

Master Thesis

Title

The procurement rules applicable in the European Space sector between the European Union (EU) and the European Space Agency (ESA) under the 7th European Union Framework Programme Agreement (FP7) and the Horizon 2020-Common Strategic Framework (CSF).

Introduction

This research proposal purports to study one of the most prominent problems of the relationship between the European Space Agency and the European Union in space matters. After a long period of separation, the rapprochement of the ESA and the EU since 1980's tentatively culminated in the conclusion of a Framework Agreement in 2003 and the proclamation of a common European Space Policy in 2007. Regarding the procurement law there are differences between ESA and EU rules which require a common approach with regard to joint space projects they conduct. However, the Framework agreement completes 8 years of existence in 2013 and it is succeeded by Horizon 2020 (CSF). The purpose of this study is to examine whether the first agreement regulated successfully the governance and procurement issues raised and if its successor CSF constitutes an adequate framework for future developments in space. A closer cooperation between ESA and EU is of utmost importance for both organisations and for the enhancement of the European space activities in the global market. The current state of legislation does not leave any room for ESA to become an Agency of the EU while actually it is functioning as EU's procurement agent and technical expert for their space programmes such as Galileo and GMES. The goal of this research is not only the mapping of the existing complexity in ESA- EU relations, in terms of the procurement regulations, but also the recommendation of potential solutions under the Horizon 2020. It is therefore essential to bring into terms the differences in the institutional structures and especially in the governance and procurement sector. Effort on achieving a balanced approach, by highlighting the specificities of the space sector, will be the main subject of this research.

Research question

What legal problems arise from the in-compatibility of the procurement regulations between the European Union and European Space Agency under the FP7 and how should these problems be solved by the Horizon 2020?

Sub Questions

- 1) Do current ESA and EU procurement processes adequately deal with the space projects at stake? How this situation is affected by the fact that EU has explicit competence in the space sector according to articles 4(3) and 189 TFEU?
- 2) What is the attitude of the Framework Agreement (FP7) regarding the procurement implications concerning the implementation of space projects by ESA and EU?
- 3) Which recommendations can be made in order to overcome the obstacles raised by the conflict in the procurement regulation with view to Horizon 2020?

Research Method

To answer the research question and the sub-questions as stated above, the Master thesis will consist of the following four chapters. The first chapter presents the background on the cooperation of ESA and EU before and after the signing of the Framework Agreement and the evolution of the European Space Policy. The second chapter focuses on the current legal framework of the procurement systems of both ESA and EU and makes reference to the WTO Agreement on Procurement. In the third chapter, the procurement procedures of Galileo and GMES are analysed, from which are drawn lessons for the next joint space programmes. The fourth and final chapter addresses the legal issues which arise from the different procedures, indicates the solutions provided by the Framework Agreement FP7 and makes suggestions for a better regulation under the Framework Programme Horizon 2020.

Chapter 1

This first chapter will briefly set the history of ESA and EU for a better understanding of the procurement issues in the space field the last years. It has to be clarified, that before the Framework Agreement entered into force a considerable amount of time was required for ESA and EU to establish cooperation in matters related to space. Their joint efforts towards a common European Space Policy paved the way for the Global Monitoring for the Environment and Security (GMES) and the satellite navigation system Galileo. Starting with these two projects ESA and EU made several attempts to overcome their institutional differences throughout the years and finally in 2004 signed the Framework Agreement (FP7).

Pre- Framework Agreement

Background

The history of the European Space Agency dates back 50 years as it emerges from European Launcher Development Organisation (ELDO)¹ and European Space Research Organisation (ESRO)². On 20 December 1971 the First Package Deal³ permits ESRO to pursue application programmes and in July 1973 the Second Package Deal comes into effect, which decides the initiation of Spacelab⁴, L3S (Ariane)⁵ and MAROTS⁶ as well as the creation of the European Space Agency. On 30 May 1975 the ESA Convention was signed in Paris⁷ and it entered into force on 30 October 1980. In the meanwhile ESA functioned de facto along with 11 Member States⁸ whereas now it has 20 Member States⁹. Canada also sits on the Council and takes

¹ 29 March 1962 - Belgium, France, Germany, Italy, the Netherlands, the United Kingdom and Australia (associate member) sign in London the Convention creating the European Launcher Development Organisation (ELDO)

² 14 June 1962 - Belgium, Denmark, France, Germany, Italy, the Netherlands, Spain, Sweden, Switzerland and the United Kingdom sign in Paris the Convention creating the European Space Research Organisation (ESRO)

³ Harris, R.A., A history of the European Space Agency 1958-1987, vol. 1 ESRO and ELDO 1958-1973, p.363; ESA publication SP-1235, Noordwijk

⁴ http://www.esa.int/Our_Activities/Human_Spaceflight/Space_Shuttle/Europe_s_involvement_Spacelab

⁵ <http://www.astronautix.com/lvs/ariane.htm>

⁶ <http://snl.no/MAROTS>

⁷ Belgium, Denmark, France, Germany (Federal Republic), Italy, the Netherlands, Spain, Sweden, Switzerland and the United Kingdom

⁸ Ireland was the 11th Member State to sign the Convention on 31 December 1975.

part in some projects under a Cooperation Agreement. In addition to these countries, Hungary, Estonia and Slovenia are participating in the Plan for European Cooperating States (PECS), while other countries are in negotiation with ESA about joining this initiative.

Member States	EU	ESA
Austria	x	x
Belgium	x	x
Bulgaria	x	
Croatia	x	
Cyprus	x	
Czech Republic	x	x
Denmark	x	x
Estonia	x	
Finland	x	x
France	x	x
Germany	x	x
Greece	x	x
Hungary	x	
Ireland	x	x
Italy	x	x
Latvia	x	
Lithuania	x	
Luxembourg	x	x
Malta	x	
Netherlands	x	x
Norway		x
Portugal	x	x
Romania	x	
Slovakia	x	
Slovenia	x	
Spain	x	x
Sweden	x	x
Switzerland		x
United Kingdom	x	x

⁹ Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden, Switzerland and the United Kingdom.

As it can be seen from the above table, not all member countries of the European Union are members of ESA and not all ESA Member States are member of the EU. ESA is considered as an organisation without supranational power. It aims at coordinating the capacities of each of its Member States around simple rules. This is a first crucial difference with respect to the European Union, where the European Community has a supranational power, taking decisions in fields where the Member States have transferred their competency¹⁰. Another major distinction to be made, and which will be important for the successive analysis, is the concentration of ESA activities exclusively on space which comes in contrast with the relatively recent interest of EU in the area of space policy. In the Single European Act¹¹ there was the introduction of limited competence in research and development, since the Member States were not willing to give up their sovereignty in space matters. The cooperation of these two organisations was impeded by reasons of institutional differences connected with supranationalism and intergovernmentalism. It is worth mentioning at this point that ESA's programmes are divided in mandatory and optional¹². The mandatory activities include space science programmes and the general budget. The funds come from a financial contribution of all the Member States, in proportion to their Gross National Product¹³. On the other hand, some optional programmes may be carried out by individual countries¹⁴. This is a major difference with EU rules, where a country is bound by EU law and it does not have different modes of participation.

The first steps

In response to the EP resolution of 17 June 1987¹⁵, the Commission published a Communication "The Community and Space: A Coherent Approach" of 26 July 1988¹⁶, which gave for the first time a detailed account of the Community's role as well as six action lines. These lines provided for a coherent framework for the development of its space activities

¹⁰ Article 4, Treaty on the Functioning of the European Union, Principle of Conferral

¹¹ The Single European Act, Luxembourg, 17.02.86, OJ L 169 of 29.6.1987

¹² Hobe, S., Heinrich, O., Kerner, I., 2009. Entwicklung der Europäischen Weltraumagentur als "implementing agency" der Europäischen Union : Rechtsrahmen und Anpassungserfordernisse, p.346

¹³ Article VII (1) ESA Convention

¹⁴ Hobe, S., Hofmannova, M., Wouters, J., A coherent European procurement law and policy for the space sector, Towards a third way, Cologne Studies in International and European Law, vol.22, Berlin 2011, p.10

¹⁵ European Parliament Resolution of 17 June 1987 on European space policy, OJ C 190, 20.7.1987, p. 78

¹⁶ Commission Communication, The Community and space: a coherent approach, Commission of the European Communities, COM (88) 417 final, Brussels, 26 July 1988

and dealt, among others, with research and development (RTD)¹⁷, telecommunications¹⁸, earth observation¹⁹ and industrial development²⁰. It is obvious from the text itself that EU acknowledges, for a variety of reasons, the importance of playing a broader and more active role in space. The Commission did not, of course, omit to mention the contradiction between the “juste retour” principle of the ESA Convention, which has the effect of concentrating public procurement contracts in a few firms, and the Community principle of genuine competition²¹. It actually asks for a less rigorous application of the ESA’s “juste retour” principle and it describes it as an alien to the basic principles of the Community. Furthermore, the Commission raised its concerns over the implications of the large single market for space and space-related activities and it stated its ambition of opening up the public procurement²². However, there was lack of faith in the Commission’s Communication from the other actors, which played a significant role in space issues. On the one hand, the EC Council was reluctant and did not approve this ambitious plan and on the other hand, ESA feared that the conflict of “juste retour” with the basic principles of the internal market would lead to its non-application. For this reason ESA established working groups in order to defend its own approach as it is stipulated in the Convention²³.

EGNOS and Galileo

After the above first attempts were approved, there was a call for deeper cooperation between ESA and EC in the fields of earth observation and satellite communication²⁴. Based on the 1991 Gibson Report²⁵ the Commission published a second Communication²⁶ where an ad hoc space consultative committee was introduced. This committee would be

¹⁷ Ibid, p.27

¹⁸ Ibid, p.14

¹⁹ Ibid, p.17

²⁰ Ibid, p.21

²¹ Ibid, p.21

²² Ibid, p.34

²³ VII (1) ESA Convention

²⁴ Thiebaut, M., Madders, K., Two Europes in Space: The evolution of relations between the European Space Agency and the European Community in space affairs, *Journal of Space Law* 20 (1992), p.117

²⁵ ESA DG Roy Gibson Report, Advisory Panel on the European Community and space, *The European Community: Crossroads in space*, Commission of the European Communities, 1991

²⁶ Communication from the Commission to the Council and the European Parliament, “The European Community and Space: Challenges, opportunities and new actions”, Commission of the European Communities, COM (92) 360 final, Brussels, 23 September 1992

consisted of representatives of Member States and its task would be to inform and seek guidance from the Member States during the preparation and implementation of Community actions²⁷. Finally, the Space Advisory Group (SAG) was established by the Commission²⁸ in 1993. The Community issued some more Communications and further negotiations took place with regard to the ESA geographical return principle and the European industry's competitiveness²⁹. In the meantime, ESA's efforts of reforming its industrial policy was concluded with a Council Resolution³⁰ named "Resolution on the European Space Agency's industrial policy" in 1997. The aim of this Resolution was the introduction of a more genuine competition – compatible with the community principles – through an overall geographic return into the system, particularly by supporting small and medium-sized enterprises (SMEs). The cooperation between ESA and EC was further endorsed by the "Resolution on the reinforcement of the synergy between the European Space Agency and the European Community"³¹ in 1998. Emphasis was put on the independence of ESA and at the same time its complementary role in the Community. With the invitation of EC Council to implement practical measures the Commission issued a working document³² to promote a closer cooperation between ESA and EC in 1999. The Commission mentioned in this document the necessary activities to be implemented for the two space projects at stake; the European Geostationary Navigation Overlay Service (EGNOS) and the satellite navigation system (Galileo)³³. The EGNOS Agreement³⁴ was the first international agreement signed by the Commission, EUROCONTROL and ESA in 1998. The significance of this agreement is that it aims at the use of open procurement procedures, by ensuring that the European industry has a full opportunity to compete in all segments of the market. The Commission intends to treat as a priority the need to establish

²⁷ Ibid, p.37

²⁸ Commission Communication, "Research and technological development- achieving coordination through cooperation", Commission of the European Communities, COM (94) 438 final, Brussels, 19 October 1994

²⁹ Cheli, S., Tuinder, P., European Space Policy, Institutional Developments, (1996) 21, Journal of Air and Space Law 48, p.58

³⁰ ESA Council Resolution on the European Space Agency's industrial policy, adopted on 04.03.97, ESA/C-M/CXXIX/Res. 1 Final, ESA Bulletin 89, February 1997, p.11

³¹ Council Resolution of 22 June 1998 on the reinforcement of the synergy between the European Space Agency and the European Community, OJ C 224 17.07.98, P.1

³² Commission Working Document, "Towards a coherent European approach for space", Commission of the European Communities SEC (1999) 789 final, Brussels, 07.06.1999

³³ Ibid, p.8

³⁴ Communication from the Commission to the Council and the European Parliament, Towards a Trans-European Positioning and Navigation Network: A European Strategy for Global Navigation Satellite Systems (GNSS), COM (1998) 29 Final, Brussels, 21.01.1998, p.5

a fair basis for industrial cooperation without making any reference to the ESA fair return principle³⁵. In the response to this Agreement, the EC Council issued a resolution³⁶ for the implementation of the Galileo's definition phase through public private partnership (PPP). There was no official agreement for this major ESA-EU cooperation and as regard the procurement approach the EC Council tended towards competition³⁷.

Year 2000 till the Framework Agreement

Joint Task Force

On September 2000, the European Commission and the Executive of the European Space Agency answered on the call of the European Ministers to elaborate a coherent European Strategy for Space. The EU Council and the ESA Council provided a basis for a joint consultation of all interested parties concerned and enabled the preparation of a comprehensive document³⁸ named "Europe and Space: Turning to a new chapter". The Commission along with ESA prepares in this paper the ground for the development of satellite navigation (Galileo) and Global Monitoring for Environment and Security (GMES). For the implementation of this new strategy the Commission and ESA set up a Joint Task Force (JTF) that should elaborate proposals for framework arrangements and outline a coherent approach. It is clarified in this paper that the principles of procurement will have to be outlined and that the rules of the sources are respected, when ESA acts as an implementing agency. As part of an industrial approach PPP provides enhanced opportunities for private investment in space-related projects such as Galileo and GMES³⁹. The following year the Commission published another Communication based on the recommendations of the joint task force report. After the Galileo experience, it stressed that actions are need to ensure that institutional differences do not hinder the potential for cooperation and that this may require the conclusion of a framework agreement between

³⁵ Ibid, p.15

³⁶ Council Resolution of 19 July 1999 on the involvement of Europe in a new generation of satellite navigation services, Galileo- Definition phase, OJ C 221 of 03.08.99, p.1

³⁷ Hobe, S., Hofmannova, M., Wouters, J., A coherent European procurement law and policy for the space sector, Towards a third way, Cologne Studies in International and European Law, vol.22, Berlin 2011,p.12

³⁸ Communication from the Commission to the Council and the European Parliament, Europe and Space: Turning to a new chapter, Commission of the European Communities, COM (2000) 597 Final, Brussels 27.09.2000

³⁹ Ibid, p.18

the EU and ESA for the establishment of a formal relationship⁴⁰. The report explicitly stated the necessity of using Galileo and GMES programmes to better understand and harmonise their industrial policy requirements. Recommendations were also made with regard to the important role that small and medium enterprises (SMEs) can play in the exploitation of the technologies developed under institutional funding due to their vicinity to the market and users.

Three Wise Men Report

In November 2000 the “Three Wise Men Report”⁴¹ was issued by ESA DG Rodota. It stressed the need for changes, especially in the relationship between ESA and the EU and aimed for a closer institutional integration. Considering the dual aspects of technology an industry ESA should, pursuant to the report, be engaged to the development of the European Defence Policy. For the first time, we see the proposition of bringing ESA within the Treaty framework of the European Union⁴². This way ESA would become the de facto agency of the EU by implementing cooperative programmes.

The Green and White Papers

For the programmatic and policy discussion, the Commission developed in 2003 in cooperation with ESA a Green Paper on European Space policy⁴³. This document⁴⁴ takes into account the work of the Commission and ESA within the Task Force in 2001 as well as the initial discussions held at the high-level workshop (October 2002) chaired by Commissioner Busquin⁴⁵, the report on “Strategic Aerospace Review for the 21st century”⁴⁶ and finally the

⁴⁰ Communication from the Commission to the Council and the European Parliament, “Towards a European Space Policy”, Commission of the European Communities, COM (2001) 718 Final, Brussels 07.12.2001, p.18

⁴¹ Report Bildt, C.; Peyrelevade, J. and Späth, L. to ESA Director General “Towards a Space Agency for The European Union”- ‘Wise Men Report’, ESA Press Release No. 65-2000, Paris 26 October 2000

⁴² Ibid, p.6

⁴³ Green Paper on European Space Policy, Commission Communication (2003), 17 final, Brussels 21.01.2003

⁴⁴ Ibid, p.7

⁴⁵ Attended by C. Bildt, (Rapporteur), J-L. Dehaene (Vice-President of the Convention), Commissioner Liikanen, A. Rodotà (Director-General of the ESA), and representatives of the Danish and Greek Presidencies, the High Representative/Secretary General of the Council the European Parliament and business leaders J-L Dehaene

report “Towards a space agency for the EU”⁴⁷. In particular, the Green Paper process consisted of a series of ESA and EC joint workshops, each of them focused on a different aspect of European space activities; industrial, scientific, institutional aspects, space applications and international cooperation. The Green Paper provided the basis for a broad consultation endeavour⁴⁸. This endeavour aims for a competitive and innovative industrial base and furthermore a geographical spread of activities for Europe as a new space power⁴⁹. The White Paper⁵⁰ which was issued on November 2003 was basically the action plan (“European Space Programme”) which came to answer the questions raised in the Green Paper. In terms of procurement policy, there is a reference to the geographical return principle which is considered to motivate national investments and it is placed out of the EU context. The paper suggests that ESA procurement would benefit from being used both with more flexibility and a broader definition of return so as not to discourage companies from making cross-border investment⁵¹. Once more the role of SME’s in the space industry is underlined by the Commission as a mechanism which can be used to foster innovation. Worth mentioning is that among the main messages received in joint workshops, organised by ESA and the Commission, there was a support to the shared competence between the EU and its Member States in space matters⁵².

Framework Agreement 2003

The Framework Agreement⁵³ was signed on October 2003 and entered into force on May 2004. It was a significant achievement which concluded the developments of the previous

⁴⁶ STAR21 Strategic Aerospace Review for the 21st century- Creating a coherent market and policy framework for a vital European industry, Report of the High-level European Advisory Group on Aerospace, July 2002

⁴⁷ Towards a Space Agency for the European Union Report by Carl Bildt, Jean Peyrelevede, Lothar Späth to the ESA Director General, December 2000

⁴⁸ Sadeh, E., Space strategy in the 21st century, Theory and Policy, Routledge, 2013, p.13

⁴⁹ Green Paper, p.8

⁵⁰ White Paper “Space: a new European frontier for an expanding Union- An action plan for implementing the European Space policy”, Commission of the European Communities, SEC(2003)1249, COM (2003)673 Final, Brussels, 11.11.2003

⁵¹ Ibid, p.34

⁵² Ibid, p.52

⁵³ Framework Agreement between the European Community and the European Space Agency, Official Journal of the EU (OJ) L 261, 6/8/2004, (Framework Agreement)

decade in ESA-EU relations⁵⁴. The agreement's duration was defined for four years and if there would be no notification of termination then it would be extended for four more years⁵⁵. The goal of the agreement was to develop the overall European Space Policy by establishing a framework providing a common basis and appropriate operational arrangements for an efficient and mutually beneficial cooperation⁵⁶. Regarding the discussion on industrial policy, a status quo was defined in Article 5.3 where it is stipulated that "the European Community shall not be bound to apply the rule of geographic distribution contained in the ESA Convention". Going beyond the conflict of laws stipulation, it also excludes any obligation on part of the EU to apply ESA's return rules even where the EU implements ESA funds. On the contrary the agreement requires ESA to comply with EU rules when implementing EU programmes⁵⁷. With two different organisations trying to cooperate in dedicated projects, procurement choices affect the governance of projects and governance choices affect procurement⁵⁸. The fields of cooperation include all relevant sectors of space activities⁵⁹. As methods of cooperation, the agreement lists some characteristic forms, in particular a) the management by the ESA of European Community space-related activities, b) the participation by the European Community in an optional programme of ESA and c) the carrying out of activities which are coordinated, implemented and funded by both parties⁶⁰. The "Space Council" is established in article 8 for the coordination and facilitation of cooperative activities, between the Council of the European Union and the Council of ESA. The Space Council provides orientations, makes recommendations and advises the parties while it is assisted by the Secretariat and a High Level Space Policy Group (HLSPG), consisted of representatives of the Member States of the EC and ESA⁶¹.

⁵⁴ Hobe, S., Hofmannova, M., Wouters, J., A coherent European procurement law and policy for the space sector, Towards a third way, Cologne Studies in International and European Law, vol.22, Berlin 2011, p.22

⁵⁵ Article 12.2 Framework Agreement

⁵⁶ Sadeh, E., Space strategy in the 21st century, Theory and Policy, Routledge, 2013, p 13

⁵⁷ Article 1 Framework Agreement

⁵⁸ Hobe, S., Hofmannova, M., Wouters, J., A coherent European procurement law and policy for the space sector, Towards a third way, Cologne Studies in International and European Law, vol.22, Berlin 2011, p.23

⁵⁹ Smith, L.J. & Baumann, I., Contracting for Space; Contract Practice in the European Space Sector, Ashgate (2011), p.26

⁶⁰ Article 5.1 a-c Framework Agreement

⁶¹ Article 8 Framework Agreement

After four sessions of the Space Council, starting on 25 November 2004⁶² and followed by two more in 2005⁶³, in April 2007 ESA's DG and EC submitted their joint paper on a "European Space Policy"⁶⁴. The Resolution on the European Space Policy contains eight topics: 1) Galileo/GMES, 2) security and defence, 3) access to space, 4) ISS and space exploration, 5) science and technology, 6) governance, 7) industrial policy and 8) international relations. The assignment of ESA as manager of EU's space activities and its procurement agent while applying pertinent EU law was now regarded as the preferred governance model. This role assignment was limited to space initiatives by the EU only, whereas ESA's self-financed programmes and its independence were not questioned⁶⁵.

The evolution of the European Space Policy was significant the last decade with ESA and EU being independent. ESA represents a form of intergovernmental cooperation and a specific industrial policy which is in contradiction with the communitarised approach of shared competences between the Member States and the EU⁶⁶.

⁶² 1st Space Council, Orientations from the first Space Council on the Preparation of the European Space Programme, Council of the European Union, 25 November 2004

⁶³ 2nd Space Council, Orientations from the second Space Council, Council of the European Union, 7 June 2005

⁶⁴ Communication from the Commission to the Council and the European Parliament, European Space Policy, Commission of the European Communities, COM(2007) 212 Final, Brussels, 26.04.2007

⁶⁵ Hobe, S., Heinrich, O., Kerner, I., 2009. Entwicklung der Europäischen Weltraumagentur als "implementing agency" der Europäischen Union : Rechtsrahmen und Anpassungserfordernisse, p.349

⁶⁶ Smith, L.J. & Baumann, I., Contracting for Space; Contract Practice in the European Space Sector, Ashgate (2011), p.28

Chapter 2

This chapter will initially focus on the legal framework which applies to the European space sector and later on it will analyse the approaches to public procurement of the European Union (EU) and the European Space Agency (ESA). Public procurement is an essential part of the governments' tool in order to promote key industries. Indeed, the main source of investment in the space industry and commerce are the public bodies. It enhances and guarantees the sustainability of the European space industry and it ensures its competitiveness in the global market. The market for the space industry and the space industry itself is significantly shaped by the public procurement rules.

Applicable Legal Framework

It is essential to mention the laws which apply in both regional and international level before we address the special procurement procedures of ESA and EU.

Basis of the European procurement regulation, in a regional level, are the provisions of the EU Treaties that prohibit the barriers to trade and provide for the fundamental freedoms. Although there is no provision of the Treaties explicitly regulating public procurement, the principles contained therein indicate the way in which the procurement should be regulated so as to achieve the objectives of each regulation and set the framework within which the policies are developed⁶⁷. The most relevant principles to this sector are the non-discrimination, the free movement of goods and the prohibition of quantitative restrictions on imports and exports and measures having equivalent effect, as well as the freedom of establishment and the freedom to provide services. Apart from the Treaty provisions we complementary resort to secondary legislation – the Procurement Directives and the Financial Regulation that will be analysed later on- which harmonize the national procurement legislation of the Member States.

⁶⁷ Trepte, P., *Regulating procurement, Understanding the ends and means of public procurement regulation*, Oxford University Press, 2004, p.343

As far as the public procurement in space is concerned, Lisbon Treaty⁶⁸ is the first one to introduce explicit competence of the EU in the space sector. The Treaty on the Functioning of the European Union makes a reference to “space” twice; firstly in Article 4(3) under the categories of EU competences and secondly in Article 189 under the Title XIX “Research and Technological Development and Space”. Article 189 TFEU constitutes the legal basis of EU space activities. Its three main objectives are the scientific excellence, the competitiveness of European industries and support to different EU policies. An element which needs to be highlighted is the exclusion of any harmonisation of the laws and regulations of the Member States according to Article 189(2). This clause further complicates the already difficult categorization of the space competences according to the EU scheme⁶⁹. For a better understanding, Article 189 has to be seen in the general context of Title XIX of the Treaty. The whole area of research, technological development and space follows the regime of Article 4(3) TFEU, defining an atypical sub-category of the general rule of shared competence⁷⁰. Article 4(3) is interesting insofar it establishes a specific type of competence that could be called “parallel competence”⁷¹. In many fields, the EU and the Member States have a shared competence. When the Treaties confer on the Union a competence shared with the Member States in a specific area, the Union and the Member States may legislate and adopt legally binding acts in the area. The Member States shall exercise their competence to the extent that the Union has not exercised its competence or has decided to cease exercising its competence⁷². On this behalf it becomes obvious from the last sentence of Article 4(3) that the space competence is not the same with a shared competence, since Member States continue to be able to exercise their competence even if the EU carries out space activities itself.

In an international level, the WTO Agreement on Government Procurement⁷³ is to provide an effective and transparent multilateral framework of rights and obligations with respect to

⁶⁸ Treaty of Lisbon amending the Treaty on the European Union and the Treaty establishing the European Community, Lisbon, done 13 December 2007, entered into force 1 December 2009, OJ C 306/1 (2007)

⁶⁹ Hobe, S., Heinrich, O., Kerner, I., 2009. Entwicklung der Europäischen Weltraumagentur als "implementing agency" der Europäischen Union : Rechtsrahmen und Anpassungserfordernisse, p.354

⁷⁰ Smith, L.J. & Baumann, I., Contracting for Space; Contract Practice in the European Space Sector, Ashgate (2011), p.30

⁷¹ Brünner, C., Soucek A., Outer Space in Society, Politics and Law, Springer, 30 August 2012, p.415

⁷² Craig & de Búrca EU Law: Text, Cases, and Materials, Oxford University Press, 18 August 2011, p.83

⁷³ Marrakesh, 15 April 1994, Uruguay Round of international trade negotiations under the auspices of GATT

laws and regulations, procedures and practices regarding government procurement⁷⁴. Collaborative and complicated space programmes such as, for instance, Galileo require a further examination of the compliance of both ESA and EU procurement approaches with the WTO Agreement on Government Procurement⁷⁵. The first ever agreement on government procurement, the Government Procurement Code under the framework of GATT, was established in 1979 and covered only supply contracts, while the present version⁷⁶ covers supply, service and work contracts. Among the 40 states and international organisations, the EU and its Member States are currently party to the Agreement. Subsequently, in combination of article 107 of the Financial Regulation and Annex I of the GPA, it becomes obvious that tenders from the Council and the Commission are basically ruled by the GPA. However, the procurement rules are in this case complicated because even some ESA Members are a party to the GPA ESA itself is not. As a consequence, the WTO Agreement cannot apply to exclusively ESA procurement procedures but only either to joint space projects where ESA follows the EU procurement regulations acting as an implementing agent or to cases where EU is alone procuring a space project. Hence, some states are discouraged from implementing space projects through the European Union, which comes as a detriment to the opening of the European markets.

In essence, the GPA procurement rules are quite similar to the EU regarding the prohibition of discrimination. Most of the areas in the space sector -for instance engineering and telecommunication services- allow the application of the GPA. In the case of Galileo the GPA was applied only to some contracts, while others were excluded due to security considerations. The drawback for the GPA is that it does not have direct effect in EU law⁷⁷ and cannot be invoked as a legal basis for unsuccessful tenderers from GPA members. Except for the GPA there are no any other legal instruments within the WTO framework regulating space goods or services.

⁷⁴ Trepte, P., *Regulating procurement, Understanding the ends and means of public procurement regulation*, Oxford University Press, 2004, p.368

⁷⁵ Hobe, S., Heinrich, O., Kerner, I.2009. *Entwicklung der Europäischen Weltraumagentur als "implementing agency" der Europäischen Union : Rechtsrahmen und Anpassungserfordernisse*, p.214

⁷⁶ Hobe, S., Hofmannova, M., Wouters, J., *A coherent European procurement law and policy for the space sector, Towards a third way*, Cologne Studies in International and European Law, vol.22, Berlin 2011, p.122

⁷⁷ *Völkerrechtliche Beschaffungsabkommen: Inhalt und Wirkung Im Gemeinschaftsrecht: GPA, EWR, USA und Mexiko*, Frankfurt am Main 2009, p.74

Therefore, EU Treaties along with GPA constitute the main basis for the procurement in the space activities in Europe. In the following paragraphs we will see the main activities in which the above normative framework applies and the actors which are directly or indirectly affected.

European Actors in Space

There are various types of actors engaged in the space economy inter alia including public actors. The European governmental bodies play a vital role in space as developers, investors, owners, operators, regulators and customers for the major space infrastructure. In terms of policy and subject-matter definition, public sector's needs or anticipated commercial requirements define the procurement of technological development and the high standards⁷⁸. Space research and development activities are carried out by a myriad of different public actors that most of the times they are not easily identifiable⁷⁹. Countries with space programmes have generally adopted the following model for conducting their space-related activities: i) public space agencies that focus on space R&D and science, ii) public or private entities which address the upstream segment of the space industry, and iii) public or private actors responsible for the development of downstream applications⁸⁰.

Over half of the European public investment on space applications is channelled to ESA through the contributions of its Member States, while EUMETSAT is responsible for the 7% of the share. National activities account for about 42% of all of the European public funding in space, two fifth of which devoted to defence systems. The European Commission has also contributed to space activities through the RTD Framework Programmes and the Galileo and GMES initiatives⁸¹. The European space industry has access to two main markets: an institutional domestic market, with a civil and military component, and a market for commercial and export customers. Exports also include sales to institutional customers outside Europe, such as space agencies in emerging countries (South Korea, Algeria). The main institutional customers are ESA with the significantly big amount of €2.1bn sales, while

⁷⁸ EC Commission, European Industry in a Changing World: Updated Sectoral Overview 2009, SEC(209) 1111 final, 30.07.2009, p. 177

⁷⁹ OECD Handbook on Measuring the Space Economy, OECD Publishing, 27.02.2012, p.40

⁸⁰ Ibid, p.42

⁸¹ Strategic Research Agenda, European Space Technology Platform, Version 1.0, 22.06.2006, p.18

at a lower level we find other civil agencies such as CNES, DLR ASI and others (worth €0.6bn) and military agencies such as the French DGA (worth €0.4bn)⁸².

As far as the space actors in Europe are concerned there is no consistency among the Member States due to the different levels of industrial development in the space field and also the lack of solid cooperation with international organizations, such as ESA, EU and EUMETSAT. The major industrial sites are located in France, Germany, Italy, United Kingdom, Spain and Belgium which represent approximately the 90% of all the civil institutional systems sales⁸³. Albeit on the defence side military systems sales remain below 1 B€, it is distributed almost exclusively among France, Germany, Italy and UK⁸⁴. It is worth mentioning the figures of 2008 which demonstrate that the French space industry has a share of 70% in commercial satellite systems sales and in general over 40% in the space sector.

The EU has become an actor in the European space endeavours within the last decade⁸⁵. The obstacle of a non-explicit competence in space was soon removed by the Lisbon Treaty allowing the EU to use it for the implementation of other policies. These policy areas take into account security and other issues which are linked to the EU, while ESA uses her technical expertise to fully devote it in science. As already described in chapter 1, the starting point was the Green Paper on space policy in 2003⁸⁶ when the EU initiated the collaboration with ESA and its Member States on space policy issues. The European Space Council along with the joint meeting of the Councils of ESA and EU having a basis the 2003 Framework Agreement,⁸⁷ agreed on the adoption of the European Space Policy in 2007⁸⁸. The executive body of the EU, the European Commission, initially managed funding for mainly space related research and development, stepping up its investment from 235m Euros via its research programme FP6 (2002-2006) to 1.43bn Euros via FP7 (2007-2013)⁸⁹. The EU exercised regulatory functions, for instance in the satellite telecommunication

⁸² ASD- Aerospace and Defence, Industries Association of Europe, Key Facts and Figures, September 2011, p.33

⁸³ ASD- Eurospace, The space group in ASD, facts and figures, 15th edition, June 2011, p.4

⁸⁴ Ibid, p.3

⁸⁵ Hobe, S.; Heinrich, O.; Kerner, I.; Schmidt-Tedd, B., Ten Years of cooperation between ESA and EU: Current Issues, German Journal of Air and Space Law 58 ZLW 49 (2009), p. 49.

⁸⁶ Green Paper on European Space Policy, Commission Communication (2003), 17 final, Brussels 21.01.2003

⁸⁷ Framework Agreement between the European Community and the European Space Agency of 25.11.2003, entered into force on 28.05.2004, Official Journal of the EU (OJ EU) L 261 of 06.08.2004, p. 64

⁸⁸ Resolution on the European Space Policy, annexed to Council doc. 10037/07 of 25.05.2007, OJ C 136 of 20.06.2007, p.1-5.

sector, as well as a user of space, by issuing the EU Satellite Data Centre for usage of earth observation data⁹⁰. The EU acts also as a market investor. It is for the EU public funds that the deployment of Galileo navigation system could be realized after the failure of the Public Private Partnership model. An operational budget line is also about to be established for the Earth surveillance system GMES⁹¹. While the funding of the program is exclusively attributed to the EU, ESA being the agent applies the EU procurement rules⁹². Which are the ESA procurement rules and in which way they differ from the EU rules? We will address these issues in the last section of this chapter.

ESA Procurement Approach

The ESA's public procurement system is an international, "self-standing regime"⁹³. In other words, it is not associated with any legal structure or with the EU's legal framework on public procurement⁹⁴. ESA's procurement rules are laid down in the ESA Convention⁹⁵ and its Annex V⁹⁶ on industrial policy as well as in the ESA procurement regulations⁹⁷, as reformed by the Ministerial Council in 2008.

Industrial Policy

The industrial policy of ESA is based on its Convention, different ESA Council resolutions, the specified rules for the optional programs as well as the Implementing Instructions by the DG to the Procurement Regulations, the General Clauses and Conditions, Corporate Policy and

⁹⁰ The European Union Satellite Centre is an independent EU agency in support of the EU's Security and Defence Policy, <<http://www.satcen.europa.eu/>> 18.07.2013.

⁹¹ Commission's proposal of 20.05.2009 for a Regulation of the European Parliament and of the Council on the European Earth observation programme (GMES) and its initial operations (2011–2013), COM(2009)233 final.

⁹² Articles 4 and 17 of the Regulation (EC) No 683/2008 of the European Parliament and of the Council of 09.06.2008 on the further implementation of the European satellite navigation programmes (EGNOS and Galileo), OJ EU L 196 of 24.07.2008, p. 1

⁹³ Kahn, S. Advanced Technology Projects and International Procurement: The Case of the European Space Agency, 12 Public Procurement Law Review 1993 2. p.13

⁹⁴ Arrowsmith, S., The law of public and utilities procurement, 359 Sweet and Maxwell (2d ed.2005)

⁹⁵ Convention for the establishment of the European Space Agency, CSE/CS (73) 19, rev.7; UNTS Vol.1297 (1983), I No. 21524

⁹⁶ Annex V ESA Convention

⁹⁷ European Space Agency Procurement Regulations (Adopted on 17 December 2008), ESA/ ADMIN/ REG (2008) 4, ESA/C (2008) 202, Annex 1 (ESA-PR)

internal documents. The reform which took place in December 2008 introduced the new Procurement Regulations that superseded the existing Contract Regulations⁹⁸.

The ESA Convention does not contain a definition of the term “industrial policy”⁹⁹, but pursuant to Article II it shall be elaborated and implemented to serve exclusively peaceful purposes. These objectives are explicitly stated in Article VII; the cost-effectiveness of national space programmes, the improvement of world-wide competitiveness of the European industry by maintaining and developing space technology, the equitable participation of Member States in the financial contributions and the endorsement of genuine competition with grant preference to Member States’ industry. The last objective is the exploitation of free competitive bidding in every case, except where there is incompatibility with the other targets set in the industrial policy. However, it is worth mentioning that ESA Convention does not prioritize any of the above objectives¹⁰⁰. Other objectives may be defined by the Council by a unanimous decision of all Member States. The detailed arrangements for the attainment of these objectives shall be those set out in Annex V and its rules shall be adopted by the Council by a two-thirds majority and reviewed periodically¹⁰¹. Article II of Annex V further clarifies¹⁰¹ the domestic preference principle, while Article IV defines the State’s overall return coefficient as “the ratio between its percentage share of the total value of all contracts awarded among all Member States and its total percentage contributions”. However, this principle allows for an exception according to which the ESA’s main decision-making body (the Council) may decide to derogate from the domestic preference principle. In addition to this, the domestic preference principle is complemented by a provision in the ESA Contracts Regulation providing for a second derogation, which stems from “no other way of satisfying the requirements or where unacceptable delay or cost would result from not doing so”¹⁰².

The most significant element of the ESA complex industrial policy is the geographical return principle, also called “fair return” or “juste retour”. As already mentioned Article IV of Annex

⁹⁸ The European Space Agency Procurement Regulations, adopted by the ESA Council on 17.12.2008, ESA/C (2008)202 of 17.12.2008

⁹⁹ Lafferranderie, G., European Space Agency (ESA), in 2 International Encyclopaedia Of Laws: Intergovernmental Organizations, at ESA 1, R. Blanpain ed. Kluwer Law International 2005

¹⁰⁰ Westgaver, E.M., Head of ESA Procurement Department, PowerPoint Presentation at the ESA International Symposium: Evolution of ESA Procurement Strategy, May 15, 2007

¹⁰¹ Peaslee, A. J., International Governmental Organizations: Constitutional Documents, p.170

¹⁰² Petrou, I., The European Space Agency’s Procurement System: A critical assessment, 37 Public Contracts Law Journal 141 2007-2008, p.147

V contains the specific elements of the equitable participation of States according to the geographical distribution, while the procedural issues are settled in Articles V and VI. When calculating return coefficients, except from the value of the contracts, the weighting factors which shall be applied to the value on the basis of their technological interest. The Council is responsible for the definition of these weighting factors. The ideal distribution of contracts placed by the Agency should have as an outcome an overall coefficient of 1 in all Member States¹⁰³. The geographical return principle constitutes so far a special instrument for European integration and motivation for additional national investments. The obvious influence from the political side should be reduced to an adequate level so as to maximize the positive effects of the application of the principle with regard to 100% return per programme and the development of a valid technical and scientific basis¹⁰⁴.

Features of the Procurement Process

In practice, ESA's normal method of procurement for the placing of contracts is the competitive tendering which constitutes the Invitation to Tender (ITT) process¹⁰⁵. This process provides the possibility to restrict the number of economic operators to at least three and if not the restriction should be justified. There are some cases where the competitive tendering is waived and then the Request for Quotation (RFQ) process applies¹⁰⁶. The non-competitive tendering is not in accordance with the EU negotiated procedure which requires a measure for competition. Therefore, ESA applies the following procedures in ITTs: the open competitive tender, the restricted competitive tender and the non-competitive tender or direct negotiation. However, in practice the negotiated procedure is preferred more than the rest. In 2007, ESA sent 577 ITTs to industry with 280 in open competition, 11 in restricted competition and 286 in direct negotiation¹⁰⁷. The use of negotiated procedures in large-scale projects is justified by the situation of the European Space Industry and the very few transnational European groups active in the space sector¹⁰⁸.

¹⁰³ Article IV paragraph 2&3 ESA Convention

¹⁰⁴ Smith, L.J., Baumann, I., Contracting for space, Contract Practice in the European Space Sector, p.89

¹⁰⁵ Article 13 (Competitive Tendering), ESA Procurement Regulations

¹⁰⁶ Article 14 (Non-Competitive Tendering), ESA Regulations

¹⁰⁷ ESA Annual Report 2007, p. 64.

¹⁰⁸ Petrou, I., The European Space Agency's Procurement System: A critical assessment, 37 Public Contracts Law Journal 141 2007-2008, p.172

Another striking feature of ESA's procurement system is the fair return principle which has technological character. The weight of technology is linked with the volume of contract awards to the Member States' national industries¹⁰⁹. Concerning the review of ESA's activities, the only remedy introduced with the new procurement regulations is that companies are allowed to appeal against a breach of the rules. Although the ESA has immunity from jurisdiction and execution¹¹⁰, the new review procedure provides the right of review with regard to procedural aspects of procurement, which may be submitted to an independent organ, the ESA Industrial Ombudsman¹¹¹. The Ombudsman has no competence in investigating complaints related to the industrial return and geographical distribution and he does not participate in the evaluation of proposals. He can only investigate a procurement process which has taken place in the frame of "Best Practices" and this shall be carried out in conformity with Article 53 of ESA Procurement Regulations¹¹². The new Procurement Regulation aims to ensure due process, without any form of delay, as well as respect of standards of fair hearing and transparency¹¹³. As a result of the review procedure compensation might be granted, by the newly established procurement review board, for the loss or injury suffered due to a procedural breach¹¹⁴.

The ESA's procurement system has efficiently reconciled the traditional procurement goals and shifts towards secondary industrial policy objectives; a fact which leads to the "political" character of this system¹¹⁵. The ultimate goal of the ESA is to maintain a balance these two poles and find the right approach which also corresponds to its Member States' mandate.

¹⁰⁹ Hobe, S., Kunzmann, K., Reuter, T., Neumann, J., *Rechtliche Rahmenbedingungen einer zukünftigen kohärenten Struktur der europäischen Raumfahrt*, 2006, p.346; Petrou, p. 169.

¹¹⁰ Reinisch, A. *International Organization before National Courts*, Cambridge University Press, April 2000, p.221

¹¹¹ Smith, L.J., Baumann, I., *Contracting for space*, *Contract Practice in the European Space Sector*, p.173

¹¹² http://www.esa.int/About_Us/Industry/Industry_how_to_do_business/Terms_of_Reference_of_the_ESA_Industrial_Ombudsman , 18.07.2013

¹¹³ Frans G. von der Dunk, *National Space Legislation in Europe*, *Issues of authorisation of private space activities in the light of developments in European space cooperation*, Martinus Nijhoff Publishers/ Brill Academic, September 2011, p.351

¹¹⁴ Article 57, ESA Procurement Regulations

¹¹⁵ Petrou, I., *The European Space Agency's Procurement System: A critical assessment*, *37 Public Contracts Law Journal* 141 2007-2008, p.176

EU Procurement Approach

The EU's approach towards procurement differs from that of ESA's. Procurement in the space sector is an element adopted quite recently in the EU legal framework with the Lisbon Treaty¹¹⁶. For a better understanding of the EU's procurement system special a brief analysis of the historical background shall be given.

To begin with the European Coal and Steel Community¹¹⁷, it empowered the EU with financial autonomy and also the authority to make decisions on the operating budget¹¹⁸. The Rome Treaties¹¹⁹ went one step further by establishing the European Economic Community (EEC) and the European Atomic Energy Community (EURATOM). The Communities set as their priority the promotion of economy through idea of the Common Market. However, it was not until 1960 that the Financial Regulation for EURATOM and EEC provide procurement regulations on the research and development sector¹²⁰. The non-discrimination principle was highlighted therein and was repeated in the next financial regulations. Based on the Brussels Treaty¹²¹ a new Financial Regulation¹²² was adopted along with an Implementing Regulation. These texts were significant because they set the reasons for the creation of the current procurement system. It was in the Green Paper¹²³ of 1996 that the European Commission made a proposal for the future policy in public procurement. In 2002 a new Financial Regulation¹²⁴ and Implementing Regulation¹²⁵ were enacted for the procurement procedure initiated by the institutions, while the Public Sector¹²⁶ and Utilities Directive¹²⁷ were adopted for the contracts signed by all the other

¹¹⁶ OJ EU C 306 of 17.12.2007, p. 1

¹¹⁷ Treaty establishing the European Coal and Steel Community (ECSC) of 18.04.1951, Paris; entered into force on 24.07.52 and expired on 23.07.02

¹¹⁸ Article 47 ECST

¹¹⁹ Treaties of Rome, signed in March 1957, entered into force on 01.01.58

¹²⁰ Hobe, S., Hofmannova, M., Wouters, J., A coherent European procurement law and policy for the space sector, Towards a third way, Cologne Studies in International and European Law, vol.22, Berlin 2011, p.81

¹²¹ Treaty establishing a Single Council and a Single Commission of the European Communities, 08.04.65, OJ 152 OF 13.07.67, Also named as Merger Treaty

¹²² 73/91/Euratom, ECSC, EEC, Financial Regulation of 25 April 1973 applicable to the general budget of the European Communities, OJ L 116 of 01.05.73

¹²³ Commission Green Paper on Public Procurement in the European Union: Exploring the way forward, COM (96)583 of 27.11.1996

¹²⁴ Council Regulation (EC) No 1525/2007 of 17 December 2007, OJ L 343/9 of 27.12.07

¹²⁵ Art.183 TEC: "The Commission shall adopt rules for implementing this Regulation."

¹²⁶ Directive 2004/18/EC of the European Parliament and of the Council of 31 March 2004 on the coordination of procurement procedures for the award of public work contracts, public supply contracts and public service contracts, OJ L 134 of 30.04.04, p.114, consolidated version (01.01.09)

public entities. The link of the EU public procurement in the space sector was established through the signing of the Lisbon Treaty in 2007 which explicitly stated for the first time the EU's competence in space. One of the basic reasons which distinguish the EU approach from ESA's in the space procurement is that the EU economic policy is based on competition.

Rationale of EU Procurement

The regulation public procurement has been an integral part of the EU common market and it has always aimed to eliminate non-tariff barriers. Its existence is justified by various economic, legal and policy objectives. One of the most important economic reasons is the liberalization and integration of the relevant markets of the Member States¹²⁸.

In the beginning Member States had complete control of the procurement rules and were reluctant to the liberalization of the public procurement in the European Union. It is usually recognised that the governments favour domestic producers in public tendering. This fact opposes the policy objectives of the EU and of the WTO Agreement which is raises high concern on the liberalization of the public procurement market¹²⁹. It is worth mentioning, that the evolution of the national markets towards a liberal character is gradually reflected in the jurisprudence of the European Court of Justice. In its early case law the Court condemned the State practices which favoured national suppliers in the tendering process, since this constituted an infringement of the non-discrimination principle and the fundamental freedoms¹³⁰. The Financial Regulation refers to the fundamental principles of procurement by the EU which are non-discrimination, equal treatment, transparency and proportionality¹³¹. In addition, the EU's coordination of contracts has to be based on the principle of free movement of goods, of establishment, the freedom to provide services and the principle of mutual recognition¹³². The normative framework for these principles is

¹²⁷ Directive 2004/17/EC of the European Parliament and of the Council of 31 March 2004 on the coordination of procurement procedures of entities in the water, energy, transport and postal services sectors, OJ L 134 of 30.04.04, p.1, consolidated version (01.01.09)

¹²⁸ Hofmann, H., Turk, A., Legal challenges in EU Administrative Law: Towards an integrated administration, Edward Elgar Publishing, January 2009, p.288

¹²⁹ Trionfetti, F., Public Procurement, Market Integration and Income Inequalities, Review of International Economics, 9 (1), 29-41, 2001, p.1

¹³⁰ Reich, N., Understanding EU law: objectives, principles and methods of community law, 2nd edition, 2005, p. 135

¹³¹ Article 89 (1), Financial Regulation

¹³² Hobe, S., Hofmannova, M., Wouters, J., A coherent European procurement law and policy for the space sector, Towards a third way, Cologne Studies in International and European Law, vol.22, Berlin 2011, p.108

comprised of the EU Treaties, the Financial Regulation, the Procurement Directives and the case law of CJEU.

The first rulings of the Court did not lead to an abrupt change of the national practices but at least they prepared the ground for the public sector and utilities directive. The directives harmonized the procurement procedures and established effective review procedures which would allow for compensation¹³³. The EC Treaty as a source of primary law is applicable where any exceptions and thresholds do not leave room for the Directives¹³⁴. The purely economic, market-oriented approach is that of the most advantageous tender for the decision on selection of participating undertakings and award contracts. The Financial Regulation makes use of the term best-value-for money in contrast to the Procurement Directive which applies the selection criterion of the economically most advantageous tender in the award of the contract¹³⁵. There were cases though, that the Court stressed the consideration of other than economic elements such as social policy or ecological criteria¹³⁶ which are justified on the basis of the subject matter in the contract¹³⁷. The case of procurement in space sector is special due to its nature which does not meet the market-oriented criteria since large infrastructure objects can only be realized in wide markets. Subsequently, EU should not be only market-centred but in order to reach the adequate level of liberalization shall make a wise use of the available policy tools which aim at worldwide competition. The European Union possesses key instruments to enhance the competitiveness of its industry; the research framework programme, the competitiveness and innovation framework Programme, the structural funds and the cohesion fund within the Cohesion policy¹³⁸.

¹³³ Directive 2007/66/EC of the European Parliament and of the Council of 11.12.2007 amending Council Directives 89/665/EEC and 92/13/EEC with regard to improving the effectiveness of review procedures concerning the award of public contracts, OJ EU L 335 of 20.12.2007, p. 31

¹³⁴ Drijber, B., Stergiou, H., Public Procurement Law and Internal Market Law, Common Market Law Review 46 (2009), p. 843

¹³⁵ Article 97 (2), Financial Regulation

¹³⁶ Reich, p.136; Case C-513/99 Concordia Bus Finland Oy Ab v Helsingin kaupunki and HKL Bussiliikenne

¹³⁷ Case C-31/87 of 20.09.1988, Gebroeders Beentjes v Netherlands [1988] ECR 4635 at para. 30; restricted by case C-346/06 of 03.04.2008, Dirk Ruffert v Land Niedersachsen, ECR [2008] I-1989.

¹³⁸ New Practical Guide to EU Funding Opportunities for Research and Innovation, Competitive European regions through Research and Innovation, p.1

Hopefully this chapter makes clear to the reader the legal framework which applies to the European space sector along with the different procurement approaches of EU and ESA. As it will be obvious in the next chapter these rules are so complicated that are hardly put into force in the Galileo and GMES programmes.

Chapter 3

This chapter will focus on the procurement procedures implemented in the two flagships programmes of EU and ESA, which will be used as a precedent for the framework of the next generation projects under Horizon 2020.

Galileo Case

Galileo, one of the two European satellite navigation systems, is the first joint project in space undertaken by ESA and EU. The European Geostationary Navigation Overlay System (EGNOS) monitors and corrects signals of existing Global Navigation Satellite Systems (GNSS), whereas Galileo is responsible for providing its own signals in five different types of services.¹³⁹ The project was based on the strategic importance of a self-determined and autonomous European system that would not depend on the US GPS signal. The challenge Europe came to deal with was to develop an alternative civil system with a differentiated user community than that of the GPS and a range of applications from civil to security. Galileo became actually a test-bed for EU-ESA procurement rules in the space sector¹⁴⁰.

There are five different phases constituting the implementation of Galileo: definition, development and validation, deployment and exploitation. As regards the funding of the project, the definition and development phases were carried out by co-financing of ESA and EU, while the deployment phase or Full Operational Capacity (FOC) took the form of Public and Private Partnership (PPP)¹⁴¹. This consisted of an industrial consortium for the construction and the operation of the system and in return for the financial contribution of the consortium a 20-year concession for the exploitation of the system was offered. The Galileo Joint Undertaking was the common approach of ESA and EU established under the Article 171 EC Treaty¹⁴². There was a constant conflict between the ESA industrial policy and

¹³⁹ Article 1 and Annex of Regulation (EC) 683/2008 of the European Parliament and of the Council of 9 July 2008 on the further implementation of the European satellite navigation programmes (EGNOS and Galileo), OJ L 196 of 24.07.08, p.1 (GNSS Regulation)

¹⁴⁰ Smith, L.J., Baumann, I., Contracting for space, Contract Practice in the European Space Sector, p.93; Hobe, S., Heinrich, O., Kerner, I.2009. Entwicklung der Europäischen Weltraumagentur als "implementing agency" der Europäischen Union : Rechtsrahmen und Anpassungserfordernisse

¹⁴¹ Communication from the Commission to the Council and the European Parliament, European Space Policy, Commission of the European Communities, COM(2007) 212 Final, Brussels, 26.04.2007

¹⁴² Council Regulation (EC) No. 876/2002 of May 2002 setting up the Galileo Joint Undertaking, OJ L 138, 28 May 2002

EU competition and procurement rules. Although in the bidding for the deployment phase there was a support for the interested Parties, a consensus could not be reached for the allocation of financial and liability risks. After a period of negotiations and time lost, the PPP failed and the Council decided the Galileo deployment phase to be fully funded by the EU and be subject to EU procurement rules¹⁴³. In addition to the EU budget, Member States could provide additional funding as assigned revenue as well as third countries and international organisations¹⁴⁴. The major financial contribution of the EU leads to the ownership of all assets developed under these phases, unless a mechanism allows the sharing of the revenues with private entities¹⁴⁵.

Pursuant to the GNSS Regulation, the Commission bears responsibility for the management of the funds allocated to the Galileo project and ESA is the procurement agent on behalf of the EU complying with EU procurement procedure. A delegation agreement was signed between the Commission and ESA in the context of the GNSS Regulation¹⁴⁶ and the Financial Regulation¹⁴⁷ for the delegation of tasks and implementation of budget. The European GNSS Programmes Committee gives the opportunity to the Member States to supervise the procurement process. The Committee shall be consulted on the delegation decision and shall be informed for the evaluation of the procurement tenders and the contacts signed by ESA and private sector entities¹⁴⁸. It is made clear in article 17(1) that the Community's public procurement rules, with an emphasis added in open access and fair competition, shall apply to the deployment phase of Galileo. In the same article, the following objectives were set for the procurement process: "(a) promoting the *balanced participation of industry* at all levels, including, in particular, SMEs, *across Member States*; (b) avoiding possible abuse of dominance and avoiding long-term reliance on single suppliers; (c) taking advantage of prior public sector investments and lessons learned, as well as industrial experience competence, including that acquired in the definition and development and validation phases of the programmes [which was partly subject to ESA funding and rules], while ensuring that the

¹⁴³ Council Press Release 16090/07 and 15231/07 of 23 November 2007; Hobe, S., Heinrich, O., Kerner, I.2009. Entwicklung der Europäischen Weltraumagentur als "implementing agency" der Europäischen Union : Rechtsrahmen und Anpassungserfordernisse

¹⁴⁴ Article 4(2), (4), (5) GNSS Regulation

¹⁴⁵ Article 11 GNSS Regulation

¹⁴⁶ Article 18(1) GNSS Regulation

¹⁴⁷ Article 54(2) GNSS Regulation

¹⁴⁸ Article 18 (3), (4) GNSS Regulation

rules on competitive tendering are not prejudiced”¹⁴⁹. To that end, ESA acting as procurement agent for the EU, shall split the Galileo program into six main work packages, out of which the same legal entity may only bid for two as prime contractor, namely the two out of six rule. According to this rule, one independent legal entity “may bid for the role of prime contractor for a maximum of two of the six main work packages”¹⁵⁰. Additional ad hoc procurement principles adopted under article 17 are the 40% sub-contracting requirement and the dual sourcing as option whenever appropriate in order to ensure better overall control¹⁵¹. The 40% rule imposes that at least 40 per cent of the aggregated value of the activities has to be subcontracted by competitive tendering at various levels to companies other than those belonging to the group of primes¹⁵². Finally, the need for counter-measures, which prevent the emergence of monopolistic structures and the concentration of all activities within the prime company, were adopted in the procurement regulations for Galileo. The experiences gained in the Galileo procurement may serve as starting point for the formulation of procurement rules that EU and ESA, as well as the Member States, may subscribe to.

Notably, ESA started a procurement reform in 2007, expressly to enable future evolution between ESA and EU¹⁵³. The reform included evolution of procurement procedures for large procurements over EUR 20,000,000 , improvement of the procurement policy and reform of ESA’s Contracts Regulations and the General Clauses and Conditions. The Procurement Regulations, which entered into force in June 2010, adopted provisions of the EC Financial Regulations and adapted them to ESA standards and also peculiarities of the space sector¹⁵⁴. The “Core Team Selection Process” is an important medium through which ESA makes efforts of preventing the involvement of one single integrator. Furthermore, the ESA Ombudsman was granted with additional tasks of ensuring that Prime Contractors selecting sub-contractors in connection with Agency programmes, whether prior to or following the

¹⁴⁹ Article 17(2) of the Regulation No 683/2008

¹⁵⁰ Contract notice for “supply and services contracts for the Galileo full operational capability (FOC) procurement”, OJ S 125 of 01.07.08; Hobe, S., Hofmannova, M., Wouters, J., A coherent European procurement law and policy for the space sector, Towards a third way, Cologne Studies in International and European Law, vol.22, Berlin 2011, p.132

¹⁵¹ Article 17(3) of the Regulation No 683/2008

¹⁵² Smith, L.J., Baumann, I., Contracting for space, Contract Practice in the European Space Sector, p.94

¹⁵³ ESA Annual Report 2007, 12 September 2008, p. 65.

¹⁵⁴ European Space Agency Procurement Regulations ESA/C (2008) 202 Annex 1, approved by the 207th Council ESA/C (2009) 135 ON 17 December 2008

award of Agency contracts, conduct their procurement activities on a fair and equitable basis¹⁵⁵. A last element added was the Procurement Review Board, autonomous and independent, to settle the disputes arising from the decisions taken by ESA under the procurement regulations.

The enacted Procurement Regulations of ESA that appeased its procedural shortcomings, however, still fail to apply minimum judicial guarantees and EU's non-discrimination principle. It is of crucial importance to develop mechanisms, criteria and procedures that incorporate (industrial) policy considerations into space procurement without abandoning fundamental principles such as non-discrimination, equal treatment and transparency and thus potentially infringing either organization's legal framework. The most suitable gateway to policy implementation needs to be identified, let it be criteria for participation, exclusion, selection and award, policy space for subject-matter definition and choice of procurement procedures, right-sizing of work packages, sub-contracting requirements, and dual-sourcing. Ultimately, the non-discrimination principle and the equally permissible goal of a healthy and competitive European space industry have to be reconciled. ESA and EU have to deal with political and legal challenges. As it was clearly described a thriving European space industry requires ESA to apply transparency and EU to aim at a truly European space capacity of supranational character.

GMES Case

Global Monitoring for Environment and Security (GMES) is a common initiative led by ESA and EU. GMES consists of a complex set of systems which collect data from multiple sources- national, transnational and international programmes- about the earth's physical, chemical and biological systems through space-based and non space-based facilities. It processes these data and provides users with reliable and up-to-date information through a set of services related to environmental and security issues¹⁵⁶. For the implementation of this project the EU created a scheme called "GMES Programme" and ESA set up the "GMES Space Component Programme". GMES objectives are, *inter alia*, to manage more efficiently

¹⁵⁵ http://www.esa.int/About_Us/Industry/Industry_how_to_do_business/How_to_do_business_with_ESA2
18.07.2013

¹⁵⁶ <http://copernicus.eu/pages-principales/overview/copernicus-in-brief/>

natural disasters and to contribute to European security through civil defence means and military protection¹⁵⁷.

GMES was developed in terms of legal and financial aspects in three different stages: i) pre-operational activities lasting up to the end of 2013, financed by the EU through FP5, FP6, FP7, and ESA, ii) GMES initial operations (2011-2013), financed mainly on the basis of the regulation proposed by the Commission on 20 May 2009, and iii) the fully fledged exploitation of GMES post-2013, which will continue to be accompanied by research activities¹⁵⁸. The legal basis for the exploitation phase of the GMES programme post 2013 is defined in Horizon 2020¹⁵⁹. It was in 2005 when the GMES Space Component (GSC) programme was initiated by ESA¹⁶⁰. The EU contributions were regulated under a delegation agreement based on Article 53d of the EU Financial Regulation concluded between ESA and EU on 28 January 2008. According to this agreement the ESA procurement and financial rules apply with the exception of the “geographical return” principle in the activities where EU is involved, meaning that the items co-funded with EU contributions are open to all participants and the “juste retour” principle is not applicable in this case. The GMES delegation agreement constitutes an innovation, since it is the first time Article 53rd of the Financial Regulation was used to delegate budget implementation tasks in the space sector.¹⁶¹ It is different from the Galileo deployment phase based on Article 54 of the EU Financial Regulation which provides for the application of EU procurement rules¹⁶². As a consequence, ESA is responsible for supervising the conduct of the European private entities involved in the space activities and for the management of the EU budget spent on the programme.

¹⁵⁷ Commission staff working document accompanying the Proposal for a Regulation of the European Parliament and of the Council on the European Earth observation programme (GMES) and its initial operations (2011 – 2013) - Impact assessment and ex ante evaluation {COM(2009) 223} {SEC(2009) 640}

¹⁵⁸ Brünner, C., Soucek A., *Outer Space in Society, Politics and Law*, Springer, 30 August 2012, p.430

¹⁵⁹ Communication from the Commission to the European Parliament, the Council, the European and Social Committee and the Committee of the Regions on the establishment of an Intergovernmental Agreement for the operations of the European Earth monitoring programme (GMES) from 2014 to 2020, COM(2012)218 Final, Brussels, 11.05.2012

¹⁶⁰ GMES, *Observing Earth for a safer planet, GMES Space component: status and challenges*, ESA Bulletin 142, p.27

¹⁶¹ Mantl, L., *The Commission proposal for a Regulation on the European Earth Observation Programme (GMES) and its initial operations (2011-2013)*, p.411

¹⁶² Brünner, C., Soucek A., *Outer Space in Society, Politics and Law*, Springer, 30 August 2012, p.430

The differences between GMES and Galileo, as regards the governance of their development, are found in the programmatic management and on the Public Private Partnership scheme. Unlike in the Galileo project, the management of GMES has not been linked to external entities, such as the joint undertakings according to Article 187 TFEU, or regulatory agencies. Instead of this, GMES was based on ad hoc structures and PPP was only applied in one phase of the project¹⁶³. Pursuant to Article 4 of the GMES Regulation¹⁶⁴ the Commission shall ensure coordination of the GMES programme in terms of national, Community and international activities and shall manage the funds related to these activities according with the Financial Regulation¹⁶⁵. The same article provides for the responsibility of ESA to implement the GMES space component with the assistance of the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT).

The experience of Galileo and GMES programmes pose a number of challenges regarding the cooperation of ESA-EU and the coordination of the decisions made. The procurement rules differ depending on the ESA or EU funds, aiming at the procurement of space infrastructure or European research respectively. The essence of the delegation agreement is the harmonisation of procurement rules regardless of the different funding sources. Subsequently, there were limitations on procurements which distinguish the elements funded by ESA from those funded by EU¹⁶⁶.

¹⁶³ Commission Communication, Global Monitoring for Environment and Security (GMES)- GMES EC Action Plan, Initial Period: 2001- 2003, COM(2001)609 Final of 23 October 2001

¹⁶⁴ Regulation (EU) No 911/2010 of the European Parliament and of the Council of 22 September 2010 on the European Earth monitoring programme (GMES) and its initial operations (2011 to 2013) Text with EEA relevance, OJ L 276, 20.10.2010

¹⁶⁵ Ibid, Article 4

¹⁶⁶ Rathgeber, W., Yearbook on space policy 2008/2009: Setting new trends, Springer, 2 February 2011, p.197

Chapter 4

This chapter addresses the legal implications which arise from the different procurement approaches between ESA and EU and how did the Framework Agreement cope with this conflict. Additionally, there will be an evaluation of the instruments proposed for Horizon 2020 with reference to a better cooperation of ESA and EU in the space sector under a common procurement regime.

Conflict in ESA-EU procurement procedures

In respect of their institutional settings and operational frameworks and given their respective tasks and responsibilities with regard to space activities, ESA and EU are destined for an efficient and mutually beneficial cooperation¹⁶⁷. One of the most crucial points for the difficult cooperation between the EU and ESA is the partly divergent industrial policy of ESA, as a primary research and technology organisation and EU, as a regional integration organisation with major economic goals; this leads to problems of governance, project-financing and procurement¹⁶⁸.

The main consideration in ESA and EU industrial approaches in the space sector, as it is correctly stated from the Commission¹⁶⁹, is the lack of a specific space approach. Instead, there is a requirement for conformity with the areas that the Community has competence, a fact which has not changed today. However, there are some factors which generate the conflict between these two autonomous international organizations. First, the inconsistency of the ESA fair return principle, which restricts competition, with the basic rule of free movement of goods and services as provided in the EU treaties. The next question that follows from this concern is, noted in the area of competition rules and state aid¹⁷⁰ whether the EU Member States which are also ESA Member States are bound by the “juste retour” principle. The Treaty of Rome provides that Member States shall take all appropriate measures to ensure fulfilment of their obligations with the attainment of the objectives of the Treaty¹⁷¹ and for this reason they should avoid incompatibilities¹⁷². Albeit this provision

¹⁶⁷ Article 1(1) Framework agreement

¹⁶⁸ Smith, L.J., Baumann, I., Contracting for space, Contract Practice in the European Space Sector, p.30

¹⁶⁹ Narjes, K.-H., Space and the European Community, Space Policy 5(1989), p.59

¹⁷⁰ Article 85,86, 92 EC Treaty

¹⁷¹ Article 5 Rome Treaty

refers exclusively to the period before the EC, the arguments arising there from where not settled in the context of the Framework Agreement. It is supported by some authors that the exemptions from the basic economic freedoms can be justified for non economic reasons only, which leads to the assumption that EU competition law is not even partially adaptable¹⁷³. This view is opposed by the argument that ESA is not an international organisation with economic elements but it is mainly the scientific nature which allows the application of the exemption in article 36 EC Treaty and justifies the compatibility with EU law.

The conflict between EU, which aims to remove barriers to trade and form a single internal market, and ESA, which creates pan- European industrial structures through R&D space programmes, leaves little room for constructive interventions that act on the assumption of equitable participation according to national financial contributions¹⁷⁴. While ESA's programmes are divided in mandatory and optional, the incentive of Member States' investment in space is the "geographic return" principle. The participation in these programmes is diversified and at the same time united under the overall interest of all Member States. ESA, being the designated specialised agent to manage public space programs, is concerned with positively compromising differing national policies into exciting programmes that attract financial contributions from Member States. Contrary to ESA, the EU makes efforts to integrate and harmonise the Member States' policies by respecting the competition rules and a common commercial policy. Aiming at the European integration, space-related activities are put at the forefront of EU as a tool of implementing other policies¹⁷⁵. Its industrial policy is based on regulation and standardization, procurement policy and internal market¹⁷⁶. The EU procurement rules remain a critical point of industrial policy. A prerequisite for a more flexible cooperation with ESA is an appropriate EU industrial policy for the space sector¹⁷⁷.

¹⁷² Article 234 Rome Treaty

¹⁷³ Micklitz, H.W. and Reich, N., *Legal Aspects of European Space Activities*, 1989, p.17

¹⁷⁴ Smith, L.J., Baumann, I., *Contracting for space, Contract Practice in the European Space Sector*, p.92

¹⁷⁵ Harding, R.C., *Space Policy in Developing Countries: The Search for Security and Development on the Final Frontier, Space Power and Politics*, p.150

¹⁷⁶ Communication from the Commission - Implementing the Community Lisbon Programme : A policy framework to strengthen EU manufacturing - towards a more integrated approach for industrial policy COM/2005/0474 final, Chapter Industrial Policy

¹⁷⁷ Smith, L.J., Baumann, I., *Contracting for space, Contract Practice in the European Space Sector*, p.32

Solution under the Framework Agreement

ESA and EU managed to set aside their divergent institutional aspects and take into consideration the strategic setting of the space policy in Europe by signing the Framework Agreement in 2003. On that merits, this was a confirmation of the parallelism of ESA and the European Union and a decision against an institutional integration of ESA in the EU structures¹⁷⁸. This subsequently means that for the agreed term Europe will most likely live with the coexistence of ESA and EU procurement procedures. This agreement, with respect to the different institutional structures, does not manage to establish responsibilities, especially regarding a single European Space Policy. The recently established “Space Council”, for instance, cannot adopt legally binding decisions and cannot therefore be considered to be a sufficient solution¹⁷⁹. Hence, the differences are not removed but remain a major obstacle in the procurement sector.

Article 5 of the Framework Agreement does not make any amendments as far as the financial, accounting and procurement rules of ESA and the EU are concerned but it leaves substantial issues of jointly financed programmes to be decided on a case-by-case basis. The issues that need to be clarified in special arrangements between ESA and EU are pursuant to Article 5, amongst others, the role and financial implications of the Parties, an industrial policy scheme, budgetary aspects, rules of intellectual property rights, and rules of ownerships including the transfer of ownership, the implementation principles as well as the participation by third Parties¹⁸⁰. Consequently, it may be deduced that various policy aspects of public procurement in the space sector are controversial, particularly as regards the industrial policy and European autonomy. The enormous conflict potential inherent in the rule of ‘juste retour’ is underlined by the provision that the EU shall “under no circumstances” be bound to apply this ESA principle¹⁸¹. The same paragraph gives a “solution” by stipulating that *“any financial contribution made by one Party in accordance with a specific arrangement shall be governed by the financial provisions applicable to that Party”*.

¹⁷⁸ Frans G. von der Dunk, National Space Legislation in Europe: Issues of Authorisation of Private Space Activities in the light of Developments in European Space Cooperation, Martinus Nijhoff Publishers, 9 September 2011, p.305

¹⁷⁹ Reuter, Th., The Framework Agreement between the European Space Agency and the European Community: A Significant Step Forward? ZLW 2004, p.56

¹⁸⁰ Article 5 Framework Agreement

¹⁸¹ Article 5(3) Framework Agreement

Thus, ESA and EU have still to reach a consensus on how to sustain and foster a globally competitive European industrial base, achieve technological non-dependence and secure autonomous decision-making with respect to third parties. This is exactly reflected on the 4th Space Council Resolution on the European Space policy, which underlines the fact that a differentiated approach is needed for space; a cross section subject serving quite different policy areas. It is stated that “there is a need for a targeted approach for the development of strategic components, concentrating on selected critical components, for which dependency of European industry on international suppliers should be avoided, in order to achieve the optimum balance between technological independence, strategic cooperation with international partners and reliance on market forces”¹⁸². As far as the development of adequate instruments and funding schemes for the space sector is concerned, the European Space Policy of 2007 highlighted the “specificities of the space sector, the need to strengthen its overall and its industry’s competitiveness and the necessity of a balanced industrial structure”¹⁸³. These specificities call for a closer cooperation of ESA and EU, under the new framework programme, in order for the above targets to be achieved.

Space in the Framework Programme Horizon 2020

The new EU framework programme for research and innovation is the financial instrument implementing the Innovation Europe, a Europe 2020 flagship initiative, which aims at securing Europe’s global competitiveness from 2014 to 2020¹⁸⁴. Horizon 2020’s ambition is to go beyond the scope of the 7th Framework Agreement. Although, FP7 is already tackling many of the challenges that Horizon 2020 will focus on, the Horizon 2020’s approach will emphasize funding for projects that solve specified issues¹⁸⁵. Growth in the space sector will be driven by the expanding development and uptake of downstream services and this should be the focus of the new framework programme. To support this objective, Horizon

¹⁸² Council of the European Union, Press Release, 2801st Council Meeting, Competitiveness, Resolution on the European Space Policy, 4th Space Council, Brussels, 22 May 2007, No.11,14

¹⁸³ Ibid, No. 16.

¹⁸⁴ http://ec.europa.eu/research/horizon2020/index_en.cfm?pg=h2020 18.07.2013

¹⁸⁵ Factsheet: FP7 Cooperation themes IN Horizon 2020, 30.11.11, p.1

2020 should be adopted as a tool for the EU to implement the responsibilities attributed to it in the European Space Policy¹⁸⁶.

The European Union is already engaged with the collaboration of ESA, in three space programmes –EGNOS, Galileo and GMES- whose strategic importance for the EU’s role in the world affairs is matched by the essential character of the services offered to the daily lives of the citizens, and the day-to-day of public services and businesses. Towards this direction, the Fifth Annual Conference in EU Space Policy in Brussels was held in early 2013 to address the necessary political, legal and technical decisions that need to be taken by EU and its Member States, in concert with ESA. It was dedicated to the two pillars of the Horizon 2020 that the EU space policy has to rely, namely an appropriate industrial policy and a research and innovation policy that is both ambitious and tailored to the specificities of the space sector¹⁸⁷. Hence, in the context of the fifth annual conference, DG Enterprise and Industry organised two workshops on Horizon 2020 Space Research and Technology Development (RTD), involving space industry and research community. The first one on space technology took place in Brussels on 30-31 January 2013 and the second one on space science and exploration was held on 18-19 February in Madrid. These workshops along with the “Hearing on Space Research in FP8”¹⁸⁸ and the recommendations by the FP7 Space Advisory Group constitute the initiation of the consultation process between the Commission and the major European representatives, namely, the Academia, the Industry and the Space Research Institutions. The ultimate purpose of this process is to gather all the necessary input on the Commission’s proposal for Space research under Horizon 2020 and its implementation strategy¹⁸⁹.

Proposal for a Coherent Procurement Regime

As defined in the context of these two workshops, the specific objective of space research and innovation in Horizon 2020 Framework Programme proposal is: “to foster a competitive

¹⁸⁶ Space Research in Horizon 2020, Recommendations of the FP7 Space Advisory Group (SAG), Executive Summary, Brussels October 2012, p.3

¹⁸⁷ http://www.spaceconference.eu/2013/en_GB/welcome.html 18.07.2013

¹⁸⁸ http://ec.europa.eu/enterprise/policies/space/research/hearing_fp8_en.htm 18.07.2013

¹⁸⁹ Horizon 2020 Workshop on Space Technology for Competitiveness, non-dependence and Innovation in Space, Brussels 30th and 31st January 2013, p.7

and innovative space industry and research community to develop and exploit space infrastructures to meet future Union policy and societal needs”.

The four objectives related to space are provided in the specific programme proposal; i) enhance competitiveness, non-dependence, and innovation of EU space sector, ii) enable advances in space technologies, iii) increase exploitation of space data, iv) enable participation in international space partnerships and relevant space applications under societal challenges¹⁹⁰. For the implementation of the above objectives the instruments proposed under the new framework programme can be used from basic research to close to market demonstration. Among them we find: open-competitive call for all the EU Member States along with the Associated States, co-funding grants for research and innovation, trans-national consortia, international participation and pre-commercial procurement¹⁹¹. The first workshop emphasized the added value in EU-level research and development by considering the non-mission centred nature of the EU research topics complementary to the European Space Agency’s programmes. Moreover, it stressed the need for a coherent approach and prioritisation between the Commission, ESA and the Member States regarding the competitiveness and non-dependence of the European industry¹⁹². For the implementation of these characteristics, pursuant to the report, the “Joint EC-ESA-EDA Critical Technologies Initiative”, based on the ESA technology harmonisation programme, shall be taken into account¹⁹³. It is obvious that one of the steps needed for the mission ideas to turn into reality is the collaboration and coordination of ESA-EU with other Agencies dealing with space, with European National Agencies and also expertise in international level.¹⁹⁴ Procurement innovation is mentioned as a useful tool for technology advancement in commercial and customer focussed activities¹⁹⁵. Concerning the SMEs, their specific innovative potential is underlined in relation to the increase they provide in competitiveness. The second workshop reiterated the need for a closer rapprochement

¹⁹⁰ Breger, P. Space Research Unit, DG Enterprise and Industry, Horizon 2020 Workshop on Space Technology,, Horizon 2020 Activities in Space, January 2013, p.6

¹⁹¹ Ibid, p.9

¹⁹² Horizon 2020 Workshop on Space Technology for Competitiveness, non-dependence and Innovation in Space, Brussels 30th and 31st January 2013, p.6

¹⁹³ Ibid, p.17

¹⁹⁴ Ibid, p.16

¹⁹⁵ Ibid, p.27

between Horizon 2020 and ESA programmes with an emphasis put on ISS experiments as well as preparations for future human and robotic exploration¹⁹⁶.

Evaluation of proposal for Horizon 2020

In this final section there is a necessity for the assessment of the proposed aforementioned instruments for the new framework programme, with regard to the objectives set for a coherent procurement regime.

Grants, Public Procurement and Pre-commercial Procurement

The legal basis of the research and technological activities in the EU till the end of 2013 is the 7th Framework Programme¹⁹⁷ which is in compliance with the Financial and Implementation Regulation¹⁹⁸. It provides for financial contribution mainly through public procurement and grants¹⁹⁹, which are proposed to remain as one of the basic funding stream for the new framework programme²⁰⁰.

Grants shall be based on the reimbursement of eligible costs and may take the form of flat-rate financing, including scale of unit costs or lump-sum financing²⁰¹. Usually, they are awarded in means of direct financial contributions, by way of donation, from the budget in order to finance either an action or the functioning of a body in the context of European Union Policy²⁰². The award of grants shall be subject to the principles of transparency and equal treatment and they must involve co-financing, which means that usually they do not finance projects in full. According to the non-profit rule beneficiaries are not allowed to profit and grants can only cover costs²⁰³. The normal application process for grants is calls for proposal

¹⁹⁶ Horizon 2020 Workshop on Space Science and Exploration, Madrid, 18th and 18th February 2013

¹⁹⁷ Decision No 1982/2006/EC of the European Parliament and of the Council of 18 December 2006 concerning the Seventh Framework Programme of the European Community for research, technological development and demonstration activities(2007-2013) and Regulation(EC) No 1906/2006 the European Parliament and of the Council of 18 December 2006 laying down the rules for the participation of undertakings, research centres and universities in actions under the Seventh Framework Programme and for the dissemination of research results (2007-2013)

¹⁹⁸ Recital 2, Regulation (EC) No 1906/2006

¹⁹⁹ New Practical Guide to EU funding opportunities for research and innovation, Competitive European regions through research and innovation, European Commission, of October 2011, p.45

²⁰⁰ Horizon 2020- the new EU research and innovation programme, Presentation of 11 April 2013, Eva-Lisa Ahnström, BTH, Grants Office, p.17

²⁰¹ Article 30(1), Regulation (EC) No 1906/2006

²⁰² Article 108(1), Council Regulation (EC, Euratom) No 1605/2002 of 25 June 2002 on the Financial Regulation applicable to the general budget of the European Communities

²⁰³ Article 109, Financial Regulation 2002

except for the cases of direct awards to beneficiaries due to specific characteristics which leave no other choice for a given action²⁰⁴.

Public procurement is the second means for providing funds under FP7. The scope of procurement is limited “to coordination and support actions consisting of a purchase of goods or services” and is subject to the rules mentioned in the Financial Regulation²⁰⁵. According to article 14 of Regulation 1906/2006 EC public procurement is an exception from Article 13 which provides for usual calls for proposals. It follows that procurement is not replacing grants or subsidies but complements them. The reason procurement is useful in addition to grants is explained by the different implementation. Grants are provided as a motivation to encourage industry and academia to collaborate and take more risks in the development of new technologies and their applications in different fields. They constitute co-financing mechanisms based on proposals put forward by the supply side: industry and the research community at large. On the other side procurements are demand-side driven rather than supply-side driven. They start from specific public customer needs and trigger industry to develop concrete solutions for those. They are "directed" according to the needs and specifications put forward by the public procurer, that is purchased at market price from commercial entities²⁰⁶.

Another means of procuring Research and Development is pre-commercial procurement which fosters innovation in the EU²⁰⁷. The concept of “pre-commercial procurement” concerns the Research and Development phase before commercialisation. The approach to procuring services other than those “where the benefits accrue exclusively to the contracting authority for its use in the conduct of its own affairs, on condition that the service provided is wholly remunerated by the contracting authority” brings it out of the scope of application of the procurement directives as well as the rules on state aid²⁰⁸. However, actions carried out in pre-commercial procurement cannot preclude competition

²⁰⁴ Article 110(1), Financial Regulation 2002

²⁰⁵ Article 14(b), Regulation (EC) No 1906/2006

²⁰⁶ Pre-Commercial Procurement (PCP), Frequently Asked Questions, p.15

²⁰⁷ Commission Communication(2007) 799 final, 14.12.2007, Pre-commercial Procurement: Driving innovation to ensure sustainable high quality public services in Europe

²⁰⁸ Article 16f, Directive 2004/18/EC of the European Parliament and of the Council of 31 March 2004 on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts, Article 24e, Directive 2004/17/EC of the European Parliament and of the Council of 31 March 2004 coordinating the procurement procedures of entities operating in the water, energy, transport and postal services sectors

in the commercialisation phase since there the Directives fully apply. Therefore the scope of pre-commercial procurement includes only services which can cover activities up to the original development of a limited volume of first products or services in the form of a test series²⁰⁹. One of the most important features of this procurement tool is the sharing of risks and benefits between the public authority and the industry on the activities needed to develop new innovative solution that exclude those available on the market. This way it is ensured the maximum competition, transparency, opened, fairness and pricing at market condition that allows the public purchaser to identify the best possible solutions the market can provide²¹⁰.

The space sector can benefit from the implementation of grants and procurement as well as the pre-commercial procurement in the space projects which are quite complicated. The combination of the first two tools was already acknowledged by the Commission in the development of the initial operations of GMES. The grants in this case may be available either in framework partnership agreement or co-funding of operating or even action grants²¹¹. The financial flexibility of these instruments can ensure, as already proven, the co-financing of the future projects regulated under the Horizon 2020 without implications between ESA and EU budgets. What is more, the pre-commercial procurement apart from the fact that it is the best incentive for innovation in areas that are not yet commercial enough, it can provide inspiration and experience needed before the implementation of the space projects.

Joint Initiative, Trans-national Consortia and International Cooperation

Except for grants and procurements, the 7th Framework Agreement and the proposal for Horizon 2020 provide for other means of financial contribution which may harmonise the divergent rules on procurement in the cooperation of ESA and EU with international partners in large scale space projects.

²⁰⁹ Article XV, WTO Government Procurement Agreement

²¹⁰ Commission Communication(2007) 799 final, 14.12.2007, Pre-commercial Procurement: Driving innovation to ensure sustainable high quality public services in Europe, p.3

²¹¹ Article 5, Commission Communication (2009) 223 final, 20.05.2009, Regulation of the European Parliament and of the Council on the European Earth Observation Programme (GMES) and its initial operations (2011-2013)

The 7th Framework Programme for Research introduced the novel element of Joint Technology Initiative (JTI), a new type of European public-private partnership at programme level set up under Article 187 TFEU. Joint Technology Initiatives (JTIs) are intended to support trans-national cooperation in fields of key importance for industrial research²¹². It was created to promote European research in fields where the objectives pursued are of such a scale and nature that traditional instruments are not sufficient²¹³. The definition of PPPs is provided by the OECD: “Any formal relationship or arrangement over a fixed period of time, between public and private actors, where both sides interact in the decision-making process, and co-invest scarce resources (...) in order to achieve specific objectives in the area of science, technology and innovation”²¹⁴.

In this scheme they bring together EU, national and private resources, know-how and research capabilities, for a certain period of years, with the aim of addressing major issues by sharing pre-competitive knowledge and ensuring that the EU can lead the world in developing breakthrough technologies²¹⁵. One of the key aspects of PPPs is that they have a track record of on-time and on-budget delivery and also by risk sharing they reduce the overall costs of projects. What is more they enlarge EU companies’ market shares in the field of government procurement in third country markets through the establishment of service concessions in certain markets of major trading partners²¹⁶. EU public procurement legislation²¹⁷ applies to public contracts and work concessions but not to service concession

²¹² JTI Sherpa’s Group Final Report, Designing together the “ideal house” for public-private partnerships in European research, January 2010, p.6

²¹³ Commission Communication (2009) 615, 19.11.2009, Mobilising private and public investment for recovery and long term structural change: developing Public Private Partnerships, p.6

²¹⁴ JTI Sherpa’s Group Final Report, Designing together the “ideal house” for public-private partnerships in European research, January 2010, p.8

²¹⁵ JTI Sherpa’s Group Final Report, Designing together the “ideal house” for public-private partnerships in European research, January 2010, p.3

²¹⁶ Commission Communication (2009) 615, 19.11.2009, Mobilising private and public investment for recovery and long term structural change: developing Public Private Partnerships, p.4

²¹⁷ Directive 2004/17/EC and Directive 2004/18/EC

which have nevertheless to respect the EC Treaty principles²¹⁸ inter alia of transparency and equal treatment²¹⁹.

In the space sector the EU and ESA chose a PPP procurement scheme for the first time in the case of the Galileo project for the deployment and operational phases. The procurement of a service under PPP offers a lot of possibilities to public bodies that lack the skills or the budget to run some particular projects. Galileo is a project which shows that, whereas the space sector has some very specific challenges compared to other sectors, the PPP module can be successfully adapted to answer the needs from public customers. The implementation of PPPs within the space sector, as it is proven by the experience in the Galileo programme, paves the way for a more coherent procurement approach for further future projects also under Horizon 2020²²⁰.

Transnational consortia, which are also mentioned as another form of funding for the new framework programme, should ensure the “European added value” in the space activities under the framework programme²²¹. This means that they shall have at least three legal entities which must be independent and established in a Member State or associated country²²². FP7 calls are open to participation of research entities not only from non-EU Member States but also from third other countries²²³. The objectives of the international policy, as defined for the 7th Framework Programme, are: i) to support European competitiveness through strategic partnerships, ii) to provide better access to research carried out elsewhere in the world and, iii) to address specific problems that third countries face on the basis of mutual interest²²⁴.

²¹⁸ Judgement of 26 April 1994, case C-272/91, *Commission v. Italy (Loto)*; Judgement of 9 September 1999, case C-108/98, *RI.SAN*; Judgement of 7 December 2000, case C-324/98, *Telasutria Verlags*; Judgement of 21 July 2005, case C-231/03, *Consorzio Aziende Metano (Coname)*; Judgement of 13 October 2005, case C-458/03, *Parking Brixen*; Judgement of 6 April 2006, case C-410/04, *Associazione Nazionale Autotrasporto Viaggiatori (ANAV)*; Judgement of 18 July 2007, case C-382/05, *Commission v. Italy (Municipal waste produced in the Region of Sicily)*.

²¹⁹ Commission Communication (2009) 615, 19.11.2009, *Mobilising private and public investment for recovery and long term structural change: developing Public Private Partnerships*, p.5

²²⁰ *The Implementation of a Public-Private Partnership for Galileo Comparison of Galileo and Skynet 5 with other Projects* Dr. Xavier Bertrán, EADS SPACE Services, France Alexis Vidal, EADS SPACE Services, France, p.9

²²¹ Recital 1, Decision No 1982/2006/EC

²²² Article 5(1), Regulation (EC) No 1906/2006

²²³ *New Practical Guide to EU funding opportunities for research and innovation, Competitive European regions through research and innovation*, European Commission, of October 2011, p.53

²²⁴ Decision 1982/2006/EC, Annex 1, p.36

The above measures are proposed to give solutions to the problems which arise from the conflict between ESA and EU rules and if adopted under the new Framework Programme they could lead to a coherent space procurement approach in Europe.

Conclusions

Coming to the end of the study it is necessary to make an assessment of the findings with reference to the research question and sub-questions.

The first sub-question was related to the adequacy of ESA and EU procurement rules to deal with the space projects at stake, meaning GMES and Galileo joint programmes. The analysis of the distinctive procedures in the second chapter clarified their different industrial policies, with an added emphasis on the ESA's fair return principle and on the other side the EU bases its rules on the principles of transparency and equal treatment. These principles have a tendency to apply in the space sector but its nature requires the liberalization of the market and the worldwide competitiveness. The WTO Agreement on Government Procurement could be a possible solution to the conflict of ESA and EU procurement procedures, particularly in large scale projects. However, ESA is not a party to the GPA which complicates the situation with some of its Member States being parties and therefore not allowing room for its rules to be applied in the joint projects. Maybe a solution in this case would be if ESA joined WTO and became a party to the GPA; this way the basic principles provided would bring a balance with the principle of fair return by leading to a genuine competition and participation of more tenders. The second chapter gives an in depth analysis of the procurement procedures Galileo and GMES followed. It is highlighted that ESA, despite the Procurement Regulations reform did not manage to apply the de minimis guarantee of non-discrimination, while EU's lack of supranationality impeded a successful procurement process in the Galileo project. It is worth mentioning is that GMES programme was based on ad hoc rules and the Public Private Partnership module while the juste retour principle applied partially on the ESA funds.

The fourth chapter gives answer to the second and third sub-question and in essence in the main research question. It describes the legal implications which arise from the differences of ESA and EU, emphasizing the diversification of the participants in the joint space programmes. The framework Agreement FP7 did not manage to provide with sufficient solutions in the procurement sector, but the differences remained a significant obstacle towards the harmonization of these approaches. A competitive European space sector requires a consensus on the industrial base which was not achieved with FP7, but it is the

ambition of the Horizon 2020. Taking into consideration the potential increase in the number of the joint projects in the future, the new Framework Programme can be the legal basis for a coherent procurement approach which will foster a competitive and innovative space industry. The two workshops that prepare the Commission proposal suggested several instruments, among which the most successful would be grants and pre-commercial procurement. The space sector can take advantage of these tools due to the financial flexibility and also the incentive they provide in the innovation areas of science and space exploration which are not yet commercial enough. Another way of financial contribution which may harmonise the divergence of ESA and EU procurement rules are the joint initiatives, trans-national consortia and the international cooperation. These initiatives are important in significant fields of industrial research, where the traditional instruments do not suffice to reach the aims. The gathering of EU, national and private resources along with the scientific capabilities can lead the EU in an advantageous position worldwide. The PPP scheme which was used in the Galileo programme is a very good opportunity for public bodies that do not have sufficient budgets or skills for so highly complex projects. This can pave the way towards a more coherent procurement approach for future projects under Horizon 2020.