IAC-09.E8.4.12

PROCUREMENT IN THE EUROPEAN SPACE SECTOR

Prof. Dr. Stephan Hobe, LL.M.
Board of Directors, International Institute of Space Law
Director, Institute of Air and Space Law, University of Cologne
stephan.hobe@uni-koeln.de

Irina Kerner
Senior Research Fellow
Institute of Air and Space Law, University of Cologne, Germany
irina.kerner@googlemail.com

Jan Helge Mey, LL.M.
Senior Research Fellow
Institute of Air and Space Law, University of Cologne, Germany
jan.mey@uni-koeln.de

ABSTRACT

Public procurement is a vital part of the tool box on which governments rely in order to foster key industries. This is especially true with respect to the space industry and commerce where the public sector represents a major source of investment. The paper will analyze the approaches to public procurement of both the European Union (EU) and the European Space Agency (ESA). In an era of an ever closer relationship between these two international organizations, ways are explored to find common ground among these distinct philosophies. In order to encourage space commerce, we therefore propose to draft a third procurement approach for ESA-EU cooperation that would encompass the benefits of the two procurement schools of thought.

PUBLIC INVESTMENT IN SPACE & ROLE OF PROCUREMENT

1. Public Sector as Major Source of Investment in Space Industry

As regards spacecraft and launch systems, institutional customers are traditionally the main source of investment. In the year 2008, they accounted for 60% of industry sales in Europe.[1] Aside the mere ratio of turnover figures, institutional and commercial markets have differing characteristics; this difference affects any assessment of the impact that public investment has on the industry. Commercial markets are highly cyclical and prone to external factors, whereas the institutional markets provide for a large and stable source of revenue. The latter drives technological development and secures capabilities even in down periods.[2] It is thus public investment that enables the overall space economy[3] to blossom and that puts commercial undertakings in a position to generate revenue on the basis of space-enabled products and services that exceeds institutional budgets by far.[4]

2. Role of Public Procurement

Public procurement is vital in fostering and guaranteeing the sustainability of the (European) space industrial base and ensuring its global competitiveness.[5] Public procurement

significantly frames the market for the space industry and ultimately shapes the space industry itself. Public actors play a triple role: they are regulators, investors and eventually customers. By way of policy and subject-matter definition, the public sector sets strategic benchmarks and procures technological development according to public needs or anticipated commercial requirements.[6] Procurement rules may also affect the space industry with regard to its geographic distribution, market fragmentation and consolidation, the level of concentration, integration and competition.

3. Public Actors in Europe

Public investment stems from the European States, whether channeled through the European Space Agency (ESA), EUMETSAT, the European Union (EU), or spent outside those frameworks on national or multilateral space programs. ESA is traditionally the main customer of the space manufacturing industry representing annual industry sales of 1.5bn Euros on average.[7] ESA has thus been and continues to be pivotal for fostering the European space industry and facilitating the European integration of national space programs. The significantly smaller amount of 0.7bn Euros per year can be attributed to the other civil institutional programs mentioned above.[8] However, funding of military programs has increased from about 250m in 1991[9] to over 1bn Euros in 2008.[10]

European States are far from being a homogenous group of space actors due to distinct levels of space industrial development and non-congruent affiliations with international organizations, such as EU, ESA and EUMETSAT[11]. The great majority of European States with niche capabilities and less than 100m in space industry sales are in sharp contrast to a group of six States that capture 91% of all civil institutional programs sales.[12] As regards 99% of all 2008 military programs sales, the group is even limited to only five States in Europe.[13] France stands out for its space industry representing over 40% of the sector. It takes a 70% share in 2008 commercial satellite sales.[14]

The EU became the most recent public actor in space affairs. In spite of the absence of an explicit competence, space was soon considered an important area for the implementation of other EU policies.[15] In comparison to ESA's focus on science and its unmatched technical expertise, the EU is well-suited to establish links to other policy areas and integrate in particular security considerations. Beginning with its Green Paper on space policy in 2003,[16] the EU developed in cooperation with ESA and Member States an overarching space policy for the first time. The European Space Council, the joint meeting of the Councils of ESA and EU based upon the 2003 Framework Agreement,[17] finally adopted the European Space Policy in 2007[18]. This resolution signifies another milestone of ESA-EU rapprochement.[19] The executive EU organ, 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).[20] The EU became a regulator, e.g. in the satellite telecommunication sector, as well as a user of space, e.g. by incorporating the EU Satellite Date Centre for usage of earth observation data.[21] The EU is also now investor. After the failed PPP model, the satellite navigation system Galileo has moved beyond its development and validation phases with the help of fresh public funds. Entering the deployment phase, the program is now financed by the EU, largely outside the research framework, whereas ESA serves as procurement agent applying EU procurement rules.[22] An operational budget line is also about to be established for the Earth surveillance system GMES.[23] Upon entry into force of the Treaty of Lisbon, the EU will finally be given an explicit competence on space, in parallel to the space competence of Member States.[24]

ESA PROCUREMENT APPROACH

1. ESA History / Raison d'être

The ESA Convention entered into force on 30 October 1980; however, the Agency was set

up *de facto* already in 1975. Emerging from the European Launcher Development Organisation (ELDO) and the European Space Research Organisation (ESRO) of the 1960s, ESA can look back on a thirty years long track record as an organization specialized on space R&D and applications. Along with its now 18 member states,[25] it is ESA's aim "to provide for and to promote, for exclusively peaceful purposes, cooperation among European States in space research and technology and their space applications, with a view to their being used for scientific purposes and for operational space applications systems."[26] ESA's institutional design did not change much since the 1980s. The Agency's importance and international standing, however, did grow. ESA's working method is characterized by the distinction of mandatory and optional programs. The success of these optional programs is to this day largely due to the fair return principle, also termed industrial or geographic return. This industrial policy instrument guarantees the participating Member States a return of their contributions by way of contracts with their home industries.

Consistent with the EU, ESA's existence stems from the European integration idea, i.e. the belief of individual countries in the effectiveness of common efforts. The Agency has thus enabled European programs where national programs alone would not have accumulated the critical mass of funding. ESA's character is scientific and mostly non-politic, concentrating on space science and development, excluding defense related matters.[27]

2. Industrial Policy

The industrial policy of ESA is determined by its Convention, various ESA Council resolutions, the special statutes for the optional programs and the practice of the Executive.[28] A procurement reform adopted in December 2008 established the new Procurement Regulations applicable as of 18 December 2009 and superseding the existing Contract Regulations.[29] The elaboration and implementation of an industrial policy being one of ESA's very purposes, the Convention stipulates in Article VII that it shall be driven by considerations of cost-effectiveness, the improvement of the competitiveness of the European space industry, the equitable participation of all Member States with regard to their contributions (fair return) and, whenever possible, free competition with general domestic preference for Member States' enterprises. However, free competitive bidding shall be applied "except where this would be incompatible with other defined objectives of industrial policy", i.e. equitable contribution-driven participation or fair return by its other name. Annex V to the ESA Convention, dedicated to industrial policy, further clarifies that preference. Central piece to the return calculation is the return coefficient of a Member State.[30] The procurement plan is developed by ESA's Industrial Policy Committee, making procurements political. Contracts are not considered in their value only but weighting factors are applied when calculating the return, their basis being the technological interest.[31] If the procurement plan does not generate a sufficient return, a deficient return coefficient may be redressed by special measures of various degrees such as phasing, choice of restricted procedures, and dedicated return programs.[32]

Admittedly, ESA's procurement agents have to walk a tightrope: By statute and political will they have to combine general cost-efficiency, competitiveness and fairness of procedures with the ever-recurring geographic return.

3. Features of the Procurement Process

In practice, ESA uses both the competitive Invitation to Tender (ITT) process[33] and non-competitive Request for Quotation (RFQ) process[34]. The former is mostly, but not necessarily only, used for (recurrent) non-innovative contracting, while the latter applies for innovative procurement and research contracting. While the Agency applies several procedures in ITTs,[35] there is a preference for negotiated procedures,[36] permitting less transparency. This preference is to a great deal due to the limited number of European space contractors and becomes almost a necessity in large-scale projects.[37] Another feature, the above mentioned technological weighting,

causes some commentators and ESA officials to call the return a "technological" one.[38]

Generally, there is no judicial or administrative review of ESA's activities as such; the only remedy open is that wronged sub-contracting enterprises can appeal to the ESA Industrial Ombudsman.[39] He is not competent in any Agency-industry disputes and particularly not in fair return disputes.[40] This avoids delays in space programs by reviews, but again, to the detriment of transparency. Formerly, dissatisfied industry actors had always to apply to their governments who then (may choose to) exert political influence on ESA as its Member States. Upon the 2008 Regulations reform, there is now a three-tier review mechanism for procedural aspects of procurement. As of end 2009, a new review mechanism allows for compensation[41] for procedural breach of the Procurement Regulations.[42] Economic operators seeking review have to apply to the Head of the Procurement Department first, proceed to the Ombudsman and then to the newly established Procurement Review Board. This is a significant step towards transparency and justice but still, this review mechanism is restricted.[43] In any other complaints than procedural aspects, only political influence by governments may redress wrongs to industries.

All in all, ESA's procurement system has been efficient to boost the European space industry. But although ESA tries to reconcile cost-effectiveness and return aspects, ESA's industrial policy mandate is a main feature of its contracting activities and thus makes it a "political procurement system".[44]

EU PROCUREMENT APPROACH

Space procurement is very recent in the EU framework, therefore understanding EU's procurement approach has to start with its general attitude to procurement. The EU's path is very different to ESA's. Starting with the European Coal and Steel Community founded in 1950, the Treaty of Rome of 1957 created the European Economic Community and founded the "Common Market". The focus of the Communities remained on the Common Market and economy for considerable time. However, confined to the ever deeper European integration process more and more competences were attributed to them. Institutional reform eventually led to the European Union of 27[45] as we know it, the last development stage being the Treaty of Lisbon signed on 13 December 2007[46]. Thus, the EU developed from an economic to a political organization with various fields of action and different mandates. Because EU's economic policy is based on competition, the procurement policy approach of the EU differs substantially from that of the ESA.

1. Raison d'être of EU Procurement

Understanding the procurement law as applicable to EU funds starts from the premise of EU Member States procurement liberalization. At first, procurement rules and markets in the EU were controlled by its Member States. The liberalization of the previously closed EU Member States' institutional markets evolved gradually. First, the European Court of Justice ruled out national preferences contained in national procurement rules and procedures because they infringe the non-discrimination principle and the fundamental (market) freedoms enshrined in the founding Treaties.[47] Second, different directives harmonized rules and procedures,[48] existing exemptions for special sectors were gradually abandoned[49] and remedies were consolidated.[50] Where the harmonizing directives were not applicable, by means of their thresholds or sector exceptions, the European Court of Justice gradually elaborated a rudimentary procurement law through application of the primary EU law.[51] The general idea of this Europeanized procurement law is that there is a Common Market where Member States have to choose the economically most advantageous tender, thereby not distorting the market.

This set of rules as applicable to contracting activities by Member States was transposed in its general principles to the administrative law of the EU via its Financial Regulation,[52] leaving out security based exemptions for example. But these rules were drafted for an organization purchasing property and furniture. The EU's activities are still centered on

law making and monitoring. Generally, the EU is not purchasing infrastructure but rather establishes funds to be spent by Member States. Putting it pointedly, the EU has a market-oriented set of procurement rules for its own to buy pencils. The drafters of the Financial Regulation never divined the EU to purchase a satellite system.

2. Policy Context

The EU is not purely market-centered because also in the EU, understanding prevails that market liberalization will not suffice to maintain the EU's economic standing. The EU does of course pursue structural and industry policy aims with careful consideration of the worldwide competition. Therefore a plethora of policies are employed in order to enhance Europe's competitiveness such as structural funds for regional development and cohesion, centralized R&D funding like FP7, instruments for innovation etc. All of this, however, can be viewed as extra-procurement policies, procurement never having been used by the EU as an industrial policy instrument like in the US. This has of course to do with a persisting market-oriented school of thought.

However, that market orientation can be set aside for the benefit of space procurement as proven in the Galileo deployment example. Its Financial Regulation being grossly inapt for large infrastructure projects in such a limited market as satellite manufacture, the EU set up the GNSS Regulation with a lot of specific (ad hoc) rules deviating from the general scheme.[53]

3. Fundamental Principles of EU Procurement

The fundamental and mostly non-derogable principles of procurement by the EU are non-discrimination, equal treatment, transparency, competitive bidding and judicial remedies.[54] These principles apply by way of statute for EU and Member States, the Financial Regulation and the Procurement Directive respectively, and by way of case law by the European Court of Justice. The latter has derived these principles from EU constitutional law, i.e. the Treaties. Necessitating an impartial choice, whereas the Procurement Directive allows Member States to award the contract to the *economically most advantageous tender,* the Financial Regulation uses an arguably even stricter wording and requires the EU to award on *best-value-for-money* terms.[55] This allows only for criteria *justified by* (EU) or *linked to* (Member States) the subject matter of the contract.[56] The competitive procedure is the rule and the use of restricted procedures like the competitive dialogue and the negotiated is the exception.[57] Judicial review of procurement decisions by EU organs is provided by the Court of First Instance, subject to appeal by the European Court of Justice.[58]

COHERENT APPROACH TO ESA-EU PROCUREMENT

1. ESA-EU cooperation: A 'Given'

Given their respective fields of expertise, ESA and EU are destined for mutually beneficial cooperation. The supranational EU drives European integration in a comprehensive fashion and may place space affairs in the context of other relevant policies. ESA has a track record in fostering space technological capabilities throughout Europe by attracting funding from Member States whose space industries may vary in size from offering niche to full-spectrum capabilities. The controversial debate on the institutional aspects, featuring mainly the accession (of EU to ESA), cooperation (ESA-EU) and integration (of ESA in EU) model,[59] has preliminarily been softened by conclusion of the ESA-EU Framework Agreement in 2003. The coexistence of two independent organizations that institutionalize their cooperation thus represents the status quo. The armistice, however, does not remove the major obstacle of differing procurement policies. In fact, Article 5 of the Framework Agreement opens up various modes for undertaking joint initiatives, but leaves substantial issues to be clarified in special arrangements. As much needed as it is, a coherent approach to EU-ESA procurement in the space sector has yet to be developed.

2. Conflict Areas of Procurement

Article 5(2) of the Framework Agreement lists *inter alia* the following points to be clarified in specific EU-ESA arrangements: "(f) the role and financial implications of the Parties; (g) an industrial policy scheme; (h) budgetary aspects; and (i) rules on intellectual property rights, rules of ownership including the transfer of ownership, the implementation principles including voting rights, and the participation by third Parties." Consequently, one may deduce that various policy aspects of public procurement in the space sector are controversial, especially with regard to industrial policy and European autonomy. The enormous conflict potential inherent in the rule of 'geographic distribution' is highlighted by the provision that the EU shall "under no circumstances" be bound to apply this ESA principle. The current "solution" is reflected by Article 5(3) which states that "[a]ny financial contribution made by one Party in accordance with a specific arrangement shall be governed by the financial provisions applicable to that Party". The organizations 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.

3. Finding Common Ground

As regards the development of adequate instruments and funding schemes for the space domain, the European Space Policy of 2007 called for taking into account 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".[60] The development of a coherent approach to EU-ESA procurement raises the question, whether policy considerations other than competition and sound financial management should be pursued entirely outside the procurement regime (through aid instruments e.g. in the field of R&D and infrastructure that aim at regional competitiveness) or should be incorporated into the procurement process. If the latter approach is chosen as foreshadowed by the European Space Policy, one has to consider how and at which stage in the procurement process policy considerations may be accounted for in line with the EU and ESA legal framework.

In case of the Galileo deployment phase which is fully funded by the EU and subject to EU procurement rules, 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 rules on competitive tendering are not prejudiced".[61] To that end, ESA acting as procurement agent for the EU, is to slice the Galileo program into six main work packages, out of which the same legal entity may only bid for two as prime contractor, as well as require 40% sub-contracting, and consider dual sourcing as option.[62]

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 EU.[63] The enacted Procurement Regulations of ESA that appeased its procedural shortcomings, however, still fail to apply minimum judicial guarantees and EUs 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. The way ahead bears political as well as legal challenges. As was outlined above, a thriving European space industry is in the EU's interest and it has some instruments like R&D funding at its hands. While ESA is exploring ways towards more transparency, the Union has to find policy coherence between enhancement of a strategic industry and its regional distribution on the one side and the target of a truly European space capacity of 'supra'-national character on the other.

CONCLUSION

Public procurement has a pivotal role in fostering and sustaining a competitive and innovative space industry, and thus for driving the development of space commerce. The applicable public procurement regime has to balance various policy considerations accounting for the specificities of the space sector. This is true for Europe, but equally applies to the procurement policies around the world. The conflicting approaches to procurement of EU and ESA, however, make the situation in Europe even more complex and the development of a coherent procurement approach an urgent undertaking. To this end, the Institute of Air and Space Law, Cologne, the Leuven Centre for Global Governance Studies, and the Charles University in Prague engage in collaborative research. They have initiated the SP4ESP project, entitled "Implementing the European Space Policy: A Coherent European Procurement Law and Policy for the Space Sector – Towards a Third Way" (www.sp4esp.eu). This 'Third Way' is set to remove one of the heaviest obstacles to ESA-EU cooperation and thus will also contribute to a better framework for the European space industry and commerce. Valuable input from international experts is much welcome.

---

[1] ASD-EUROSPACE, facts & figures, 13th edition, rev.1, July 2009, p. 5, <http://pagesperso-orange.fr/eurospace/ffdata2008_web.pdf> 10.08.2009.

[2] EC Commission, European Industry in a Changing World: Updated Sectoral Overview 2009, SEC(209) 1111 final, 30.07.2009, pp. 177 et seq., figures based upon EUROSPACE data.

[3] As defined by OECD, The Space Economy at a Glance, 2007, p. 18.

[4] OECD, op.cit. supra note 3, pp. 49 et seq.; ESPI, Yearbook on Space Policy 2006/2007: New Impetus for Europe, 2008, pp. 42 et seq.

[5] ASD-EUROSPACE, op.cit supra note 1, p. 3.

[6] EC Commission, op.cit. supra note 2.

[7] ASD-EUROSPACE, op.cit supra note 1, p. 6.

[8] Ibid.

[9] ASD-EUROSPACE, facts & figures, 12th edition, June 2008, p. 12.

[10] ASD-EUROSPACE, op.cit supra note 1, p. 6.

[11] Affiliations as of 18.08.2009, EU: 27 MS including all ESA-Member States except for Norway and Switzerland; EUMETSAT: 24 MS including non-EU States Norway and Switzerland, plus EU-Member States Estonia, Lithuania, Czech Republic, Romania, Bulgaria as well as Iceland as Cooperating States; ESA: 18 MS including non-EU Member States Norway and Switzerland, plus Canada, Hungary, Romania, Poland as Cooperating States.

[12] France, Italy, Germany, United Kingdom, Spain, Belgium, ASD-EUROSPACE, op.cit supra note 1, pp. 5 and 8.

[13] France, United Kingdom, Germany, Italy, Spain, ASD-EUROSPACE, op.cit supra note 1, p. 8.

[14] ASD-EUROSPACE, op.cit supra note 1, pp. 5, 8 et seq.

[15] See Hobe/ Heinrich/ Kerner/ Schmidt-Tedd, Ten Years of cooperation between ESA and EU: Current Issues, German Journal of Air and Space Law 58 (2009), pp. 49 et seq.

[16] COM(2003) 17 final, 21.01.2003.

[17] 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.

[18] 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.

[19] For a detailed account of the ESA-EU institutional framework see Hobe/ Heinrich/ Kerner/ Froehlich, Entwicklung der Europäischen Weltraumagentur als "implementing agency" der Europäischen Union: Rechtsrahmen und Anpassungserfordernisse, 2009.

[20] European Commission, 'EU Financing of Space Activities', <http://ec.europa.eu/enterprise/policies/space/esp/funding/index_en.htm> 18.08.2009.

[21] The European Union Satellite Centre is an independent EU agency in support of the EU's Security and Defence Policy, <http://www.eusc.europa.eu/> 18.08.2009.

[22] See 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 implementtation of the European satellite navigation programmes (EGNOS and Galileo), OJ EU L 196 of 24.07.2008, p. 1.

[23] 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.

[24] Article 189 of the Treaty on the Functioning of the European Union, not yet in force, OJ EU C 155 of 09.05.2008, pp. 47 et seq., 131 (consolidated version).

[25] At the time of writing. ESAs Member States are: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Norway, Portugal Spain, Sweden, Switzerland and the United Kingdom. Canada participates under a Cooperation Agreement.

[26] Art. II (Chapeau) Convention for the Establishment of the European Space Agency of 30.05.1975 (ESA Convention).

[27] Other than the former reading of ESA's mandate "for for exclusively peaceful purposes" in Article II ESA Convention, ESA Member States have reached consensus in 2004 that the term has to be read as including (passive) security actions, see Hobe/ Heinrich/ Kerner/ Froehlich, op. cit. supra note 19, p. 284.

[28] These include the Implementing Instructions by the DG to the Procurement Regulations, the General Clauses and Conditions, Corporate Policy and internal documents.

[29] Procurement Regulations, adopted by the ESA Council on 17.12.2008, ESA/C(2008)202 of 17.12.2008, <http://emits.esa.int/emits-doc/ESA_HQ/EIO-PROCUREMENT_REGULATIONS.pdf> 31.08.2009 (ESA Procurement Regulations).

[30] The overall return coefficient consists according to Article IV Annex V of "the ratio between its percentage share of the total value of all contracts awarded among all Member States and its total percentage contributions".

[31] Article IV paragraph 2 ESA Convention.

[32] Madders, A New Force at a New Frontier, 1997, pp. 386 et seq.

[33] See Article 13 (Competitive Tendering) ESA Procurement Regulations.

[34] Ibid., Article 14 (Non-Competitive Tendering).

[35] The three types of procurement processes are: open competitive tender, restricted competitive tender and non competitive tender/ direct negotiation.

[36] In 2007, ESA procurement activities numbered 577 ITTs with 280 in open competition, 11 in restricted competition and 286 in direct negotiation, ESA Annual Report 2007, p. 64.

[37] Petrou, The European Space Agency's Procurement System: A Critical Assessment, Public contracts Law Journal 37 (2007-2008), pp. 141 et seq., 172.

[38] Hobe/ Kunzmann/ Reuter/ Neumann, Rechtliche Rahmenbedingungen einer zukünftigen kohärenten Struktur der europäischen Raumfahrt, 2006, pp. 346 et seq.; Petrou, op. cit. supra note 37, p. 169.

[39] The current Ombudsman is Alain Gaubert, appointed on 01.02.2009, <http://www.esa.int/esaMI/industry_how_to_do_business/SEMETCV7D7F_0.html> 26.08.2009.

[40] See <http://www.esa.int/SPECIALS/Industry/SEMKOSE3GXF_0.html> 27.08.2009.

[41] Compensation can be maximum 100 000 EUR, Article 57 ESA Procurement Regulations.

[42] Ibid., Articles 47 et seq.

[43] For example, the choice of a procurement method is not subject to review, cf. Article 49 ESA Procurement Regulations.

[44] Petrou, ibid., pp. 149 and 176.

[45] At the time of writing the EUs Member States are: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, The Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom.

[46] OJ EU C 306 of 17.12.2007, pp. 1 et seq. and consolidated version op. cit. supra note 24.

[47] For a brief overview, see Reich, Understanding EU law: objectives, principles and methods of community law, 2nd edition, 2005, pp. 134 et seq.

[48] Directive 2004/18/EC of the European Parliament and of the Council of 31.03.2004 on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts, OJ EU L 134 of 30.04.2004, pp. 114 et seq.

[49] Directive 2004/17/EC of the European Parliament and of the Council of 31.03.2004 coordinating the procurement procedures of entities operating in the

water, energy, transport and postal services sectors, OJ EU L 134 of 30.04.2004, pp. 1 et seq.

[50] 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, pp. 31 et seq.

[51] For a recent analysis, see Drijber/ Stergiou, Public Procurement Law and Internal Market Law, Common Market Law Review 46 (2009), pp. 805 et seq.

[52] Council Regulation (EC, Euratom) 1605/2002 of 25.06.2002 on the Financial Regulation applicable to the general budget of the European Communities, OJ EU L 248, 16.09.2002, p. 1, last amended by Council Regulation 1525/2007 of 17.12.2007, OJ EU L 343, 27.12.2007, pp. 9 et seq. (Financial Regulation).

[53] For details, see Hobe/ Heinrich/ Kerner/ Schmidt-Tedd, op. cit. supra note 15, pp. 64 et seq.

[54] Art. 89 (1) of the Financial Regulation reads: "All public contracts financed in whole or in part by the budget shall comply with the principles of transparency, proportionality, equal treatment and non-discrimination".

[55] Art. 97 (2) Financial Regulation.

[56] For jurisprudence allowing social criteria see European Court of Justice, case 31/87 of 20.09.1988, *Gebroeders Beentjes v Netherlands* [1988] ECR 4635 at para. 30; (arguably) restricted by case C-346/06 of 03.04.2008, *Dirk Rüffert* v *Land Niedersachsen*, ECR [2008] I-1989.

[57] Ibid., Art. 89 (2).

[58] For procurement decisions by EU organs, the general remedies by individuals against acts of EU organs apply, see for example Court of First Instance, Case T-286/05 of 22.04.2009, *CESD-Communautaire v Commission,* not yet reported.

[59] The study by the Institute of Air and Space Law/ Cologne, published as Hobe/ Kunzmann/ Reuter/ Neumann, op. cit. supra note 38, provides in depth analysis on ESA-EU cooperation models.

[60] Resolution on the European Space Policy, op.cit. supra note 18, no. 16.

[61] Article 17(2) of the Regulation No 683/2008, emphasis added.

[62] Ibid., Article 17(3).

[63] ESA Annual Report 2007, p. 65.