

# The Regional Preference from a Space Law and Policy Perspective and the European Intergovernmental Organisation as a Potential Model for the Middle East

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## **Abstract**

This article aims to provide the European perspective, highlighting the European Space Agency (ESA) procurement framework for regional industrial development as a potential model for the Middle East. Space activities are increasing across the Middle East and many of these countries are members of the World Trade Organization (WTO). This means that they must abide by WTO trade principles including competition rules. However, Middle East countries, especially Gulf countries, have developed national procurement frameworks applicable to the oil and gas industry to protect national industry participation and promote local employment. Similar rules of procurement could be proposed for the space industry in order to develop and secure the space industry in the Middle East region. To balance the criteria of regional preference and WTO competition rules, ESA's industrial space policy could serve as a model for the Middle East.

**Keywords:** Regional preference, Procurement, European perspective, Middle East, space industry.

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## 1. Introduction

Public procurement refers to the process by which public authorities, including space agencies, purchase labour, goods and services through tenders. Most importantly, procurement systems have the capacity to impact the efficiency of the use of public funds. Depending on the rules for government procurement, both domestic and foreign suppliers may be able to bid for space related tenders.<sup>1</sup>

For this reason, it is important to qualify public procurement as part of the current space ecosystem and as a main instrument for governmental space activities. For example, the European Space Agency (ESA) allocates more than 90% of its annual budget through procurement.<sup>2</sup> While ESA gives preference to the space industry of its member states (MS), other entities such as the European Union (EU) are part of international agreements that require equal treatment for domestic and foreign bidders.

Referring to the European perspective, ESA's industrial space policy can be regarded as a means by which ESA supports its MS to develop a national space industry and also as a means through which ESA supports competition at the European and global level. Developing the space industry is the first step towards public authorities becoming customers of private entities, while a strong space industry at the regional level supports competition and enables space actors to perform at the global level.

The funding coming from governments through public procurement is critical for the sustainable and sustained development of new space companies. A leading example that Europe has in mind when discussing the phenomenon of governments becoming customers of private entities is the United States of America (U.S.) where, for example, the U.S. Government and NASA are customers of SpaceX.

Thus, public procurement plays an increasingly important role in the Entrepreneurial Space Age, where entrepreneurial refers to a commercial entity developed with non-governmental equity financing that delivers a product or service to the government based on open competition for tenders.<sup>3</sup>

Regional cooperation in space activities could contribute to peace and security in the Middle East. As part of the research question of this study, the objective

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- 1 WTO, "General overview of WTO on work on government procurement", [https://www.wto.org/english/tratop\\_e/gproc\\_e/overview\\_e.htm](https://www.wto.org/english/tratop_e/gproc_e/overview_e.htm), (all websites cited in this paper were last accessed and verified on 4 December 2020).
  - 2 ESA, "Procurement review procedure", [https://www.esa.int/About\\_Us/Law\\_at\\_ESA/Procurement\\_review\\_procedure](https://www.esa.int/About_Us/Law_at_ESA/Procurement_review_procedure).
  - 3 Space Capital, "U.S. Government Support of the Entrepreneurial Space Age", *Report issued by Space Angels and delivered to NASA JPL/California Institute of Technology*, June 2019, <https://www.spacecapital.com/publications/us-government-support-of-entrepreneurial-space-age-nasa-jpl>.

is to present the European perspective on space procurement, in particular the ESA procurement system, as a model for the Middle East and highlight some of the challenges in developing a space industry at a regional level.

## 2. The European Space Agency

The European Space Agency (ESA) stands out among the leading space actors as an example of international cooperation, being recognized globally for its fundamental role in the development of European space activities.<sup>4</sup>

The reason why ESA could be a model for the Middle East is its successful policy towards international cooperation and regional coordination. The leadership and vision of ESA on the basis of a coordinated European space effort, has placed Europe among the most successful space faring actors. By taking ESA as a model, the Middle East could develop cooperative activities and regional coordination that would result in its ability to cope better with global challenges and become a leading player in space activities.

At the beginning of space activities at European level, the national efforts in Europe, taken individually, could not compete with the space programmes developed in the U.S. and the former Soviet Union. The United Kingdom (U.K.) was the leading country in the space efforts in Europe but eventually decided to end its military programme in 1960 and support civilian satellite launchers as part of a joint European effort. Second to Britain came France, which became the third global space power when it placed the first French satellite *Astérix* in orbit on 26 November 1965, using a French developed launcher called *Diamant*. Italy's national space programme also focused on building rockets, but Italy used a U.S. rocket to place in orbit its first satellite, *San Marco-1*, on 15 December 1964. Germany was also determined to play a leading role in space activities which was why it was so supportive towards launching a collaborative European space programme, while interested in relaunching its national space programme.<sup>5</sup>

The reason behind the creation of the European Space Research Organization (ESRO) and the European Launcher Development Organization (ELDO) was also to support separate initiatives for the development of launchers and space research. The ELDO Convention was signed on 30 April 1962 and entered into force on 29 February 1964, a month before that of ESRO. The official birth of ESRO was 20 March 1964. Later, the U.K., supported by

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4 A. Rodotà, "Foreword", in: J. Krige, A. Russo, *SP-1235 - A History of the European Space Agency, 1958-1987*, ESA Publications Division, Volume I, April 2000, pp. xi, <https://www.esa.int/esapub/sp/sp1235/sp1235v1web.pdf>.

5 J. Krige, A. Russo, "A History of the European Space Agency 1958-1987", Volume I, April 2000, p.11, <https://www.esa.int/esapub/sp/sp1235/sp1235v1web.pdf>.

Belgium, proposed the transfer of ELDO and ESRO to a single space agency that would offer a number of programmes to which MS would be free to contribute according to their interests.<sup>6</sup>

The Convention establishing the European Space Agency (ESA Convention) is based on the ESRO Convention. The subsequent modifications of the ESRO Convention reflect the collaborative efforts to create one single organization to replace ESRO and ELDO. Space activities showed the need to create a more cost-effective use of national facilities and programmes. ESA was supposed both to coordinate and integrate space programmes but also to become an initiator, to implement the European space policy, and to recommend a coherent industrial policy to its MS.<sup>7</sup>

The ESA Working Group was established on 21 December 1972 and the text of the ESA Convention was adopted at the Ministerial meeting on 15 April 1975. The implementation of a space industrial policy was fundamental for the new organization. The ESA Working Group acknowledged the challenges for the implementation of the ESA industrial policy which had to: (i) define a long-range programme; (ii) maintain competition; (iii) avoid duplication and encourage specialization; (iv) determine how to find a balance in contracts between technological interest and financial value. The fundamental issue was to develop a competitive European industry whose costs should not be driven up by the need to respect the principle of fair return.<sup>8</sup>

The ESA Convention was signed on 30 May 1975 and entered into force on 30 October 1980. ESA currently has 22 MS, and each state is represented in ESA's governing Council.

The way ESA works as an international organization helps to determine common goals and objectives at regional level. The mandatory and optional programmes of ESA give its members enough flexibility to invest and receive a return on their investment while taking advantage of the specific capabilities and capacities of the space industry of ESA's MS. Participation in ESA projects has resulted in strengthening the capacities and capabilities of its MS, while supporting private industry to be part of the global space economy and succeed at the highest level in space activities. The political will of states to group into a regional organization has led to European space activities being at the forefront of space exploration.

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6 J. Krige, *Fifty Years of European Cooperation in Space: Building on its past, ESA shapes the future*, Paris, France, Beauchesne Editeur, 2014, pp.166-171.

7 Ibid.

8 Ibid.

### 3. Recent Examples of the Middle East Space Activities

The United Arab Emirates (UAE) has successfully launched the Arab world's first Mars mission.<sup>9</sup> The Hope Probe took off atop of a Mitsubishi Heavy Industries H-2A rocket on Sunday, 19 July 2020 from the Tanegashima Space Center in Japan and is expected to reach Mars by February 2021. The Hope Probe was developed by the Mohammed bin Rashid Space Centre (MBRSC) in the UAE and is a top global scientific project. The objectives of the Emirates Mars Mission (EMM) are to provide data on the Martian atmosphere and to understand climate dynamics, weather monitoring weather and climate.<sup>10</sup> For this space project, the UAE partnered with U.S. universities and the National Aeronautics and Space Administration (NASA).<sup>11</sup>

The United Arab Emirates sent its first astronaut to space on 25 September 2019 aboard the Soyuz MS-15. On this occasion, Major Hazzaa al-Mansoori became the first Emirati in space and the first Arab astronaut to travel to the International Space Station (ISS).<sup>12</sup> In the first round of UAE astronaut selection, the UAE also selected Sultan AlNeyadi as a UAE astronaut. The second UAE astronaut application was organized in 2019 and is of particular interest for diversity and gender equality in space activities because the UAE is interested in also selecting a female astronaut.<sup>13</sup>

The first Israeli mission to the Moon launched in February 2019. The Beresheet spacecraft was a result of collaboration between SpaceIL, Israel Aerospace Industries (IAI) and the Israel Space Agency (ISA). Due to the financial investments and collaboration for this mission, the Beresheet mission can be considered a milestone for the Israeli private space industry but is also indicative of a stronger trend of space activities in the Middle East.<sup>14</sup> For the future, the development of Beresheet 2 by SpaceIL is envisaged to assure the completion of the lunar mission.<sup>15</sup>

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9 J. Yeung, "The UAW has successfully launched the Arab world's first Mars mission", CNN, 21 July 2020, <https://edition.cnn.com/2020/07/19/middleeast/uae-mars-hope-launch-intl-hnk-scn-scli/index.html>.

10 Emirates Mars Mission Overview, <https://www.emiratesmarsmission.ae/mission/about-emm>.

11 J. Foust, "UAE's Hope mission on its way to Mars", *SpaceNews*, 19 July 2020, <https://spacenews.com/uaes-hope-mission-on-its-way-to-mars/>.

12 E. Elsa, J. Ponce de Leon, "UAE in Space – as it happened: First Emirati astronaut Hazzaa AlMansoori and team enter ISS, make history for UAE", *Gulf News*, 26 September 2020, <https://gulfnews.com/uae/uae-in-space-as-it-happened-first-emirati-astronaut-hazaa-almansoori-and-team-enter-iss-make-history-for-uae-1.1569396150288>.

13 J. Foust, "UAE to select next astronauts in January", *SpaceNews*, 11 May 2020, <https://spacenews.com/uae-to-select-next-astronauts-in-january/>.

14 Israel Space Agency, "Beresheet: Launching the First Israeli Spacecraft to the Moon", <https://www.space.gov.il/en/node/131517>.

15 J. Foust, "SpaceIL says 'chain of events' led to crash of lunar lander", *SpaceNews*, 12 April 2019, <https://spacenews.com/spaceil-says-chain-of-events-led-to-crash-of-lunar-lander/>.

Egypt is active in space activities, including by owning several satellites in orbit. Egypt launched its first communication satellite in November 2019, one of other four satellites launched in 2019. The Egyptian Space Agency (EgSA) was established in 2018 and, in August 2020, approved a 10-year development plan for space activities. EgSA has two satellite control centres. On the international scene, Egypt and EgSA are hosts of the African Space Agency, which was approved by the African Union.<sup>16</sup> Egypt has plans to send the first Egyptian to the ISS by 2026. The selection process of astronauts is currently underway.<sup>17</sup> The EgSA is collaborating with the UAE Space Agency in the field of space technology and in preparing the launch into space of the first Egyptian astronaut.<sup>18</sup>

#### **4. Local Content Requirements for Oil and Gas Industry in the Middle East and its Relation to Space Activities**

Local content requirements (LCRs) laws and policies are usually imposed by governments with the objective of favouring the domestic industry. By doing so, preference is given to domestically manufactured goods or domestically supplied services at the expense of foreign competitors. Through such measures, governments target the protection and support of employment, industrial and technological development goals.<sup>19</sup>

LCRs are increasingly used by oil and gas producing countries, including in the Middle East where foreign companies are required to give priority to nationals, domestic companies and locally produced material in the procurement of goods and services used for petroleum operations.<sup>20</sup> Drivers for implementing LCRs include:

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16 Africa Times Editor, “Egypt advances space program with 10-year plan”, *Africa Times*, 12 March 2020, <https://africatimes.com/2020/03/12/egypt-advances-space-program-with-10-year-plan/>.

17 G. Mikhail, “Egyptian program aims to send first Egyptian into space”, *AL-Monitor*, <https://www.al-monitor.com/pulse/originals/2020/03/new-program-aims-to-put-first-egyptians-in-space.html>.

18 “Egyptian Space Agency discusses collaboration with UAESA to send Egyptian astronaut to space”, *SatelliteProMe.com*, October 2020, <https://satelliteprome.com/news/egyptian-space-agency-discusses-collaboration-with-uaesa-to-send-egyptian-astronaut-to-space/>.

19 OECD, “Local content requirements impact the global economy”, <https://www.oecd.org/trade/topics/local-content-requirements/>.

20 D.S. Olawuyi, “Local content and procurement requirements in oil and gas contracts: Regional trends in the Middle East and North Africa”, *The Oxford Institute for Energy Studies*, OIES paper: MEP18, November 2017, pp.1-15, <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2017/11/Local-content-and-procurement-requirements-in-oil-and-gas-contracts-regional-trends-in-the-Middle-East-and-North-Africa-MEP-18.pdf>.

- Increase the level of domestic capabilities and competencies
- Create a level playing field for citizens and home-based industries to participate in oil and gas exploration activities
- Job and employment opportunities
- Improve national technological capacity
- More equitable distribution of wealth and authority.<sup>21</sup>

However, there are also possible detrimental effects of LCRs on the country's own economy. For example, using LCRs without a clear framework could bring significant legal risks and misalignment between governments and investors, leading to a concentration of economic activity.<sup>22</sup> In debates on this matter, it has been advocated that using LCRs requires strong cooperation across the region and a coordinated regional framework or approach to LCRs.<sup>23</sup>

The Organization of Petroleum Exporting Countries (OPEC) has forecasted in 2019 that oil will remain the largest contributor to the energy mix by 2040 with a market share of 28%.<sup>24</sup> However, the oil oversupply in early 2020 that caused a severe price collapse should also be borne in mind, as should the longer term impact of the COVID-19 pandemic on the global demand for oil. For this reason, the introduction of LCR laws and policies is a positive step by the Middle East.

For the longer term, the diversification of activities such as investing in space activities, and the development of sustainable legal frameworks for space activities are a necessity and an opportunity for the Middle East. The legal framework of ESA, giving preference to its MS, could be a viable example for the Middle East to adopt.

## 5. European Space Agency Procurement Rules

To understand the ESA's procurement rules, it is necessary to examine:

- The ESA Convention, in particular Annex V
- The ESA Procurement Regulations
- The General Clauses and Conditions for ESA Contracts
- The Industrial Policy Committee (IPC) Terms of Reference.

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21 Ibid. D.S. Olawuyi, pp.1-15.

22 Ibid. *supra* note 19.

23 Ibid. *supra* note 20.

24 Organization of the Petroleum Exporting Countries, "Annual Report 2019", 2020, p.52, [https://www.opec.org/opec\\_web/static\\_files\\_project/media/downloads/publications/AR%202019%20for%20web.pdf](https://www.opec.org/opec_web/static_files_project/media/downloads/publications/AR%202019%20for%20web.pdf).

### 5.1. Mandatory and Optional Programmes

Under Article V of the ESA Convention, ESA activities are structured in two main programmes:

- Mandatory, and
- Optional.<sup>25</sup>

As the name suggests, all ESA MS must participate in the mandatory programmes, both financially and technically. These activities include the execution of basic activities such as education and research work, scientific programmes and dissemination of relevant information.

For optional activities, ESA MS have the right to participate according to their national interest. According to Article V (1) (b) ESA Convention, the optional programmes include mainly the development of satellite systems and launching facilities:

- the design, development, construction, launching, placing in orbit, and control of satellites and other space systems
- the design, development, construction, and operation of launch facilities and space transport systems.<sup>26</sup>

ESA procurement rules apply to both programmes but distinguishing between mandatory and optional programmes helps in understanding the particularities of ESA's procurement. By allowing ESA MS to choose their degree of involvement in ESA activities, the optional programmes are regarded as a means to ensure the balance of return towards ESA MS.<sup>27</sup>

The rules governing ESA procurement are stipulated in Annex V "Industrial Policy" of the ESA Convention. Annex V contains the legal provisions for the implementation of ESA industrial policy referred to in Article VII of the ESA Convention. The preference clause on the one side, and the geographic return or *juste retour* on the other, are ESA's particularities for the procurement process.

### 5.2. The Preference Clause

According to Article II of Annex V, ESA "shall give preference" to industry and organizations of ESA MS for placing of ESA contracts.

Annex V of the ESA Convention highlights that particular preference is to be given to the participating states in the optional programmes. While such provisions apply to both the mandatory and optional programmes, when

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25 ESA Convention and Council Rules of Procedure, SP-1317/EN, December 2010, [https://download.esa.int/docs/ECSL/SP-1317\\_EN\\_web.pdf](https://download.esa.int/docs/ECSL/SP-1317_EN_web.pdf).

26 Ibid. ESA Convention and Council Rules of Procedure, SP-1317/EN, December 2010.

27 L.J. Smith, "Recent developments in Europe and their impact on commercial space contracts" in: *Space Law Newsletter of the International Bar Association*, Vol. 11, No. 1, October 2010, p.15.



distributing the ESA contracts, ESA is inclined to favour the participating states in the optional programmes. By supporting a preference system, ESA develops the space industry of its MS, building more options for awarding of ESA contracts.

The provisions of Annex V complement the provisions of Article VII of the ESA Convention referring to ESA industrial policy. From the analysis of Annex V with Article VII (1) (b) of ESA Convention, the ESA preference clause may be interpreted as promoting the world-wide competitiveness of the European space industry by developing the capacity of the European industry in an equitable manner and having regard to ESA MS financial contributions.<sup>28</sup>

When linked with the fair return principle, the preference clause implies that an ESA MS participating in more programmes, will be awarded more contracts. However, this is not automatically correct, because according to the Annex V method of calculation, ESA will take into consideration the geographical distribution of contracts.

### **5.3. The Fair Return Principle or *Juste Retour***

The set of rules concerning geographical distribution, also known as the “fair return” principle, is at the core of ESA procurement and is characterised by three main features:

- it allows an equitable participation in space activities for all ESA MS
- it is a progressive method of cooperation and a tool of coordination of national policies, and
- it is inherently dynamic, supporting the ESA’s industrial policy and development of the space industry across all Europe.<sup>29</sup>

According to Article IV (3) of Annex V of the ESA Convention, the distribution of contracts should result in all countries having an overall return coefficient of 1. The return co-efficient for optional programmes will be regularly monitored and updated. MS participate in ESA projects, and they have a guaranteed return for their contributions, transposed into ESA contracts for their national space industry.

According to Article IV (1), the MS overall return coefficient shall be the ratio between its percentage share of the total value of all contracts awarded among all MS and its total percentage contributions.

When MS contribute to more optional programmes, they will compete with other MS in the optional programme according to the geographical distribution of ESA contracts.

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<sup>28</sup> Ibid. *supra* note 25.

<sup>29</sup> ESA, “Industrial policy and geographical distribution”, [https://www.esa.int/About\\_Us/Business\\_with\\_ESA/How\\_to\\_do/Industrial\\_policy\\_and\\_geographical\\_distribution](https://www.esa.int/About_Us/Business_with_ESA/How_to_do/Industrial_policy_and_geographical_distribution).

#### **5.4. European Space Agency Procurement Regulations**

The latest version of ESA's Procurement Regulations dates from 10 July 2019 – Revision 5 and entered into force on 12 July 2019.<sup>30</sup>

Taking into consideration the ESA industrial policy objectives, ESA procurement regulations regulate the procurement for the execution of its activities and programmes. In other words, they contain rules, such as those applicable to tenders.

By supporting the space industry in different MS, ESA is building competition, meaning that ESA is a key player in developing a competitive European space industry. This is also highlighted by Article 10 of the ESA Procurement Regulations which lists the general principles of ESA procurement, focusing on: (i) transparency; (ii) competition; and (iii) the implementation of the industrial policy according to the ESA Convention.

According to Article 13 of the ESA Regulations, competitive tendering is a method of procurement. Competitive tendering refers to economic operators from the ESA MS and Associated MS in support of the general rules for awarding ESA contracts.

#### **6. The Implications of the World Trade Organization Agreement on Government Procurement**

According to the World Trade Organization (WTO), the Agreement on Government Procurement (GPA) is a plurilateral agreement within the framework of the WTO, negotiated with the aim to ensure open, fair and transparent conditions of competition in government markets.<sup>31</sup> Not all WTO MS are parties to the GPA.<sup>32</sup>

The revised GPA entered into force on 6 April 2014 when the first parties accepted its modifications.

An analysis of the GPA Preamble highlights the opposition of this agreement to protection measures adopted by national governments to protect domestic suppliers, goods or services. Protection measures contradict the aim of the GPA which is to mutually open government procurement markets among its parties. The GPA brings government procurement of its MS under internationally agreed trade rules.

According to Article II, "Scope and Coverage", the GPA applies to any measure regarding covered procurement. For the application of this Agreement, "covered procurement" is defined as procurement for governmental purposes.

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30 ESA EMITS, ESA/REG/001. Rev. 5, ESA Procurement Regulations, <http://emits.sso.esa.int/emits/owa/emits.main>.

31 WTO, "Agreement on Government Procurement", [https://www.wto.org/english/tratop\\_e/gproc\\_e/gp\\_gpa\\_e.htm](https://www.wto.org/english/tratop_e/gproc_e/gp_gpa_e.htm).

32 WTO GPA Parties, observers and accessions, [https://www.wto.org/english/tratop\\_e/gproc\\_e/memobs\\_e.htm](https://www.wto.org/english/tratop_e/gproc_e/memobs_e.htm).

It should be noted that the GPA rules apply to governmental procurement only according to coverage schedules, meaning that GPA rules do not automatically apply to all procurement activities. From Article II it can be also concluded that for the purpose of qualifying as a covered procurement, the value of procurement should not exceed specific threshold values. The coverage schedules of parties are contained in Appendix I, however each schedule is specific for each country and contains several annexes.<sup>33</sup>

In Article IV, “General Principles”, the principle of non-discrimination requires each party to the GPA to offer to the goods and services of any other party, and its suppliers, the same treatment as they offer to domestic goods, services and suppliers. Also, Article IV (2) stipulates that measures regarding covered procurement should not lead to a less favourable treatment of locally established suppliers.

ESA is not a member of the WTO, meaning that GPA rules are not applied to ESA public procurement. Instead, the EU is a member of the WTO and also a party to the GPA. The GPA rules apply to EU procurement. The EU’s acceptance of the applicability of the GPA means that foreign bidders will be treated equally to EU nationals during and for the purpose of the tendering process. Even if some ESA MS are also EU MS, this position does not require ESA to apply GPA rules.

The exception when ESA does apply the WTO GPA rules, is when it acts as a procurement agent for the EU. When EU procurement is led by ESA, the ESA has to respect the EU rules, rights and obligations. There are ongoing discussions at European level as to how the ESA should receive more funding from the EU while applying its own rules of procurement.

## **7. The Relevance of the Peace Agreement between Israel and the United Arab Emirates for Space Activities**

The historic peace agreement between Israel and the UAE, officially the “Abraham Accords Peace Agreement: Treaty of Peace, Diplomatic Relations and Full Normalization Between the United Arab Emirates and the State of Israel” was concluded on 15 September 2020 at a signing ceremony hosted by the White House.<sup>34</sup> The intention of signing the peace agreement was made public by the White House on 13 August 2020 when the U.S., Israel and the UAE declared that the peace agreement would normalize relations

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33 WTO, Coverage schedules, [https://www.wto.org/english/tratop\\_e/gproc\\_e/gp\\_app\\_agree\\_e.htm](https://www.wto.org/english/tratop_e/gproc_e/gp_app_agree_e.htm).

34 White House, Abraham Accords Peace Agreement: Treaty of Peace, Diplomatic Relations and Full Normalization Between the United Arab Emirates and the State of Israel, 15 September 2020, <https://www.whitehouse.gov/briefings-statements/abraham-accords-peace-agreement-treaty-of-peace-diplomatic-relations-and-full-normalization-between-the-united-arab-emirates-and-the-state-of-israel/>.

and peaceful diplomacy while expanding the diplomatic, trade and security cooperation.<sup>35</sup> The United Nations Secretary-General welcomed the peace agreement between Israel and the UAE, highlighting its relevance for regional cooperation.<sup>36</sup> The UAE Foreign Minister Sheikh Abdullah bin Zayed Al Nahyan declared before the UN that the peace agreement concluded between Israel and the UAE will boost efforts towards achieving regional peace and a brighter future for generations to come.<sup>37</sup>

The peace agreement is highly relevant for the Middle East, including for regional cooperation in space activities. According to its Article 5 “Cooperation and Agreements in Other Spheres”, Israel and the UAE shall work together “to advance the cause of peace, stability and prosperity throughout the Middle East”, also stipulating that bilateral agreements will have to be signed in different areas of mutual interest. According to the Annex of the peace agreement, “Science, Technology and Peaceful Uses of Outer-Space” is an area of mutual interest for Israel and the UAE. Cooperation between Israel and the UAE in space activities will include:

implementation of joint programs, projects and activities in the fields of science, space exploration, space related technologies and education, exchange of experts, information and best practices, and the promotion of cooperation between their respective space industries.<sup>38</sup>

## 8. Conclusions

This analysis has highlighted the importance of supporting regional cooperation and coordination in space activities in the Middle East. The peace agreement signed by Israel and UAE on 15 September 2020 is highly relevant for the region being an important milestone for the peaceful cooperation in the Middle East, especially for the implementation of joint programs, projects and activities in space activities. Until very recently the idea that the Arab countries would cooperate with Israel in space activities was unthinkable. The Middle East has a great financial and human potential to influence space policies at global level. Based on the peace agreement, Israel and the UAE have agreed to work together to advance the cause of peace, stability and prosperity throughout the Middle East, which will

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35 White House, Joint Statement of the United States, the State of Israel, and the United Arab Emirates, 13 August 2020, <https://www.whitehouse.gov/briefings-statements/joint-statement-united-states-state-israel-united-arab-emirates/>.

36 UN News, UN chief welcomes Israel-UAE agreement, 14 August 2020, <https://news.un.org/en/story/2020/08/1070192>.

37 UN News, UAE expresses hopes for Middle East peace talks following ‘historic’ accord with Israel, 29 September 2020, <https://news.un.org/en/story/2020/09/1074142>.

38 Annex “Science, Technology and Peaceful Uses of Outer Space”, Abraham Accords Peace Agreement: Treaty of Peace, Diplomatic Relations and Full Normalization Between the United Arab Emirates and the State of Israel, 15 September 2020.

positively impact regional cooperation. This new approach could make the Middle East a global actor that could influence space policies and activities at global level. Recent UAE investments in space activities together with Israel's efforts to develop a private space industry for space exploration and Egypt's ambition to send its first astronaut into space, is proof of the rapid growth of space activities in the Middle East.

ESA should be a partner for the Middle East. Taking ESA as a model, the Middle East could take the lead by initiating discussion for a Middle East Space Agency. Such an initiative would join other regional space efforts such as the recently established African Space Agency. Potentially, similar efforts could follow in Asia and the Pacific (APAC) or Latin America. Under a regional coordination, the procurement system would give preference to its MS while avoiding the complexities of establishing national protectionist measures such as in the oil and gas industry.

As a final argument for promoting regional cooperation in the Middle East for space activities, the peaceful uses of outer space should be recalled. The United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS) is tasked with reviewing international cooperation in the peaceful uses of outer space. As ESA Director General Jan Wörner has highlighted in his speeches, space has no boundaries. The UN Space Law Treaties, in particular the Outer Space Treaty of 1967, promote the peaceful uses of outer space and the obligation of states to continually supervise and authorize national space activities. These elements should give a global incentive for states to work peacefully in space activities and be a motivation for the Middle East to contribute to peaceful activities in outer space both from a regional and global perspective.<sup>39</sup>

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39 The next book on the topic of "European Space Law and European Preference" is in the process of publishing with Springer International Publishing in the series Studies in Space Policy.

