

## THE EU SPACE COMPETENCE AS PER THE TREATY OF LISBON: SEA CHANGE OR EMPTY SHELL?

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### Abstract

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The entry into force of the Treaty of Lisbon late 2009 introduced a so-called ‘space competence’ of the European Union into the already complicated legal European ‘spacescape’. It has been hailed by some as a sea change, a watershed following which the EU finally and irreversibly has entered the realm of legislating for space, whereas others fail to see it as more than an empty shell, a fig leaf for politicians to be able to show at least *some* progress towards a united European approach and policy with respect to space.

Whilst some discussion has focused on whether this ‘shared competence’, a specific term of art in EU law, would not better be qualified as a *sui generis* ‘parallel competence’, no notable attention has been paid to the more fundamental question to what extent the inclusion of the relevant clause in the Treaty of Lisbon has resulted in a real change as to the legislative and regulatory side of space activities undertaken in the European context.

The present paper will therefore try to analyse in somewhat more detail what the real significance of this new ‘space competence’, is, might or will be. This analysis will be undertaken with reference not only to the terminology of the Treaty of Lisbon and a related clause of the preceding but aborted Constitutional Treaty, but also with reference to the previous legislative efforts of the European Union relevant to space, the few national space legislations of EU member states, and the role of ESA in this context.

### 1. The discussion on the EU space competence

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The Treaty of Lisbon<sup>1</sup> entered into force on 1 December 2009, following a decade-long effort to adapt the EU governance structure to new developments, notably including its expansion to 27 member states. Amongst its many innovative clauses there were a few which amounted to giving the Union what has been labelled a ‘space competence’. Thus, “[i]n 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”.<sup>2</sup>

This clause was part of the Article providing for the scope of shared competence between the Union and its member states, but the last part of the clause quoted has led some to conclude that this was not so much a shared competence but a “parallel competence”<sup>3</sup>, as individual member states would retain sovereign discretion as such to draft and implement their own national policies and legislation in this area. More specifically,

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

efforts needed for the exploration and exploitation of space.

2. To contribute to attaining the objectives referred to in paragraph 1, the European Parliament and the Council, acting in accordance with the ordinary legislative procedure, shall establish the necessary measures, which may take the form of a European space program, excluding any harmonization 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.”<sup>4</sup>

Various commentators hailed these provisions as a sea change, the Union now finally having been given a full legislative role regarding the European space effort, as opposed to merely (co-) financing and supporting it. Others have pointed out that an earlier version of the clauses had been considerably more far-reaching; from this perspective this particular version was a bit of a disappointment – if not indeed an empty shell. The present paper presents an effort to evaluate and appraise the true value of these provisions as lying somewhere between those two ‘extremes’.

However, before such a proper evaluation and appraisal is possible, it is important to understand the background leading up to this Treaty, this particular competence clause and this extended discussion. Thus, firstly, the ‘prehistory’ leading up to the discussion on a European space competence will be briefly outlined before, secondly, the short ‘history’ of the evolution of the relevant clauses will be scrutinised from that perspective – in order to then assess the clauses at issue as to their true merit: sea change or empty shell?

## 2. The ‘prehistory’ of the European space competence

In the whole discussion on a European space competence often the suggestion is made that before the failed Constitutional Treaty<sup>5</sup> and the more successful Treaty of Lisbon were on the table there was no such thing as a competence of the Union and its key organs – from this perspective the Commission, the Council of Ministers and the European Parliament – to legislate on space. But was there *really* no ‘space competence’ at the EU level prior to the discussions regarding those (draft) treaties?

Perhaps it all depends on how one defines ‘space competence’. Obviously, outer space not being part of any (EU member) state’s territory,<sup>6</sup> it could also not ‘geographically’ form part of the EU realm. However, already long before the discussions on a Constitutional Treaty had started in earnest in the early 2000’s, the European Community, then Union had exercised jurisdiction regarding outer space activities in four distinct areas, albeit in somewhat indirect or ‘accidental’ fashion.

Firstly, in 1986 the Single European Act<sup>7</sup> added Articles 130f through 130q to the EEC Treaty<sup>8</sup>, whereby the EC institutions were charged with building and financing research and development framework programmes endowed with large funds, and develop other, partly legislative instruments to enhance research and development. References to research and development were widely accepted to include *space* as a relevant area, showing great potential for more down-to-earth technological, then also economic and societal spin-offs.<sup>9</sup> Thus, the European Community also started building relationships with the European Space Agency (ESA)<sup>10</sup>, the

prime European organisation involved in space research and related activities. Secondly, following rapid developments in the satellite communications sector in the late 1980's and early 1990's the Commission was quick to move into this most practical, most commercial and by any standards largest field of space applications. After a 1990 Green Paper<sup>11</sup> had applied the calls for liberalisation and privatisation in the general telecom sector by means of an earlier Green Paper<sup>12</sup> to this specific subsector, in 1994 the first piece of EU law resulted: the Satellite Directive<sup>13</sup>. The Satellite Directive provided the framework for implementation of Internal Market principles into the satellite communications sector throughout the Union, for example imposing such principles as separation of regulatory and operational functions, the prohibition of concerted anti-competitive practices and the prohibition of abuse of dominant and monopoly positions in that market. Many Directives and Regulations followed elaborating that regime, in addition to Decisions on perceived market-distorting practices by satellite communication service providers.<sup>14</sup> Also, the privatisation of the three major international satellite operators INTELSAT, INMARSAT and EUTELSAT was partially the result of these legislative developments.<sup>15</sup> Whilst in many respects the Internal Market for satellite communications has yet to be finalised, through such an adoption of Directives, Regulations and Decisions the EU institutions have exercised a large measure of jurisdictional competence in this major area of the human space endeavour. Not technically speaking *in* space perhaps, but certainly *with respect to*, and having a great impact upon, relevant activities in outer space.

Thirdly, when in the 1990's space remote sensing came to be of interest also for commercial applications, a legal instrument to protect the investments in remote sensing was found wanting. The existing intellectual property rights protection regimes were not very appropriate or effective, and the Commission then led an effort to develop such a legal tool, making certain that space-derived data would explicitly be encompassed in, and appropriately dealt with in the context of, the broader concept of databases which were in the end given special *sui generis* protection by Directive 96/9.<sup>16</sup> Again, perhaps not amounting to jurisdiction *in* or *over* outer space, but certainly co-determinant with respect to the potential for the relevant category of activities in outer space to be successfully undertaken.

Fourthly, as the major role certain space applications could play in developing European economies and societies became clear, the Union also started to become a 'space player' in its own right. In 1994 it had already taken the policy decision to become involved in what was known as the Global Navigation Satellite System;<sup>17</sup> an idea which soon evolved into Europe (with the Union leading and ESA following) building its own full-fledged system Galileo. By 2002 the Union was ready to enunciate its first proper piece of EU law on the issue, a Regulation setting up a Galileo Joint Undertaking,<sup>18</sup> followed in 2004, 2008 and 2010 by more key Regulations.<sup>19</sup>

EU interests in practical applications of space soon led to another 'European space flagship' being developed together with ESA; the Global Monitoring for the Environment and Security (GMES). The primary political decision was announced in 2001<sup>20</sup>; meanwhile, also the first piece of EU legislation on GMES has been

enunciated – in 2010<sup>21</sup>. It remains to be seen of course, to what extent the Union is effectively now abdicating its leading position in this respect, with GMES very recently being relegated back to the member states as far as crucial funding was concerned.<sup>22</sup>

Still, the increasing cooperation with ESA in the context of these two flagship projects (and the prospects of more flagship projects on the horizon) also gave rise to the Framework Agreement with ESA in 2003.<sup>23</sup> This represented a treaty-like document between two international organisations of which one (ESA) still undoubtedly qualified as an *intergovernmental* organisation, whereas the other (the Union) was a *sui generis* halfway house between such an organisation and a supranational construct. In any event, apparently the EU institutions had now obtained a level of treaty-making powers with regard to space and space activities, coupled to a general (co-) leading role in the relevant policy area.

As pointed out, it partly depends on one's definition of 'space competence', but if that term is taken to refer to competences to legislate, adjudicate and enforce with respect to space activities in any meaningful sense, the above initiatives of the Union in the context of space research and development, space communications, space remote sensing and space navigation should qualify. It is thus clear that even before the Constitutional Treaty came about, the EU institutions had somehow obtained *and* exercised such competences to draft EU legislation and adjudicate and enforce it in several areas of space activities.

From that perspective therefore, the question as to the real novelty of the new clauses of the Treaty of Lisbon remains principally valid: what sort or level of 'space competence' is actually added by the latter?

### 3. The 'history' of the space competence

The proper history of the space competence started in the early 2000s, where the ambitious exercise to draft a Constitutional Treaty presented a vehicle for those contemplating true integration of the European space efforts.

Historically, ESA had taken care of such efforts by presenting a solid yet flexible framework for international cooperation. The 'solid' part was represented in particular by the 'mandatory programmes', the scientific and research and development programmes to which all states had to contribute at a predetermined scale.<sup>24</sup> The 'flexible' part was represented in particular by the 'optional programmes', which usually involved actual launches and satellite operations – and allowed member states to opt out of a programme altogether (and then not contribute to it) or determine their scale of contributions at a different level from that applied as a baseline option – essentially the same predetermined scale as for the mandatory programmes.<sup>25</sup>

Since the ESA Director-General could also himself propose European space programmes,<sup>26</sup> ESA was often seen as not merely a platform for member states to integrate their *national* space policies, but also as itself developing a *European* space policy – even as with regard to any such proposals it was still the member states which had to agree by two-thirds majority before they would be implemented.<sup>27</sup>

To the extent that the totality of ESA's programmes thus agreed upon and executed could be deemed to constitute a proper 'space policy', however, it certainly was not one that the proponents of EU competence in space considered particularly coherent,

logical and/or helpful. The ingrained inability of ESA to overcome key individual member state policy divergences, the ‘geographical distribution’ principle as main focus of the ‘industrial policy’ ‘of’ ESA,<sup>28</sup> and the principled absence of competence for ESA to *regulate* any activities within the European ‘spacescape’ in any legal sense of the word all conspired to point at the timeliness of handing over the lead in the European space effort to the Union.

There had been earlier efforts on the part of the European Union to take a more active, even leading role in defining European space policies. For example, in 1993 a Space Advisory Group had been established to institutionalise cooperation and coordination between ESA and the Commission in matters of outer space.<sup>29</sup> In 2000, a European Space Strategy was developed as part of a first joint meeting of the ESA Council and the EU Council of Ministers (the two highest organs of the organisations<sup>30</sup>) which spelled out the perceived respective roles of the two – with the Union leading all efforts which should allow Europe to reap the benefits from space activities for society and markets, as opposed to scientific and research and development oriented policies programmes, and projects.<sup>31</sup> By 2003, the Commission had effectively taken the steering wheel, when it produced – on its own – its White Paper “Space: a new European frontier for an expanding Union – An action plan for implementing *the European Space policy*”.<sup>32</sup> The call was expressly made for, *inter alia*, space infrastructures and applications to serve the needs of EU political objectives and to update the institutional structure to provide the Union with new powers to drive, fund and coordinate activities within this enlarged Space Policy.<sup>33</sup>

The ambitious effort to arrive at a Constitutional Treaty, which tried to move the process of European integration considerably forward on many fields and issues, now seemed the perfect carrier for fully taking over the reins on the European space effort.

And indeed the Constitutional Treaty provided for the clauses which, once the Treaty itself came to fail and a much dressed-down follow-on drafting exercise resulted in the Treaty of Lisbon, survived that failure and were included in the latter.

There was one major exception however: Article 189(2) of the Lisbon Treaty as quoted above, had essentially copied Article III-254 of the Constitutional Treaty with respect to the EU competence henceforth to “establish (...) necessary measures, which may take the form of a European space program” – but had crucially added the phrase “excluding any harmonization of the laws and regulations of the Member States”.

If the ‘space competence’ under the Treaty of Lisbon is indeed not to be an empty shell, the key question clearly is: what ‘necessary measures’, including development of a ‘European space program’ could the EU authorities thus take when these could *not* result in harmonization of laws and regulations of EU member states?

#### 4. The EU space competence: sea change or empty shell?

Thus finally returning to the question of what the Treaty of Lisbon actually added to the existing opportunities of the EU institutions to fundamentally and in a legal (or at least para-legal) sense impact the European ‘spacescape’, the key clauses of Article 189 should be seen to essentially

contain no less than four, closely intertwined concepts.

#### 4.1. A European space policy.

Firstly, paragraph 1 provides that “[t]o promote scientific and technical progress, industrial competitiveness, and the implementation of its policies, the Union shall draw up a European space policy”.

Of course, ‘(European) space policy’ is not a *legal* term in the strict sense of the word. ‘Space policy’ refers to a slightly abstract and largely strategic formulation of overarching goals and objects, which may at some point be given shape by specific law or regulation – but are equally often given shape by non-legal, essentially political and policy instruments. This is also true of the ‘European space policy’ referenced in some key preceding EU documents as cited above.

Nevertheless, it often does constitute the point of departure for specific legislative and regulatory initiatives. In particular in the EU context, where the principles of ‘subsidiarity’ and ‘proportionality’<sup>34</sup> require careful legitimisation of any EU-level legislative action as compared to leaving it for the individual member states to regulate, the recognition of an EU ‘competence’ to draft an overarching space policy can be seen as the first recognition that any further legislative initiatives, firstly, at the EU level should not be dismissed off-hand and secondly, as far as still possible at the individual member state level, should essentially fit within the broad framework of such a policy.

#### 4.2. European joint initiatives.

Secondly, paragraph 1 also provides that the Union for the purpose of the aforementioned space policy “may promote joint initiatives, support research and technological

development, and coordinate the efforts needed for the exploration and exploitation of space”.

Indeed, such programmes and activities would logically form part of a ‘space policy’; actually are manifestations thereof at a more concrete and less overarching level, thus reinforcing the conclusion that by obtaining the ‘competence’ to draft (a) European space policy, the EU institutions have actually *prepared the ground for* truly legislative initiatives, rather than as such *taking* them. That is essentially policy, not law – yet hugely important for the legal realm.

With a view to ‘subsidiarity’ and ‘proportionality’, the legitimacy of the Union promoting – including, most notably, by means of its budget – such joint initiatives, research and development, and general coordinating activities now no longer depends upon a specific market-related need or requirement, but would in principle be broadly accepted across the spectrum of space activities and applications.

#### 4.3. European space programmes and other necessary measures.

Thirdly, the above ‘competence’ to promote joint initiatives, research and development, and general coordinating activities may still refer to fairly unspecific instruments to implement any space policy, but in addition now paragraph 2 provides that for that same purpose the EU institutions may also “establish the necessary measures, which may take the form of a European space program”.

It may be noted here that the relationship between a ‘space policy’, as an overarching set of goals and objectives and the specific ‘space programmes’ and projects as the practical manifestation of that policy, has also led many authors to discuss the role of ESA in development of a

European space *policy*. Many civil space *programmes* in Europe (certainly the more visible and sizeable ones), following the dichotomy of mandatory and optional programmes under the ESA Convention, are *ESA*, that is European, *space* programmes – in other words: are deemed to somehow constitute a European space *policy*.

However, this equation overlooks that often space programmes arise not (necessarily) as a consequence of some overarching space *policy*, but as individual, quite autonomous answers to specific societal interests – or even, more simply and cynically, specific industrial or economic interests.

The reference in the Treaty of Lisbon to space programmes developed by the Union in the context of a space policy and supported, as necessary, by specific legal measures is by contrast considerably more coherent, and due to the reference in the same sentence to “the ordinary legislative procedure” clearly points to major space programmes (of which Galileo and GMES were already examples) as accompanied by the necessary legal framework, or even to *legal* measures considered desirable or necessary, properly taking ‘subsidiarity’ and ‘proportionality’ into due account.

By way of those clauses therefore, effectively the competence of the EU institutions to draft a European space *policy* to those extents has now been more or less silently acknowledged, in particular to the extent such a policy would tie in with the general remit of the EU institutions to further the economic and societal development of the member states within an ever more coherent Union<sup>35</sup>. Thus, from this perspective the competence of the Union to now (also) develop and implement European space *programmes* as per the Treaty of Lisbon is an extension of the ‘politico-

programmatic’ competences of the EU institutions as relative to those of EU member state authorities – but not of a very revolutionary nature, as Galileo and GMES most clearly show. The recent events concerning GMES, moreover, may put into serious doubt whether that acceptance may not be equally ‘silently’ be allowed to slip away dropped (even if only for down-to-earth budgetary reasons).

Whatever one’s evaluation of this, however, that still did not amount to a *legal* competence properly speaking – that is, indeed, where the Constitutional Treaty presented a novelty, as essentially copied in this particular part of paragraph 2 of Article 189 of the Treaty of Lisbon.

Henceforth, the competence that the EU institutions with respect to space would henceforth have, would no longer be completely dependent on sector-specific characteristics related to commercial markets and require application of the free market and competition principles relatively narrowly focused on a free and level playing field for commercial enterprise throughout the Union – as had happened, most elaborately, in the satellite communications sector. There, indeed the Commission essentially had set about harmonising market access, state aid and licensing issues all in as far as distorting the Internal Market, only now and then inserting clauses protecting wider public interests such as public or universal services.

Had the Constitutional Treaty been accepted, the Commission would have had for the first time the competence to address ‘space’ and ‘space activities’ in their full measure, not only as commercial activities but also as a new area where scientific, commercial, societal and strategic interests would *all* have to be accommodated by more fundamental legislation and regulation.

This brings analysis to the last element, where the Treaty of Lisbon added to – or rather detracted from – the Constitutional Treaty’s approach.

#### 4.4. No harmonisation of national law.

So what then does the additional, for many disappointing clause of paragraph 2, mean, when it conditions the competence by “excluding any harmonization of the laws and regulations of the Member States”?

Differently from other areas, where following ‘subsidiarity’ and ‘proportionality’ individual member states would no longer be entitled to draft their own legislation to the extent those competences had been transferred to the EU level and such transfer would *ipso facto* allow the EU institutions to guarantee a harmonised regime, if necessary by harmonising existing national regimes, here such harmonisation is not possible.

What this means from the other end is ultimately related to the extent in which (the) member states have already elaborated relevant domestic law on an issue of space activities.

One prominent example thereof concerns *private* space activities, and the licensing thereof. So far, six EU member states have established a national space law providing in any appreciable detail for a licensing system including for example liability and insurance obligations for licensees.<sup>36</sup> It follows, that this now excludes a competence for the Union to try to harmonise those licensing, liability and insurance requirements.

On the other hand, currently one specific new branch of private space activities seems about to be taking off – commercial manned spaceflight, also often (somewhat imprecisely) labelled ‘space tourism’. In the absence of any specific reference, let alone adaptation to this sub-sector of private space

activities, one could validly pose the question whether in *this* specific respect there is any domestic law of substance which would bar Union legislative activity in this area.

#### 4.5. Sea change or empty shell?

As for example the last question above cannot yet be answered with definitive authority, whether the EU ‘space competence’ as resulting from the Treaty of Lisbon represents a sea change or an empty shell would also remain an open question as of yet.

Here, ‘the proof of the pudding’ may well be ‘in the eating’ indeed. In other words, will the EU authorities for example feel comfortable in addressing commercial manned spaceflight from an EU-perspective by way of legislation in view of the above – and if they undertake an effort, will they be stopped in their tracks by member states referring to the above clauses?

At present, therefore, the most that can be said is that the ‘space competence’ currently looks more like a shell than a sea change; a shell, however, which could become incrementally filled (and itself increase in the process) through the constant appropriate interaction between EU institutions and EU member states within the framework of ‘subsidiarity’ and ‘proportionality’.

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#### Endnotes

<sup>1</sup>. Treaty of Lisbon amending the Treaty on European Union and the Treaty establishing the European Community (Treaty of Lisbon), Lisbon, done 13 December 2007, entered into force 1 December 2009; OJ C 306/1 (2007).

<sup>2</sup>. Art. 4(3), Treaty establishing the European Community as amended by



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the Treaty of Lisbon amending the Treaty on European Union and the Treaty establishing the European Community (Treaty on the Functioning of the European Union), Lisbon, done 13 December 2007, entered into force 1 December 2009; OJ C 115/47 (2009).

<sup>3</sup>. So e.g. S. Hobe, *et al*, A New Chapter for Europe in Space, 54 *Zeitschrift für Luft- und Weltraumrecht* (2005), 346-7.

<sup>4</sup>. Article 189, Treaty on the Functioning of the European Union.

<sup>5</sup>. Treaty establishing a Constitution for Europe, Rome, done 29 October 2004, not entered into force; OJ C 310/1 (2004).

<sup>6</sup>. See Art. II, Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (Outer Space Treaty), London/Moscow/Washington, done 27 January 1967, entered into force 10 October 1967; 610 UNTS 205; TIAS 6347; 18 UST 2410; UKTS 1968 No. 10; Cmnd. 3198; 6 ILM 386 (1967).

<sup>7</sup>. Single European Act, Luxembourg/The Hague, done 17/28 February 1986, entered into force 1 July 1987; 25 ILM 506 (1986); OJ L 169/1 (1987).

<sup>8</sup>. Treaty of Rome, or Treaty establishing the European Economic Community (EEC Treaty), Rome, done 25 March 1957, entered into force 1 January 1958; 298 UNTS 11.

<sup>9</sup>. Cf. e.g. Toksvig Report on European space activities, Doc. B 2 565/86, of 6 July 1986.

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<sup>10</sup>. See also The Community and Space – A Coherent Approach, Commission Report, COM(88) 417 final, of 26 July 1988. For an excellent recent account of EU involvement in European space activities, see further I. Marboe, National Space Legislation: The European Perspective, in *Nationales Weltraumrecht – National Space Law* (2008), 31-46.

ESA had been established in 1975 by means of the Convention for the Establishment of a European Space Agency (ESA Convention), Paris, done 30 May 1975, entered into force 30 October 1980; 14 ILM 864 (1975); *Space Law – Basic Legal Documents*, C.I.I.

<sup>11</sup>. Towards Europe-wide systems and services – Green Paper on a common approach in the field of satellite communications in the European Community, Communication from the Commission, COM(90) 490 final, of 20 November 1990.

<sup>12</sup>. Towards a Dynamic European Economy – Green Paper on the Development of the Common Market for Telecommunications Services and Equipment, Communication from the Commission, COM(87) 290 final, of 30 June 1987; OJ C 257/1(1987); as per Council Resolution on the development of the common market for telecommunications services and equipment up to 1992, of 30 June 1988, OJ C 257/1 (1988).

<sup>13</sup>. Commission Directive amending Directive 88/301/EEC and Directive 90/388/EEC in particular with regard to satellite communications (Satellite Directive), 94/46/EC, of 13 October 1994; OJ L 268/15 (1994).

<sup>14</sup>. Some early examples of such legislation are: Commission Directive amending Directive 90/388/EEC with regard to the abolition of the restrictions on the use of cable television networks for the provision of already liberalized telecommunications services, 95/51/EC, of 18 October 1995; OJ L 256/49 (1995); Commission Directive amending Directive 90/387/EEC with regard to personal and mobile communications, 96/2/EC, of 16 January 1996; OJ L 20/59 (1996); Commission Directive amending Directive 90/388/EEC with regard to the implementation of full competition in telecommunications markets, 96/19/EC, of 13 March 1996; OJ L 74/13 (1996); and Decision of the European Parliament and of the Council on a coordinated authorization approach in the field of satellite personal communications systems in the Community, No. 710/97/EC, of 24 March 1997; OJ L 105/4 (1997).

Some early examples of decisions enforcing competition policy in the area are: Commission Decision declaring a concentration to be incompatible with the common market and the functioning of the EEA Agreement (IV/M.490 – Nordic Satellite Distribution), No. 96/177/EC, of 19 July 1995; OJ L 53/20 (1996); Commission Decision relating to a proceeding under Article 85 of the EC Treaty and Article 53 of the EEA Agreement (IV/35.518 – Iridium), No. 97/39/EC, of 18 December 1996; OJ L 16/87 (1997); and Commission Decision declaring a concentration to be compatible with the common market and the EEA Agreement (COMP/M.4403 – Thales/Finmeccanica/Alcatel Alenia Space & Telespazio), of 4 April 2007; OJ C 034/5 (2009).

<sup>15</sup>. Cf. e.g. Art. 3, Satellite Directive, in conjunction with the other articles of the Directive and the 1990 Green Paper effectively calling for abolishment of the various anti-competitive elements in the legal structures of these three organisations.

<sup>16</sup>. Directive of the European Parliament and of the Council on the legal protection of databases, 96/9/EC, of 11 March 1996; OJ L 77/20 (1996).

<sup>17</sup>. Council Resolution on the European Contribution to the Development of a Global Navigation Satellite System (GNSS), of 19 December 1994; OJ C 379/2 (1994).

<sup>18</sup>. Council Regulation setting up the Galileo Joint Undertaking, No. 876/2002/EC, of 21 May 2002; OJ L 138/1 (2002).

<sup>19</sup>. Those concern Council Regulation on the establishment of structures for the management of the European satellite radio-navigation programmes, No. 1321/2004/EC, of 12 July 2004; OJ L 246/1 (2004); Regulation of the European Parliament and of the Council on the further implementation of the European satellite navigation programmes (EGNOS and Galileo), No. 683/2008/EC, of 9 July 2008; OJ L 196/1 (2008); and Regulation of the European Parliament and of the Council setting up the European GNSS Agency, repealing Council Regulation (EC) No 1321/2004 on the establishment of structures for the management of the European satellite radio navigation programmes and amending Regulation (EC) No 683/2008 of the European Parliament and of the Council, No. 912/2010/EU, of 22 September 2010; OJ L 276/11 (2010).

<sup>20</sup>. Council Resolution on the launch of the initial period of global monitoring for environment and security (GMES), of 13 November 2001; OJ C 350/4 (2001).

<sup>21</sup>. Regulation of the European Parliament and of the Council on the European Earth monitoring programme (GMES) and its initial operations (2011 to 2013), No. 911/2010/EU, of 22 September 2010; OJ L 276/1 (2010).

<sup>22</sup>. See e.g. <http://www.spacenews.com/civil/110719-ec-wants-nations-fund-gmes.html>.

<sup>23</sup>. Framework Agreement Between the European Community and the European Space Agency (Framework Agreement), Brussels, done 25 November 2003, entered into force 28 May 2004; OJ L 261/64 (2004); 53 ZLW 89 (2004).

<sup>24</sup>. See Art. V(1)(a), ESA Convention. The contributions of the various member states were based on the respective Gross National Products; cf. Art. XIII(1).

<sup>25</sup>. See Art. V(1)(b), ESA Convention, in conjunction with Art. XIII(2).

<sup>26</sup>. See Art. XII(1)(b), ESA Convention.

<sup>27</sup>. Cf. Art. XI(5)(a) & (c), ESA Convention.

<sup>28</sup>. See Art. VII & (in particular) Artt. II, IV, V, Annex V, ESA Convention.

<sup>29</sup>. Cf. e.g. Preamble, § (5), Council Resolution on the involvement of Europe in a new generation of satellite

navigation services – Galileo-Definition phase, of 19 July 1999; OJ C 221/01 (1999).

<sup>30</sup>. Cf. Art. XI, ESA Convention, resp. Art. 16, Treaty on European Union as amended by the Treaty of Lisbon amending the Treaty on European Union and the Treaty establishing the European Community, Lisbon, done 13 December 2007, entered into force 1 December 2009; OJ C 115/1 (2009).

<sup>31</sup>. See Council Resolution on developing a coherent European space strategy, of 2 December 1999; OJ C 375/1 (1999); and Council Resolution on a European space strategy, of 16 November 2000; OJ C 371/2 (2000).

<sup>32</sup>. White Paper – Space: a new European frontier for an expanding Union – An action plan for implementing the European Space policy, COM(2003) 673 final, of 11 November 2003; emphasis added.

<sup>33</sup>. See esp. §§ 2, 3, White Paper – Space: a new European frontier for an expanding Union.

<sup>34</sup>. See Art. 5, Treaty on the Functioning of the European Union.

<sup>35</sup>. Cf. Preamble, 9<sup>th</sup> consideration, Treaty on European Union.

<sup>36</sup>. This concerns, in chronological order, Sweden, the United Kingdom, Belgium, the Netherlands, France, and Austria; see e.g. I. Marboe & F. Hafner, Brief Overview over National Authorization Mechanisms in Implementation of the UN International Space Treaties, in F.G. von der Dunk (Ed.), *National Space Legislation in Europe* (2011), 29-73.