 9, “the particularity of European space governance is that it is based on interactions firmly anchored in principles of international law: European States, as sovereign subjects of international law, have always decided how to organize their cooperation to conduct, together, space activities through intergovernmental systems. This testifies to the fact that they regard space as intrinsically strategic, so much so that they strive to cooperate in space through legal frameworks that would guarantee their control over space decision-making”.

41 COM(88)0417 fin.

42 COM(92)0360 fin. *The European Community and Space: Challenges, Opportunities and New Actions*; COM(2000)0597 fin. *Europe and Space: Turning to a New Chapter*; COM(2001)0718 fin. *Towards a European Space Policy*.

43 Council Resolution of 22 June 1998 on the reinforcement of the synergy between the European Space Agency and the European Community, OJ C 224 of 17 July 1998, p. 1; Council Resolution of 2 December 1999 on developing a coherent European space strategy, OJ C 375 of 24 December 1999, p. 1; Council Resolution of 16 November 2000 on a European space strategy, OJ C 371 of 23 December 2000, p. 2.

44 European Parliament resolution of 17 January 2002 on the Commission communication to the Council and the European Parliament on Europe and Space: Turning to a new chapter, P5_TA(2002)0015, European Parliament resolution of 29 January 2002 on the action plan for implementing the European space policy, P5_TA(2004)0054.

The setting up of the European Space Policy was initiated in 2003 by a Commission Green Paper,⁴⁵ whose axes were further elaborated in a White Paper introducing an action plan for the implementation of that Policy.⁴⁶ The White Paper stressed that “Space is a must for an enlarging Union and the EU is a key to the further development of space in Europe”, and the main lines of action suggested by the Commission were the establishment of a European Space Policy as a horizontal policy serving all other policies, the elaboration of a European Space Programme in collaboration with ESA,⁴⁷ and the review of EU institutional settings with the view to inserting in the Treaty an autonomous space policy.⁴⁸

The outcome of these efforts was multifold:

- a In 2004, the EU officially inaugurated its cooperation with ESA, by means of a Framework Agreement⁴⁹ aiming to provide “a common basis and appropriate operational arrangements for an efficient and mutually beneficial cooperation between the Parties with regard to space activities in accordance with their respective tasks and responsibilities and fully respecting their institutional settings and operational frameworks” (Article 1§2). Its main institutional mechanism is the Space Council, which consists of “joint and concomitant meetings of the Council of the EU and the Council of ESA at ministerial level” and provides orientations, makes recommendations and advises the Parties on the specific elements of their cooperation (Article 8§4).⁵⁰ The Council Decision to conclude the EU-ESA Framework Agreement was based on Article 170 EC Treaty – today Article 186 TFEU – concerning the cooperation with third countries or international organizations in the fields of research and technological development.
- b The gradual strengthening of the collaboration with ESA allowed the EU to further develop the space projects already conceived as from the mid-1990s and qualified by the Commission as ‘flagship projects’,⁵¹ namely the satellite navigation system Galileo and the satellite earth observation and monitoring system GMES/Copernicus. More specifically:⁵²

45 COM(2003)0017 fin., *European Space Policy*. As pointed out by Mazurelle *et al.*, 2009, p. 18, the Green Paper process aimed to bring together stakeholders, observers and analysts around the issue of how to increase the relevance of space in Europe.

46 COM(2003)0673 fin., *Space: A New European Frontier for an Expanding Union. An Action Plan for Implementing the European Space Policy*.

47 Interestingly, the Green Paper expressly mentions that it was drafted with the participation of ESA, but no such reference is found in the White Paper.

48 COM(2003)0673 fin., pp. 38, 40.

49 The Framework Agreement was signed on 25 November 2003. Its conclusion was decided by Council Decision 2004/578, OJ L 261 of 6 August 2004, p. 63. The Agreement’s full text was published in the OJ L 261 of 6 August 2004, p. 64.

50 For more details see Mazurelle *et al.*, 2009, p. 13 *et seq.*, who qualify this cooperation as “an embryonic renewed European space governance”. On the evolution of the EU-ESA Agreement also see Von Der Dunk, 2015, pp. 253-255.

51 COM(2007)0212 fin., *European Space Policy*, p. 3.

52 The aim of this paper is not to analyse in detail the operation of these projects, and thus I will refer to them only to the extent necessary to demonstrate their input on the overall EU Space Policy. For more information see Von Der Dunk, 2015, pp. 258-265.

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- The *Galileo programme*, alias ‘the European GPS’,⁵³ was initiated by Regulation 876/2002,⁵⁴ which created a Joint Undertaking aiming to ensure “the unity of the administration and the financial control of the project for the research, development and demonstration phase of the Galileo programme, and to this end mobilize the funds assigned to that programme” (Article 1). Galileo is considered as an international organization and its founding members are the EU and the ESA (Article 3§1 of its Statutes, which were annexed to the Regulation). The Regulation was complemented and amended by several EU acts,⁵⁵ and it was repealed by Regulation 1285/2013,⁵⁶ which outlined the future phases of its deployment and exploitation.⁵⁷

The legislative acts launching Galileo were based on Articles 170 and 171 EC Treaty (today Articles 186 and 187 TFEU), according to which the Union may provide “for cooperation in research, technological development and demonstration with third countries or international organizations” and set up “joint undertakings or any other structure necessary for the efficient execution of research, technological development and demonstration programmes”. At that time, the choice of these legal bases was justified by the lack of an express EU clause on space. However, although a ‘space clause’ was inserted in 2009, the new 2013 Galileo Regulation did not base itself on this new clause but on Article 172 TFEU, which pro-

- 53 Reference should also be made to the EGNOS programme, which was Europe’s first venture into satellite navigation and paved the way for Galileo. EGNOS improvises the accuracy of signals from existing global navigation systems (GNSS), such as GPS. It was developed by ESA under a tripartite agreement with EU and Eurocontrol, and its ownership was transferred to the European Commission in 2009. For more information see ec.europa.eu/growth/sectors/space/egnos.
- 54 Council Reg. 876/2002 of 21 May 2002 setting up the Galileo Joint Undertaking, OJ L 138 of 28 May 2002, p. 1. The origins of Galileo can be found in a December 1996 Commission Communication, COM(96)0617 fin., *The European Union and Space: Fostering Applications, Markets and Industrial Competitiveness*. The Commission’s vision was further outlined in February 1999 (Communication COM(99)0054 fin., *Galileo: Involving Europe in a New Generation of Satellite Navigation Services*) and welcomed a few months later by a Council Resolution *Galileo-Definition Phase*, OJ C 221 of 3 August 1999, p. 1.
- 55 Reg. 1231/2004 of 12 July 2004 on the establishment of structures for the management of the European satellite radio-navigation programmes, OJ L 246 of 20 July 2004, p. 1; Reg. 683/2008 of 9 July 2008 on the further implementation of the European satellite navigation programmes (EGNOS and Galileo), OJ L 196 of 24 July 2008, p. 1, which was repealed by Reg. 912/2010 of 22 September 2010 setting up the European GNSS Agency, OJ L 276 of 20 October 2010, p. 11; Decision 1104/2011 of 25 October 2011 on the rules for access to the public regulated service provided by the global navigation satellite system established under the Galileo programme, OJ L 287 of 4 November 2011, p. 1.
- 56 Regulation 1285/2013 of 11 December 2013 on the implementation and exploitation on European satellite navigation systems and repealing Regs. 876/2002 and 638/2008, OJ L 347 of 20 December 2013, p. 1.
- 57 On the content of Galileo see http://ec.europa.eu/growth/sectors/space/galileo_en (last accessed 4 October 2019).

vides for EU action for the enactment of guidelines and other measures in the field of trans-European networks.⁵⁸

- The *Global Monitoring for Environment and Security (GMES) programme*⁵⁹ is an earth monitoring initiative led by the EU and carried out in partnership with the Member States and ESA.⁶⁰ The GMES was launched by Regulation 911/2010;⁶¹ it aimed “to provide, under Union control, information services which give access to accurate data and information in the field of the environment and security and are tailored to the needs of users” and it was meant to be “a key tool to support biodiversity, ecosystem management, and climate change mitigation and adaptation” (Recital 5). In 2014 it was replaced by the Copernicus project with Regulation 377/2014;⁶² Copernicus is a user-driven programme, and it aims to contribute, among others, to “(a) monitoring the Earth to support the protection of the environment and the efforts of civil protection and civil security; (b) maximising socio-economic benefits, thereby supporting the Europe 2020 strategy⁶³ and its objectives of smart, sustainable and inclusive growth by promoting the use of Earth observation in applications and services; (c) fostering the development of a competitive European space and services industry ...” (Article 4§1).⁶⁴

Both Regulations on GMES and Copernicus are based on Article 189 TFEU, alias the ‘space competence clause’ of the Treaty. This demonstrates the EU’s will to enhance its independent action in this field. Thus, while stressing the importance of international cooperation, Regulation 377/2014 clearly outlines the respective roles of the European Commis-

58 Reg. 912/2010, 22 September 2010 setting up the European GNSS Agency, was also based on Art. 172 TFEU.

59 The main orientations of this programme were first presented by the Commission in a 2001 Action Plan, COM(2001)0690 fin., and its ‘kick-off’ document is the Council Resolution of 13 November 2001 “on the launch of the initial period of global monitoring for environment and security (GMES)”, OJ L 350 of 11 December 2001, p. 4. A second Action Plan (2004–2008) was elaborated in a 2004 Communication, COM(2004)0065 fin. *Also see* COM(2005)0565 fin., *GMES: From Concept to Reality*, COM(2008)0748 fin. *GMES: We Care for a Safer Planet*, COM(2009)0223 fin. *Initial operations 2011–2013*, and COM(2009)0589 fin. *GMES: Challenges and Next Steps for the Space Component*.

60 The origins of GMES date back to May 1998, when institutions involved in the development of space activities in Europe made a joint declaration known as the Baveno Manifesto. The manifesto called for a long-term commitment to the development of space-based environmental monitoring services, making use of, and further developing, European skills and technologies.

61 Reg. 911/2010 of 22 September 2010 on GMES and its initial operations (2011–2013), OJ L 276 of 20 October 2010, p. 1.

62 Reg. 377/2014 of 3 April 2014 establishing the Copernicus programme and repealing Reg. 911/2010, OJ L 122 of 24 April 2014, p. 44.

63 Europe 2020 is a strategy proposed by the European Commission aiming at smart, sustainable and inclusive growth of the EU for the years to come, COM(2010)2020 fin.

64 *See in detail* the Copernicus brochure published by the European Commission. Available at: Copernicus.eu/en/about-copernicus/Copernicus-brief, accessed on 4 October 2019. *Also see* the European Parliament document “Securing the Copernicus Program. Why Earth Observation Matters”. Available at: [europarl.europa.eu/thinktank/en/document.html?EPRS_BRI_\(2017\)599407](http://europarl.europa.eu/thinktank/en/document.html?EPRS_BRI_(2017)599407) (last accessed 4 October 2019).

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sion and ESA: the former “shall have overall responsibility for Copernicus and for the coordination among its different components. It shall manage the funds allocated under this Regulation and oversee the implementation of Copernicus including the setting of priorities, user involvement, cost, schedule, performance and procurement” (Article 9§1). It will thus be the main actor of the programme, defining the priorities and ensuring the overall coordination thereof, while ESA will undertake only the tasks entrusted to it by the Commission by means of a delegation agreement, such as the technical coordination, the definition of its architecture, the operation of dedicated missions and the managing of funds (Article 10§1).

- c All the foregoing initiatives were included in a broader strategy: the shaping of a European Space Policy, which would serve the Union’s objectives both at an economic and at a political level. In a 2007 Communication, the Commission further elaborated the principles set out in the 2003 White Paper, stressing that the strategic mission of that policy would be to enable the EU “to exert global leadership in selected policy areas in accordance with European interests and values”.⁶⁵ This policy would build upon the actions already launched or in preparation, such as Galileo and GMES, and it would require investments for the development of space science and technology, the carrying out of research projects, the exploitation and standardization of satellite data, etc.⁶⁶ The Commission acknowledged the added value of international cooperation, namely with the ESA, but on the other hand it referred to a possible ‘improvement’ of the 2004 Framework Agreement, in order to overcome the ‘cumbersome decision-making processes’ due to the different principles and rules governing the two entities.⁶⁷

It must be remembered, in this respect, that international cooperation in space has long been the only possible path forward for the EU. However, this path has not always been well-suited for the promotion of the Union’s objectives, given that it is governed by international law principles that do not comply with its scope and method of action. Therefore, the new Article 189 TFEU, which provides for the drawing up of a European Space Policy, was considered by the Commission as a turning point that would allow it to develop a comprehensive action serving the objectives of Europe 2020 and following the EU governance rules. This results clearly from the Communications issued after 2009, in which it is suggested to associate space policy with other Union policies: in a 2010 Communication on Industrial Policy,⁶⁸ the Commission proposed measures “to implement the priorities of the space

65 COM(2007)0212 fin., *European Space Policy*, p. 4. According to a 2005 Communication, COM(2005)0208 fin., *European Space Policy – Preliminary Elements*, this Policy would lead to “the opportunity for the current principles of governance in space in Europe to evolve, while securing long term political recognition for the strategic benefits of space”.

66 COM(2007)0212 fin., pp. 13-14.

67 *Ibid.*, pp. 11, 14. The issues related to the weak intergovernmental space governance are analysed by Mazurelle *et al.*, 2009, p. 6 *et seq.*

68 COM(2010)614 fin.

policy based on Article 189 TFEU [and declared that it would] pursue a Space Industrial Policy developed in close collaboration with the ESA and the Member States". Indeed, the EU Space Industrial policy was conceived in 2013 and it aims to establish a coherent and stable regulatory framework, the development of a competitive industrial base in Europe, the development of markets for space applications and services, as well as the EU technological non-dependence and the independent access to space.⁶⁹ Furthermore, the Commission has stressed that the implementation of European Space Policy does not concern only Member States or international organizations but benefits EU citizens, given that satellite navigation and earth monitoring systems play a vital role in environmental protection and contribute to the fight against climate change as well as to the achievement of security and defence objectives.⁷⁰

The 'horizontal' nature of the European Space Policy, *i.e.* its impact on several sectors, such as agriculture, transport, communications, migration and environment, was also stressed in a 2016 Communication entitled *Space Strategy for Europe*.⁷¹ This strategy would build on Article 189 TFEU, and it would focus on four strategic goals: maximizing the benefits of space for society and economy, fostering a globally competitive and innovative European space sector, reinforcing Europe's autonomy in accessing and using space in a secure and safe environment, and strengthening its role as a global actor and promoting international cooperation.

As a follow-up to the above space strategy, in June 2018 the Commission issued a proposal for a Regulation replacing the main legislative acts on Galileo and Copernicus and introducing the EU Space Programme for the period 2021-2027.⁷² Based on Article 189 TFEU, the proposed Regulation clearly demonstrates the Commission's will to cooperate with the ESA, but at the same time to assert its autonomy vis-à-vis the latter: not only does it provide for the adoption of a financial framework partnership agreement defining ESA's tasks and responsibilities, but it makes the agreement contingent upon the establishment, within the ESA, of internal structures and of an operational method, in particular for decision-making, management methods and liability, which make it possible to ensure maximum protection for the interests of the Union and to comply with its decisions (Article 31).

69 COM(2013)0108 fin. *Also see* European Parliament Resolutions of 10 December 2013 "on EU space industry, releasing the potential for growth in the space sector" (P7_TA(2013)0534) and of 8 June 2016 "on space market uptake" (P8_TA(2016)0268).

70 COM(2011)0152 fin., *Towards a Space Strategy for the European Union that Benefits Its Citizens*. On the contribution of this Communication to the EU action see M.S. Aranzamendi, 'Towards a Space Strategy for the EU that Benefits Its Citizens: The EU's Declaration on Intents for Space', in P. Hulsroj, S. Pagkratis & B. Baranes (Eds.), *Yearbook on Space Policy 2010/2011*, 2013, pp. 141-157.

71 COM(2016)0705 fin. The vision described in this Communication was affirmed by the Council in its Conclusions of 30 May 2017 (Doc. 9817/17) as well as by the European Parliament, in its Resolution of 12 September 2017 on a Space Strategy for Europe (2016/2325/INI).

72 COM(2018)0447 fin.

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Last but not least, the proposal refers to the creation of a EU Agency for the Space Programme, which will be entrusted with a significant role in the management of the programme (Article 1§§2 and 30).⁷³

It is obvious that this recent development could cause frictions with ESA: the latter reacted almost immediately to the proposal with a press release, which welcomed it but stressed that “ESA’s understanding is to continue to be THE Space Agency of its Member States and for the EU”.⁷⁴ It would seem, however, that ESA is determined to set up a cooperation framework with the EU, that shall be acceptable to both sides and, most importantly, that shall satisfy the EU governance principles: the Interministerial Meeting held in Madrid in October 2018 elaborated a strategy on the road to ESA’s Council ‘Space 19++’ to be held in November 2019. This strategy contains

a roadmap for ESA and the EU to continue to finance and implement space programs in Europe in a sustainable and efficient way and it also lays out a vision for the internal functioning of the agency to fit the change of paradigm in the space sector.

Among the proposed actions, the strategy aims “to enhance ESA’s industrial policy to allow faster decision making and leaner processes and processes tailored to activity/project type”.⁷⁵

It can thus be seen that the EU has taken several initiatives in order to participate in the ‘space adventure’, and it has progressively claimed the role of a main actor at the international level. The new Treaty provision concerning space has provided it with the necessary impetus in order to further enhance its presence in this sector.

2 *A Specific EU ‘Space Competence’ as per the Lisbon Treaty*

Following the rejection of the Constitutional Treaty venture, the Lisbon Treaty came as a second-best solution that would put an end to a period of doubt about Europe’s future and, at the same time, preserve most of the achievements of the failed Treaty. In line with these achievements, the Treaty on the Functioning of the European Union (TFEU) empowers the EU to carry out activities in the space sector. The setting up of this new competence raises certain constitutional (a) and institutional (b) issues, which are worth analysing.

73 A Global Navigation Satellite System (GNSS) Authority had been already created with Reg. 1321/2004 and replaced by the GNSS Agency with Reg. 912/2010, concerning the EGNOS and Galileo programmes. However, the role of the new Agency shall be upgraded.

74 ESA Press Release 13-2018. Available at: esa.int/Newsroom/Press_Releases/The_European_Space_Agency_welcomes_European_Commission_s_proposal_on_space_activities (last accessed 4 October 2019).

75 ESA Press Release 25-2018. Available at: esa.int/Newsroom/Press_Releases/Press_release_from_Eurospace_and_ESA (last accessed 4 October 2019).

a) Constitutional Issues: The Nature of the ‘Space Competence’ (Article 4§3 TFEU)

Article 4§3 TFEU provides the following:

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

This provision raises several considerations of constitutional nature:

- First, this is the first express reference to space in primary EU law, and it consecrates the EU competence in this field, in accordance with the principle of conferral.⁷⁶ Although the EU had already ‘found its way to space’ to a certain extent by issuing legislation in several areas of space activities, such activities did not qualify as a space competence;⁷⁷ the action undertaken by the EU only tackled this sector in a selective and fragmented way, mainly in relation to market integration.
- Secondly, space is expressly mentioned as a sector closely linked to but distinct from research and technological development. This fact corroborates the approach already adopted by the EU institutions, whereby several acts with a space dimension were based on the Treaty provisions concerning research, but, at the same time, it allows for the development of a policy exclusively targeted on space.
- Thirdly, space is included in the category of shared competences between the EU and the Member States. The concept of shared competences⁷⁸ implies that both “the Union and the Member States may legislate and adopt legally binding acts [and that] the Member States shall exercise their competence to the extent that the Union has not exercised its competence” (Art. 2§2 TFEU). In other words, a shared competence remains shared only as long as the Union has not exercised it; when EU legislation is enacted in a field of shared

76 “Under the principle of conferral, the Union shall act only within the limits of the competences conferred upon it by the Member States in the Treaties to attain the objectives set out therein. Competences not conferred upon the Union in the Treaties remain with the Member States” (Art. 5§2 TEU).

77 F. Von Der Dunk, *The EU Space Competence as per the Treaty of Lisbon: Sea Change or Empty Shell?*, in *Space, Cyber, and Telecommunications Law Program Faculty Publications*, 2011, pp. 382-392, at 385, considers that the EU had somehow obtained and exercised competences in this field. It should be reminded, however, that all EU acts having a ‘space dimension’ did not regulate the space sector as such but were part of a broader framework serving market integration and free competition.

78 For the first time in the Union’s history, the categories of its competences are expressly enumerated in the Treaty (Art. 2). They may be exclusive, shared, support/coordination/supplementary competences, and each category obeys different rules of exercise. See in general R. Schutze, ‘Lisbon and the Federal Order of Competences: A Prospective Analysis’, *European Law Review*, Vol. 33, No. 5, 2008, p. 709; P. Craig, ‘Competences and Member States Autonomy: Causality, Consequences and Legitimacy’, in B. De Witte & H. Micklitz (Eds.), *The European Court of Justice and the autonomy of Member States*, Oxford Legal Studies Research Paper No. 57/2009. It can be downloaded at papers.ssrn.com/sol3/papers.cfm?abstract_id=1474325 (last accessed 4 October 2019).

competence, this competence becomes exclusive as far as the specific issues regulated by the EU act are concerned, *i.e.* Member States can no longer legislate on those issues.

The EU competence in the space sector does not meet the foregoing criteria. Although Article 4§3 TFEU empowers the Union to carry out space activities, it stresses that Member States should not be deprived of their own powers in this field; in other words, the exercise of the EU space competence can in no case result in that competence becoming exclusive, because Member State action is always possible.⁷⁹ Thus, space cannot be identified as a genuine shared competence. Yet the drafters of the Lisbon Treaty preferred to include this sector in the ‘shared competences’ category instead of the ‘support, coordination or supplementary competences’ one, where the EU carries out actions “without superseding [Member States] competence” (Art. 2§5 TFEU).⁸⁰ The reason for this choice probably lies in the Union’s will to be a main actor in space, alongside and on an equal footing with the Member States, while, on the contrary, the ‘supplementary’ type of competences implies that the Union only acts backstage in order to support and contribute to Member State action.⁸¹

As space does not fit in any of the categories of competence listed in the Treaty, certain commentators⁸² speak of a ‘parallel competence’, a category that is not recognized in the Treaty. In fact, this term is quite close to the legal reality, since the Union and the Member States powers are not exclusive of each other but can be exercised in parallel.

The institutional settings regulating the exercise of the space competence confirm its *sui generis* nature.

b Institutional Issues: The Exercise of the ‘Space Competence’ (Article 189 TFEU)

Article 189 TFEU, introduced by the Lisbon Treaty, provides the following:

- 1 To promote scientific and technical progress, industrial competitiveness and the implementation of its policies, the Union shall draw up a European space policy. To this end, it may promote joint initiatives, support research and technological development and coordinate the efforts needed for the exploration and exploitation of space.
- 2 To contribute to attaining the objectives referred to in paragraph 1, the European Parliament and the Council, acting in accordance with the ordinary legislative procedure, shall establish the necessary measures, which may take

79 The same principle applies in the fields of research, technological development, as well as development cooperation and humanitarian aid, Art. 2§§3 and 4 TFEU.

80 See in general R. Schutze, ‘Cooperative Federalism Constitutionalized: The Emergence of Complementary Competences in the EC Legal Order’, *European Law Review*, Vol. 31, No. 2, 2006, p. 167.

81 The Union has supplementary competences in the areas of human health protection, industry, tourism, culture, etc. (Art. 6 TFEU).

82 See Hobe *et al.*, ‘A New Chapter for Europe in Space’, *Zeitschrift für Luft-und Weltraumrecht*, Vol. 54, 2005, p. 346; . Von Der Dunk, 2011, p. 382; Aranzamendi, 2013, p. 155.

the form of a European space programme, excluding any *harmonisation* of the laws and regulations of the Member States.

- 3 The Union shall establish any appropriate relations with the European Space Agency.
- 4 This Article shall be without prejudice to the other provisions of this Title.

Several conclusions can be drawn from this provision:

- The conferral of a space competence is aimed at the setting up of a European Space Policy, which shall have a horizontal nature; in other words, this policy is deemed to promote the implementation of all other EU policies and serve the objectives of the Union. Thus, the drafters of the Treaty corroborate the view expressed by all EU institutions throughout the last decades, *i.e.* that space is a key sector that may contribute decisively to the development of the EU, both internally and at the international level. Also, the shaping of a European ‘policy’ in this field is intended to create a frame, which shall circumscribe individual Member State action.⁸³
- Especially regarding the international scene, paragraph 3 ‘institutionalizes’ the relationship with the ESA. However, the wording used (‘appropriate relations’) implies that the EU reserves itself the possibility to shape a new agreement with ESA; indeed, reference to an ‘improvement’ of the 2003 Framework Agreement ESA-EU has been made in recent Communications of the Commission (*see above*, under II.1(c)).⁸⁴
- The actions that can be carried out consist in ‘promoting’, ‘supporting’ and ‘coordinating’ initiatives and projects in this sector; the use of these terms⁸⁵ confirms that space is not a typical shared competence, but lies in between shared and supplementary competences.
- This is also corroborated by paragraph 2, which describes the decision-making process in this field. The ordinary legislative procedure, also known as the ‘Community method’, implies an allocation of tasks among the main EU institutions in view of the adoption of legislation: the European Commission submits a proposal to the European Parliament and the Council, and this proposal is adopted only if approved by both institutions, albeit with amendments suggested by both, or any of the latter (Article 294 TFEU).⁸⁶
- Article 189 refers to the adoption of ‘the necessary measures’, and further specifies that these ‘may take the form of space programmes’. The term ‘measures’ is quite broad and leaves in principle a large margin of appreciation to the EU institutions as to the choice of the legal instrument, which is

83 In this respect *see also* Von Der Dunk, 2011, p. 387.

84 The ESA seems to accept this perspective: A Resolution adopted in October 2018 by the Inter-Ministerial Meeting (IMM18) mandates the Director General “to establish appropriate relations between the ESA and the European Union”, Press Release 25-2018. Available at: esa.int/Newsroom/Press_Releases/Press_release_from_Eurospace_and_ESA (last accessed 4 October 2019).

85 As pointed out earlier, under a, this wording is used in the case of ‘supplementary’ competences in the fields of tourism, culture, etc.

86 The Regulations on Galileo and Copernicus were adopted according to the ordinary legislative procedure, *see earlier*, under II.1(b).

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considered most appropriate in view of the achievement of the objective pursued. In fact, this margin is restricted by the Treaty in two ways that contradict each other: first, Article 296 TFEU provides that “where the Treaties do not specify the type of act to be adopted, the institutions shall select it on a case-by-case basis, in compliance with the applicable procedures and with the principle of proportionality”, which implies that the action of the Union “must not exceed what is necessary to achieve the objectives of the Treaties” (Article 5§4 TEU); in this framework, for instance, directives are to be preferred over regulations,⁸⁷ because they are binding only as to the result to be achieved and leave to the Member States the choice of the forms and methods to be used (Article 288 TFEU). But, on the other hand, Article 189 TFEU stresses that harmonization of national laws is excluded, thus practically precluding the adoption of directives, which are the main instruments of harmonization.⁸⁸ This exception is a considerable drawback as compared with the Constitutional Treaty, which did not exclude harmonization measures in this sector and thus allowed the Union to deploy activities that would largely affect Member State action.⁸⁹ Moreover, it confirms that the EU space powers are not ‘shared’, but rather ‘parallel’ to those of the Member States.

- Given the above, the core of EU action in space consists in space programmes; the latter are expressly mentioned in Article 189 TFEU and take the form of Regulations. This is *prima facie* contradictory in itself: Member States wish to preserve their competence in the space sector, and yet they entrust the Union with the power to set up space programmes using the most binding type of act.⁹⁰ It must be noted, however, that space programmes such as Galileo and GMES/Copernicus are holistic and complex ventures whose organization and implementation cannot be left to the discretion of the Member States and thus Regulations are the most appropriate legal instruments for their adoption.

B Conclusions

Although not mentioned in the Treaties up to 2009, space has always been a field of interest for the EU, as exploration and exploitation thereof was considered as a

87 See the guidelines given to the EU institutions by the Edinburgh European Council of December 1992, p. 21, where it was stressed that “[o]ther things being equal, directives should be preferred to regulations and framework directives to detailed measures. Non-binding measures such as recommendations should be preferred where appropriate. Consideration should also be given where appropriate to the use of voluntary codes of conduct”. Available at: www.consilium.europa.eu/media/20492/1992_december_-_edinburgh__eng_.pdf (last accessed 4 October 2019).

88 Harmonization, along with mutual recognition of national laws, imposed mainly by means of directives, is the basic process used so far for the completion of the internal market, *see*, among others, Art. 114 TFEU.

89 *See also* Von Der Dunk, 2011, pp. 388-389.

90 According to Art. 288 ar. 2 TFEU, “A regulation shall have general application. It shall be binding in its entirety and directly applicable in all Member States.”

means of serving the internal market objectives and at the same time strengthening the Union's international standing.

The lack of an express competence has not prevented the EU from undertaking action in this field. On the basis of Treaty provisions on free competition, internal market and research and technological development, it adopted legislative acts tackling the space dimension, regulating specific issues directly related to space activities (e.g. satellite communications) and even setting up space programmes (e.g. Galileo). At the same time, it clearly and constantly affirmed its will to promote its action in space through an impressive production of soft law documents – European Commission Communications as well as European Parliament and Council Resolutions – that described in detail the steps of this process, but also through the close cooperation with ESA at the international level.

In the light of the foregoing, the new space competence introduced with the Lisbon Treaty came as a natural development that allowed the Union to reach a stage of 'maturity' in this field and to progressively assert a greater degree of autonomy vis-à-vis its international partners, namely ESA. It is clear, however, that the nature of this sector calls for a framework of cooperation among all international actors.

'Space and the European Union' is a two-way relationship: the Union's participation in the space adventure certainly allows it to promote its own objectives; but, on the other hand, the Union can contribute to this adventure by projecting its own vision of cooperation as well as its rules of governance, which in turn can enhance the quality of international cooperation in space.

Is this relationship a 'Star Wars' saga? The answer to this question should be given in the light of the fact that

A mystical element of the Star Wars galaxy is known as "the Force", described in the original film as "an energy field created by all living things [that] ... binds the galaxy together".⁹¹

91 Wikipedia, 'Star Wars.' Available at: https://en.wikipedia.org/wiki/Star_Wars (last accessed 4 October 2019).